



To Click or Not to Click!

By: Frank Dunmire, IRWA Executive Director

September
2022
Newsletter

Recently IRWA has seen an uptick in the amount of junk email or spam. Some of these emails are crafted pretty well and if you are not real diligent in thinking about whether or not to click on any included links you may be inviting someone into the inner works of your computer or, even worse, central server. These unsolicited email messages, usually sent in bulk to a **LENGTHY** list of recipients can be sent by real humans, but more often, it is sent by a botnet. Trend Micro defines a botnet [short for bot network] as a network of hijacked computers and devices infected with bot malware and remotely controlled by a hacker. If you are not careful you may inadvertently become one of those hijacked computers programmed to send out spam emails without your knowledge.

Just last week, several staff at IRWA received an email that appeared to be from a well-known person to the Association asking for some “discreet” assistance with an issue. It went on to state that this is a sensitive matter and requested – “no phone calls please”. The first red flag was that this particular person would never send such an email – but let’s say that someone thought that it was a valid email. The second (larger) red flag would be the request that no phone calls out of discretion. This should be a dead giveaway that the email is not legitimate. If in doubt – make that phone call! It will most likely save you from a whole lot of pain and misery. The third red flag in this particular email string was that the return email address was not one that was recognized as being one for the purported sender.

I recall in the past few years more than one water system having their billing software computer locked down with ransomware. Trend Micro defines ransomware as a type of malware that prevents or limits users from accessing their system, either by locking the system’s screen or by locking the users’ files until a ransom is paid. Some paid the ransom while others chose to deny the ransomware author any satisfaction and paid computer experts to “salvage what you can”.

So, how did the author gain access to the computer in the first place? The answer is that there are several inroads they might exploit. I will briefly describe the most common ways.

First is everyone’s favorite – spam. To gain access to your computer some will use spam, where an email, containing a malicious attachment will be sent to as many people as possible, seeing who will take the bait and open the attachment.

This type of spam is an unsolicited email that is used to find its way into your inbox and may contain what appears to be valid PDF files, Word files, or a hyperlink to other malicious websites. Personally, I get a kick out of reading some of those that have broken English and misstructured sentences and then reality sets in knowing that somewhere in the world someone is going to take the bait.

Next, we have the method commonly called malvertising. In this method online advertising is utilized to distribute malware with little to no user interaction required. While you are just casually browsing the web, users can unknowingly be directed to criminal servers without ever clicking on an ad. These servers will track details about your computer and then select the malware best suited to redirect you to an exploit landing page where malicious code attacks your system from the selected landing page. All of this happens without your knowledge, which is why it’s often referred to as a “drive-by-download”.

As users become more and more diligent in their security while emailing and surfing the internet, hackers have added phishing to their bag of tricks. Phishing is a type of social engineering where an attacker sends a fraudulent message designed to trick a person into revealing sensitive information or possibly deploy malicious software on your computer or server. An example of phishing is what I described in the opening paragraphs to this article. Emails to employees of a certain company, claiming that the President, CEO, or any other immediate supervisor is asking you to take an important employee survey, or the HR department is requiring you to download and read a new policy are all phishing expeditions. Other phishing emails may appear to be from the FBI, IRS or a local Law Enforcement Agency. While these emails appear to be coming directly from that person or organization, they are actually being sent from outside the company or organization.

Here are a few preventive measures that you can employ against popular malware like ransomware, phishing, and malvertising: Only Use **TRUSTED** antivirus and malware software; Configure regular scans of your computer and/or system and monitor those settings; Always update your operating system; Rely only on secure networks (encrypted); Keep a tight grip on any personal information; Stay up-to-date on the latest attacks; and last but not least – Employ browser common sense. Think twice (or three times) before you click!

IRWA’S MISSION STATEMENT

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



Diving Into A Great Career!

By: Jeff Tumati, IRWA Apprenticeship Coordinator

I think it is safe to say that we all are painfully aware that workforce issues are universal these days, and we need to get creative in filling open positions. Of course, anyone that currently works in the water and wastewater industry knows what an amazing career it can be, we just need to find ways to spread that word to those that are looking for a satisfying career. One such way is the apprenticeship program which starts as a job and emerges as a solid and secure career as either a water operations specialist or wastewater operations specialist. Everyone wants to make a difference and with the apprenticeship program you can do just that. I am once again pleased to be able to give you yet another very positive update on the progress of the Illinois Rural Water Association's apprenticeship training program. Our first group of apprentices have now completed approximately one third of their journey in becoming Water Operation Specialists. We now have a second group in the water training program as well as our very first wastewater group. All active apprentices continue completing their related technical instruction (RTI) – consisting of online safety classes, course manual study and attending in person instructor lead classes. The most recent in person class being basic math for operators hosted by the Village of Tilton. After the class was completed, our group was also able to go on an afternoon tour of the Danville Aqua Illinois Water Treatment Plant. Water and wastewater operations specialists use math frequently as part of their daily job duties whether it be for daily rounds, reporting, operations, or presentations to their Boards. We all know the importance of math in our everyday lives and to quote one of our Apprenticeship Instructors, Scott Tozier, *"Don't put it away after you pass your certification tests, math skills fade quickly so find opportunities to use math each day."*

Yet another very exciting development pertains to our learning management system (LMS). The National Rural Water Apprenticeship team recently announced that we will soon be transitioning from our current learning management system (Next Thoughts) platform to a new and improved system called Docebo. The new platform will provide coordinators and instructors more control over content, delivery, and storage of all e-learning materials. In addition, the coursework will be Internationally Accredited for Continuing Education Training. Courses uploaded into Docebo will all have **International Association for Continuing Education and Training (IACET)** accreditation, offering Continuing Education Units for all courses that meet the requirements, so all users will be eligible for CEU's. We

believe this upgrade is going to catapult our training and education to the next level and benefit not only the apprentices, but mentors, and trainers as well. As Walt Disney once said: *"Progress is impossible without Change!"*

Interested individuals looking to enter the water and wastewater field must complete an application on our website. Once all the criteria are met, they will be placed on the eligible apprentice pool list. Municipalities looking to fill the shoes of those retiring employees or simply fill an unexpected opening must also meet the criteria in the apprenticeship program standards to be eligible to train apprentices. Once all criteria have been met, we will register the employer and apprentice with the U.S. Department of Labor. The next step would be matching the apprentices and employers. To learn more about the apprenticeship program, please visit our website at www.ilrwa.org/Apprenticeship/Apprenticeship.html.

In closing, be very proud of what you do working in the water and wastewater field and know that you are making a difference as you strive to provide safe potable water and/or properly treat wastewater before returning it to the waterways of Illinois. *"Individually we are one drop. Together, we are an ocean."* – Ryunoske Satoro. Until we meet again stay healthy, work safe and best wishes.





New Wastewater Training and Technical Assistance

By: Kent Cox, IRWA Clean Water Act & Technical Assistance

As of March 1, 2022, there is a newly created Wastewater Training and Technical Assistance position at the Illinois Rural Water Association. This position was created under a grant through the Clean Water Act to serve small and rural wastewater systems. The objective of this program is to provide training and technical assistance for rural, and small publicly owned treatment works, and decentralized wastewater treatment systems and to make those services available in rural and small communities and to all personnel of these systems. Assistance under this program will be provided to those systems that treat up to 1 million gallons per day (MGD) of wastewater or serve a population less than 10,000 person and may also serve operations such as, but limited to hospitals, schools, and restaurants.

The priorities for this position include:

1. Provide training and technical assistance on the fundamentals of operations including NPDES permits, Discharge monitoring reports, security, nutrient removal strategies, and standard operating procedures.

2. Provide training and technical assistance regarding available resources, financing, rate studies, water loss audits, energy efficiency audits, and newly released reporting tools.

3. Provide training and technical assistance towards achieving compliance for decentralized systems and drinking water treatment NPDES discharges.

So, for those of you who are still reading after that long definition, what does this mean for you?

This is a position like the drinking water training and technical assistance position. Many of you have probably been to the drinking water training sessions for CEU's. Well, now additional wastewater and dual credit training sessions are being provided around the State also. Providing these training sessions is only a part of the position though. This position is also available to come and assist the operators, and/or board members with things like compliance, management/finance, operations/maintenance, treatment, and security to name a few. So, if you need assistance or simply have questions, then (as always) the IRWA is here to help.



Upcoming IRWA Training Session Schedule October thru December 2022

Tuesday and Wednesday, October 11 & 12, 2022

Tuesday, October 18, 2022

November 2, 2022

November 3, 2022

November 9, 2022

December 6, 2022

December 14, 2022

Rockford

DCT

Nashville

DCT (2 DWT, 1 WWT)

East Peoria

DWT

Woodhull

DWT

Freeport

WWT

Oblong

DWT

Decatur

WWT

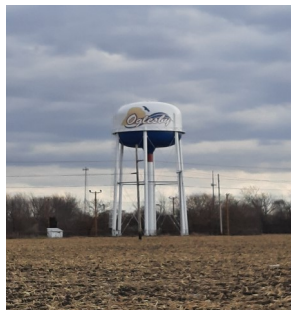
DWT - Drinking Water Training

DCT - Dual Credit Training

WWT - Wastewater Training

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QUALITY ON TAP



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17th Annual Northern Conference
October 11 & 12, 2022



IRWA
ILLINOIS RURAL WATER
ASSOCIATION

**QUENCH YOUR THIRST
FOR KNOWLEDGE**

Radisson Hotel & Conference Center
Rockford, Illinois

Attendee Registration is open. Go to our website (ilrwa.org) and look under the upcoming events heading for a link to more information and payment options. We will not be having wastewater sessions this year at the conference. However, 3 hours of the 10.5 credits offered can be used for dual credit. In addition, the City of South Beloit has graciously offered to host training at their new treatment plant on Tuesday, October 11th. You must note on the registration form if you are interested in this, so we may know how many to expect. Training topic is regarding the plant upgrade. Credit hours available are TBD. Exhibitor spaces are sold out!