IRWA
ILLINOIS RURAL WATER ASSOCIATION

Water Ways

Volume XXII – Spring 2025

MANHOLE ADJUSTMENT RING

READJUST MANHOLE LIDS TO NEW ELEVATION WHEN RESURFACING

MANHOLE ADJUSTMENT RING

ONLY 4 DIMENSIONS REQUIRED

1 - O.D. of existing lid: TOP and BOTTOM

2 - thickness of existing lid

3 - riser height (thickness of asphalt matt*)

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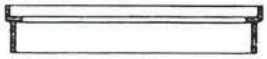

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Contact Name _____ **Phone #** _____

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Articles

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 Union, 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. Articles and photographs are encouraged. Advertising and submissions should be mailed to the above address or e-mail us at ilrwadb@ilrwa.org.

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In a Blink of the Eye

by Don Craig,
IRWA Executive Director

It goes by to fast….

When I began working for a very young and fledgling organization called the Illinois Rural Water Association, forty years ago on April 16th, 1985, I never envisioned the journey I would have through the years being part of it, and the Rural Water family.

Frankly, when I applied for the open position of a Circuit Rider, I really didn't know exactly what I was getting myself into. My boss, at the time, while I was working for the City of Gibson City, had attended a training session nearby that IRWA had held. And, while there, the attendees were let known that an open positon had become available within the organization. He brought back a 'flyer' about the open slot with the group, and thought I might be interested.

I definitely was, and quickly sent in my resume. But truly, I really had no idea what the heck a Circuit Rider was or did, let alone of ever hearing or knowing about an organization called the Illinois Rural Water Association. I was interviewed for the job, as were many others, by the existing IRWA board at that time. I wasn't sure if I would get the position or not, but luckily I did.

You need to understand however, that I was the only Circuit Rider for the entire state; and was just one of two employees (Program Manager), at that early time in IRWA's developing history. We didn't even have an office back then…only a leased secretarial service we used for administrative purposes. Those points, kind of added to my overall internal stress about the security of the position for years to come, let alone that of the entire organization.

But, as time went on, as I traveled through Illinois each week, making contacts with small systems, I could see the true need for such an entity in the state. One which concentrated on working one-on-one with rural systems and operators, and training them as well…and doing so without any monetary fee. I was determined to do the job at hand, to the best of my ability, continue to learn, and help to initially build and lead the organization to head into the right direction for the future. And, in doing so, I was 'growing' myself; as was the Illinois Rural Water Association.

Honestly, that point in time was a life changing occurrence for a young guy, who didn't realize that is exactly what it would do!

To say, through this journey, that I have seen the growth, empowerment, recognition, and professionalism become an integral part of our organization, as well as the national (NRWA) as a whole….is an understatement. Both have become huge assets to the rural water and wastewater community systems that we serve throughout Illinois and the nation.

So now, as I celebrate having worked 40 years within an organizational 'family', that has continued to propel rural water and wastewater systems into the future, with needed technical assistance and training; I look back and want to thank all those people that are still here, that have helped to make it happen, and also those many individuals that have passed through the years.

Also, as I near the end of my first year as IRWA's Executive Director, I want to truly thank all of our very good staff, board, and member systems; and all of those people within NRWA, USDA Rural Development, US EPA, IEPA, and so many other entities, as well…which continue to work hard to 'make it happen' for rural Illinois, and the nation.

We still have a lot of work to do….

The Hallmark of the Water Industry

by Dave McMillan, Drinking Water Training and Technical Assistance Specialist

Oh crap, Denise is demanding the ramblings of a tired old water industry semi-professional. As I have told many people over the years, be careful what you ask for Denise!

While cleaning up my home office and thinking about what I should bore you with, I ran across a note from my predecessor, sometimes mentor and always a friend - Wayne Nelson. After lamenting the loss of Wayne, I read the note and laughed out loud. As most of you know, Wayne had a way of communicating that never left you a question of his stance on a topic. He could turn a phrase or verbally express himself with his accompanying facial expression or tone that helped clearly make his point.

While in my former regulatory role (life) at the Illinois Environmental Protection Agency (EPA), I would periodically get a call from Wayne. I could generally tell the degree of trouble I was in based upon how the conversation started. "Hey Dave, how are things going, how is the family?" This equaled, someone in one of the Field Offices isn't doing things the same as the inspectors in other offices- let's be consistent. "I was just in Sometown, and the Agency sent them a letter." Uh oh, we just made a mistake, or he wouldn't be calling. Finally, "Dave, we have a problem." This start indicated a water system either has a crisis or the Agency needs to look at some practice that could have health implications. On a very few occasions, these discussions found us agreeing to disagree about some nebulous topic (we never disagreed about the important stuff). Following a good argument, both of us puffed up and ended up in tears laughing at ourselves. I digress.

I think running into Wayne's old note was a wakeup call regarding the importance of communication. In my view, it is our responsibility to act as Wayne and other industry professionals (the list of folks is too long for me to include here) did during my tenure at the Illinois EPA. When we see that a regulation or an action being taken by the enforcement authority is not in the best interest of protecting public health, it is incumbent upon us to communicate with the regulators. This action/reaction should always be done in a skilled manner with specific documentation/ record(s). The opening dialogue, whether verbal or written, should not be accusatory, remember safe water is our common goal. If a consensus cannot be reached, it is appropriate to escalate the matter and the person in question should be asked to coordinate a meeting with the next higher supervisor. This should not be viewed by the person as having their "authority" diminished, it should be viewed as getting the question cleared up on an industry wide basis (what is good for one is good for all). Depending upon the concern, rinse and repeat until a satisfactory response can be reached. Always remember that the Illinois EPA is the enforcement arm of the Illinois legislature and Pollution Control Board (PCB). Sometimes, you may have to agree to disagree. In rare instances, when the matter is of great significance, the issue can be taken to the IPCB for adjudication.

The old note from Wayne reminded me how important communication between industry and the regulators is to protect the drinking water of the residents of Illinois. Without a good two-way dialogue, we run the risk of getting something wrong. As a regulator, I never hesitated to make a call to the Illinois Rural Water Association (or anyone else for that matter) if I thought there was a chance that a water system could be helped. I believe that this may have helped foster Wayne feeling comfortable returning the favor when he identified issues he believed needed corrective action by the Illinois EPA.

Unfortunately, since coming to work for IRWA (over six years ago now!) I get the sense that the dialogue between the Illinois EPA and the industry has diminished. Again, it is our professional responsibility to restore the "technical assistance first" mentality that has been the hallmark of providing safe and adequate drinking water in Illinois. The regulators must strive to keep us in the loop as new laws/regulations are channeled through the statutory/regulatory processes. Conversely, we need to take responsibility for providing feedback and, when necessary, assistance in communicating with our fellow water supply officials. These discussions may not always be pleasant and sometimes we may have to laugh at ourselves. But, if we all remember how important drinking water is to our customers/tax payers, we should ultimately find common ground.

Questions about Rate Studies

by Clark Cameron,
IRWA State Circuit Rider

I wanted to take some time and address the concerns that I always hear when talking with people about doing a rate study for their water system, before I address the actual questions for the assessment.

The first question is usually, "Do you really think I need a rate study done?" The answer to this one is simple…of course you do. The more information available to you, the more educated decisions you can make regarding setting rates and budgets. Next comes the question, "What will it really tell me?" Basically the study will establish, the overall cost per 1000 gallons, to produce, distribute, operate, maintain, and administer the community water system, as well as keeping track of water loss, etc. My favorite of all questions is of course, "How long will it take?" And, the answer is that it varies for different systems based on size, and how many I'm currently working on, etc. Which brings me to the big question of "Isn't it really time consuming and difficult to provide the information?" I will answer that by going over the information request form that I use to begin the process line by line.

Question 1: Total gallons pumped or purchased: This is the only question that requires the operator to be involved. If you produce your own water, then the monthly reports will have everything needed already on file; and if you purchase from someone else, you should have master meter readings on a monthly basis.

Question 2: Total gallons billed: The billing clerk or treasurer should be able to provide the total gallons billed for a twelve-month period, to show the gallons billed per rate class, and the revenue it provided.

Question 3: Total debt on water loans and their annual payments: This is usually the most difficult information to provide, and it doesn't need to be that way. I am always amazed when I'm told "I don't really know how much we pay annually or how many loans we have." Don't panic, I will help you find the information one way or another.

Question 4: Rates: This should be as simple as providing a schedule of fees that is used to establish the charges for each unit of water sold. A copy of the ordinance is always helpful. For multiple rate classes, please be sure to specify the differences.

Question 5: Total number of customers: This is normally pretty easy stuff, but sometimes it isn't as stress free, as it should be. If there are multiple rate classes, then I will need a breakdown of how many customers are in each level, and sometimes that can be tricky for some billing systems.

Question 6: Audit or P&L statement: I will need the expenses for the time period involved whether that is provided by the latest audit on file or a P&L statement. This information is vital to determine the future rates.

Question 7: Payments to reserve accounts, depreciation, etc.: This question is often overlooked but again is very important to the bottom line. This includes any payment to any account made from the water fund.

I hope this information will help ease the concerns of my future rate study participants and help you make the decision to do a rate study for your community system.

Where Does the Rain Go?

by Jacque Plese, District 2 Board Member

This question was asked of me recently by a child. I am surprised by some of the information that I gleaned from University and Agricultural department studies and articles. The following are just data to ponder.

The 2022 Ag Census data was released on February 13, 2024. One census question asked, "During 2022, considering the total acres on this operation, how many acres were drained by tile? (Michigan State University, College of Agriculture and Natural Resources)

Importance of subsurface tile drainage in the Midwest
Subsurface tile drainage is concentrated in the Corn Belt. It accounts for a considerable portion of the cropland harvested in the Midwest, especially in states that are dominated by rain-fed agriculture and have poorly drained soils that require drainage. These states have some of the world's most fertile soils that require subsurface drainage for crop production. Without drainage, crop production would not be able to meet the growing food demand because of poor crop yield due to excess water. (Michigan State University, College of Agriculture and Natural Resources)

The passage of the 1850 Federal Swampland Act facilitated the drainage of thousands of acres of Illinois land, producing some of the most fertile cropland in the world. Some 10 million acres, about 35% of the total agricultural area in the state, are tiled. These drainage systems have a significant effect on the hydrology and water quality of the watersheds in which they occur. There is a strong correlation between improved drainage and elevated nutrient transport from cropped land. (University of Illinois Champaign-Urbana. Department of Agriculture and Biological Engineering)

Conservation Drainage is the incorporation of environmentally friendly practices and structures into existing drainage infrastructure. These practices lead to the optimization of drainage practices for water quality objectives. In light of the importance of drainage to agriculture in the state, conservation drainage practices (CDPs) should reduce nutrient transport from drained land without adversely affecting drainage performance or crop production. (University of Illinois Urbana-Champaign)

Community Surface Water Supplies Year 2000 - Community water supplies provide nearly 90% of Illinois' citizens with water for residential use. The Illinois Environmental Protection Agency (IEPA) defines a "community water supply" as a public water supply that provides potable water to a minimum of 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. The IEPA issues permits for operation of water supplies serving the public. Data from the **Illinois** Water Inventory Program (IWIP) show that 1998 total withdrawals by all public water supply systems exceeded **1.7 Billion GPD**. Community systems withdrawing surface water accounted for 84% of those withdrawals, with **Lake Michigan** withdrawals exceeding **1 Billion GPD**. Other surface water sources include interstate rivers (Mississippi and Ohio), intrastate rivers (Fox, Illinois, Kankakee, Kaskaskia, and Little Wabash), and 96 reservoirs. (Illinois State Water Survey)

Illinois has abundant buried groundwater reserves that supply millions of gallons of groundwater per day for public, agricultural, and industrial/commercial use. These aquifers are unevenly distributed throughout the state. Fortunately, surface water or a combination of groundwater and surface water is available to meet required needs in most cases where groundwater resources are marginal. (Illinois State Water Survey)

The Illinois River watershed is of vital importance to the state of Illinois. This large watershed covers 44 percent of the state and 90 percent of Illinois' population resides within 55 counties wholly or partially included in the watershed. The Illinois River, one of the major tributaries of the Mississippi River, is part of the only inland waterway linking the Great Lakes to the Gulf of Mexico. The Illinois River watershed has a drainage area of 28,906 square miles or sq. mi (75,156 square kilometers or sq. km), of which approximately 3,058 sq. mi (4,920 sq. km) are located in Indiana and 1,070 sq. mi (1,722 sq. km) in Wisconsin. The watershed contains the drainage basins of several of the Illinois' major rivers including the Des Plaines, Kankakee, Fox, Vermilion, Mackinaw, Spoon, Sangamon, and La Moine Rivers. (Illinois State Water Survey)

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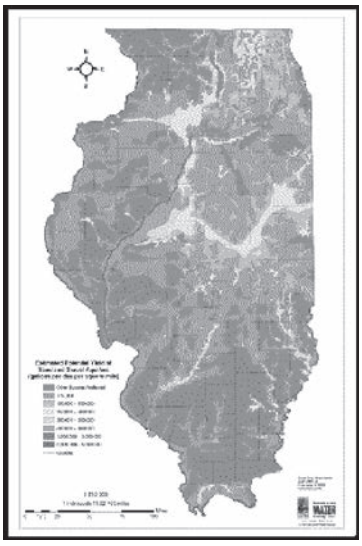
Where Does the Rain Go?

continued from page 7



Gallons of water diverted to streams by drain tile for each 1" of rainfall, by State				
STATE	TILED ACRES	sq ft -ACRE	sq ft TILED BY STATE	GALLONS OF WATER
IOWA	13,020,000	43,560	567,151,200,000	353,524,248,000
ILLINOIS	8,840,000	43,560	385,070,400,000	240,027,216,000
MINNESOTA	8,250,000	43,560	359,370,000,000	224,007,300,000
INDIANA	5,840,000	43,560	254,390,400,000	158,570,016,000
OHIO	5,090,000	43,560	221,720,400,000	138,205,716,000
MICHIGAN	2,920,000	43,560	127,195,200,000	79,285,008,000
6 state acres	43,960,000		Total, gallons-6 States	1,193,619,504,000
			1,807,337 - Olympic Swimming Pools	

1-Trillion, 193-Billion, 619-Million, 504 Thousand Gallons of Water for every 1 inch of rainfall upon those tiled acres.

Mason County: The Imperial Valley Water Authority, a local government entity that regulates non-agricultural high capacity wells in Mason County and four townships in Tazewell County, estimated groundwater withdrawals for irrigation in **Mason County in 2012** to be a little over **70 billion gallons**, which equates to **587 million gallons a day** (MGD) across a **120-day growing season**. (Illinois State Water Survey)

Tazewell County. The IVWA estimated groundwater withdrawals for irrigation in **Tazewell County in 2012** to be approximately **28 billion gallons**, which equates to about **233 million gallons a day** (MGD) **across a 120-day growing season**. Together, **Mason and Tazewell Counties accounted for nearly 100 billion gallons of groundwater withdrawal for irrigation in 2012**. (Illinois State Water Survey)

Natural Recharge: Natural processes of groundwater recharge. Recharge may be impeded somewhat by human activities including paving, development, or logging. These activities can result in loss of topsoil resulting in reduced water infiltration, enhanced surface runoff and reduction in recharge. Use of groundwater, especially for irrigation, may also lower the water tables. Groundwater recharge is an important process for sustainable groundwater management, since the volume-rate abstracted from an aquifer in the long term should be less than or equal to the volume-rate that is recharged.

In some parts of the country, wetlands play a vital role in recharging aquifers that are important for irrigation and drinking water. Wetlands capture drifting snow and runoff from summer storms and slowly release that water to underlying aquifers. For example, playa wetlands in the southern high plains of Nebraska, Kansas, Colorado, New Mexico, Oklahoma and Texas play a critical role in replenishing and improving the famed Ogallala Aquifer. Research has shown that these shallow, temporary playa wetlands are a primary source of recharge to the Ogallala. When these wetlands dry out each year, the clay sediments crack, creating pores for water to infiltrate through to the aquifer. Runoff from rain and snow also enters the aquifer from the edges of the wetland which are more permeable than the center. Scientists estimate that aquifer recharge rates in playa wetlands are 10 to 1,000 times higher than other surrounding areas. Recharge through playas is a continual process. Water recharging today will be available to future generations. Recharge rates in naturally-functioning playas may exceed three inches per year. Playa wetlands contribute up to 95% of the water recharging into the Ogallala annually, so it is critical that these natural resources are conserved to help sustain our livelihoods and our communities. (Ducks Unlimited 2024)

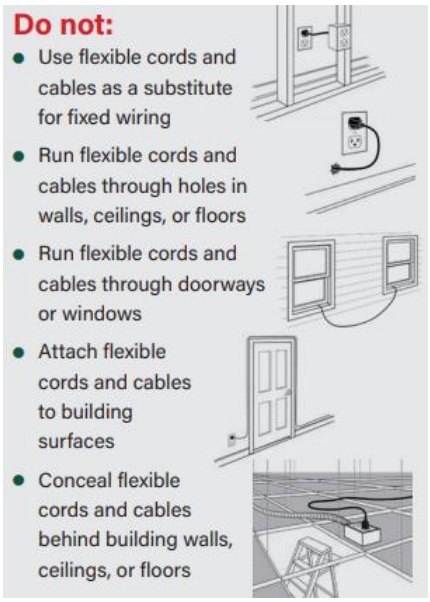
Wetlands: Water Infiltration and Percolation the process of aquifer recharge by wetlands begins with the absorption of surface water. Rainfall, runoff from surrounding areas, and even floodwaters, flow into wetlands, where their progress is slowed down by dense vegetation and the uneven terrain. This reduced flow rate allows for greater infiltration into the soil. Infiltration refers to the downward movement of water into the soil surface. Once in the soil, water undergoes percolation, the movement of water through the soil layers. (The Environmental Literacy Council)

The Ubiquitous Orange Extension Cord

Improper use of extension cords can present a serious fire and life safety hazard in the workplace. The National Fire Protection Association routinely highlights how electrical fires, electrical failures, or malfunctions result in over 50,000 structure fires each year. These fires cause injury, loss of life, and tremendous property damage. The Bureau of Labor Statistics of the U.S. Department of Labor reports that during 2007, workers suffered 2580 electrical injuries. Since 2007, the number has increased to equate to one on-the-job electrical death (electrocution) every day. It only takes about 30 milli-amps of current to cause respiratory paralysis; as a comparison, corded drills use 30 times as much current as what can kill. This month's article will discuss extension cord usage outside of the construction industry.

Death, Shocks, and Burns: An electrical shock is received when an electrical current passes through the body. In most non-industrial wiring, the black and red wires are at 120 volts. The white wires are at 0 volts because they are connected to a "ground," ultimately ending in a rod driven into the earth. If you come in contact with an energized black wire and also with the neutral white wire, another grounded device, or act as the pathway back to the ground, a current will pass through your body. The extent of injury depends on the entry and exit point as the current flows through your body and the amplitude of the current. Your skin is a mild insulator, resisting the flow of current; wet skin or standing in a damp location will readily allow current to flow through the body. Three simple methods to avoid contact with current are: Keep the round or ground prong in place on the male end of the cord (don't cut it off), use Ground Fault Circuit Interrupters (GFCI) in damp or wet locations, and replace damaged extension cords. The green ground on electrical cords is a backup neutral if the white neutral fails to provide a path. A GFCI instantaneously switches off the current if a five-milli-amp difference is detected in the circuit, protecting the user from electrical shock. The outer sleeve of extension cords is one of many insulators designed to isolate the user for electrical pathways. By using a damaged or "shop-repaired" cord, users run the risk of becoming an active participant in the electrical path.

Temporary Use Only: Extension cords cannot be used as a substitute for fixed wiring structures according to 1910.305(g)(1)(iv). OSHA's 1910.305(a)(2) standard limits the use of extension cords for remodeling, maintenance or repair and for decorative events, such as holiday lights and carnivals, for no more than 90 days. Power strips/surge protection used to protect low power source electronics are not considered extension cords unless they are daisy-chained (interconnecting extension cords and power strips) or installed without access, per an OSHA letter of interpretation. All temporary wiring must be accessible. It cannot run through structure openings, be attached to surfaces, be concealed or run through raceways. If an extension cord is supplying power to a device outside of temporary use, an outlet must be installed to power the device permanently. OSHA has carved out exceptions for window displays and showcases with specific cord types allowed per 1910.305(g)(1)(v). In addition to fire and electrical hazards, extension cords pose a slip, trip, and fall hazard when strung along walking paths.



Credit: Oregon OSHA

The Right Cord for the Job: Extension cords vary from light to heavy duty based on intended use. OSHA's 1910.505(g)(2)(i) standard requires usage markings approximately every two

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(Winners are limited to winning one time per year)

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2025 Annual Conference Wrap Up

by Heather McLeod, IRWA Membership Services Assistant

Thanks to everyone who supported the conference for another great year! The Annual Technical Conference in Effingham provided 12.5 water and 11.50 wastewater credits over the 2 1/2 days to 552 attendees. 69 registered to take their water license exam and 15 registered for the wastewater exams on Thursday. 110 exhibitor booth spaces were filled with vendors excited to share the information about their newest products and services with everyone. The list of winners are below. You may find these photos and others from the conference on our Facebook page.

Congratulations!

Gun Raffle—Kurt Downie

Best Tasting Water—Otter Lake Water Commission

Water System of the Year – Village of German Valley

Water System Operations Specialist of the Year – Tyler Valiente; Village of Coal City

Wastewater System of the Year – City of Mascoutah

Wastewater System Operations Specialist of the Year – Scott Raisbeck; Village of Warren

Runner Up Water System of the Year – Rend Lake Conservancy District

Runner Up Water System Operations Specialists of the Year – Mike Schopp; Village of Mackinaw and Tim Crow; City of Chester

Runner Up Wastewater Systems of the Year – City of Georgetown and Village of Port Byron

Runner Up Wastewater Systems Operations Specialists of the Year –Mark Buatte; City of Sparta and Adam Harris; Village of East Alton

Associate Member of the Year—LOCiS

Spotlight on Scholarship Winners

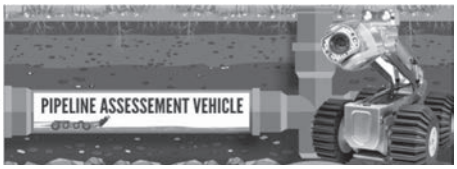
The Illinois Rural Water Association Associate Member Scholarship Fund was created in 1997 to promote further education for an eligible family member of any active voting member of IRWA. Each year we present two $1,000 scholarships (one to a boy and one to a girl). Any current Associate Member of the Illinois Rural Water Association can contribute to this fund. The winners are announced during the awards ceremony on Tuesday morning of the conference.

Each year the applicants must write an essay on a topic of the scholarship committee's choosing and submit it with their application. This year the essay topic was "Employee Retirement from Small Water/ Wastewater Systems and How Apprenticeship Programs Will Help Fill the Gap". The winners chosen for 2024 were: Christian James Trovillon and Loralie Miranda Rix.

Christian is the son of Crissy Trovillon who is a trustee for the Village of Goreville. Christian attends Goreville High School in Goreville, IL. He has been on the honor roll and is has been active in BETA Club, Scholar Bowl, FFA, FBLA, Bass Fishing and Baseball teams and he was a 2023 nominee for the National Youth Leadership Forum and FCA. Christian has been accepted to Murray State University and SIUE and will be studying engineering in the Fall at one of these schools.

Loralie is the daughter of Ryan Rix who is the Maintenance 1 worker for the Rend Lake Conservancy District. She is attending Marion High School in Marion, IL. Her recognitions include: National Honor Society, National Latin Honor Society, High Honors, Cum Laude, Latin3, Highest Medical Terminology GPA, First Tech Challenge Robotics, Model United Nations, Latin Club, Marion Band, and CNA.

VIDEO INSPECTION SERVICE WITH IRWA



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.

IRWA incorporates both a “Set Minimum Maintenance Fee” and a “Maintenance Fee per Foot Charge”. The sole purpose of each is to operate, and maintain the IRWA Sewer Video Inspection Van and equipment used.

IRWA is glad to provide this Sewer Video Inspection Service to our members, and non-members (at a higher fee). As of March 1, 2024, the IRWA voting members “set minimum maintenance fee” for this service is $500.00 for projects that do not exceed 500 feet (Non-IRWA voting member utilities pay $750).

Larger projects requiring more time and inspection coverage, will be based on the set minimum maintenance fee up to 500 feet. Then a maintenance per foot charge of $1.00, will be assessed for footage above the minimum allowance. IRWA member utilities receive an automatic discount on the “per foot” charge, as well as the reduced set minimum maintenance fee, for each of these types of projects. Non-IRWA member systems will pay the increased set minimum maintenance fee of $750, plus a charge of $1.50 per foot, above the initial 500 feet allowed in the minimum.

(Note: Due to staffing varied work demands and logistics, IRWA will not undertake video inspection jobs exceeding 5,000 feet maximum per project.)

A proposal (contract) must be signed in advance of the inspection. Upon completion, your system will be invoiced for the services and will also receive a detailed report including graphic diagrams of the inspection features, and a correlating digital video file for visual reference.

For more information, or to schedule an inspection of your system, email Roger Noe at: noe@ilrwa.org, or you can call him at 217-820-1564.

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

The digital map files, can be accessed through a working relationship that IRWA has with DiamondMaps.com, to put your IRWA project maps, on their server, for mobile viewing with a smartphone or cellular capable tablet, as well as access on your computer over the internet; and will give users full editing capability. The program allows you to view, print, and click on system features (such as a valve, hydrant, meter pit, curb stop, manhole, lift station, treatment facility, etc.) on various base maps such as aerial and road view; and pull up attribute data about each, which you can edit and add data to.

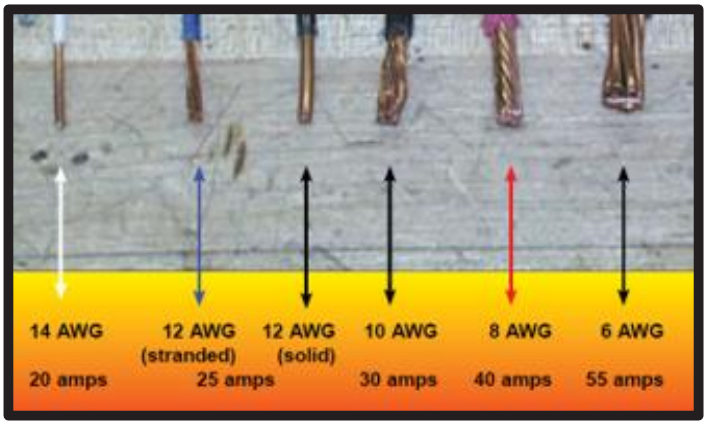
This is at no extra charge to the system for the first year's subscription. Continuance of the Diamond Maps service after the first year is at the utility's discretion. Also, the system will receive a digital copy of all initial GPS and GIS processed mapping files; and IRWA will keep a copy as well.

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.

E-mail Don Craig at: craig@ilrwa.org, or call him at 217-561-1061 for additional information.

feet along the length of the cord. Examples of these codes are S, ST, SO, and STO for hard service and SJ, SJO, SJT, and SJTO for junior hard service. The gauge of wire in an extension cord must be compatible with the amount of current the cord will be expected to carry. A tool plugged into the extension cord may use more current than the cord can handle without tripping the circuit breaker. If the current flow is more than the cord is designed to carry, the wire will overheat and could cause a fire. Current ratings (how much current a device needs to operate) are often printed on the devices' nameplate. If a power rating is given, it is necessary to divide the power rating in watts by the voltage to find the current rating. For example, a 1,000-watt heater plugged into a 120-volt circuit will need almost 10 amps of current.

Employers who fail to understand and follow the above guidance could be liable under OSHA's 1910.303(a) standard for failing to use electrical equipment as approved.



Credit: NIOSH Electrical Safety Student

Improper use of extension cords poses significant fire and safety hazards. OSHA regulates the use of extension cords, permitting them only for temporary purposes and mandating that they not replace permanent wiring. Additionally, choosing the correct type of extension cord based on its current ratings is essential to prevent overheating and potential fires.

The Illinois On-Site Safety and Health Consultation Program can be an invaluable resource for employers to review workplace practices to look for hidden and open electrical hazards. The Illinois Department of Labor will work with employers to provide recognized industry best practices, sample programs and proven safety management methods to small and medium-sized businesses. Consultation services include on-site visits, air and noise sampling, and program assistance and training, all of which can contribute to creating a safer and healthier work environment while also potentially lowering your worker's compensation insurance premiums. This program brought to you at no cost by the State of Illinois*, can provide the support and guidance you need to identify hazards, develop a hierarchy of controls for those hazards, and create an enduring safety and health program. Visit https://worksafe.illinois.gov/ or contact Harry (Hap) Hileman with the Illinois Department of Labor at 217-993-2111 or harry.hileman@illinois.gov for more information.

* The 21(d) On-Site Consultation Cooperative Agreement is funded by a federal grant, constituting ninety percent of the overall budget. State funds finance ten percent.

1. https://www.osha.gov/laws-regs/standardinterpretations/1993-06-11-0 - surge protections

Summary: Improper use of extension cords can lead to serious fire hazards and electrical injuries, making it crucial to follow OSHA regulations that limit their use to temporary purposes. Selecting the right extension cord based on its current ratings is essential to prevent overheating and ensure safety. https://worksafe.illinois.gov/content/dam/soi/en/web/worksafe/articles/2025/Extension%20Cord%20Article.pdf

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

Energy Efficiency Assessment Program

Will evaluate your energy needs, consumption and costs. It will also recommend measures to reduce energy consumption and identify sources of funding for improvements.

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.

IRWA
ILLINOIS RURAL WATER ASSOCIATION

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
- **System**-Aeration running 24/7- $11,300 potential savings. Improvement Recommendations- $34,250. Payback 3 years

How Do I Get A Free Energy Assessment?

Contact Dave Speagle
217-820-1560 – cell phone 217-287-2115 – IRWA office
speagle@ilrwa.org

Important Changes and Some Reminders

by Mary Reed, IRWA Compliance Assurance Specialist

I wish I could tell y'all things are going to get easier, but I am not sure that that is the case. Changes to the CCR this year, lead is NEVER gonna go away, PFAS is coming down the pike, changes in store with the new administration in Washington. Just so much for all of us to keep track and comply with.

Let's start with the Consumer Confidence Report and the details about what has changed this year.

1. For lead and copper: the 90th percentile concentration of the most recent rounds of sampling, the number of sampling sites exceeding the action level, and the range of tap sampling results. The 90th percentile value and number of sites over the action level will be prepopulated for you, just like before. You must review your lab results and put them in order from lowest to highest. You will include this range in the CCR, for example: **Copper Range: 0 to 0.24 ppm/ Lead Range: 0 to 1.3 ppb**

2. The report must notify consumers that lead tap sampling data is available for review and must inform them how to access the data. You can either put a contact person name and phone number to provide the results or you can say "The lead sampling data is available on Illinois EPA's Drinking Water Watch https://water.epa.state.il.us/dww/index.jsp"

3. The report must state that the supplier has or has not inventoried its service lines and instruct your customers how to access the service line inventory. You can either provide a contact person name and phone number to obtain a copy of the inventory or if the inventory is on your website, you can provide the direct URL to the inventory. IEPA will eventually have all the inventories on their website.

4. A short informational statement about lead in drinking water and its effects on children. This statement has been generated by IEPA in place of the previous Lead Educational Statement.

   Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. **[NAME OF SUPPLIER]** is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water, you may wish to have your water tested, contact **[NAME OF UTILITY and CONTACT INFORMATION]**. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at http://www.epa.gov/safewater/lead.

5. If your water system received a violation relating to one or more of the following actions in 2024, the CCR must include the applicable language below for lead, copper, or both. Corrosion Control Requirements, Corrosion Control Treatment, Source Water Treatment, Lead Service Line Inventory, or Lead Service Line Replacement Plan.

Include this statement if the required action followed a Lead Action Level Exceedance, or for violations related to service line inventory or replacement plan: Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could

continued on page 25

continued from page 24

develop kidney problems or high blood pressure.

Include this statement if the required action followed a Copper Action Level Exceedance: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

These are the newest changes to the CCR, as always you must add information as required by your individual system, such as violations, UCMR monitoring, status of your vulnerability waiver, etc. Pay close attention to the CCR mailout from the Illinois EPA this year as a lot has changed. In addition, make sure that you mark at least one "Good Faith" effort on the CCR certification form before submitting the completed document to the IEPA.

LEAD AND COPPER REMINDERS

All systems will be required to submit a revised lead and copper sample site plan. You will receive notification from the Illinois EPA as to when your LCRR site plan is due, it is based upon your current monitoring schedule. You must use your submitted inventory as a guide for tiering your LCR sites. If your system has lead service lines, you MUST collect from those locations and be aware that you cannot use locations that are listed in your inventory as unknowns.

If your system submitted a 2024 Inventory containing Lead, Galvanized Requiring Replacement (GRR), or Unknown service lines, you will be required to submit an updated inventory by April 15, 2025. You should have already received an email notification from IEPA. If you do not have any of these types of services you should have received a letter from IEPA approving your inventory, if you have that approval letter, you will not need to submit an inventory this year.

For systems with lead, GRR or unknown service lines, you must send service line notifications to your customers annually. It can be an updated version of what you sent last year.

Public Education (PE) must be sent after a lead Action Level Exceedance and be distributed within 24 hours after the system is notified by the IEPA. IEPA must approve your PE language prior to being released to the public.

Individual sample sites with lead sample results over the action level must be notified within 3 days of the system receiving the results and all other monitoring sites must be notified within 30 days of receiving the results. You must certify to the IEPA that you have completed the notifications within 3 months of the end of the monitoring period. I recommend that you send the lead consumer notification certification immediately after providing the results and educational materials to your customers.

Lead in Drinking Water at Schools and Child Care Facilities

- IEPA will be sending out information on how to submit a list of schools and daycares located in your system. Each monitoring location will be assigned sample site IDs, similar to the LCRR sample sites.
- CWS must conduct sampling at 20% of elementary schools (K – 8th grade) and 20% of child care facilities per year and conduct sampling at secondary schools on request for 1 testing cycle (5 years) and conduct sampling on request of all schools and child care facilities thereafter. You can monitor all schools/licensed daycares in the 1st year of the 5-year cycle if you choose to do so.
- Sample results and Public Education must be provided to each sampled school/child care, and the IEPA.
- Excludes facilities built or replaced all plumbing after January 1, 2014.
-

IEPA will be sending out an informational packet about lead monitoring in schools soon. In the meantime, I can provide you with an informational document from US EPA. You can email me at reed@ilrwa.org to request a copy.

I think that this has been plenty for you to digest at this time. I will be following up with email blasts in the near future. Make sure that both Illinois Rural Water Association and the Illinois EPA have the correct email addresses for all responsible parties at your water system so that you receive the information in a timely manner.

Holiday Inn * Effingham, IL

This day and a half conference geared towards the clerks and office staff will be held July 17 & 18, 2025. The agenda is being finalized and will be posted on line and mailed out soon. If you are ready to register now, you can find a link to pay via credit card from the clickable link on July 17 & 18 on the training calendar on our website (www.ilrwa.org).

Tentative Topics to Include:

- *Municipal Bonds 101*
- *Billing Software*
- *Retaining Employees with Simple Technology*
- *Boil Orders and Utility Communications*
- *Ethics/Whistleblower Policies*
- *Records Retention*
- *Personnel Records Review Act*
- *J.U.L.I.E. Positive Response System*

What Previous Attendees Say About This Conference:

- *"I really enjoyed meeting other offices and sharing info"*
- *"Appreciate the variety of topics covered! And excellent hospitality"*
- *"Love the laid back, fun atmosphere"*
- *"Keep up the great work, always one of my favorite conferences to attend"*

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