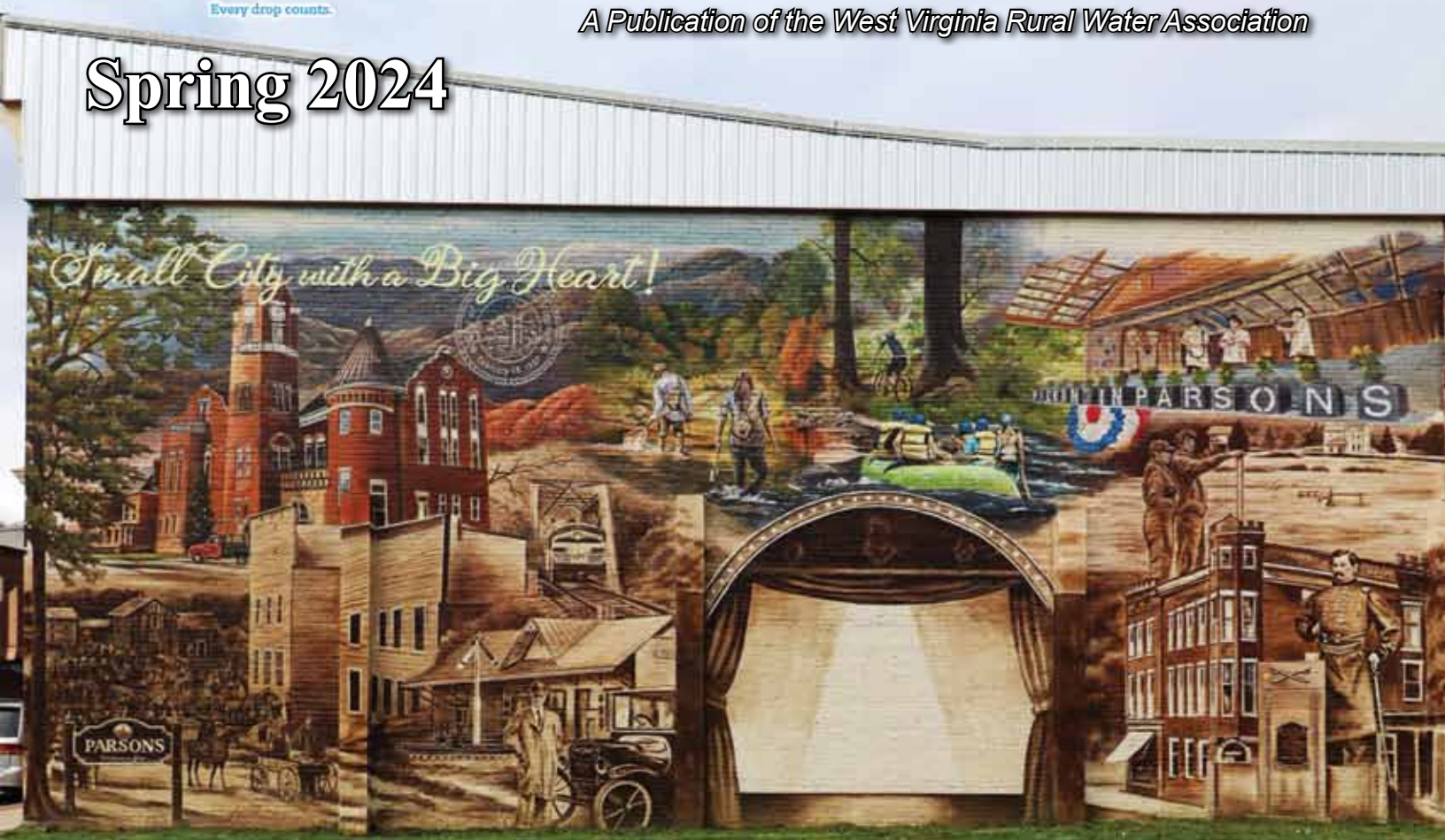
WEST VIRGINIA RURAL WATER ASSOCIATION

Every drop counts.

# Mountain State Water Line

*A Publication of the West Virginia Rural Water Association*

## Spring 2024

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# West Virginia Rural Water Association

Spring 2024

Parsons, WV
Photo by: Amanda Cochran




Mountain State Water Line is published by:
WVRWA, 100 Young Street,
Scott Depot, WV 25560
Phone: (304) 201-1689 1-800-339-4513
Fax: (304) 201-1694 *http://www.wvrwa.org*


## Articles and Features



West Virginia Rural Water Association, WVRWA, is a non-profit organization of rural and small publicly owned water and wastewater systems. The vision of the WVRWA is to be the recognized leader and respected voice for water and wastewater systems. The mission or purpose of WVRWA is to provide and promote the highest level of utility service, technical assistance, training, and advocacy for all West Virginia water and wastewater systems.

WVRWA is affiliated with the National Rural Water Association.

## Online Training Classes

WVRWA has teamed up with SunCoast Learning Systems, Inc. to bring online computer-based water and wastewater training to operators throughout the state. Through WVRWA Online Learning, you now have the freedom to learn from home, the office, or your local library. Training can be accessed directly from your personal computer using your internet connection.

Water and wastewater operators registering for e-Learning courses will have a menu of courses from which to choose. We are constantly adding and updating courseware to reflect changing industry needs and regulations. For more information, you can visit www.wvrwa.org or contact the office at 800-339-4513. Some of the available courses are shown below.

| Course | CEH Hours | Approved for | Price |
|---|---|---|---|
| Drinking Water Mathematics | 10 | Water/WW | $180 |
| Surface Water Treatment | 10 | Water | $180 |
| Basic Environmental Chemistry | 10 | Water/WW | $180 |
| Small Water Systems I | 5 | Water | $100 |
| Chlorinator Systems & Chemical Handling | 10 | Water/WW | $180 |
| Water Transmission and Distribution | 10 | Water | $180 |
| Practical Personnel Management | 7 | Water/WW | $125 |
| Water Utility Calculations | 10 | Water | $180 |
| Pumps & Motor Maintenance | 10 | Water/WW | $180 |

*By Todd Grinstead, Executive Director*

# From Your Executive Director
## A West Virginia Legislative Look!

Saturday, March the 9th, 2024, the 2nd Session of the 86th Legislature of West Virginia Adjourned *Sine Die*.

The West Virginia Legislature passed 123 House bills and 156 Senate bills for a total of 279 bills during the 60-day regular session.

Your Rural Water Association legislative team has been hard at work following and working several proposed bills that impact our industry this session.

The team was successful in helping stop a few proposed bills that wouldn't have been good for our members. At the same time, we were effective in promoting a few bills that will make operating and managing a public utility in WV better.

Here are a few of the bills related to our business that made it over the finish line this session.

**House Bill 5162**

Establish a program to promote creation and expansion of registered apprenticeship programs by creating a "Youth Apprenticeship" Program.

*WVRWA is very excited about this bill that will help facilitate a Water and Wastewater Operator Youth Apprenticeship Program to allow students in high school to begin experiencing a career in our industry.*

**House Bill 5617**

Authorizing the Public Service Commission to promulgate rules for maintenance, flushing, flow testing, and marking of fire hydrants owned by water utilities.

*The Association will serve an active role in aiding the PSC in the rule making process.*

**Senate Bill 17**

Authorizing Department of Health to promulgate legislative rules.

*These rules include water and wastewater operator regulations and cross-connection / backflow prevention.*

**Senate Bill 400**

Creating limited waiver from certificate of public convenience and necessity requirement for water or sewer projects.

*The requirements of obtaining a certificate for projects funded, in whole or in part, by ARPA or SFR moneys through Economic Enhancement Grant funding shall be waived.*

**Senate Bill 452**

Designating certain water and wastewater facilities as emergency project.

*If the Infrastructure Council (IJDC) determines a project to be an emergency, then the emergency project is exempt from the requirement to obtain a certificate of public convenience and necessity.*

**Senate Bill 544**

Raising threshold for bid requirement of municipal public works projects.

*Publicly owned Municipal, Public Service District or Regional Water, Wastewater or Stormwater Authority are authorized to make purchases under $50,000 without obtaining competitive bids.*

**Senate Bill 631**

Prohibiting municipalities from disconnecting water service for nonpayment of stormwater fees.

*Except under certain conditions.*

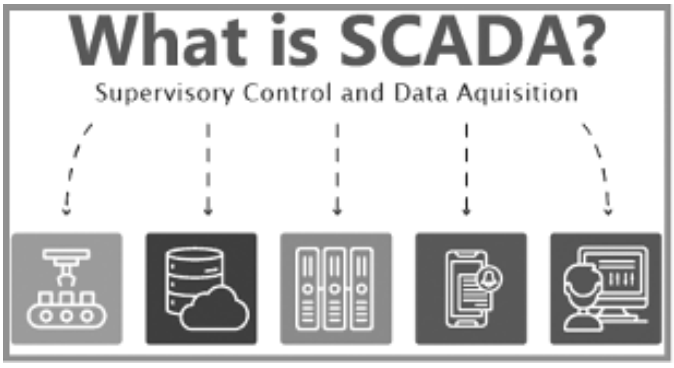
To read about the 279 bills that were completed by the WV Legislature this session, go to https://www.wvlegislature.gov ■

*By Adam Conant, Energy Efficiency Technician*

# What is SCADA and How Can it Improve Energy Efficiency

**Tired of driving out to the tank to make sure it's not overflowing? Tired of having to go back and shut off the pump at the booster or continuously adjust a blower motor for the best aeration results at the wastewater treatment plant?** Maybe it's time to consider a SCADA system to become more efficient. Whether it's water or sewer, a SCADA system has many advantages when it comes to monitoring remote stations, continuous data collection, control for remote and local equipment, and many other benefits.

**First let's establish what a SCADA system is and how it can help your system become more efficient.** The actual meaning of the word SCADA is supervisory control and data acquisition. It sounds complicated at times, but, really, the SCADA system has two main functions collecting data and control of equipment locally or remotely. SCADA systems are made up of programable logic controllers (PLCs), communication equipment, RTUs and possible local servers or internet-based cloud for data collection and backups.




Other components that could be used in a SCADA system are HMIs, and sensors to help communicate back to the main PLC through software. Examples of information collected from end devices and sensors would be discharge pressure, suction pressure, tank levels, amp readings, pump status, security status, and power, fail just to name a few. SCADA systems are used in a wide variety of different industries including: water, sewer, oil and gas, energy, transportation, security, and process facilities. Another new component that is growing and will continue to in the future is the integration of AI with the SCADA systems to continue to improvement adjustments, monitoring and future operation changes based upon collected data in the past.

Saying all of that, let's focus on how can SCADA help my system to be more efficient. Whether we are talking about sewer or water, we can find many ways to help optimize energy usage with a SCADA system and overall making the whole system more efficient.

Here are **3 areas** that a SCADA system can help your system be more efficient:

1. **Equipment:** This is a BIG deal to know what your equipment is doing anytime of the day! A SCADA system can give you real time info along with collecting the data and storing it for future decisions. Examples of important monitoring of equipment would be are the pumps running, or did they fault, is the power off, how long has the pump been running, what is the amp draw on the motor, but these are just a few of the questions that can be answered using a SCADA system.
    a. A few ways that this information will help your system be more efficient is:
        i. Knowing when maintenance needs done.
        ii. Potential pending pump failure.
        iii. Adjust setpoints remotely.
        iv. Know what equipment needs checked on or work done based upon information collected by the SCADA system.
        v. Shut down equipment remotely without having to be at the office or at the site.
2. **Measurements:** There are many processes ongoing in a sewer or water system and some of the processes need to be fine-tuned for optimal performance. We discussed a little already of some of the possible measurements of a system: suction, discharge, level, etc. Let's look more at measurements that possibly needed adjusted on a regular basis and, with SCADA doing the continued calculations, then, once the process is setup, adjustments can be automatically made without the operator being present or having to make manual adjustments or calculations continually.

a. Adjust DO for a WWTP – could be because of weather or biological change.
b. Chemical feed adjustment based upon water quality.
c. Speed (Hz) of pumps – automatic adjustments to keep pump based upon demand and not manual adjustment. Whether it's a RAS pump, belt press pump, HSP, etc.

3. **Data Collection:** The last suggested step in your system becoming more efficient is data collection. Sounds boring, but, in my opinion, this can be the most power resource in your SCADA system. Not only do you monitor equipment and take measurements and make adjustments, but you need to record all the information somewhere in a format that's easy to understand and store. Here are few ways data collection can help your system become more efficient.
   a. Equipment trends – based upon history, is there something wrong? For example, is there a leak based upon previous pump hours or how much water did we sell last month, or last year.
   b. Capital improvements – data collection can help with decision making for a new upgrade to make sure design is not under or over what is needed.
   c. Management – this goes with work scheduling, sends crews where the need is, supplies that are needed to keep on hand because of pending equipment failure, maintenance scheduling of equipment based upon hours in operation and many more.

In summary, we have only looked at a few ways and examples that a SCADA system can help your system become more efficient and, with technology continuing to advance towards more data, better control, and efficient measurement, I only see SCADA continuing to grow into the future. Systems in the future will see a SCADA system as a necessary tool to help their system be efficient and give them information that will help them make decisions today and into the future.

**Site sources**

SEDAC (Smart Energy Design Assistance Center), January 19, 2022, https://smartenergy.illinois.edu/wpcontent/uploads/2022/01/SCADAEEStrategies_PWISmartTip_2022.pdf

Inductive Automation, September 12, 2018, https://inductiveautomation.com/resources/article/what-is-scada ■

*By Bertis M. McCarty, Water Circuit Rider*

# New Home Service Line

Systems throughout the state have small pressure booster pumps for individual houses that were installed due to bad decisions made in the past. This article might shed some light on what can be done to prevent such a catastrophe.

Example 1:

A customer comes into the office and pays a tap fee while signing up for the new water service. The next month, the service crew goes out and installs the new service at the property line. The house foundation is already done and a ¾" line is available to hook up. Being the nice people they are on the service crew, they tie the line directly into the setter. At this point, no one from the water system has ever seen the house sight. The home is about 75' higher than the meter and around 1800' away. When the new two-story home is complete, the customer complains about the water pressure in the home and informs the system that there is barely a trickle of water in the upstairs bathroom. A formal complaint to the PSC is made and the system is ordered to install a pressure booster pump for the customer. This service will NOT have a 7-year payback to the system due to this grave error.

***The customer service line is not the system's responsibility unless there is a problem***

It's not the water system's fault the service line was undersized for the application, but they are held responsible in most cases. Why not try to make sure this scenario doesn't happen to you?

Make up a NEW TAP Policy or Ordinance to make sure all is well for every tap. It might include such things as:

- All deposit checks for new services will be held until a service technician can meet with the homeowner on-site and determine the calculated pressure for the home.
- During the on-site visit, the technician will obtain the GPS location of the home and make a note of how many stories high the home will be.
- The technician will check the pressure of the nearest fire hydrant or meter setting.
- The technician will mark a site for the new water meter and measure the distance from that site to the home location.
- The service line size will be calculated and the recommended minimum diameter line will be given to the customer with a letter of acceptance if the service meets all state minimum and/or maximum pressure limits.
- No service shall be installed if the calculated pressure at 10 gpm on the top floor of the home is NOT a minimum of 50 psi without a low-pressure agreement, which will be recorded with the deed at the courthouse.
- This on-site visit and calculations will be done within 20 days of the date on the deposit check.
- All recommendations will be given to the homeowner in person and explained.

Example 2, using said policy:

A customer comes into the office and pays a tap fee while signing up for the new water service. The customer is handed a new tap service policy and an explanation is given for what will happen next. A service technician makes an appointment to meet the owner on-site three days later. The technician performs all tasks and takes the numbers back to the office. The technician calculates the 2-story house elevation to be: 75 + 10 = 85'. The psi in the area is 110 and the distance from the me-

ter to the home is 1800'. The next week, the technician and manager go over the numbers and do the calculations as to what size line will be needed to obtain the policy's minimum required pressure. The elevation change takes the starting pressure of 110 and reduces it to 73 psi. The calculations for friction loss through a 1" pipe show the 73 psi reduced to less than 0 psi. A 1-1/4" pipe would reduce the 73 psi to 45 psi. This still doesn't meet the minimum required pressure of the policy. A 1-1/2" pipe calculates the 73 psi dropping to 60 psi on the top floor at a 10 gpm flow rate. A minimum diameter of 1.5" is recommended to the homeowner. If the minimum recommendation is not available when the new meter is installed the water service will not be turned on until a low pressure waiver is signed. The customer does have a 1.5" line installed and the service is turned on without any complications.

Doesn't the second example seem like it went much smoother?

*Written policies Work NOW and in the Future*

*Hand Shake agreements Work NOW and fall apart in the Future* ■

*By Beth Fletcher, Wastewater Technician*

# Liftstation Maintenance

Everyone talks about the importance of regular maintenance and a standard operations procedure (SOP) for plants, but many forget the same is just as important for the lift stations. Too often, stations are considered a hassle to visit. Many times, operators have several other things to do, so the lift station gets a quick drive by just to check on making sure no alarms are going off, no sewage is coming out of the tank, and then they're off to the next station.

Operators should perform thorough station inspections on a regular basis to document findings, and perform preventative and predictive maintenance in order to reduce the number of unwanted callout alarms. Regular visits and maintenance can provide great cost savings to the wastewater collection budget and, ultimately, help prevent unwanted rate increases, which could arise from poor maintenance operation programs.

Sewer lift stations are the heartbeat of the collection system!

Just like our veins move blood through the body to the heart, sewer lines transport sewage to the lift station. Once delivered to the heart, or lift station, it then must be pumped in order to move on to the brain, or, in our case, the sewage treatment plant. Just as the body will die if the blood does not flow to the brain properly, so will the treatment plant if it doesn't receive enough sewage.

Knowing that the lift stations are the lifeline of the collection system, the following are some suggestions to consider in developing a good "healthy plan" or standard operation procedures (SOP) for the stations.

1. Visual inspections should be done to verify no damage or sabotage has occurred to the exterior of the station. Open both the pump station lid and valve lid box to visually inspect the station water level, ensuring the level was set below the incoming invert. Be sure the floats are not tangled and are free of grease buildup. If there is grease or debris stuck to the floats, carefully raise them and clean them off. Do not bang them against the station walls to do so, as this can cause damage to the float.
2. Turn on the pump by hand. Verify the check valves are properly raising and that the spring is attached to the check valve arm. If the spring is off, this can cause a hammer effect on the collection system when shutting down, potentially causing damage to the system. Ensure that the bowels are not leaking around the check arms. If leaks are seen, check the packing, retighten or plan for replacing the valves. Once the pumps are turned back off, verify the check valves have shut off completely and no back flow from the force main back into the lift station is occurring. If this occurs, you may see longer pump run times to maintain flow, in turn causing additional wear on pumps and increased electrical demands.
3. Inspection of the control panel box is another important aspect of proper operations. First, only a qualified electrician should perform electrical changes or improvements. Too often, stations have been rigged to run a pump, and the original schematics are of no use. It will take a qualified electrician additional time to try to figure out any wiring nightmare that may have occurred. Onsite time for an electrician is another added cost to one system.
4. The panel box should be cleaned out to eliminate extra unneeded wiring, old parts, spare parts, papers, dirt, and bee nests from inside the panel. Check that the float wiring conduits are sealed with electrician putty, ensuring that no gasses from the lift stations are getting into the panel, which will cause severe corrosion of both the panel and electrical components.
5. The schematic of wiring, pump information, and pump hour runtime should be inside and attached to the door panel sleeve. If the sleeve is broken or missing, then replace or repair.
6. Keep a log of pump runtimes to verify hours run, ensuring that both pumps are running similar daily run averages. If one is running longer than the other,

this could indicate an issue such as pump wear, the float level may have fallen off the rack not allowing the pump to shut off, a contact could be stuck not allowing the pump to shut off, or back flow could be occurring. If the operator is unsure, contact a qualified lift station mechanic company to inspect as a call for an inspection is cheaper than waiting for a complete pump failure resulting in an emergency callout.

7. Run hours are also an indicator in identifying inflow and infiltration. If pump run hours suddenly increase in a rain event, then drop quickly afterwards, that could be an indication of inflow, which is a major opening into the system. If run times increase gradually and last longer than normal after the rain event, this is an indication of infiltration, which usually occurs through leaking pipes and cracks around manholes often caused by root intrusions.
8. Other preventative measures that should be taken are routinely cleaning to remove rags and grease. This can be done by the operators by dipping out and disposing of the floating debris. A good fats, oils, and grease FOG program should be implemented. The use of bacteria and greasers can also help, but can add a major expense to the maintenance budget if non implemented properly, resulting in wasteful spending.
9. Predictive maintenance is a proactive management strategy that utilizes techniques, such as heat testing, infrared camera testing, Bolt, amps, and Ohms testing. This should be completed on, at least, a semi-annual basis. But if the budget allows, and/or there are very few left stations in your system, then try to perform predictive maintenance on a quarterly basis.

All the steps noted will help to reduce electrical cost, as well as limit unwanted emergency callouts and associated expenses. A well-practiced maintenance strategy will reduce or eliminate unexpected sanitary sewer overflows and the violations associated with such incidences, also.

West Virginia Rural Water Association is here to assist with all your wastewater needs. If you would like assistance developing or reviewing your current lift station maintenance inspection and training program, feel free to contact us to schedule a visit. ■

*By Daniel Vestal, ARC Specialist*

# Final Reminders

This article will be the last contribution to the previous Annual Update Reminders. We'll start off with the "EW-104 Personnel Status Report," which should be filled out by the system's Chief Operator and list all Certified Operators working for the system. It is to be completed as of July 1st and annually submitted to Certification & Training Program by July 15th. This form can also be used to document any certified operator employment status changes.

With a national certified water and wastewater shortage, something to think about is the "ES-76 Request to be Included on the West Virginia's Contract Operator List" form. The Certification & Training Program is developing a list of certified operators who may be available and willing to perform the services of an operator at a public water and/or wastewater system in West Virginia. This will not be a comprehensive list of all certified individuals. Inclusion on this list will not constitute an endorsement by the West Virginia Department of Health and Human Resources nor is it automatic. This information will be provided as a resource for the purpose of convenience to help both systems and operators better communicate to support operator coverage compliance.

In West Virginia, the "Source Water Assessment and Protection Program" encompasses both "wellhead protection" and "surface water" source water assessment efforts. Implementation of the wellhead protection program began in the early 1990s, as part of the West Virginia ground water protection strategy. This protection strategy was extended to surface water sources with the 1996 Safe Drinking Water Act Amendments. The Act requires states to develop and implement a Source Water Assessment and Protection (SWAP) program designed to evaluate the vulnerability of public drinking water systems to possible sources of contamination, and encourages states to work with these systems in developing protection and management plans. The Source Water Protection Plan (Surface Water, GWIDI, and SWIG) must be updated every three years. The WVBPH has divided the state into five regions with different due dates for every region.

Groundwater Protection Plans (GPPs) are required for all facilities having the potential to impact groundwater. They are "preventive maintenance" documents that cover all processes and materials at a facility that "may reasonably be expected" to have an effect on groundwater quality. The facility must make an inventory of all potentially contaminating processes and materials, and have structures and practices in place to prevent groundwater contamination from these processes and materials. Groundwater protection practices include, at a minimum, quarterly inspections and maintenance by facility personnel and usually include spill cleanup procedures. Regulations for how to prepare and implement a GPP are found in 47CSR58.

Keep a list of any changes that you may need make to the above documents and make sure to make them in a timely manner. (Reference: www.dep.wv.gov and www.wvdhhr.org). ■

*By Charlie Cooper, Emerging Contaminants Technician*

# PFOA/PFOS in Drinking Water

Exposure to unsafe levels of PFOA/PFOS concentrations through drinking water may result in health effects.

Perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic (PFOS) acid are part of a group of chemicals commonly referred to as perfluoroalkyl substances (PFASs) or perfluorinated compounds (PFCs). PFOA and PFOS are man-made chemicals that up until 2000 had been widely used in the manufacturing of many industrial and consumer products such as paper and cardboard food packaging, insecticides, electronics, stain repellants, paints, plumbing tape, firefighting foam and non-stick cooking surfaces.

Prior to phasing PFOA and PFOS out of production around the globe, large quantities were released into the environment during manufacturing processes and are now being found in drinking water supplies near current or former manufacturing locations as well as use areas such as airports.

West Virginia Rural Water encourages all water and wastewater systems to attend all classes that help with training and education on this.

My name is Charlie Cooper and I have over 19 years' experience in dealing with several kinds of contaminants in water, sampling and treatment plans as well. I urge all systems that have not looked into PFOS matter to do so. West Virginia Rural Water is there for you to help with this and any Emerging Contaminant that is affecting your source water. ■

*By Jamie Nichols, Lead and Copper Program Technician*

# October 16, 2024

October 16, 2024 is just around the corner. Some may ask, "what's important about that day?" It's the day that every water system has to have their Lead Service Line Inventory submitted to the DHHR. Most are aware of this, but, for those who are not, the EPA has mandated that all Water Systems identify every Private and Public Service Line as well as make record of each in some form of spreadsheet that can be submitted electronically to the DHHR. This spreadsheet must include an account number or numerical way of identifying property information, the service address, year the structure was built or age of structure, building type, public service line material from main to the meter and how it was verified, private line material from meter to the structure and how it was verified as well as gooseneck material (if any) and pigtail material (if any). Also, the address of where the public can view this information must be put on the CCR starting in 2025. Verification methods can be Customer Survey, Staff Knowledge, Field Inspection and Records. The EPA DOES NOT consider Lead Goosenecks, Lead Solder and Lead Fittings as Lead Line Replacement. Only Lead Lines and Galvanize fed by Lead need to be replaced. Any system that has Unknown lines, Lead Lines and Galvanize fed by Lead on their LSLI after October 16, 2024 will be required to create a Lead Service Line Replacement Plan, in which they have 10 years to remove and replace Lead Contaminated Lines. Systems will be required to replace at least 10% of Lead Lines per year. However, systems will want to replace these lines as quickly as possible due to added sampling and costs. The System will be required to do Lead and Copper sampling every 6 months instead of the normal 3 years, your sampling for Lead and Copper will double (if you do 20 samples every 3 years, you go to 40 every 6 months), and you will be required to do Water Quality Parameter sampling every 2 weeks. For each structure that has Unknown Line, Lead Line or Galvanize Line fed by Lead, they will be required to do First and Fifth Liter sampling until that service line is replaced. Telling systems to verify and replace lines seems like a lot of work and some may say that they don't have time to do it, but if not finished by the deadline, you will still be required to verify and replace the service lines, but at a higher cost to the system and more work for the staff. ■

# RURAL WATER Loan Fund

## About The Program

The NRWA Rural Water Loan Fund (RWLF) is a funding program specifically designed to meet the unique needs of small water and wastewater utilities.

The RWLF provides low-cost loans for short-term repair costs, small capital projects, or pre-development costs associated with larger projects. The RWLF was established through a grant from the USDA/RUS, and repaid funds used to replenish the fund and make new loans.

Apply today by contacting your State Rural Water Association or NRWA!

## Reasons to Apply

- Reasonable interest rates
- No administrative or processing fees
- Straightforward application process and quick turnaround
- Systems must be public entities serving up to 10,000 persons, or in rural areas with no population limits
- Loan amounts may not exceed $200,000 or 75% of the total project cost, whichever is less
- Emergency loans are 90-day no interest, with immediate turn around on applications

## Eligible Projects

- Pre-development (planning) costs for infrastructure projects
- Replacement equipment, system upgrades, maintenance and small capital projects
- Energy efficiency projects to lower costs and improve sustainability
- Disaster recovery or other emergency loans available

Applications, information and forms can be downloaded from the NRWA website at nrwa.org or by scanning the QR Code above. For help, please call 1.800.332.8715 or email nrwarwlf@nrwa.org.

USDA Rural Development

NRWA

National Rural Water Association is an equal opportunity provider and employer. This material is based upon work supported by the Rural Utilities Service, United States Department of Agriculture.

*By Jerry Dotson, Sourcewater Specialist*

# Source Water Protection Grants

Many Community Water Systems that utilize surface water sources, or ground water sources under the influence of surface water, have taken advantage of the West Virginia Department of Health's (formerly the West Virginia Department of Health and Human Resources) Local Source Water Protection Grant Program (SWP Grants) to incorporate measures to aid in protecting their water sources. The funds are provided through the State Revolving Fund and are awarded to fund projects that directly protect sources of public drinking water. The maximum amount for a grant is $50,000 to qualified projects.

These grants are available to Community Water Systems (CWS), a group of adjacent Community Water Systems specifically using surface water influenced groundwater, or a not-for-profit contractor working for a Community Water System. The goal of the grants is to enable CWSs to protect their systems and their customers. Some of the activities that are eligible for the grants are: to prepare or upgrade a source water protection plan; identify and monitor potential sources of significant contamination; design and implement strategies to prevent non-point source pollution in the protection area, or implement best management practices to reduce the risk of contamination of the source water; land purchase for conservation easement or other work within the watershed to prevent contamination; contingency planning or emergency response protocols to be used in case of a contamination incident; measures to increase public awareness about source water protection, increased security measures or other activities that decrease the risk for source water contamination.

There are some expenses that do not qualify for the grant funds such as expenses incurred prior to the award of the grants, construction, security measures that are not directly related to source water protection, compliance testing or regulatory compliance monitoring or permitting expenses, entertainment, interest payments, food or meeting or conference registrations, or equipment warranties or service agreements.

Grants are awarded annually and applications must be received by the annual due date. Applications that meet all the submission requirements are reviewed and prioritized based on need and type of projects. Priority will be awarded based on the highest probability of the source water based on source water protection plan data. Priority is also given to CWSs not previously awarded SWP Grants.

The information in this article is not comprehensive and additional details, information and documentation including applications can be found at this website: https://oehs.wvdhhr.org/eed/source-water-assessment-wellhead-protection/wellhead-and-source-water-protection-grants/. Unfortunately, the 2024/2025 application deadline is March 31, 2024 which will occur prior to the release of this article. However, CWSs interested in applying for SWP Grants should monitor the website for application due dates and requirements and be prepared to apply when dates are established and posted. This program provides an excellent opportunity to fund source water protection projects that might otherwise not be possible.

The West Virginia Rivers Coalition is a not-for-profit organization whose mission is to conserve and restore West Virginia's exceptional rivers and streams. This organization also has a small grant program that seeks to fund activities that protect West Virginia waters. Activities such as events, training, advocacy, or community organizing to promote clean water activities can receive funding. So, if you want to develop a clean water fair, fund a school curriculum about clean water, or maybe organize a watershed protection group, you may be able to obtain some funding through West Virginia Rivers. To learn more about West Virginia Rivers and their grant program, go to https://wvrivers.org/.

For water systems who are looking for ways to implement new ways to reduce the risk of source water contamination and provide more security for their systems, these grant programs can offer a means to accomplish those goals with less direct financial impact on the system. As always, if you need help with source water issues, contact your WVRWA Sourcewater Specialist, Jerry Dotson at 304-483-3497 or email at jerrydotson@wvrwa.org. ■

# USDA WATER & WASTE WATER DISPOSAL LOAN AND GRANT PROGRAM

Improve Your Facility

## About the Program

This program provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas.

## Funding

Long-term, low-interest loan funding is available. If funds are available, a grant may be combined with a loan if necessary to keep user costs reasonable.

## USE YOUR FUNDS TO FINANCE THE ACQUISTION, CONSTRUCTION, OR IMPROVEMENT OF:

01 Drinking water sourcing, treatment, storage, and distribution

02 Sewer collection, transmission, treatment, and disposal

03 Solid waste collection, disposal, and closure

04 Storm water collection, transmission, and disposal

05 Other related activities such as permits and legal fees

NRWA

USDA Rural Development

Scan the QR code to view more information and start your application.

*By Jim Johnson, Wastewater Technician*

# Water Pollution

To state it very basically, in the wastewater field, our number one goal is to prevent water pollution. Water pollution is the release of material or matter into a body of water. These releases would interfere with any beneficial use of the water or harm the lifeforms present in that water. Some of the main pollution sources wastewater plants attempt to remove are organic wastes, nutrients and pathogenic organisms. Water pollution generally comes from either a point source or a non-point source. A point source is a place where water is discharged from a wastewater or industrial facility. The main thing about a point source is that it is permitted and the owner of it is known. A non-point source is a discharge that is not permitted and, often times, the owner is unknown. Many times, the runoff from non-point sources is untested and very hard to control.

All domestic sewage is likely to contain pathogens. Pathogens are disease causing organisms. Untreated pathogens are a very big threat to public health. Wastewater Treatment facilities do a very good job of getting rid of the pathogens and very few of them enter the water bodies. Organics in the water cause a different type of problem as it depletes the oxygen in water. We do not want this happening in our clean water areas. Again, our wastewater plants do a very good job of taking out the organics. Domestic sewage is also a source of nutrients in the water. The most problematic nutrients are nitrogen and phosphorous. Most sewer systems have to have special equipment to treat nitrogen and phosphorous and these have now been put in place in areas where this type of treatment have been deemed necessary.

Is there any such thing as perfectly clean water in nature? Probably not. Water dissolves other matter so well that it seldom is perfectly clean. A lot of times, though, water will be clean enough for its intended use. Some water is used for swimming or fishing. This water has to be pretty clean. Other water is used for drinking. Drinking water must be very clean. All bodies of water have contaminant levels which have been set on their intended use. These levels provide a legal framework for the pollution prevention in these bodies of water. Obviously, wastewater plants have standards in which their water has to meet to be considered safe and legal. The same with a drinking water system; they have a set of standards they have to meet to ensure the water is safe for human consumption.

Wastewater Systems must meet the standards as set fourth by the Clean Water Act. This provides a guideline for discharging water into any body of water in the United States. The Safe Drinking Water Act is the guideline that water systems use to determine the standards their water system must meet.

Most of our water and wastewater plants do a wonderful job getting their systems to meet these standards. The highly trained staff of these water and wastewater systems do a great job in treating and removing pollution from the water. ■

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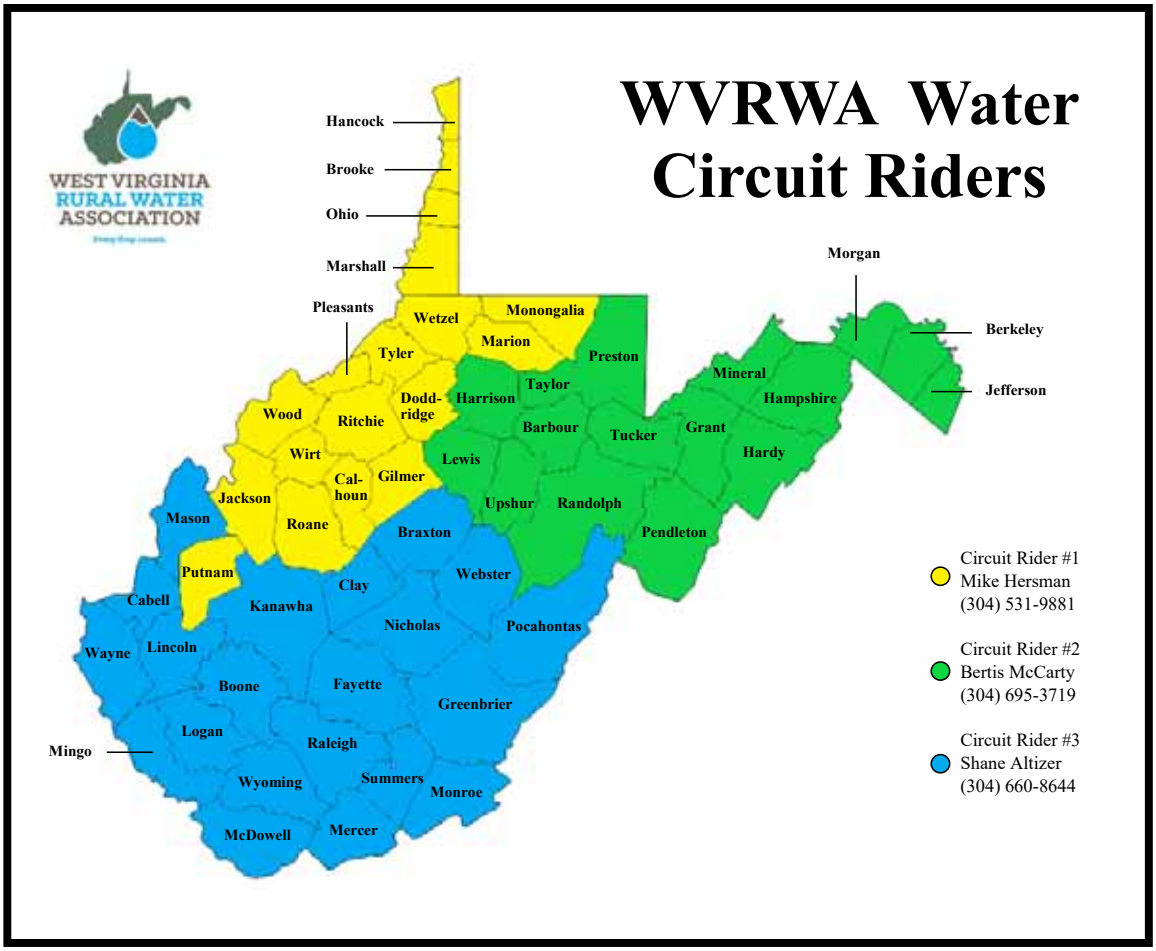
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**Trey Hornor**, P.E., *President and Managing Partner*

*By Shane Altizer, Water Circuit Rider*

# Drone Inspection

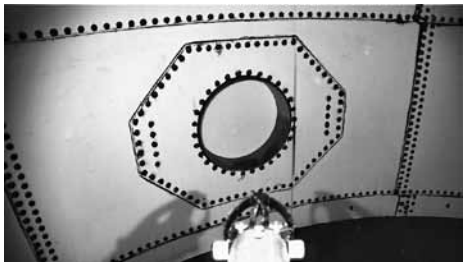
In 2022, I wrote about the importance of having your tanks inspected and our ability to help with that. I want to follow up on that and tell you other benefits from having the inspection done.

The first benefit of having WVRWA come and inspect your tank is price. Tank inspections can be expensive, but everything we do for you is free of charge. There are a lot of systems in the state that struggle with their finances due to the rising costs of everything, and having tanks inspected is sometimes dropped from the budget.

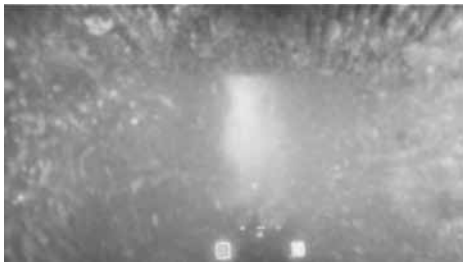
Another benefit I have seen from doing these inspections is

the ability to recover things lost or dropped in the tank. I have seen cables from the tank level float broken and lying on the bottom of the tank or hanging from the float with no easy way for the system to retrieve it. Our inspection drone has a grapple arm that can grab the cable, or other small objects, to easily retrieve them. In the picture you can see the cable in the drone arm as well as the float that is attached to the cable. I was able to retrieve both the cable and the float for the system to repair their tank level indicator.

A third benefit is simply knowing your tank. Having pictures and videos of the inside and outside of your tank can help with upcoming projects or state inspections. If a tank is in rough shape and you have evidence to prove it, getting a grant to help fix the issues could be easier to obtain, or, if a tank is in good condition, you could post pictures for the public to see the top quality of the water they pay for. These pictures are a couple I like from the inspections I've done showing a full view of the tank and the scenery around it and one with a clean inside with crystal clear water.



We can also use the drone in your intake. While it is more challenging to see in most intakes due to the turbidity of the water, we have been able to successfully help some systems with their need to see issues with the intake. In the picture, you can see air blowing below the screen of an intake pipe. The air should have been coming out of the screen, but the air pipe was broken, and the screen wasn't getting cleaned like it was designed.



Quality on Tap is a motto most of us have probably seen or heard. Do you believe in that motto? Is your water the best quality it could be, or do you know? Knowing the quality of your tanks and intakes could be a big step in producing the best quality water for your customers. ■

## SUDOKU PUZZLE

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 5 | 8 | | | | | 9 |
| | 3 | 4 | | 1 | | | 7 | 8 |
| | | | | 5 | | | 4 | 1 |
| | | | | | 9 | 7 | 1 | |
| 8 | | 3 | 2 | | | 4 | 9 | |
| | 2 | | | | 1 | | 6 | |
| | | | | 9 | | | | 4 |
| | 6 | | | | 8 | 3 | | |
| | 4 | | | | | | | 6 |

The aim of the canonical puzzle is to enter a numerical digit from 1 through 9 in each cell starting with various digits given in some cells (the "givens"). Each row, column, and region must contain only one instance of each numerical. Completing the puzzle requires patience and logical ability.

Answers can be found on page 38.

*By Marybeth Altizer, Lead and Copper Program Technician*

# Lead Sampling Program for Schools and Child Care Facilities

The West Virginia Department of Health and Human Resources, with assistance from 120 Water, has developed the Lead Sampling Program in an effort to help schools and child care facilities determine if there is a presence of lead in drinking water within their buildings.

While the drinking water received from a Public Water System might meet federal and state standards for lead, a school or child care facility may still have elevated lead levels due to the plumbing materials inside the building. Sampling locations include drinking water fountains, food preparation sinks, and other fixtures used to provide water for human consumption.

In West Virginia, an elevated lead level is a reading that meets or exceeds the U.S. Environmental Protection Agency's "action level" of 15 ppb. The action level of 15 ppb is not a measure of potential effects to a child's health. It serves to signal the school or child care facility to take steps to reduce the lead concentration in the water.

Experts now know that there is no safe amount of lead in drinking water. Lead exposure can cause serious damage to children's developing brains. The American Academy of Pediatrics policy statement, Prevention of Childhood Lead Toxicity, states that "Lead toxicity results in substantial population level effects on children's intellectual abilities, academic abilities, problem behaviors, and birth weight."

As of now, the Lead Sampling Program is voluntary. All West Virginia K-12 schools recognized by the West Virginia Department of Education and all child care facilities recognized by the West Virginia Family and Social Services administration are eligible to apply for the program.

If a school does not apply for the LSP, it will be the PWS's responsibility to test for lead in the schools or child care facility in their system once the LCRI goes into effect.

Schools and child care facilities can apply by contacting the Project Sponsor for Water Resources and Infrastructure Planning Program, Meredith Vance, at 304-352-5046. You can also call me with any questions you may have at 304-573-7778. ■

## We're on the Web!

For the latest information on what WVRWA is up to,

follow us on Twitter, Facebook, & Lindedin

- Twitter: WV Rural Water
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## Answers to Soduko Puzzle

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 7 | 5 | 8 | 6 | 4 | 2 | 3 | 9 |
| 6 | 3 | 4 | 9 | 1 | 2 | 5 | 7 | 8 |
| 2 | 9 | 8 | 7 | 5 | 3 | 6 | 4 | 1 |
| 4 | 5 | 6 | 3 | 8 | 9 | 7 | 1 | 2 |
| 8 | 1 | 3 | 2 | 7 | 6 | 4 | 9 | 5 |
| 7 | 2 | 9 | 5 | 4 | 1 | 8 | 6 | 3 |
| 3 | 8 | 7 | 6 | 9 | 5 | 1 | 2 | 4 |
| 9 | 6 | 1 | 4 | 2 | 8 | 3 | 5 | 7 |
| 5 | 4 | 2 | 1 | 3 | 7 | 9 | 8 | 6 |

*By Michael Hersman, Water Circuit Rider*

# How Apparent Water Losses Impact Utilities

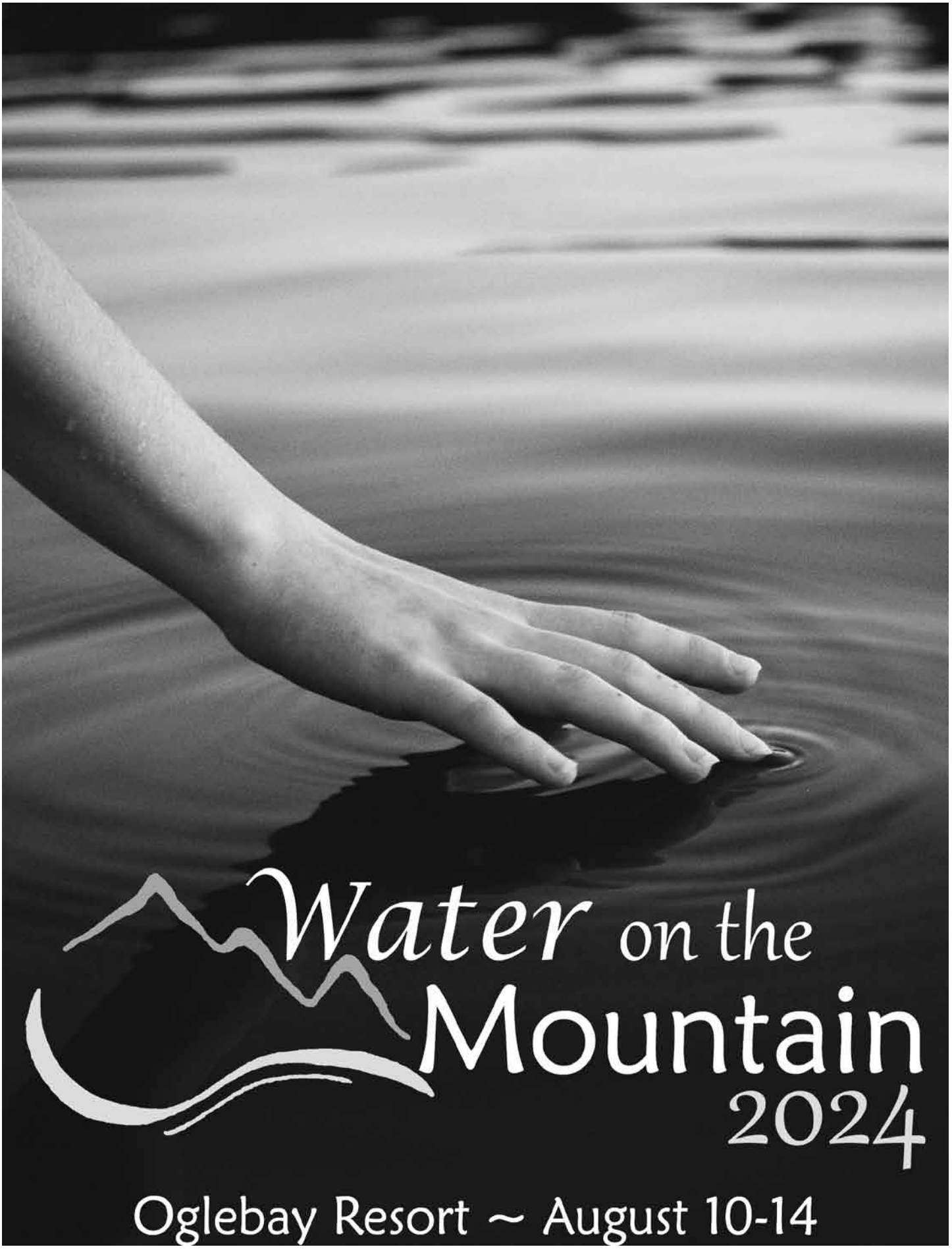
It is important to notice that apparent losses are not caused by leakage. They do not include any physical losses of water, since the water has reached the destination of an end user. However, this successful supply function was inaccurately metered, archived improperly in the billing system or the use of the water was unauthorized. Apparent losses are a very important component for the water supplier to keep under control as they have a direct negative impact on supplier's revenue generation for a product that was delivered to the customer.

Because apparent losses underrecord the volume of customer consumption, they generate two major impacts on water management: apparent losses create a degree of error into the accuracy of customer water demand and can impact the decision-making process used to determine total water resource management including conservation and water loss control practices. And apparent losses cause water utilities to underbill a portion of the water consumed by customers, thus a portion of the potential revenue is not recovered.

Both of these impacts can be significant. If a high level of apparent loss exists in a water utility, its recorded volume of customer consumption could be subject to a significant degree of error. From a financial perspective, apparent losses can have a tremendous impact on the water utility's bottom line. Apparent losses cost utilities revenue. Many water utilities can gain from the revenue recovery potential of apparent losses. Since apparent losses are quantified by the amount of water improperly recorded at the customer's delivery point, this water is valued at the retail cost that is charged to the customer. The cost impact of apparent losses is frequently higher than the impact of real losses, which is typically valued at the variable production costs to treat and deliver the water. Since the retail rates usually include fixed and administrative costs, infrastructure improvement, and debt repayment, this cost is typically much greater than production costs. Therefore, apparent losses can have a dramatic financial impact to the water utility's revenue stream.

Apparent losses also create a problem of payment inequity for the community. Apparent losses occur when the actual amount of water delivered is understated. Hence, a portion of the customer population obtains discounted or free water service. This means that the paying customer population effectively subsidizes those customers who are underpaying or not paying. This situation is particularly troubling as water utilities encounter pressure to raise rates, with the paying customers shouldering an even greater financial burden for the entire water-using community. Reducing apparent losses and recovering missed revenue can reduce the frequency of, or defer the need for, water rate increases by identifying underpaying and nonpaying customers and adding them to the active billing roles.

Controlling apparent losses can be very cost-effective since initial corrections may require relatively little work with potentially high payback. It is often advantageous to target apparent loss control early in the water loss control program in order to quickly generate recoveries that can seed further water loss reduction activities, particularly real loss reduction. Loss control in any endeavor is an effort in diminishing returns, but it is likely that many water utilities have significant apparent losses which can be cost-effectively recovered to enhance the utility's revenue stream and further promote the water loss program. ■


Water on the Mountain
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*By Shannon Cochran, Lead and Copper Program Technician*

# Clearing the Confusion – Lead Service Line Inventory

With the Lead Service Line Inventory, LSLI, deadline quickly approaching, I've noticed a common denominator with all of the systems I've visited across the state. Confusion, misinterpretation, and assumptions abound. It's my theory that, since the information packet mailed from the Health Department contained paperwork on the lead and copper sampling and, also, the lead service line inventory, that most operators intwined the guidelines together. In this article, I want to focus on the LSLI.

First, let's address what is okay to have in your water system. Lead jointed lines, lead goosenecks, and lead pigtails, as it pertains to the LSLI, are acceptable and do not need to be removed at this time. Even though the lead goosenecks and pigtails are okay as per the most up-to-date guidelines, as an operator, I would personally remove them. I wouldn't remove them on a grand scale, but as I came across them on a repair or dig. If you do remove items like these in the future, you need to keep a spreadsheet or record of what you have removed and what is remaining.

Next, and this is a big one, what also confuses many is that copper is perfectly fine. Copper seems to have gotten lumped in with the LSLI because your sampling homes need to contain lead or copper and, again, the information came in the same packet. We have come across many systems that thought they would need to remove copper and, unfortunately, one system had already replaced four different copper service lines. Mapping also seems to get confused often. You do not need to map out your entire system for the LSLI. You must map out your sample sites for lead and copper, but, again, not for your lead service line inventory.

October 16, 2024 is approaching fast and misunderstandings will cost you valuable time and, if you are replacing copper lines, will destroy your budget. Again, the deadline is October 16, but I plead with you to submit your LSLI at least a month before, if at all possible. With every system in West Virginia submitting around that time, it will take time to review each one. Remember, your LSLI will need to be submitted and approved by October 16, so allow time for it to be reviewed and corrected, if necessary.

After your LSLI is completed and approved, you will not just be done with it. It's going to be a living, growing creature henceforth. Starting in 2025, you will have to list on your CCR where the customer can view the data upon request. That means you must keep it up-to-date. As a house changes hands or renters come and go, you must update the LSLI with the new account numbers. If a new home is built, you must add that account and type of line used. This is going to require communication between operators and office staff, so have them on board, as well. If you have any questions or just don't know where to start, feel free to reach out to me or any of my team members – it's what we're here for. You can email me at shannoncochran@wvrwa.org and/or call or text me at (304) 644-5745. ■

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# NOW IS THE TIME TO ACT

## Get Started on Your Water Utility Construction Project

**Do you have a Water Utility Construction Project? Now is the time to act! Rates are at an all time low, and with the current pricing being opportunistic and taking action can result in benefits not only for your-self but for the customer as well. Consider the below items that detail positive reasons to act now that you can present to your governing body.**

- Interest rates are at an all-time low.
- More project contractors are available, increasing the number of bids, potentially lowering project costs.
- Fuel costs are low, lowering pipe related costs.
- Most material costs for projects are down.
- Shipping costs for many have decreased.
- Road and water projects are easier to schedule due to decreased volume in traffic.
- Low construction costs and available contractors are not guaranteed to last.

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WEST VIRGINIA RURAL WATER ASSOCIATION

Every drop counts.

*By Shawn Strain, EPA Wastewater Specialist*

# Preventive Maintenance

I hope everyone understands the importance of preventative maintenance. I'm not only talking about the normal routine that is included in the O&M books, like checking and changing oil and greasing bearings and gears. If you stop and think about it, preventative maintenance really includes a whole host of items: painting, cleaning, mulching and the ever-popular yard work.

These tasks should be routine; not only do they add to equipment longevity, but they will save money in the long run. I understand that oil and grease is expensive, but I'm pretty sure even a five-gallon bucket of oil and a case of grease will be cheaper than a new gear drive.

Don't forget about cleaning and painting and its importance in the type of environment associated with in and around the treatment plant. It's important to maintain your exhaust fans or de-humidifiers, especially in places like the headworks building, digester control building and the chlorine building.

Calibrations and adjustments on stationary meters can save you money on new probes. Preventative maintenance on other items you use often and maybe not too often should not be forgotten and exercised on a regular basis. Start your smoke machine up every so often; trash pumps, generators and lawn equipment, as well, in the winter; even those valves in the yard you may not use very often - exercise them on a regular basis.

Company vehicles should not be overlooked when it comes to preventative maintenance. Get the oil changed in the dump truck and pickup truck, grease that backhoe and check hydraulic fuel regularly. After all, how often do you get a new truck or backhoe?

This is a good practice for any system and may be crucial to the ones on a tight budget. Regular maintenance will help to avoid unexpected breakdowns, emergency repairs and will ultimately reduce operating costs.

Let's not forget about the lift stations, also; the same maintenance should be carried out on the stations, too.

These practices go a long way on those inspection days. I know that when DEP comes, they look for how well the plant grounds, building and equipment is maintained and it will be included on the inspection report.

I have visited wastewater treatment plants that have been really kept up and taken care of, and I couldn't hardly believe the age when the operator told me. Even though the treatment process was dated, every piece of equipment was still doing its job, in part to a good maintenance program.

If a plant has been well maintained inside and out, it will go a long way in the public's eye when it's time for a rate increase or even a plant upgrade. ■


Recently, WVRWA published its new e-Newsletter, *News Droplets*. *News Droplets* provides information on new programs and benefits, training classes, conference, legislative news, and much more. If you are currently not receiving *News Droplets*, but would like to, please send your name and email address to connect@wvrwa.org to be added to the mailing list.

# Reporting Complaints to the Damage Prevention Board

By now, many of you have heard that there is enforcement regarding West Virginia's dig law. For example, if someone is digging without a one call ticket, that is a violation of current law and the violator can be held accountable for the violation. Some have asked the question, "How do I report someone who is violating our dig law?"

That's a fair question. In the Rules and Procedures adopted by the West Virginia Damage Prevention Board (WVDPB) Section 4-1-4 states that WV811 will provide a space on its website for individuals and facility owners to call and provide information regarding a violation. Additionally, Section 4-1-5 states that the board shall also receive complaints via US mail, telephone and email.

An Alleged Violation Report (AVR) form was created for the web as stipulated in the Rules and Procedures to allow anyone to submit a complaint against a company/person who may in be violation of the state's dig law.

This form can be found on the Damage Prevention Board's website at *www.wvdpb.com*.

Some have asked, "When should I submit an AVR or when should I report someone who is violating the dig law?" To this question there is no right or wrong answer. From the earliest days of working to include enforcement (education and/or civil penalties) the idea of enforcement was promoted as a last resort. The hope was that stakeholders would continue to try to resolve issues in the field as they had done in the past and if resolution was not possible, enforcement was an additional step to be used to encourage behavioral change.

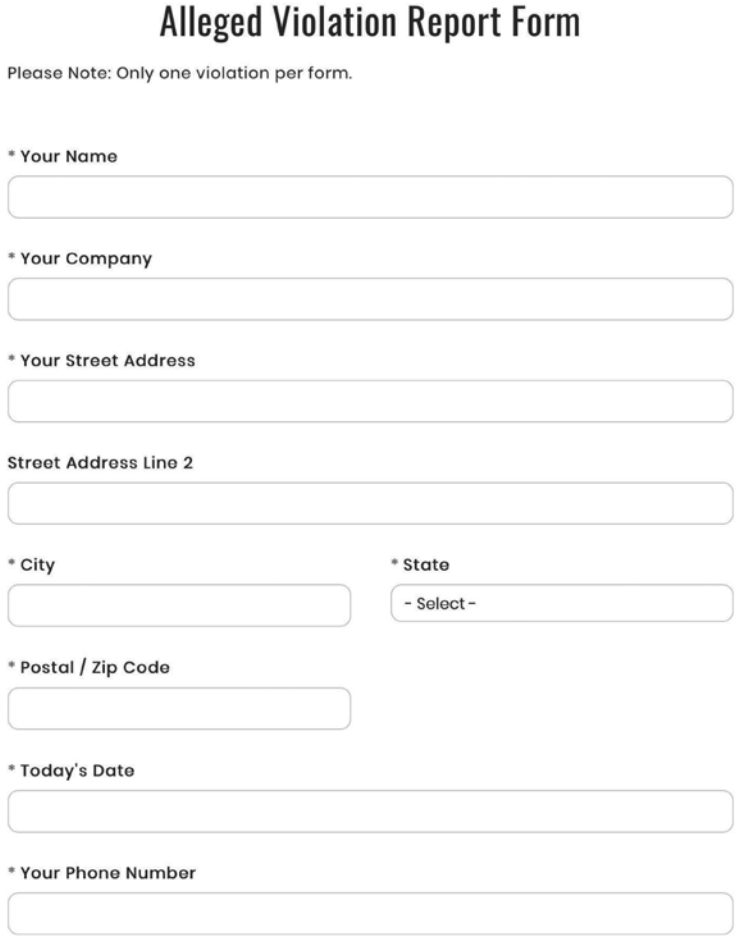
While you can submit a complaint by phone, mail or email, the advantage of submitting an AVR is it gives you a guide to provide information necessary to investigate the complaint. It also becomes available to the board or its representative as quickly as you hit the submit button.

This article will introduce you to the form and serve as a guide on how to properly fill it out.

- **Please note only one violation per form**
- **You will notice a red asterisk beside some of the requested information.** This means that the field is a required field. While the other information is not required to fill out the form, it will assist in investigating or locating the alleged violation.

**Steps to successfully submit an AVR:**

***Section 1***




***Section 1***

This section of the form is your information. It requires you to enter your name and contact information including your email address and phone number. There could likely be questions regarding the complaint and without the proper contact information, it would be impossible to continue the investigation. Be sure to list your best contact information.

***Section 2***

The next section of the form then requests you to enter the person or company and their contact information (if known) that committed the alleged violation. It is critical in the investigation process and in the penalty phase of the enforcement to know who the alleged violator is and some contact information for them.

*Submitting AVRs without any supporting documentation and/or photos will likely end in no violation and a lot of frustration.*

***Section 3***

Next are five (5) types of alleged violations under the heading of "Type of Alleged Violation." As this is a required field, you must check one of the boxes listed below.

1. Excavating without a one call locate ticket
2. Excavating early
3. Failure to locate underground facility
4. Did not locate facility in the required time
5. Other (include below)

If you select "other," it is important you clearly describe the alleged violation in the text box immediately below. Remember, a violation can occur without a damage and it is possible to have a damage where no violation has occurred.

***Section 2***

Company/Person that Committed Alleged Violation (If known)

Phone Number for Alleged Violator (if known)

Email Address for Alleged Violator (if known)

Mailing Address for Alleged Violator (if known)

* Street Address

Street Address Line 2

* City

* State

- Select -

* Postal / Zip Code

***Section 3***

* Type of Alleged Violation

- [ ] Excavating Without a One Call Locate Ticket
- [ ] Excavating Early
- [ ] Failure to Locate Underground Facility
- [ ] Did Not Locate Facility in Required Time
- [ ] Other

If Other is selected, please provide a description of the alleged violation

### *Section 4*

Directly below the "other" text box is another required field. The Damage Prevention Board wants to know whether a damage occurred as the result of the alleged violation. The required response is yes or no. If you select no, move down to the section requesting ticket information.

However, if you select yes, meaning that a damage did occur as a result of the violation, then a dropdown menu is displayed asking you to identify the type of utility that was damaged. You will be able to select more than one utility type. Then move to the section requesting ticket information.

### *Section 5*

If you selected no, there was no damage or if you selected yes there was a damage, you are now taken to the section where you identify the ticket number (if known), whether or not the utility is a member of WV 811 and the date and time of the violation (if known).

### *Section 6*

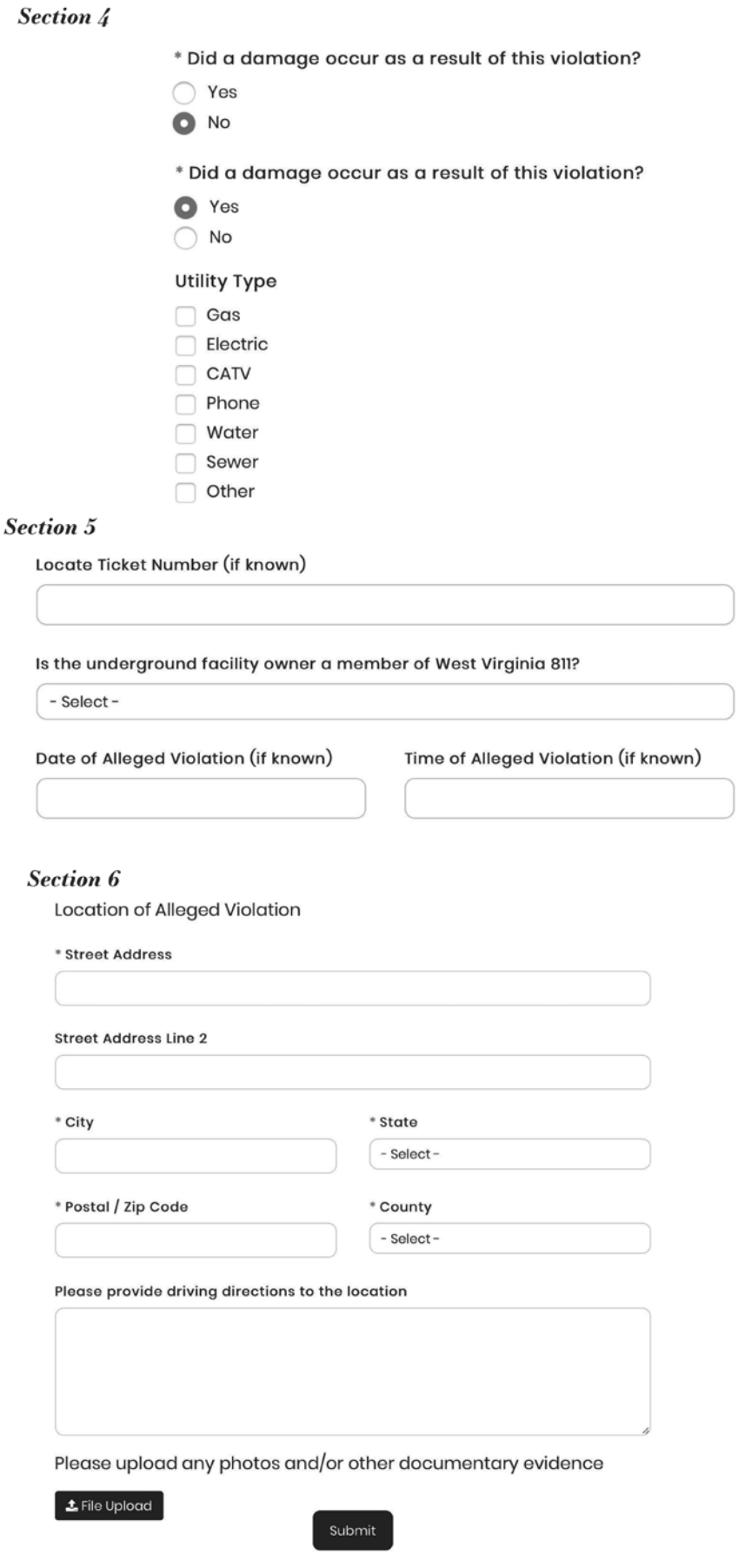
This section is arguably the most critical section. First, fill in the information that identifies the location of the violation. Following that, take a look at the section that allows you to "upload photos and/or other documentary evidence." Uploading a PDF or photo is really quite simple. Just click on the "File Upload" button and select the document(s) or photo(s) from your computer or phone that you want to submit and upload.

Submitting AVRs without any supporting documentation and/or photos will likely end in no violation and a lot of frustration. The more documentation you provide to support your alleged violation, the better your position. You can upload photos, documents, sketches, police reports, etc... any documentation that you think will prove your case conclusively.

Any photos submitted will be even more effective if they are date and time stamped and helps tell the story of the violation.

Finally, once the AVR is received, the enforcement process begins as outlined in the rules and procedures of the Damage Prevention Board.

For more information about the AVR or the enforcement process, you may contact the Board at *wvdamageprevention@gmail.com*, call 304-657-4839 or visit the website at *www.wvdpb.com* and click on the "rules & procedures" icon.



# Thank You Letters

**Elkins Road Public Service District**
133 Fallen Road
Buckhannon, WV 26201
304-472-3008 (M thru F 9-1)
Fax 304-472-2028



January 22, 2024

WVRWA
100 Young Street
Scott Depot, WV 25560

Dear WVRWA,

This letter is to send a big "THANK YOU" to the WV Rural Water Association for their recent assistance in helping us locate a very costly leak on our system.

On December 15, 2023 Bertis McCarty came to Buckhannon and helped our system operator find a leak that was costing us a lot of unaccounted for water loss. We appreciate WV Rural Water Association for providing a much needed resource to small utilities here in West Virginia.

We look forward to working with you in the future.

Sincerely,

Carolyn Douglas

Carolyn Douglas
Office Manager/Elkins Road PSD

# Attention Women of Rural Water
# You're Invited!

Water on the Mountain 2024

## Making Waves

Uniting Women in Rural Water

- Celebrate and Empower
- Unite and Inspire
- Build Strong Connections
- Luncheon
- T-Shirts
- Limited 70 Seats
- August 12, 2024 10:30 a.m. - 12:00 p.m.
- Oglebay Resort Fort Henry Room

More information coming soon...

**Need Information or CD's? Visit the WVRWA Library To View the Latest Information Available**

**WVRWA website @www.wvrwa.org**

# Thank You Letters

**Elkins Road Public Service District**
133 Fallen Road
Buckhannon, WV 26201
304-472-3008 (M thru F 9-1)
Fax 304-472-2028



February 14, 2024

WVRWA
100 Young Street
Scott Depot, WV 25560

Dear WVRWA,

This letter is to send a big "THANK YOU" to the WV Rural Water Association for their recent assistance in helping us verify that the Lead Line Inventory we are working on is in the correct format for compliance.

On February 13, 2024 Lamar Godbey, Shannon Cochran and Jamie Nichols came to Buckhannon and visited with us to look over what we had already compiled in the lead line inventory. After going over what was already in the file they said we were doing really well with what we had already gathered. We were able to delete a few unnecessary lines but other than that we seem to be on the right track.

Again, we appreciate WVRWA for the many services they provide to everyone and look forward to working with them again in the future.

Sincerely,

Carolyn Douglas

Carolyn Douglas
Office Manager/Elkins Road PSD

# West Virginia Rural Water Association

## *Don't Miss Out on Available Services*

Our little to no-cost, two-year, nationally recognized Water/Wastewater Apprenticeship Program matches candidates with employers.

During your apprenticeship, you will earn-while-you -learn with on-the-job training and classroom instruction.

This program starts as a job and emerges as a solid and secure career as either a water operations specialist or wastewater operations specialist.

Our Circuit Riders provide training and technical assistance to operations specialists, water utility managers, and boards. On-site help is available upon request when a system needs it.

- Leak detection and water audits
- Sampling and testing
- System troubleshooting
- CCRs

Our Source Water Protection Specialist provides on-site help for systems to assess, delineate sources of water, and reduce/eliminate the potential of contamination.

- Source water protection plans
- Emergency response plans
- Measure well draw downs
- Perform TV inspection of wells

Training is available to obtain continuing education hours (CEHs) for license renewals.

As part of this training endeavor, training videos have been developed to help bring about compliance with safe drinking water regulations and to enhance system operations.

Videos and study material are available upon request.

Our ARC Specialist provides technical, training, financial, and managerial assistance for water and wastewater systems in economically distressed Appalachian counties.

- Asset management plans
- Rate analysis
- Leak detection
- Preventing inflow & infiltration (I&I)

Our Wastewater Technicians provide assistance to enhance and maintain financial sustainability of wastewater systems through technical support and/ or training.

- Smoke testing and camera inspections
- Nitrogen problems
- Solids handling
- Compliance issues

Our Energy Efficiency Technician provides assistance to rural and small community water and wastewater utility systems to help in becoming more energy efficient.

- Evaluates energy needs, consumption, and costs
- Recommends measures to reduce energy consumption
- Identifies potential funding sources for improvements

Our EPA Water Technical Assistance Specialist provides training and technical assistance to water systems that struggle to achieve compliance with regulations.

A key priority is assisting small systems with their technical, managerial, and financial capacity to achieve long-term sustainability and resiliency.

# HONORARY MEMBERS

We would like to give a special thanks to all of our current and former Board Members and Staff who have helped shape WVRWA.

April Atkinson
Lew Baker
Joe Blair
Rocky Bragg
Ron Brill
Debbie Britt
Gary Buckbee
Dwight Calhoun
Dan Campbell
June Ann Carr
Tim Carroll
Linda Davis-Adkins
Ricky Dennison
Mike Dill
George S. Evans
Joseph Ferrell
Thomas A. Ferris
Elaine Flaxer
Chet Fleming
David Foster
Dina Foster
Jennifer Freeman
Barbara Gerkin
Lamar Godbey
Todd Grinstead
Thomas G. Hall
Dreama Hammonds
William Hancock
Lowell Hardman
Lynn Hartman
Calvin Hatfield
Alan Haught
J. B. Heflin
Mike Hersman
Doug Hervey
C. David Holt
John Huddleston
Mary Hutson
Deborah D. Jividen
Erica Johnson
Jim Johnson
George Kallai
Curtis Keller
Matthew Lamp
Tom Landis
Danny Lewis
Randall Lewis
Clayton Lutz
Starla Lynch-Snead
Jeff Martin
Bertis McCarty
J. Robert McCarty
Amanda McGinnis
Jack McIntosh
Mike McNulty
David Miller
Will Miller
Elbert Morton
Herb Montgomery
Grover Moore, Jr.
S.E. “Ed” Moats
Wayne Oates
Robert L. Pack, Jr.
Tina Parsons
Tom Pitman
Gregory Preece
Larry Rader
Jearl Ramsey
Dwight Reggi
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Porter Robertson
Jim Runyon
Steven Sanders
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Douglas Schafer
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Douglas Smith
J. C. Smith
Mary Smith
Margaret P. Sos
George Sparks
William A. Spino
Debora Starnes
Grace Stewart
Fred D. Stottlemyer
Tim Stranko
David Swain
Amy Swann
Floyd Teter, Jr.
Ray Tilley
Daniel Vestal
David Wagner
Darrell Wellman
Jim Wesolowski
Taylor Whittington
Janie Witt
Bill Yunker

# VOTING MEMBERS

Adrian PSD
Alderson
Alpine Lake Public Utilities
Armstrong - Deepwater PSD
Arthurdale Water
Athens
Beckley Sanitary Board
Belington
Belmont
Benwood
Berkeley County PSSD
Berkeley County PSWD
Berkeley Springs Water
Bethany Sanitation Board
Beverly
Big Bend PSD
Bingamon PSD
Bluewell PSD
Bradley PSD
Branchland-Midkiff PSD
Bridgeport
Brooke County PSD
Buckhannon
Burnsville
Cairo
Caledonia Heights
Cameron
Canaan Valley PSD
Carpendale
Cedar Grove
Central Barbour PSD
Central Boaz
Central Hampshire PSD
Century Volga PSD
Chapmanville
Charles Town
Chester
Chestnut Ridge PSD
Clarksburg Water Board
Clay County PSD
Clay Municipal Water Works
Claywood Park PSD
Clinton Water Assoc.
Clover PSD
Coalton
Colfax PSD
Cool Ridge Flat Top PSD
Coolfont Mountainside Assoc.
Cottageville PSD
Cowen PSD
Craigsville PSD
Danese PSD
Davis
Davy Municipal Water Works
Denver Water Assoc.
Doddridge County PSD
Downs PSD
East Bank
East View PSD
Eastern Wyoming PSD
Eleanor
Elizabeth
Elk Valley PSD
Elkins
Elkins Road PSD
Ellenboro
Enlarged Hepzibah PSD
Fairview
Farmington
Fenwick Mountain PSD
Flatwoods-Canoe Run PSD
Follansbee
Fountain PSD
Frankfort PSD
Franklin
Gary
Gauley River PSD
Gilbert Water
Gilmer County PSD
Glasgow
Glen Dale
Glenville
Grafton
Grandview Doolin PSD
Grant County PSD
Grant Town
Grantsville
Greater Harrison PSD
Greater St. Albans PSD
Green Valley-Glenwood PSD
Greenbrier County PSD #1
Greenbrier County PSD #2
Hammond PSD
Hamrick PSD
Hancock Co. PSD
Hardy County PSD
Harpers Ferry
Harrisville
Hillsboro
Hodgesville PSD
Hughes River Water Board
Hundred-Littleton PSD
Huntington Water Quality Board
Huttonsville
Huttonsville PSD
Ice's Run PSD
Jane Lew PSD
Kanawha Falls PSD
Kenova Municipal
Keyser
Kingwood
Lavalette PSD
Leadsville PSD
Lewisburg
Lincoln PSD
Little Creek PSD
Logan
Logan County PSD
Lubeck PSD
Lumberport
Mannington
Mannington PSD
Marlinton
Marshall County PSD #2
Marshall County PSD #3
Marshall County PSD #4
Marshall County Sewage
Mason
Mason County PSD
Masontown
Matewan
Meadow Bridge
Middlebourne
Midland PSD
Mill Creek
Milton
Mineral Wells PSD
Monongah
Monumental PSD
Moorefield
Moorefield Regional Wastewater
Moreland MHP
Morgantown Utility Board
Moundsville Sanitary/Water
Mount Hope
Mount Hope Water Association
Mountain Top PSD
Mt. View Water Assoc.
Mt. Zion PSD
Nettie - Leivasy PSD
New Creek Water Assoc.
New Haven
New Martinsville
Newburg
Northern Jackson County PSD
Norton-Harding-Jimtown PSD
Nutter Fort
Oak Hill Sanitary Board
Oakland PSD
Oakvale Road PSD
Paden City
Parkersburg Utility Board
Parsons
Paw Paw Municipal
Paw Paw Rt. 19 PSD
Pea Ridge PSD
Pendleton Co. PSD
Pennsboro
Philippi
Piedmont
Pine Grove
Pleasant Valley PSD
Pocahontas County PSD
Preston County PSD #1
Preston County PSD #4
Preston County Sewer PSD
Putnam PSD
Rainelle
Raleigh County PSD
Ravencliff-McGraws-Saulsville PSD
Ravenswood
Red Sulphur PSD
Reedsville
Richwood
Ripley
Rivesville
Romney
Ronceverte
Rowlesburg
Rupert
Salem
Salt Rock Sewer PSD
Shady Spring PSD
Shepherdstown
Shinnston
Short Line PSD
Southern Jackson PSD
Southwestern Water PSD
Spencer
St. Albans MUC
St. Marys
Stonewood
Sugar Creek PSD
Summersville
Summit Park PSD
Sun Valley PSD
Taylor County PSD
Tennerton PSD
Tri County Water Assoc.
Triadelphia
Tunnelton Municipal
Tyler Co. PSD
Union
Union PSD
Union Williams PSD
Valley Falls PSD
Village of Beech Bottom
Village of Bethlehem
Vienna
Wardensville
Washington Pike PSD
Wayne
Webster Springs PSD
Welch
West Hamlin
West Milford
West Union
Weston Sanitary Board
Wetzel County PSD #1
Wheeling
White Oak PSD
White Sulphur Springs
Williamstown
Winfield Sanitary Board

# WVRWA Associate Members - Spring, 2024

*Associate Member • **Sponsoring Associate Member
*** Sustaining Associate Member

**Accounting/Financial**

***Griffith & Associates, CPA's**
950 Little Coal River Road
Alum Creek, WV 25003
Phone: (304) 756-3600
*See Our Ad Page 2*

***Lowe & Associates, PLLC**
1156 South Main Street
Milton, WV 25541
Phone: (304) 743-5573
*See Our Ad Page 35*

**Attorneys**

***Bowles Rice, LLP**
600 Quarrier Street
Charleston, WV 25301
Phone: (304) 347-1100
*See Our Ad Page 6*

*****Jackson Kelly PLLC**
500 Lee Street, E., Suite 1600
Charleston, WV 25301
Phone: (304) 340-1000
*See Our Ad Page 4*

***Kay Casto & Chaney, PLLC**
707 Virginia Street, E
Charleston, WV 25301
Phone: (304) 345-8900
*See Our Ad Page 10*

*****Steptoe & Johnson, PLLC**
P.O. Box 1588
Charleston, WV 25301
Phone: (304) 353-8000
*See Our Ad Page 34*

**Insurance**

*****Bill Bailey Insurance Agency, Inc.**
701 Highland Avenue
Williamstown, WV 26187
Phone: (304) 375-4900
*See Our Ad Page 19*

*****Bray & Oakley Insurance Agency, Inc.**
P.O. Box 386
Logan, WV 25601
Phone: (304) 784-4700
*See Our Ad Page 18*

****Hayes Insurance Agency**
202 Union Square
Marietta, OH 45750
Phone: (740) 373-2347
*See Our Ad Page 16*

**Consultants**

****Burgess & Niple, Inc.**
4424 Emerson Avenue
Parkersburg, WV 26104
Phone: (304) 485-8541
*See Our Ad Page 48*

***Cerrone & Associates, Inc.**
97 14th Street
Wheeling, WV 26003
Phone: (304) 232-5550
*See Our Ad Page 10*

***Chapman Technical Group**
200 Sixth Avenue
St. Albans, WV 25177
Phone: (304) 727-5501
*See Our Ad Page 38*

***Crews & Associates, Inc.**
69 Clay Street, Suite 202
Morgantown, WV 26501
Phone: (304) 292-6600
*See Our Ad Page 14*

*****E.L. Robinson Engr. Co.**
5088 Washington Street, West
Charleston, WV 25313
Phone: (304) 776-7473
*See Our Ad Page 24*

****Gwin, Dobson & Foreman, Inc.**
3121 Fairway Drive, Suite B
Altoona, PA 16602-4475
Phone: (814) 943-5214
*See Our Ad Page 32*

*****Hornor Brothers Engineers**
P.O. Box 386
Clarksburg, WV 26302
Phone: (304) 624-6445
*See Our Ad Page 29*

***New River Engineers, Inc.**
501 Eagle Mountain Road
Charleston, WV 25311
Phone: (304) 342-7168
*See Our Ad Page 35*

***Potesta & Associates, Inc.**
7012 MacCorkle Avenue, SE
Charleston, WV 25304
Phone: (304) 342-1400
*See Our Ad Page 36*

****RK&K**
159 Plaza Drive
Keyser, WV 26726
Phone: (304) 788-3370

***Rockacy & Associates, Inc.**
2528 Thrush Road
Charlottesville, VA 22901
Phone: (800) 836-1011
*See Our Ad Page 17*

***Stantec Consulting Services, Inc.**
320 Southview Drive, Suite 102
Bridgeport, WV 26330
Phone: (304) 816-5199
*See Our Ad Page 6*

***Stiffler, McGraw and Assoc., Inc.**
1731 N. Juniata Street
Hollidaysburg, PA 16648
Phone: (814) 696-6280
*See Our Ad Page 16*

****The EADS Group, Inc.**
250 Scott Avenue
Morgantown, WV 26508
Phone: (304) 212-5927
*See Our Ad Page 38*

*****The Thrasher Group, Inc.**
600 White Oaks Blvd.
Bridgeport, WV 26330
Phone: (304) 624-4108
*See Our Ad Page 30*

**Contractors**

***Breckenridge Corporation**
P.O. Box 247 Brickyard Road
Buckhannon, WV 26201
Phone: (304) 472-3350
*See Our Ad Page 38*

**Laboratories**

***Pace Analytical**
225 Industrial Park Road
Beaver, WV 25813
Phone: (800) 999-0105
*See Our Ad Page 32*

***Preiser Scientific**
94 Oliver Street
St. Albans, WV 25177
Phone: (800) 624-8285
*See Our Ad Page 36*

**Services and Products**

****A to Z Plumbing, LLC**
1013 Crestmont Road
Hurricane, WV 25526
Phone: (304) 415-2015

***Advance Instruments**
10200 Brecksville Road
Brecksville, OH 44141
Phone: (440) 596-1432
*See Our Ad Page 6*

# WVRWA Associate Members - Spring, 2024

*Associate Member • **Sponsoring Associate Member
*** Sustaining Associate Member

****Advanced Rehabilitation Technology**
525 Winzeler Drive, Unit 1
Bryan, OH 43506
Phone: (419) 636-2684
*See Our Ad Page 26*

****American Cast Iron Pipe/ American Flow Control**
2257 Clairmont Drive
Suite 220-222
Pittsburgh, PA 15241
Phone: (412) 721-9509
*See Our Ad Page 3*

***AMS**
1127 Judson Road, Unit 233B
Longview, TX 75601
Phone: (844) 475-8343

***Appalachian Software, Inc.**
44 Amber Way
Scott Depot, WV 25560
Phone: (304) 757-1260
*See Our Ad Page 14*

***Benchmark Construction Co., Inc.**
P. O. Box 1018
Hurricane, WV 25526
Phone: (304) 881-1735
*See Our Ad Page 14*

***BissNuss, Inc.**
7 Court Street, Suite 260
Canfield, OH 44406
Phone: (330) 533-5531
*See Our Ad Page 14*

***Buchanan Pump Service & Supply Co., Inc.**
P.O. Box 827
Pound, VA 24279
Phone: (276) 796-5473
*See Our Ad Page 10*

****CITCO Water**
4034 Altizer Avenue
Huntington, WV 25705
Phone: (800) 999-3484
*See Our Ad Page 2*

***Clow Valve Co.**
5908 Sodom Hutchings Road
Farmdale, OH 44417
Phone: (330) 360-4550
*See Our Ad Page 36*

***Consolidated Pipe & Supply Co., Inc.**
907 Honeybranch Industrial Park
Debord, KY 41214
Phone: (606) 298-0333
*See Our Ad Page 38*

***Core & Main**
2825 Fairlawn Ave.
Dunbar, WV 25064
Phone: (304) 768-0086
*See Our Ad Page 16*

***CUES, Inc.**
3600 Rio Vista Avenue
Orlando, FL 32805
Phone: (407) 849-0190

***DN Tanks, Inc.**
39 East Main Street
Mechanicsburg, PA 17050
Phone: (717) 356-0491
*See Our Ad Page 36*

***Dutchland, Inc.**
160 Route 41
Gap, PA 17527
Phone: (717) 442-8282
*See Our Ad Page 14*

***Eastcom Associates**
185 Industrial Parkway, Suite G
Branchburg, NJ 08876
Phone: (908) 722-7774

***Edmunds GovTech**
301 Tilton Road
Northfield, NJ 08225
Phone: (609) 645-7333

***EnviroScience, Inc.**
5070 Stow Rd.
Stow, OH 44224
Phone: (330) 688-0111

***Extreme Endeavors**
1063 Hickory Corner Rd.
Philippi, WV 26416
Phone: (304) 457-2500
*See Our Ad Page 36*

***Ferguson Waterworks**
698 Middletown Rd.
White Hall, WV 26554
Phone: (681) 404-2857
*See Our Ad Page 35*

***Forberg Smith**
800 Old Pond Road, Suite 705
Bridgeville, PA 15017
Phone: (412) 420-7262

***Ford Meter Box**
775 Manchester Avenue
Wabash, IN 43056
Phone: (260) 563-3171
*See Our Ad Page 14*

***Fortiline Waterworks**
7025 Northwinds Drive NW
Concord, NC 28027
Phone: (704) 788-9800

*****FPG**
605 Sheridan Rd., Suite 100
Noblesville, IN 46060
Phone: (317) 565-5012
*See Our Ad Page 31*

***Gilson Engineering Sales, Inc.**
535 Rochester Road
Pittsburgh, PA 15237
Phone: (304) 342-0012

***Golden Equipment Co., Inc.**
P.O. Box 873
Mars, PA 16046
Phone: (800) 242-1494

***Infratech Solutions, LLC**
6004 Wellesley Drive
Wilmington, NC 28409
Phone: (910) 617-0291
*See Our Ad Page 16*

***InstruLogic**
212 Fort Collier Road
Winchester, VA 22603
Phone: (540) 338-2222

*****JABO Supply Corporation, Inc.**
5164 Braley Street
Huntington, WV 25705
Phone: (304) 736-8333
*See Our Ad Page 27*

***JHA Companies**
466 S. Main Street
Montrose, PA 18801
Phone: (844) 542-4757
*See Our Ad Page 14*

***Kennedy Valve**
1021 E. Water Street
Elmira, NY 14901
Phone: (804) 807-0484

***Learco Equipment Company**
13032 Frankstown Road
Pittsburgh, PA 15235
Phone: (412) 221-4888
*See Our Ad Page 10*

# WVRWA Associate Members - Spring, 2024

*Associate Member • **Sponsoring Associate Member
*** Sustaining Associate Member

***Maryland Biochemical Co., Inc.**
712 Tobacco Run Drive
Bel Air, MD 21015
Phone: (800) 771-7252
*See Our Ad Page 2*

*****Master Meter, Inc.**
101 Regency Parkway
Mansfield, TX 76063
Phone: (937) 902-4663
*See Our Ad Page 25*

***McWane Ductile**
2266 South 6th Street
Coshocton, OH 43812
Phone: (330) 260-9292
*See Our Ad Page 6*

***Miller Environmental, Inc.**
320 S. 17th Street
Reading, PA 19602
Phone: (610) 376-9162

***Munibilling**
3300 Battleground Avenue, Suite 402
Greensboro, NC 27410
Phone: (800) 259-7020

***Nexbillpay, LLC**
2416 Green Springs Highway
Birmingham, AL 35209
Phone: (800) 639-2435

***Pennoni**
117 E. Piccadilly St.
Winchester, VA 22601
Phone: (540) 771-2091
*See Our Ad Page 10*

***Pittsburg Tank & Tower Co.**
P.O. Box 913
Henderson, KY 42419
Phone: (270) 826-9000
*See Our Ad Page 36*

***John P. Place, Inc.**
90 Clairton Boulevard
Pittsburgh, PA 15236
Phone: (304) 343-2607
*See Our Ad Page 6*

***ProSource Water Products, Ltd.**
14680 Pleasant Valley Road
Chillicothe, OH 45601
Phone: (888) 772-5478
*See Our Ad Page 6*

***Quality Water Services, LLC**
160 John Street
Weston, WV 26452
Phone: (304) 269-0072
*See Our Ad Page 17*

***Service Pump & Supply Co.**
P.O. Box 2097
Huntington, WV 25721
Phone: (304) 429-6731
*See Our Ad Page 17*

***Shafer, Troxell & Howe, Inc.**
97D Monocacy Blvd.
Frederick, MD 21701
Phone: (301) 682-3390

****Smith-Midland Corporation**
P.O. Box 300
Midland, VA 22728
Phone: (540) 439-3266
*See Our Ad Page 26*

***Southern Corrosion, Inc.**
738 Thelma Road
Roanoke Rapids, NC 27870
Phone: (434) 262-1613

***State Equipment Inc.**
P.O. Box 3939
Charleston, WV 25339
Phone: (304) 776-4405
*See Our Ad Page 6*

***Tepco-Trombold Equipment Co., Inc.**
P.O. Box 897
Mars, PA 16046
Phone: (724) 625-4260
*See Our Ad Page 6*

***The Sherwin Williams Company**
**Protective & Marine Division**
139 Dover Drive
Moon Township, PA 15108
Phone: (717) 753-0653

***Thompson & Litton**
1105 Mercer Street
Princeton, WV 24740
Phone: (304) 425-9555
*See Our Ad Page 35*

***Tri State Industrial Coating**
**Contractors Alliance**
1591 Washington Street, East
Charleston, WV 25311
Phone: (304) 546-2896
*See Our Ad Page 14*

****U.S. Pipe & Foundry Co., Inc.**
2247 Maiden Lane
Roanoke, VA 24015
Phone: (540) 353-7425

*****USABlueBook**
3781 Burwood Drive
Waukegan, IL 60085
Phone: (800) 548-1234
*See Our Ad Back Cover*

***Utility Solutions, Inc.**
327 Curtis St.
Delaware, OH 43015
Phone: (740) 369-4300
*See Our Ad Page 16*

****Utility Technologies, LLC**
1054 Monroe Rd., Suite 105
Lebanon, OH 45036
Phone: (513) 488-1940
*See Our Ad Page 8*

***Valtronics, Inc.**
P.O. Box 490
Ravenswood, WV 26164
Phone: (304) 273-5356
*See Our Ad Page 32*

***Warren Pump & Supply**
1551 Jackson Avenue
Huntington, WV 25704
Phone: (304) 429-6723
*See Our Ad Page 10*

***Water Development Authority**
1009 Bullitt Street
Charleston, WV 25301
Phone: (304) 414-6500
*See Our Ad Page 36*

***W.C. Weil Company**
P.O. Box 7144
Charleston, WV 25256-0144
Phone: (304) 776-5665
*See Our Ad Page 32*

***Zenner USA**
15280 Addison Road, Suite 240
Addison, TX 75001
Phone: (972) 386-6611

# WVRWA Welcomes New Members


**Sponsoring Member**

A to Z Plumbing, LLC

Quality On Tap!

Our Commitment Our Profession

PROTECTING OUR ENVIRONMENT

OUR COMMITMENT OUR PROFESSION

## NON-COMMUNITY MEMBERS

National Radio Astronomy Observatory

Peterkin Camp & Conference Center

Valley Vista Adventist Center

## AFFILIATE MEMBERS

Ashland Scenic Campground

Global Capital of World Peace

Knobley Mountain Water System

Mettiki Coal (WV) LLC

Newell Company

## INDIVIDUAL MEMBERS

Kelly Arnold
Timothy Bennett
Tom Brown
Kennon Chambers
John Cobb
Brandon Conley
Bruce Darner
Matt Dawson
Mark Dearman
Samme Gee
Kevin Hamrick
Kevin "Ricky" Hamrick, Jr.
Michael Hawranick
John Inghram
Ernie Jack
Loren Jordan
Jim Klein
Patricia Lee
Jessie Linville
Julie Merow
James Mitchell
Kelly Ann Naylor
Gregory Neely
Courtney Nease
Richard Ohalek
Elisa Perry
Mark Place
Jason Roberts
Jonathan Stanley
Matthew Stanley
Paul Stover
Shawn Thompson
Doug Urling
Kristina Ward
Frank Welch
Louis Wooten
Gary Young

WEST VIRGINIA RURAL WATER ASSOCIATION
100 YOUNG STREET
SCOTT DEPOT, WV 25560
1-800-339-4513

Change Service Requested

PRESORT STD
U.S. POSTAGE
**PAID**
CHARLESTON, WV
PERMIT NO. 1013