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SmartRun technology greatly reduces energy costs with pre-programmed functions and parameters that maximize run-time and self cleaning efficiency.

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Flygt SmartRun®
President’s Message

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Membership

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.
After a short leave away from WVRWA, I am very pleased to be back on the Board and humbled by the confidence the other Board members have bestowed upon me. As your president, I will commit to you that your West Virginia Rural Water Association will work for our utility members to make West Virginia a better place to live, work, and play. We will continue to be your voice during the legislative session and provide our members with outstanding training and certification programs.

We have made great strides to lessen the burden of being over-regulated, while also working to bring our locally owned and operated water and sewer utilities more in-line with our sister utilities across America. We have decided that during the 2020 West Virginia Legislative Session, we will not introduce additional legislation to increase the number of deregulated utilities, but instead trust Charlotte Lane, the newly appointed Chairperson of the Public Service Commission of West Virginia, to bring about positive reforms.

It is my hope that Chairperson Lane will change the Commission’s policy of looking back at a utility’s expenses to predict what expenses will be in the future. Utilities can’t spend what they don’t have and if the Commission doesn’t conduct a thorough and thoughtful review of future capital expenditure plans, I’m greatly concerned that we will only see more utilities forgo much needed maintenance and infrastructure replacement. I am also hopeful the Commission will reevaluate how they are providing funding for the Working Capital Reserve account. Past Commissions have completely ignored the legislative intent of WV Code §24-1-1 (k) to ensure that West Virginia’s local government water and wastewater utilities were being provided with adequate funding for renewals and replacements.

Neglecting maintenance will obviously lead to failure and, more importantly, have a negative impact on customers. All too often, we hear stories about failing utilities. When I see a story about a failing utility, I pause for a moment and ask, “How in the world can a regulated monopoly fail?” The short and obvious answer is that they shouldn’t be failing. Not only are the majority of our members regulated by the Public Service Commission of West Virginia, but we are regulated by the West Virginia Department of Environmental Protection and the West Virginia Department of Health and Human Resources. This is clear to our members, but I wanted to interject this information for the casual reader who may not fully understand the extent of intense regulation water and wastewater utilities experience in West Virginia.

Each year, utilities provide annual reports to the Commission, as well as monthly reports to the WV DEP and the WV DHHR. The Commission staff can see what is occurring within the utility and if there is a basis for any concerns. The Commission also has the ability to summon a utility to appear in front of the Commission to explain why they are operating in the red or, in the Commission’s opinion, not spending enough on maintenance or equipment replacements. Granted, I am not aware of the Commission ever doing so, but it is another tool they have to ensure that the utility and the customer is protected against deficiency and failure.

2020 is an election year. Historically, the legislative session isn’t always galvanizing during voting years. Members of the legislature tend to shy away from hot button social topics or raising fees and taxes. Will West Virginia’s highway infrastructure get top billing? Will West Virginia’s water and sewer infrastructure become a priority? I predict we will see some bills that will address both topics. Regardless of what bills are introduced, your West Virginia Rural Water Association, along with our partners at the West Virginia Municipal League and the West Virginia Municipal Water Quality Association, will be monitoring each and every bill to ensure our members are protected.

May each and every one of our members and their staff have a prosperous and safe 2020!
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.

<table>
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<th>Course</th>
<th>CEH Hours</th>
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<th>Price</th>
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<td>Surface Water Treatment</td>
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<td>Practical Personnel Management</td>
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<td>Water Utility Calculations</td>
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<td>$180</td>
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<tr>
<td>Pumps &amp; Motor Maintenance</td>
<td>10</td>
<td>Water/WW</td>
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From Your Executive Director

2020 and Beyond

There are big changes coming to your association in 2020. I will retire and the Board has hired Todd Grinstead as the Deputy Executive Director. By the time you read this, Todd will have actively participated in the development of the 2020 budget for your association and attended his first board meeting as an employee rather than a board member. We are preparing for the 2020 Legislative Session and are deep into planning for the 2020 Annual Conference. This will be the 35th anniversary for the conference and we have some great things in store for the attendees.

Six plus years have flown by swiftly and, as I look both forward and back, there are many things to contemplate. I have a quote up on the bulletin board in my office from President Theodore Roosevelt (also known as Eleanor Roosevelt’s uncle) that says,

“Do what you can, with what you’ve got, where you are.”

I like that quote a lot. It’s easy to get bogged down in the daily work of living. This morning I woke up to a coughing, achy, stopped-up-head husband; a traffic delay on Interstate 64, which cost me 15 minutes in a dead stop; and, shortly after I got to work, my brother sent a facebook message informing the cousins that my Aunt Lee died. It would have been easy to spend the morning in a perfect funk, but that is not what Teddy told me to do. I thought about my aunt for a few minutes and mentally made a grocery list (my husband only likes Campbell’s Chicken Noodle Soup in the little pots with the plastic lid and we didn’t have any, but that could be a whole other magazine article) and knuckled down on my day.

When I looked up, it was time for lunch and I had accomplished most of my to-do list for the day. I felt better and I was ready to hit the afternoon, writing my magazine articles. I think that may be what 2020 will be like. It is always good to take a look around and talk about what you do and how you do it and see if someone else has a way to do it better or easier. I look forward to working with Todd and you so that your association continues to be the best one in the United States! 2020, here we come.
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The year 2019 had ended and we are now looking forward to what 2020 will bring. The new training calendar is finished and on the website. If you haven’t checked it out, take the time to do so, as we have some new classes that I feel will be beneficial. www.wvrwa.org/training is the place to see the calendar.

West Virginia Rural Water will hold certification classes for WD, 1, 2, 3, and 4 throughout the state. If you plan on taking one of these classes, please note that we are offering a math class before the certification class, which will be very helpful for the exam. We will also continue to offer the CPR/first aid class and the flagger certification class. Make sure to check your cards’ expiration dates.

The new classes that will be offered should be of interest to water and wastewater throughout the state. One class that is not really new, but has not been offered in a while is the Hydrant and Valve Class. WVRWA has teamed up with Jack Troutman and American Flow Control to offer a hands-on class. The class will entail class room training along with an interactive hydrant and valve to work on. This class will be offered at different locations throughout the state for your convenience. Another class that is being developed is called the Phenomena of the Surge. This will discuss the importance of air release valves in the water distribution system and force mains in the wastewater collections systems. It will also involve water hammer and pump starts and shut downs. The last new class that is being developed is on phosphates.

Phosphates are very interesting. They used to be used in our laundry detergents. We would use detergent on an oil spill in our driveway and, a few hours later, we could just go out and rinse it away. What happened? We realized that these chemicals posed a health hazard to our water supplies and things had to change. Phosphorus is a nutrient that increases plant growth; it’s great for food crops, but it’s not great for aquatic systems because it enhances the growth of plants over the growth of other wildlife—eutrophication. One of the most significant consequences of eutrophication is the growth of algal blooms, some of which produce toxins that are harmful to humans and animals. This class will discuss how we can protect our source water, what the effects are to the treatment plant, and what regulations pertain to operators.

It is going to be a great year of training. One last item to discuss is the Apprenticeship Program. A lot of work has gone into developing an apprenticeship program for our state. While it is in the early stages, I feel it will greatly benefit our systems as this plan moves forward. WVRWA will be keeping systems updated as the program moves along.

In closing I hope that 2019 was a great year for you all and that 2020 will be even better. See you in class!
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A flyer was recently sent out by the WV State Emergency Response Commission (WVSERC) to current WVSERC Tier II Managers, reminding them of the new reporting period, which begins on January 1, 2020.

As outlined on the web site:

“The Emergency Planning and Community Right-to-Know Act (EPCRA) was passed by Congress in 1986. EPCRA was included as Title III of the Superfund Amendments and Reauthorization Act (SARA) and is sometimes referred to as SARA Title III. EPCRA provides for the collection and availability of information regarding the use, storage, production, and release of hazardous chemicals to the public and emergency responders in your community. The law promotes a working relationship among government at all levels, business and community leaders, environmental and other public interest organizations, and individual citizens to improve hazard communications and emergency planning. The EPCRA was passed by Congress in 1986.” https://dhsem.wv.gov/SERCTIERII/Pages/default.aspx

In accordance with EPCRA Section 311-312 on the EPA website: https://www.epa.gov/epcra/epcra-sections-311-312“For any hazardous chemical used or stored in the workplace, facilities must maintain a material safety data sheet (MSDS) (or Safety Data Sheet, SDS). Facilities must submit MSDSs (or SDSs), or a list of hazardous chemicals, to their State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC), and local fire department.

Facilities must also submit an annual inventory of these chemicals by March 1 of each year to their SERC, LEPC, and local fire department. The information submitted by facilities must be made available to the public.”

What facilities are covered?

Any facility that is required to maintain MSDSs (or SDSs) under the Occupational Safety and Health Administration (OSHA) regulations for hazardous chemicals stored or used in the workplace.

Facilities with chemicals in quantities that equal or exceed the following thresholds must report:

- For Extremely Hazardous Substances (EHSs) (40 CFR part 355 Appendix A and Appendix B (PDF)), either 500 pounds or the Threshold Planning Quantity (TPQ), whichever is lower.
- For gasoline (all grades combined) at a retail gas station, the threshold level is 75,000 gallons (or approximately 283,900 liters), if the
tank(s) was stored entirely underground and was in compliance at all times during the preceding calendar year with all applicable Underground Storage Tank (UST) requirements at 40 CFR part 280 or requirements of the State UST program approved by the Agency under 40 CFR part 281.

- For diesel fuel (all grades combined) at a retail gas station, the threshold level is 100,000 gallons (or approximately 378,500 liters), if the tank(s) was stored entirely underground and the tank(s) was in compliance at all times during the preceding calendar year with all applicable UST requirements at 40 CFR part 280 or requirements of the State UST program approved by the Agency under 40 CFR part 281.

- For all other hazardous chemicals: 10,000 pounds.

**What is a hazardous chemical?**

Hazardous chemicals are substances for which a facility must maintain a MSDS (or SDS) under the OSHA Hazard Communication Standard, which lists the criteria used to identify a hazardous chemical. MSDSs (or SDSs) are detailed information sheets that provide data on health hazards and physical hazards of chemicals along with associated protective measures. Over 500,000 products have MSDSs (SDSs), which are normally obtained from the chemical manufacturer.

**What are facilities required to do?**

- Under Section 311 of the Emergency Planning and Community Right-to-Know Act (EPCRA), facilities must submit the MSDSs (or SDSs) of hazardous chemicals present on-site at or above the reporting threshold to their SERC, LEPC, and local fire department. Facilities may choose to submit a list of the hazardous chemicals grouped into hazard categories instead. This is a one-time submittal.

New facilities have three months after becoming subject to the OSHA regulations to submit their MSDSs (or SDSs) or the list of the hazardous chemicals to their SERC, LEPC, and the fire department.

- Facilities that need to submit MSDSs (or SDSs) or the list of hazardous chemicals under Section 311, also need to submit an annual inventory report for the same chemicals (EPCRA Section 312). This inventory report must be submitted to the SERC, LEPC, and local fire department by March 1 of each year.”

Water and Wastewater Facilities will fit the requirement of a Tier II Facility and must report to the WVSEC. The WV state reporting site can be found at [https://dhsem.wv.gov/SERCTIERII/Pages/default.aspx](https://dhsem.wv.gov/SERCTIERII/Pages/default.aspx) & [https://dhsem.wv.gov/SERCTIERII/Pages/Tier-II-Reporting-.aspx](https://dhsem.wv.gov/SERCTIERII/Pages/Tier-II-Reporting-.aspx)

As outlined on the above web page, each Tier II manager must create an account at the following web page.

[https://westvirginia.hazconnect.com/Account/Login.aspx](https://westvirginia.hazconnect.com/Account/Login.aspx)

A training video is available at:


If you have any questions, please feel free to contact:

Doug Cummings  
SERC TIER 2 Manager  
1703 Coonskin Drive  
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It seems like every year the Health Department, the Environmental Protection Agency, or some other Primacy Agency is adding more and more sampling, monitoring, inspections, notices, etc., etc., etc. onto our ever-growing list of chores that we, as operators, have to deal with on a daily basis. Sometimes, it may be justified due to public health concerns. Other times we have difficulty figuring out the problem trying to be fixed. But then, again, today’s technology seems to be growing so rapidly each day that, at times, we can barely keep up with it, especially in the rural areas and the small municipalities.

For these reasons, we have continuous training, which helps us to keep up with today’s on-going technologies and where we can meet with other operators to see how they are dealing with the same problems that we are dealing with. I know that, sometimes, it’s a hassle to find classes that are near us. Sometimes, it pays to look ahead for classes that are weeks or months away, mark them down for remembrance, and plan on going to those so that, when it comes down to the time for our certification renewals, we are ready to renew and don’t have to worry about looking for classes during the last few months when our certifications are about to expire.

Just due to the examples in the first paragraph, we have the opportunity of gaining continuous education training annually throughout our great state of West Virginia, so I’m just going to throw in a few reminders. In the drinking water field, the:

- Water Distribution Operator must renew their certification every two (2) years with proof of 12 continuing education hours no later than thirty to sixty days prior to expiration.
- Class 1 Water Operator must renew their certification every 2 years with proof of 24 continuing education hours no later than thirty to sixty days prior to expiration.
- Class 2 Water Operator must renew their certification every 2 years with proof of 24 continuing education hours no later than thirty to sixty days prior to expiration.
- Class 3 Water Operator must renew their certification every 2 years with proof of 24 continuing education hours no later than thirty to sixty days prior to expiration.
- Class 4 Water Operator must renew their certification every 2 years with proof of 24 continuing education hours no later than thirty to sixty days prior to expiration.

In the Wastewater field, the:

- Collection System Operator or Class C operator must renew their certification every 2 years with proof of 6 continuing education hours no later than thirty to sixty days prior to expiration with a $100 renewal fee.
- Class 1 Wastewater Operator must renew their certification every 2 years with proof of 6 continuing education hours no later than thirty to sixty days prior to expiration with a $125 renewal fee.
- Class 2 Wastewater Operator must renew their certification every 2 years with proof of 12 continuing education hours no later than thirty to sixty days prior to expiration with a $150 renewal fee.
- Class 3 Wastewater Operator must renew their certification every 2 years with proof of 12 continuing education hours no later than thirty to sixty days prior to expiration with a $175 renewal fee.
Class 4 Wastewater Operator must renew their certification every 2 years with proof of 24 continuing education hours no later than thirty to sixty days prior to expiration with a $200 renewal fee.

Renewal Late Fee is $25.

You can find the Full Certification Requirements on http://www.wvdhhr.org/oehs/eed/swap/trainingandcertification/certification

If you are a certified operator, then you should know that your certification expires every 2 years and you have a certain amount of continuing education hours to fulfill in order to renew your certification during the last 30 to 60 days of your expiration. Here in West Virginia, we have a lot of places where we can go to get our continuing education hours. We have several organizations that do classes for water and wastewater operators and we will be looking at those.

The WVDHHR does have a few continuing education classes, but is primarily the State Agency that issues water and wastewater certifications. This paragraph was taken right off the WVDHHR Training and Certification page under the Continuing Education Information for West Virginia tab:

The intent of CEHs is to continually further a certified individual’s knowledge, skills, and abilities in their area of expertise and support ongoing changes in industry technology and standards. CEH training must be relevant to public water system operations, public wastewater system operations, water well drilling, and/or pump installation. A wide variety of subjects are acceptable (e.g., math, science, engineering, public health, safety, computers, regulations and management). However, system specific on-the-job training covering subjects necessary for proper job performance and only open to employees is not acceptable. Product specific presentations are also not eligible if they do not go beyond the normal equipment operation explanation required for use. Generally, content should apply to multiple individuals regardless of equipment owned/purchased or place of employment.

Also, according to the WVDHHR, working in the water industry can be rewarding because you are providing an essential service to your community. Water and wastewater operators serve their neighbors by protecting public health. It is important that people receive clean, potable water and that wastewater be discharged in an environmentally safe manner. Public drinking water plant operators are our first line of defense against waterborne diseases and contamination that can cause serious, even fatal, illnesses. There are over 1,000 public water systems statewide that are required to employ certified water operators. Water operators are certified by the West Virginia Department of Health and Human Resources. There are minimum educational and experience requirements depending on the certification level. Although it takes knowledgeable, conscientious people, a college degree is not required. The water industry offers many career opportunities. These range from customer service to environmental engineering at public water systems and within state and federal regulatory agencies. Keeping drinking water safe takes a team effort.

http://www.wvrwa.org

The mission or purpose of West Virginia Rural Water Association is to provide and promote the highest level of utility service, technical assistance, training, and advocacy for all West Virginia water and wastewater systems. The vision of the West Virginia Rural Water Association is to be the recognized leader and respected voice for water and wastewater systems.

The West Virginia Rural Water Association (WVRWA) was created in 1985 to provide technical assistance and training to the small water systems of West Virginia. Our programs consist of a wastewater program, and three water circuit rider programs. In 1998, a training specialist joined the WVRWA staff through what is now known as the Hours for Education and Learning Program (H.E.L.P.). A program for wastewater classroom training was added in July of 1999. WVRWA
now has seven professionals working in the field providing on-site assistance to small public water and wastewater systems and non-community water systems. In addition to the field staff, our office is staffed with an executive director, office manager, membership coordinator, and an information technology specialist.

Other services provided by WVRWA include the publication of a quarterly magazine, “Mountain State Water Line,” that contains timely and helpful technical information for systems throughout the state. The Association also holds an Annual Technical Conference in the fall of each year that provides an opportunity for small systems’ personnel to meet and learn from professionals in the water and wastewater fields.

https://mountainstateesc.com/services-and-resources/environmental-training-center/

The West Virginia Environmental Training Center was established in 1983 under the administration of the West Virginia Department of Education. Federal grant funds were obtained from the United States Environmental Protection Agency to construct and equip the facility for the purpose of providing training to wastewater and water plant operators. Continued operation was overseen by the Department of Education through the Regional Education Service Agency until June 2018, at which time the WV Environmental Training Center was placed under the newly established Mountain State Education Service Cooperative.

The West Virginia Environmental Training Center provides training and technical assistance to wastewater and water professionals statewide. Operators, managers, inspectors, and technicians attend both certification courses and continuing education workshops offered throughout the year. About 75 programs per year are delivered to approximately 1,200 participants. Wastewater and drinking water operator certification courses are offered at many levels, usually twice a year.

A wide range of continuing education workshops and seminars are delivered each year, which range in length from one to four days. These include process control, troubleshooting, maintenance, regulations, and management topics. These trainings are offered once or twice a year, depending on demand.

The American Water Works Association (AWWA) is the largest nonprofit, scientific and educational association dedicated to managing and treating water, the world’s most important resource. The members, volunteers, and staff of AWWA collectively represent the international focus of knowledge available in the water profession.

With approximately 50,000 members, AWWA provides solutions to improve public health, protect the environment, strengthen the economy and enhance our quality of life. For standards, manuals of water supply, publications, conferences, education, safe water advocacy, volunteer opportunities and much more go to www.awwa.org.

www.wvracap.org

RCAP - Rural Community Assistance Program - The West Virginia Rural Community Assistance Program (RCAP) is a program of the West Virginia Community Action Partnership, Inc. WV RCAP is part of a national network of service providers offering technical services on a local level to small rural communities, primarily in the development and/or management of water and wastewater facilities. WV RCAP strives to improve the overall living conditions for rural communities by assisting their community efforts to insure safe drinking water and sanitary wastewater treatment.

Listen guys and gals. Please don’t forget that you have to gain continuing education hours every 2 years for your certifications. Let’s not forget them in the future. Plan a route of attack and stick to it. Don’t wait until the last minute or the last couple weeks before your certifications expire to try to rush and get your CEHs for renewal.

Thank you for reading my article. I Hope you enjoyed it, shot yourself a huge buck, and had a wonderful Thanksgiving! Have yourself a very Merry Christmas and a Happy New Year!!!!

WOW, time flies!!!! Stay safe!!
Background Checks
Helping you build a better team

IntelliCorp is pleased to offer National Rural Water Association (NRWA) members the tools to help make responsible and informed hiring decisions. Our comprehensive background check services let you screen applicants to help minimize risk and determine the quality of your new hires.

An easy-to-use interface provides you with quality and validated criminal results at discounted prices. Experience the difference of our support capabilities, which includes personalized customer service, training, and compliance. You also get the advantage of streamlined processes and paramount privacy and security when it comes to protecting sensitive information. IntelliCorp is a Verisk Analytics company, and has earned formal accreditation through the National Association of Professional Background Screeners (NAPBS).

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We’ve created the following cost-effective screening package to simplify your background check process. The package uses a combination of multiple sources of criminal record information. In addition, we validate database records by returning to the source to ensure that we have the latest updates regarding your applicant’s history. This provides you with a comprehensive screen that helps answer your questions about a candidate’s integrity, so you can select the right individuals for your team.

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Notes:
*Some courts charge a mandatory fee. These are treated as pass-through fees to our clients and are clearly highlighted before processing the search.
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Significant investment in new technology is being driven by the need for more efficient operations within water utilities. Management should keep abreast of research findings and technological advances to be able to make sound investment decisions. New technologies should be evaluated in terms of cost, training needs, advantages, and disadvantages.

The variety and number of facilities and functions associated with a typical water distribution system make it a likely candidate for such new technologies as Supervisory Control and Data Acquisition (SCADA) systems, online monitoring, and computer modeling. The vast amounts of data (flows, pressures, tank levels, pumping conditions, water quality) often generated from distribution system operations can be efficiently organized by computer programs and models. In this manner, the distribution system operator receives information quickly and can respond to water quality conditions before they become problems.

Online monitoring equipment is becoming more available and affordable for a variety of water quality parameters. The use of these technologies would greatly enhance the ability of the distribution operator to manage the system based on water quality parameters in addition to flow and pressure. Real-time water quality data would allow the operator to make changes in flow patterns so that water quality goals may be maintained throughout the system.

Hydraulic and water quality models have been developed to assist water distribution system planners, designers, managers, and operators. Hydraulic models have been used historically by planners and designers to develop the proper sizing and location of pipelines and storage facilities to meet increasing water demands in a utility’s service area. These models also may be used to predict flows and pressures throughout the distribution system and to schedule shutdowns of portions of the system. Water quality models combine information about the travel time of water in the distribution system and various water quality parameter decay or formation rates to predict the pathways and concentration of specific substances through the distribution system. This tool helps the distribution system operator to understand the water quality changes that may occur.

To interpret all this data, utilities will need a well-trained and competent workforce. Plans, programs, facilities, and systems alone are not enough to maintain water quality in the distribution system. A comprehensive water quality management program requires a partnership with the workforce. Coping with the rapidly changing environment is a challenge that managers and employees must face together.
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## 2020 Training Calendar
### February, March, & April

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<td>Hydraulics for the W &amp; WW Industry</td>
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<td>February 5, 2020</td>
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<td>Triadelphia</td>
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<td>February 11, 2020</td>
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<td>February 24-28</td>
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<td>March 3, 2020</td>
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<td>Phosphates for Operators</td>
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**Note:**
- H.E.L.P Program
- Wastewater Program
- WVRWA EPA Program
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</table>

**Note:** The document seems to be a training calendar for the months of February, March, and April 2020, listing various courses and workshops for water and wastewater utilities. The courses cover topics such as Basic Math, CPR/First Aid, Phosphates for Operators, and Wastewater Management.
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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.
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### Answers to Soduko Puzzle

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- Circuit Rider #2
  - Bertis McCarty
  - (304) 695-3719

- Circuit Rider #3
  - Danny Vestal
  - (304) 667-7659

Wastewater Circuit Riders

- WW Circuit Rider #1
  - Jim Johnson
  - 304-704-3830
Concerns about PFAS in the Water and Wastewater

PFAS in our Water
Poly and Perfluoroakyl, or PFAS, are substances that are being found in both our water and wastewater. They are a family of microconstituents that make up more than 3000 chemicals. They have recently gained a lot of media and regulatory attention. These substances are things such as fire retardants, water repellents, stain resistant carpet, waterproof clothing, and certain take out containers used for food. They can be found in non-stick cookware and the foam contained in fire extinguishers. Though data is limited, it seems we have a lot of PFAS in our water across the country. It appears to be pretty much everywhere. One of the main problems with PFAS is that it is difficult to remove. Most in-home water filters are not capable of removing it. The Centers for Disease Control and Prevention contends that almost all Americans have been exposed to some form of PFAS. Research suggests that the reason for a large portion of the exposure comes from the foams found in fire extinguishers. During fire fighting training exercises, it is not uncommon for a large amount of these chemicals to wash into the surface and ground water. This leaves the potential for these to enter our drinking water supply.

PFAS chemicals do not biodegrade. They can accumulate in the human body and remain. The health effects of PFAS are somewhat debatable, but studies link the chemicals to higher rates of testicular and kidney cancer. The chemicals may also cause weakened immune systems, poor positive response to vaccinations in children, and high cholesterol. Exposure to PFAS often comes through our food or the air we breathe, but our water may contain some of these chemicals. One of the major issues with the PFAS being in our water supply is that common water treatment methods do not remove them. There has been quite a bit of success in removing PFAS with activated carbon or the reverse osmosis process. At this point, not a large percentage of the treatment plants are equipped with one of these systems. If you do operate with one of these processes, your system may be ahead of the game.

There are many types of PFAS, but they are divided into only two classifications: long-chain and short-chain. The long-chain type was banned in the United States in the early 2000’s. At that point, the chemical industry created a “safer” short-chain form of the chemicals. Currently, the federal government does not regulate the short-chain variety. They are, however, on the EPA’s list of “unregulated contaminants”. This means that they are being watched and that EPA can issue notice of danger on them at any time.

PFAS in our Wastewater
On the wastewater end, the most common place we are going to find PFAS is in our sludge or bio-solids. This raises the question whether the land application of our bio-solids is going to be allowed to continue.

One of the major concerns with PFAS is that these chemicals tend to make their way into the crops that have been grown on land where bio-solids were applied through the soil. From what studies have shown, and they are limited, the majority of the PFAS does end up in the sludge instead of remaining in the water. However, some studies have determined there to be a significant amount of PFAS in certain wastewater effluents. Two states have already passed regulations halting the land application of bio-solids. This creates quite a financial burden on wastewater systems, as approximately 60% of the sewage sludge is land-applied nationwide.

Nationwide, about seven million tons of bio-solids are generated each year; however, in a webinar presented by the “Water Environment Federation”, it was stated that the amount of PFAS is declining. Manufacturers are doing their part to limit or eliminate its use. They stated that a properly managed bio-solids program may be the best destination for the chemicals.

The big problem with the bio-
solids is what do we do with it. If we cannot land-apply the solids, we will also not be able to put it on a landfill due to the problem of the PFAS getting into the ground water and surface water; therefore, it is a problem. Incinerators are one suggested answer, but we do not know a lot about what happens if they get into the air we breathe. Also, studies show that successful destruction is temperature dependent, so the process would have to be monitored very closely.

As stated earlier, some PFAS have been found in wastewater effluents. The manufacturers of these chemicals seemed to be working to phase them out. There was a lot of past use of these compounds. It will be interesting to see if not putting them into the plants will help get them out. Just remember that they do not biodegrade, so this may be a major issue.

There is increasing pressure for the United States to regulate PFAS. Right now, it is being looked at by Congress to see what needs to be done. If you are involved with a water or wastewater facility, I suggest you research this issue further. There is a good chance legislation will come down for our industry to treat PFAS. Don’t be caught off guard by this issue. It will be very important to see what laws, if any, are passed concerning PFAS. Going forward, keep up with this issue and see what we must do in the water and wastewater industry about this problem.
Where is this located in West Virginia?

Last issue’s answer:

Our Lade of the Pines
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Recipes to Tempt Your Taste Buds

Corn Pudding Casserole

Ingredients:

- 1 (15 oz.) can whole kernel corn, drained
- 1 (14 3/4 oz.) can cream style corn
- 1 (8 oz. pkg.) corn muffin mix
- 1 cup sour cream
- 1/2 cup (1 stick) butter, melted
- 1 - 1 1/2 cups shredded cheddar cheese

Directions:

Preheat oven to 350°F.

In a large bowl, stir together the 2 cans of corn, corn muffin mix, sour cream, and melted butter. Pour into a greased 9 x 13 casserole dish. Bake for 45 minutes or until golden brown.

Remove from oven and top with cheddar cheese. Return to oven for 5 to 10 minutes or until cheese is melted.

Let stand for at least 5 minutes and serve warm.
The National Rural Water Association and the Ford Motor Company have created a partnership to offer special fleet discounts to State Rural Water Associations and their utility system members. This partnership combines the buying power of 31,000 individual utilities to provide reduced fleet pricing on utility vehicles. The Ford Fleet Team is #1 in commercial fleet customer satisfaction according to surveys. The Rural Water Ford Fleet Program is a valuable member benefit for water and wastewater utilities. State Rural Water Associations determine eligibility for their members, and provide a fleet code that allows access to substantial vehicle discounts to fill the need for reliable work vehicles. Fleet vehicles must be registered in the name of a member water or wastewater system.

Member utilities should contact their State Rural Water Association to access the Rural Water Ford Fleet Program. Vehicles may be purchased at your local dealer or through the national fleet auto group, get all the details you need online at: www.nrwaafleet.com. Incentive discount pricing is available on fuel efficient cars, vans, SUVs and trucks. Systems can save up to $5800 off factory invoice per vehicle. Happy shopping!

2019 Program Details:
- Limited to water/wastewater utilities that are current members of a State Rural Water Association
- There is no limit to the number of vehicles that can be purchased under the program
- Incentive pricing is deducted off the factory invoice
- Fleet vehicles must be in service for a minimum of 12 months or 20,000 miles
- Vehicles must be registered and operated in the United States
- Call your State Association today to get your Fleet Identification Number (FIN)

<table>
<thead>
<tr>
<th>Eligible Vehicles</th>
<th>Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus (Excludes BEV)</td>
<td>$1400</td>
</tr>
<tr>
<td>Fusion (Excludes Hybrid &amp; Energ)</td>
<td>$2000</td>
</tr>
<tr>
<td>Taurus (Excludes Police Int)</td>
<td>$3300</td>
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<tr>
<td>Econoline</td>
<td>$4500</td>
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<tr>
<td>Edge</td>
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<td>Escape</td>
<td>$1800</td>
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<tr>
<td>Expedition</td>
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<tr>
<td>Explorer (Excludes Police Int)</td>
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<td>F-Series Super Duty F250-F550</td>
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<tr>
<td>F150 (Excludes Raptor)</td>
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<tr>
<td>F150 4X2 Reg Cab</td>
<td>$4500</td>
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<tr>
<td>Transit</td>
<td>$3700</td>
</tr>
<tr>
<td>Transit Connect</td>
<td>$2100</td>
</tr>
</tbody>
</table>
SOLUTIONS FOR YOUR INFRASTRUCTURE AND ECONOMIC DEVELOPMENT NEEDS

John C. Stump • Richard L. Lewis • Marc C. Bryson • Todd M. Swanson
Thomas L. Aman Jr. • Katy Mallory (Project Finance Manager)

THIS IS AN ADVERTISEMENT
DON’T FORGET!!!

Mark your calendars for
August 15-19, 2020

To attend the WVRWA 35th Annual
Technical Conference

To be held at
Snowshoe Mountain Resort

Every drop counts.

Watch for information and forms to be mailed out in spring 2020
The S.3021 Bill became public law on October 23rd, 2018 and was given the number 115-270. This new law covered many items, such as:

Title 1 – Water Resources Development, which was directed toward the Army Corps of Engineers

Title 2 – Drinking Water System Improvement, which is the area of concern for my targeted audience and will be discussed in detail

Title 3 – Energy, which was directed toward the Federal Energy Regulatory Commission

Title 4 – Other Matters, which was directed toward other pertinent issues, some of which the wastewater industry may be interested in

The Drinking Water System Improvement, or Title 2, was divided into twenty three different sections:

(Sec. 2001) The EPA must implement a program for connecting, expanding, or repairing existing public water systems that are on Indian reservations in the Upper Missouri River Basin or the Upper Rio Grande Basin.

(Sec. 2002) The Safe Drinking Water Act is amended to authorize states to use their drinking water state revolving funds (SRFs) to protect certain source water areas.

(Sec. 2003) The EPA must study and report on intractable water systems (small drinking water systems with a history of significant noncompliance with such Act) and barriers to delivery of potable water to individuals served by such systems.

(Sec. 2005) The EPA may issue grants to assist: (1) underserved communities with contaminated drinking water and (2) water systems with programs or projects that increase the resilience of drinking water infrastructure to natural hazards.

(Sec. 2006) The EPA must provide grants to: (1) address lead contamination in drinking water at schools and child care programs and (2) accelerate the development and deployment of innovative water technologies that address pressing drinking water supply, quality, treatment, or security challenges.

(Sec. 2008) The bill expands requirements concerning consumer confidence reports issued by community water systems.

(Sec. 2010) The EPA, or a state with primary enforcement authority responsibility under the Act, may require the owners or operators of certain public water systems that have repeatedly violated national primary drinking water regulations to consolidate or transfer ownership.

(Sec. 2011) The EPA must develop a strategic plan for improving the accuracy and availability of compliance monitoring data.

(Sec. 2012) Within five years and every five years thereafter, the EPA must review and update educational materials concerning best practices for asset management strategies that may be used by public water systems.

(Sec. 2013) The bill expands risk assessment requirements for community water systems to include risks from natural hazards and creates a grant program within the EPA called the Drinking Water Infrastructure Risk and Resilience Program.

(Sec. 2014) The bill: (1) reauthorizes through FY2021 the public water system supervision grant program and the source water petition program and (2) reauthorizes through FY2021 and revises the drinking water SRFs.

(Sec. 2017) The EPA must review and report to the public on existing and potential methods, means, equipment, and technologies for the treatment and distribution of drinking water.

(Sec. 2018) The Emergency Planning and Community Right-To-Know Act of 1986 are amended to ensure that states and community water systems are
notified of a release of a contaminant into their source waters.

(Sec. 2019) The GAO must study and report on demonstrations of compliance with a state or local environmental law that may be substantially equivalent to demonstrations required by the EPA for compliance with a cross-cutting requirement (i.e., a requirement that is a condition for obtaining loan or loan guarantee under the Safe Drinking Water Act).

(Sec. 2020) The bill authorizes additional grants for SRFs in order to aid certain community water systems that were affected by natural disasters after January 1, 2017.

(Sec. 2021) The bill: (1) expands requirements for public water systems to monitor unregulated containments and (2) extends through FY2023 a requirement that water system projects financed through a drinking water SRF program only use iron and steel products that are produced in the United States.

(Sec. 2023) The bill reauthorizes through FY2021 and revises the drinking water SRF.

Section 2013 is titled Community Water System Risk and Resilience. This section has some new regulations that need to be brought to everyone’s attention.

Each Community Water System serving a population greater than 3,300 must conduct an assessment of the risks to, and resilience of, its system. This is known as a Risk and Resilience Assessment (RRA). The VA or Vulnerability Assessment that was done in 2002 is where you would find most of your information for the RRA. The RRA is taking the place of the systems VA and is more in-depth.

A (CWS) Community Water System is any system that conveys water to a population of at least 25 people or at least 15 residences year-round.

The US Census Bureau reports the persons per household to be 2.42 between 2013-2017. So if we were to take the 3,300 and divide it by 2.42, the number would equal the households served, or water taps. 1,364 water taps, or households served, would be a water system with a population of 3,300.

The Risk and Resilience Assessment shall include:
- The resilience of the pipes and constructed conveyances, which include physical barriers, source water, water collection, and intake structures
- The resilience of the system’s pretreatment, treatment, storage, and distribution facilities
- All telemetry or other automated systems (including the security of said systems), which are utilized by the system
- The monitoring practices of the system
- The financial infrastructure of the system
- The use, storage, and handling of various chemicals by the system
- The operation and maintenance of the system

AWIA does not require the use of any standards, methods, or tools for the risk and resilience assessment. Your utility is responsible for ensuring that the risk and resilience assessment address all the criteria in AWIA Section 2013(a) and (b), respectively. During my training class on AWIA, the staff mentioned the software VSAT Web 2.0. They assured us that any system using this software would meet all the requirements or criteria of AWIA. So, if I were doing an RRA for my water system I would use VSAT Web 2.0 even though AWIA does not require it.

Once the RRA is completed, you must certify to the EPA that it has been done. EPA strongly recommends you electronically submit your community water system’s certification statements. This will be the only reporting method where U.S. EPA will be able to provide an acknowledgement of receipt of your certification statement, as well as, providing a simple process to address the return or destruction of the vulnerability assessment your community water system likely submitted to U.S. EPA under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002.

The electronic submission hyperlink is -- https://www.epa.gov/waterresilience/how-certify-your-risk-and-resilience-assessment-or-emergency-response-plan#electronic

The submission can also be done by sending a signed copy by e-mail to U.S. EPA at awiasupport@
If a person would want to mail a signed copy to EPA the address is as follows:

U.S. EPA Data Process Center
ATTN: AWIA
C/O CGI Federal
12601 Fair Lakes Circle
Fairfax, VA 22033

Within 6 months after the certification is submitted for the Risk and Resilience Assessment, a revised (ERP) Emergency Response Plan must be completed and certified, which will address how the system will respond to threats addressed in the assessment.

AWIA also requires the Risk and Resilience Assessment, along with the Emergency Response Plan, to be updated every 5 years and recertified.

Summary

Drinking water systems have to conduct risk and resilience assessments (RRAs) and revise emergency response plans (ERPs) under the newly enacted America’s Water Infrastructure Act. Every five years, utilities are required to certify to EPA that they have reviewed their assessment and made any necessary revisions. No later than six months after completing their risk assessments, systems must also certify completion of emergency response plans that address how the system would respond to threats addressed in the assessment.

---

### Deadlines

<table>
<thead>
<tr>
<th>CWS Population</th>
<th>CWS Service Taps</th>
<th>Latest RRA Date</th>
<th>Latest ERP Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,300 - 49,999</td>
<td>1,364 – 20,661</td>
<td>June 30, 2021</td>
<td>6 months after RRA</td>
</tr>
<tr>
<td>50,000 – 99,999</td>
<td>20,662 – 41,322</td>
<td>December 31, 2020</td>
<td>6 months after RRA</td>
</tr>
<tr>
<td>100,000 and above</td>
<td>41,323 and above</td>
<td>March 31, 2020</td>
<td>6 months after RRA</td>
</tr>
</tbody>
</table>
New WaterPro Online Community

A utility manager stares at the computer monitor in his small utility office. There's a stapled packet of receipts and purchase orders for a newly-purchased pump on one corner of the desk. On the other: a stack of wastewater logs and TMDL documents printed from the EPA website.

Across the country, a wastewater superintendent is searching for pricing information on a new pump. On the corner of the desk sits a stack of reports that detail how a few procedure changes helped them meet new TMDL regulations.

In the past, these water professionals might only meet by chance at a national conference, if they ever met at all. A simple meeting could unlock valuable knowledge and experience in their overlapping areas of interest. Today though, the WaterPro Community gives these professionals a chance to network on-line, to ask questions and exchange experiences for the benefit of their utilities.

"Today's world is an on-line world." Explained NRWA CEO Sam Wade. "Professional networking is no longer limited by time or geography: the internet allows water professionals from all over the world to share their valuable knowledge and experience."

WaterPro Community forums provide more than a simple question and answer session or a quick networking session. These discussions collect into persistent, categorized, and searchable institutional knowledge - a question need only be answered one time for all members. These forums have the power to put the knowledge and experience of lifelong water professionals at each member's fingertips.

The power of the WaterPro community is that it combines the power of several, common web tools into a single, easy-to-navigate platform. These tools include forums, blogs, file libraries, wikis, and networking tools. The community platform gives members one login to access the full array of tools. Additionally, it adds a layer of search and tag functionality that makes finding information easier than ever. A simple search for "Arsenic," for example, could yield blog posts on new arsenic regulation and new remediation technology, forum discussions about systems' experience dealing with arsenic, sample presentations on how to deal with arsenic, and links to webinars on arsenic reduction.

The WaterPro Community blogs will focus on regular updates on industry issues, ranging from technical operations to regulations and compliance. Expert authors share regular news links, insights, and analysis on various industry topics. Various subscription options ensure members are always up-to-date on the latest news in their favorite topic area. WaterPro Conference blogs also have commenting options that allow members to continue the discussion, to ask questions, and to increase learning.

File libraries are a community warehouse of documents, files, videos, and presentations. They can include everything from training presentations to official documents. The file libraries will grow dependent on the interest from the members, but could include utility documents, including sample work orders and job descriptions or a sample boil order notice.

A WaterPro Community membership also includes a free NRWA membership, which provides access to other benefits and discounts. The primary benefit is that NRWA members are helping support national's efforts to support continued utility funding, sensible regulations, and protection of water resources. NRWA members also receive special discounts on NRWA events, webinar events, and other vendor deals. This membership also includes a free subscription to Rural Water magazine, and access to special interviews with decision makers in the water industry.

Come on in! Check out ALL the benefits and information available only to members!

WaterPro
Online Community

Where Water Pros Go!

http://waterprocommunity.org

http://waterprocommunity.org
Six Ways to Create a Culture of Ethics in Any Organization, Thomas G. Plante Ph.D., ABPP

Good ethics is good business: Why have so few gotten the memo?

By Amy Swann, Executive Director

G
ood ethics is good business: Why have so few gotten the memo?

Posted Jul 01, 2015 in Psychology Today

So often we hear about unethical and egregious behavior of organizations and their leaders that seem intent on screwing their customers, lying and cheating, and perhaps laughing all the way to the bank. It is demoralizing to so frequently learn that so many organizations and leaders just can’t be trusted. Yet, there are many ways that organizations can create a culture that supports and nurtures ethics. And good ethics is good business in the end. Closely attending to just a few important and easy to remember strategies to help create and sustain a culture of ethics could be endorsed and shared with perhaps all organizations. These include the following:

1. Clear Expectations for What is Okay and Not Okay

All organizations have both spoken and unspoken rules and guidelines about how to act within their environments. This includes everything from attire, attitudes expressed, and behavior towards colleagues, customers, and the public. For anyone who has worked at several organizations, even within the same sector such as corporations or universities, they can likely describe how the culture of these organizations differ and sometimes differ radically.

Many of the cultural norms and expectations of an organization are never expressed in writing, but are inferred once you closely observe the environment of the organization for some duration. Some organizations highlight ethical values and decision making more than others. Many may pay lip service to following ethical guidelines, but then don’t practice what they preach. Some are more utilitarian than others. Others are more hospitable and gracious than others. Clear expectations for behavior among all members of an organization is the first step towards a more ethical organizational culture.

2. Modeling Desired Behavior (especially from organizational leaders)

Research conducted by well-known Stanford psychologist, Al Bandura, among others have made clear that people tend to model the behavior of others (especially well thought of and desirable others) and that leaders within any organization act as models for those below them in the organizational chart. Thus, any organizational leaders must be mindful that they are being watched very closely and that others in the organization will likely follow their lead when it comes to ethical behavior and attitudes.

Bandura defines the specific stages of observational learning to include attention, retention, reproduction, and motivation. Thus, for observational modeling to occur, one needs to observe or attend to the model, remember the model’s behavior, reproduce the model’s behavior, and be motivated to do it again and again.

Thus, organizational leaders must practice what they preach and be sure that they model for others the desired behaviors that they wish to nurture within their organizations. If the highest standards of ethics are desired within an organization, then high profiles leaders in that organization much demonstrate these standards and be beyond reproach in this regard. Their actions often will speak louder than their words when it comes to helping to create a more ethical environment within their organizations.

3. Reinforce the Behavior You Want, and Don’t
Reinforce the Behavior that You Don’t Want

This is a very simple truth from basic operant conditioning that any college freshmen would learn about in their introductory psychology course. Also, it is a truth that has been known for generations. If you want behavior to continue, then reinforce it. If you want behavior to discontinue, don’t reinforce it. This is a pretty simple truth, yet, it is often hard to do and hard to remember for many organizations and individuals alike. And it is certainly easier said than done. Organizations must be mindful and intentional about what behaviors they want to reinforce and what behaviors they do not want reinforced. Ethical behavior must be clearly reinforced so that it will continue to occur. Problematic unethical behavior should not be reinforced if the organization wishes to extinguish these undesired behaviors.

Offering opportunities for recognition, awards, and social reinforcements for desirable ethical behaviors can go a long way to promote the types of ethical culture desired in any organization. Certainly, these rewards or reinforcements must be thoughtfully considered and delivered with careful attention to both intended and unintended consequences of using them.

4. Focus on Skill Building and Problem Solving

Organizations can do a great deal to focus their attention on developing ethical skills and problem solving techniques. Rather than only stating what kinds of behaviors are expected or not, institutions must help with the step by step strategies for developing effective ethical decision making and behavior skills and strategies for resolving ethical dilemmas or troubles. Workshops, easy to use reference materials, ongoing and readily available consultation from peers or mentors are just some of the many ways institutions can assist in training students and staff to best use the tools that are available to them to participate in better and more thoughtful ethical decision making.

5. Provide the Tools People Need to Act Ethically

If an organization wants to create a culture of ethics, they must be sure that members have the tools that they need to do so. These include adequate and appropriate training, consultation, modeling, and supervision. These tools also include being able to bring internal and external experts in to the organization to engage staff at all levels of training and problem solving.

Having an ethics ombudsman or point person for an organization can be especially valuable. They, or their staff, can provide a focal point for getting tools and resources to better help with ethical consultation.

6. Provide Corrective Feedback

Another basic and important principle borrowed from introductory psychology is the notion of immediate corrective feedback. Unless organizations offer timely and thoughtful corrective feedback regarding behavior, they are unlikely to create a culture of ethics. Reinforcement for behavior that is desired and corrective feedback for behavior that is not desired is critical to help create and sustain a culture of ethical behavior and consideration.

This corrective feedback needs to be conducted in the spirit of collaboration and education rather than in terms of punishment or chastisement. Collaboration and education allow for more openness and less defensiveness when feedback is provided. Immediate feedback is critical to maximize a fuller understanding of the problem behavior as well.

Conclusion

These six principles can be very helpful to a wide variety of organizations that desire to create a more ethical culture. These principles provide an easy to remember and straight forward set of suggestions that are aspirational in nature, yet, offer a clearer focus on ways to maximize ethical behaviors within diverse organizational climates. Having these important principles well understood and frequently used and discussed within organizational life, hopefully, allows all members of these organizations to be much more attentive to how their work and learning environment can be more ethically focused.

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WV WARN Quarterly Meetings

February 7, 2020
Braxton County Technology Center
May 8, 2020
Braxton County Technology Center
August 7, 2020
Braxton County Technology Center
November 6, 2020
Gilmer County Fire Station

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MOUNTAIN STATE WATER LINE  53
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- Facebook: WV Rural Water Association
- Linkedin: West Virginia Rural Water Association
Renewing America’s water infrastructure will require a skilled workforce to construct, operate and maintain facilities for decades to come. However, meeting these demands depends on more coordinated, purposeful actions by water utilities, other employers, workforce development partners and state and national leaders.

According to Bureau of Labor Statistics (BLS) from 2016, nearly 1.7 million U.S. workers were directly involved in designing, constructing, operating and governing U.S. water infrastructure. Water utilities employ a variety of workers, but multiple other industries and establishments, including engineering firms and construction contractors, are essential to the water sector, too. Collectively, the water workforce fills 212 different occupations—from positions in the skilled trades like electricians and technicians to financial, administrative and management positions—that are found everywhere, from large municipalities to our smaller rural areas.

The infrastructure workforce is aging across the country, and almost 3 million workers will need to be replaced over the next decade due to retirements and other employment shifts. In many ways, the water workforce reflects these broader trends, given its slightly older demographics.

BLS projects that the water workforce is projected to grow faster compared to national averages. Meanwhile, a lack of public visibility has reduced interest and experience among prospective workers who could fill water-related positions. Difficulties reaching out to different types of workers, inflexibilities in prevailing hiring procedures and a lack of training programs for non-traditional workers make it hard to identify and support a broader pool of labor.

Identifying a new generation of diverse workers will be key for the water sector in years to come. Greater diversity could result in significant benefits. By widening the net and employing more people from beyond the usual demographics, the water sector could not only go a long way towards addressing its skills shortages but potentially open itself up to different approaches, with research supporting the notion that greater diversity yields a greater range of ideas.

Perhaps the single most important factor in finding a solution to the skills gap is the need to appeal to youth. Attracting new talent relies on creating greater awareness of the sector and boosting its appeal.

The NRWA Apprenticeship Program is diligently working to appeal to a wider audience who wouldn’t initially approach the water industry. From veterans to new high school graduates, the Apprenticeship Program is a step in the right direction to grow a more diverse water workforce and the key to overcome challenges facing the future of our industry.

“From Veterans to new high school graduates, the apprenticeship program is a step in the right direction to grow a more diverse water workforce and the key to overcome challenges facing the future of our industry.”
Water YOU DOING IN MARCH?

SAVE THE DATE!
West Virginia Construction & Design EXPO
March 25-26, 2020
Charleston Coliseum & Convention Center

The 41st annual West Virginia Construction & Design EXPO will take place at the Charleston Coliseum & Convention Center on March 25 – 26, 2020. EXPO is West Virginia’s only trade show for construction, design and public works industries.

EXPO features the most comprehensive education program and largest marketplace for the design and construction industries throughout the region. EXPO offers dozens of professional development opportunities, covering a range of topics. Led by some of the most trusted names in the industry, EXPO has something for every interest and discipline.

Each year, the West Virginia Rural Water Association leads a number of quality seminars. These seminars offer water and wastewater professionals a great opportunity to network, discover, learn and grow, as well as obtain their required CEH’s.

Nearly 4,500 attendees and 300 exhibitors are anticipated to attend, making EXPO an invaluable networking opportunity. The show will be open 10:00 a.m. to 8:00 p.m. on Wednesday, March 25, and 8:00 a.m. to 12:00 p.m. on Thursday, March 26.

Sales are now open for the 2020 event for exhibitors, honor exhibitors (non-displaying), program advertising and sponsorships. A complete list of seminars, many offering continuing education credits, along with registration and show information will be available online in February 2020.

Visit the EXPO website at www.wvexpo.com or call (304) 342-3976 (EXPO) for more information.

West Virginia Rural Water Association is one of 24 co-sponsors of EXPO. The EXPO board appreciates our partnership connecting West Virginia’s construction and design industries!

ABOUT EXPO
EXPO is presented by the Contractors Association of West Virginia, West Virginia Society of Professional Engineers, West Virginia Chapter of the American Institute of Architects, and the West Virginia Utility Contractors Association, in addition to 24 co-sponsoring organizations. The trade show has become the meeting ground for contractors, architects, engineers, purchasing agents, suppliers, public works officials and others involved in the commercial and industrial construction markets.

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March 25-26, 2020

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Charleston Coliseum & Convention Center | Charleston, WV

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Evaluation Criteria for Awarding the
West Virginia Rural Water Association Scholarships

Evaluating scholarships is a multi-faceted endeavor. West Virginia Rural Water Association's (WVRWA) scholarships are awarded to candidates who are performing well academically, who demonstrate a desire to enter a field that is advantageous to WVRWA's membership, AND who demonstrate character and a spirit of community in their life.

This year, WVRWA is sponsoring its annual competition for two scholarships of $1,000 for students who intend to begin or continue in college in the Fall of 2020.

We are offering these scholarships based upon the following criteria:

1. Professional Goals/College Choice
   - How does your career choice align with the interests of WVRWA members?

2. Accomplishments
   - Personal, Professional, and Academic.

3. Community Involvement
   - Organizations, Length of Service, Leadership Positions Attained.

4. Financial Need
   - Scholarships from other organizations clearly listed.

5. Eligible System Employee
   - Does the applicant meet this criteria?

6. Your ability to follow clear directions and timeliness
   - Have you followed all of the instructions in this document and the application to the letter?

We are also looking at your overall presentation. In this regard, we review and evaluate:

- Your spelling
- Your grammar
- Your vigor of expression and your passion for your topic
- Your neatness
We evaluate your submission fully in all of these areas:

1. Criteria: We will evaluate your scholarship submission based on the criteria noted above, and the specific inputs you offer as described below.

   a. Academic Achievement/Performance: Submit your standardized test scores from the SAT, ACT, or other standardized test or other measures of your academic performance. We are particularly interested in your overall academic performance, however best measured.

   b. Contributions to your community:

      (1) Submit a list of your Extracurricular Activities. We are not looking for the number of activities, but the variety, balance, depth, and overall significance of these activities.

      (2) Submit at MOST three (3) reference letters with at MOST 2 pages, single-spaced, 12 point type (may be less, such as double-spaced, etc.) from parents, pastors, leaders in programs you've been involved in, that confirm your involvement in the activities you've listed and that, to the extent possible, attest to your unique contributions in these areas.

NOTES:

These letters ought not to be mere “character reference” letters. They should attest to specific contributions you have made, specific activities you have engaged in, specific achievements that have benefited—or that show some promise in the future of benefiting—your community. In other words, these letters are primarily for the sake of acquiring outside confirmation that you have really done or achieved what you claim to have done or achieved in your scholarship application.

We only need one letter attesting to your contributions in any one activity. In other words, for example, if you're going to send us letters from two pastors in your church, make sure they speak about different aspects of your participation.

The best letter will describe specific contributions you have made and/or specific observations that your reference has seen that demonstrate the contributions to which s/he is referring.

   c. Future Plans: Submit a personal essay with at MOST 2 pages, single-spaced, 12 point type (may be less, such as double-spaced, etc.) along these lines:

      - What I want to do with my life
      - Why I want to go to college
      - Why I want to go to this college

COMMENTS:

Our mission emanates from the desire to promote the interests of our membership and to provide financial support for applicants who indicate a desire to enter a career that will be
supportive of the members. Therefore, we want to promote and encourage students who are personally dedicated to a similar goal.

If your essay is to win, we expect it will probably include at least REFERENCES to matters like:

(a) A clear expression of what going to college is (what does that mean to you? what does that look like?).

(b) Why you believe that this particular college is best suited to helping you best achieve your goals?

(c) How you think your future plans or purposes will help water, wastewater, or stormwater utility industries.

Another way to look at this: we expect you will discuss how you see your future plans and aspirations fitting in with, or pursuing a career in the water, wastewater, or stormwater utility industries.

The truth is, we don’t want you to try to say only what you think we want to hear! Put another way, if we get the impression that you’re trying to “buy our affection,” we WILL downgrade you. We want you to speak with YOUR words, in YOUR way, about YOUR convictions. When we expressed ourselves about our desires, we used words and phrases that we wanted to use. Hopefully, they mean something to you, but we certainly don’t expect you to express yourself in the same, or even a similar, manner.

d. **Clear Expression or Contribution:** You must choose to submit either a project or a second essay [do NOT submit both] as follows:

(1) Submit a copy of your **best project** in the form of a review, digest, portfolio, etc. that consists of at MOST 3 pages, single-spaced, 12 point type (may be less, such as double-spaced, etc.) concerning any math, science, performing or visual arts related discipline of interest or concern to you. We are interested in seeing how well you can share your interest and passion from a previous effort, uninfluenced by the pressure of this scholarship competition and in a context that is less dependent on a written essay. [NOTE: You are free to share specific results or a summary of results of experiments, proofs, applications, tests, observations, trials, performances, and/or exhibits related to the physical sciences, math, or the arts.] A copy of any awards, recognition and prizes are welcome. We can only accept two-dimensional submissions (such as photographs of the actual work, reports, written descriptions, etc.) or audio/video recordings (such as CD/DVD or audio cassette). Total submissions for this project(s) should not exceed 3 pages if written or at most 10 minutes if presented via audio/video. NOTHING CAN BE RETURNED, so please do not send any original works, awards, etc.

**OR**

(2) Submit a **typed essay** of 250 words or less, single-spaced, 12 point type concerning your goals as they relate to your education, career and future plans. We are interested in seeing how well you can express yourself in a “normal” context, uninfluenced by the pressure of possibly “winning” or “losing” a scholarship. [NOTE: If you do not have a
pre-existing essay of the length we are seeking, then please edit one as necessary to meet our length requirements. The page limit applies to the body of the essay only.

2. Prerequisites:

   a. **Scholarship Photograph**: Submit a photograph with your application. Your photograph will not be given to the application review board and, therefore, will not be used in the application review process for selecting scholarship winners. However, photographs of the scholarship winners only will be used to announce the winners after they have been selected.

   b. **Assignment of Rights & Consent to Publish Scholarship Information**: By submitting this scholarship application, you give us the right to publish your photograph(s) and basic information regarding your past accomplishments and future plans in the event you are a scholarship winner.

3. **Deadline**: For the 2020 school year scholarships, all submissions listed above must be postmarked NO LATER THAN April 1, 2020. We will announce winners by August 3, 2020.

4. **Questions**: If you have any questions regarding your submission or criteria, please email WWRWA’s Executive Director, Amy Swann, at amyswann@wwrwa.org or call the WWRWA office at 304-201-1689 ext. 1.
WEST VIRGINIA RURAL WATER ASSOCIATION
2020 SCHOLARSHIP APPLICATION
WVRWA 100 Young Street, Scott Depot, WV 25560

(Application must be typed)
Applications not typed will be automatically disqualified

Personal Data
Name ______________________________  Last  First  Middle ______________________________
Address ___________________________________________ Email ______________________________
City ___________________________________________ State __________ Zip ______________________
SS # ______________________________ Telephone # ______________________________ Sex: [ ] M [ ] F

Eligible System Employee Data
Name ______________________________  Job Title ______________________________
Address ___________________________________________ Email ______________________________
City ___________________________________________ State __________ Zip ______________________
System ______________________________ Telephone ______________________________
Relationship to Applicant ______________________________

High School Data
School Name ______________________________  Graduation Date ______________________________
Address ___________________________________________ City __________________________ State __________ Zip ______________________
Your Class Rank ______________________________  Number of Students in Class ______________________________
Your Grade Point Average (GPA) ______________________________  (Transcript must be submitted with application)
List below any Academic Awards, College Credits, Leadership in Community, Leadership in School, Memberships or other Special Recognition you have received dating back to your Sophomore year:
________________________________________________
________________________________________________

College/University Data
Is This Your First Year of Higher Education? [ ] Yes [ ] No
If "No", Indicate Credit Hours Completed and Submit College Transcript
If "No", Indicate College GPA ______________________________
School Name ______________________________
Address ___________________________________________ City __________________________ State __________ Zip ______________________

Please Indicate [ ] 4 Year College or University
[ ] 2 Year Community/Junior College
[ ] Vocational Technical School
[ ] Graduate School

Major Course of Study ______________________________
(Priority will be given, but not limited to, water/wastewater related studies)
Financial Data
If you are receiving other financial aid, please itemize by name and amount:

Name: ___________________________ Amount: ___________________________
Name: ___________________________ Amount: ___________________________
Name: ___________________________ Amount: ___________________________

If there are any family circumstances that shall influence your need for financial assistance, please describe:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Certification
In submitting this application, we certify that the information provided is complete and accurate to the best of our knowledge. False information will result in the revocation of any scholarships granted.

Applicant’s Signature ___________________________ Date ____________
Parent’s Signature ___________________________ Date ____________

(Must be the signature of the member system employee)

Official Rules
This award of $1,000 will be made to a student to defray the cost of tuition, books, or room and board at an accredited institution of higher learning approved by the West Virginia Rural Water Association (WWRWA). Disbursement of the first semester funds will be made upon presentation of winner’s proof of enrollment, such as class schedule, invoice, etc.; the recipient must maintain a 2.0 or higher GPA. To obtain the funds for the second semester, the student must submit his/her grade transcript from his/her first semester along with his/her class schedule for the second semester. The scholarship money will be paid directly to the student, $500 per semester. The scholarships will be awarded to children or stepchildren of WWRWA voting member full-time system employees; students must be 26 years old or younger by September 1 of the 2020-2021 school year. In order to be eligible for a scholarship, applicants must return the completed application form, essay, and transcript from current and previous institution (high school, college, or other school of higher education) by April 1, 2020; if an item on the application form is not applicable, place an N/A in the blank. All Applicants will be first screened on the basis of leadership responsibilities in community activities, school activities, and grade point average. Scholarship recipients will be selected on the basis of academics, extracurricular and community activities, career goals, and financial need. Decisions will be final. Application material and decisions of the committee shall be confidential. Acceptance of scholarship constitutes permission to use recipient’s name and/or likeness for purpose of promotion. Applicant must plan to attend an accredited school in the Fall of 2020. Recipients will be notified by mail and be announced at the WWRWA Conference in September 2020.

Submit via the following:
Visit our website at http://www.wwrwa.org/ for a fillable PDF form by clicking Infocentral and then selecting WWRWA Scholarship Form. Complete the form by typing answers in blanks. Print the completed form and have both the student and member system parent sign the form. Mail the typed form, standardized test scores (SAT, ACT, etc.), list of extracurricular activities, reference letter(s), personal essay on future plans, copy of your best project or a second essay on your goals (select one or the other: not both), a photograph, and transcript to Amanda McGinnis at 100 Young Street, Scott Depot, WV 25560. Scholarship applications postmarked after April 1, 2020 will not be considered for the award.
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        Dina Foster        Jim Johnson        Wayne Oates        George Sparks
Joe Blair            Barbara Gerkin      Curtis Keller      Tina Parsons      Debora Starnes
Rocky Bragg          Lamar Godbey       Matthew Lamp      Tom Pitman        Grace Stewart
Ron Brill            Todd Grinstead     Tom Landis        Gregory Preece    Fred D. Stottlemeyer
Debbie Britt         Thomas G. Hall     Danny Lewis       Larry Rader       Tim Stranko
Gary Buckbee         Dreama Hammonds    Randall Lewis     Jearl Ramsey      David Swain
Dwight Calhoun       William Hancock    Clayton Lutz      Dwight Reggi      Amy Swann
Dan Campbell         Lowell Hardman     Starla Lynch-Snead Rick Roberts    Floyd Teter, Jr.
June Ann Carr        Lynn Hartman      Jeff Martin       Porter Robertson  Ray Tilley
Tim Carroll          Calvin Hatfield    Bertis McCarty    Jim Runyon        Daniel Vestal
Linda Davis-Adkins   Alan Haught       J. Robert McCarty Steven Sanders    David Wagner
Ricky Dennison       J. B. Heflin       Amanda McGinnis  Dalip Sarin       Darrell Wellman
Mike Dill            Mike Hersman      Jack McIntosh     Douglas Schafer  Jim Wesolowski
George S. Evans      Doug Hervey       Mike McNulty      Bonnie Serrett    Taylor Whittington
Joseph Ferrell       C. David Holt     David Miller      Doug Skeen        Janie Witt
Thomas A. Ferris     John Huddleston   Will Miller       Douglas Smith     Bill Yunker
Elaine Flaxer        Mary Hutson       Herb Montgomery   J. C. Smith
Chet Fleming          Deborah D. Jividen Grover Moore, Jr. Mary Smith
David Foster          Erica Johnson      S.E. “Ed” Moats   Margaret P. Sos
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WVRWA Associate Members - Winter, 2020

ACCOUNTING/FINANCIAL

*Continental Utility Solutions, Inc.
300 S. Church St., Suite 200
Jonesboro, AR 72401
Phone: (800) 240-1420
See Our Ad Page 55

*Griffith & Associates, CPA's
950 Little Coal River Road
Alum Creek, WV 25003
Phone: (304) 756-3600
See Our Ad Page 55

*Lowe & Associates, PLLC
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Milton, WV 25541
Phone: (304) 743-5573
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*Piper Sandler & Company
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Charleston, WV 25301
Phone: (304) 343-7102
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Charleston, WV 25301
Phone: (304) 347-1100
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*Goodwin & Goodwin
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Charleston, WV 25301
Phone: (304) 346-7000
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***Jackson Kelly PLLC
500 Lee Street, E., Suite 1600
Charleston, WV 25301
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*Jenkins Fenstermaker, PLLC
325 8th Street
Huntington, WV 25701
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*Kay Casto & Chaney, PLLC
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Charleston, WV 25301
Phone: (304) 345-8900
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Phone: (304) 485-8541
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*Cerrone & Associates, Inc.
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Charleston, WV 25304
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Radford, VA 24141
Phone: (540) 633-1897
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Phone: (304) 212-5927

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Bridgeport, WV 26330
Phone: (304) 624-4108
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Phone: (304) 472-3350
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*Laboratories

*Pace Analytical
P.O. Box 286
Buckhannon, WV 26201
Phone: (800) 999-0105
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Phone: (304) 752-6850
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Marietta, OH 45750
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Charleston, WV 25311
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Keyser, WV 26726
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Fairmont, WV 26554
Phone: (304) 367-9401
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310 Bartlett Avenue
Erlanger, KY 41018
Phone: (859) 866-2980
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Phone: (419) 636-2684
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Dunbar, WV 25064
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Phone: (336) 518-1300

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900 S. McDowell Street
Charlotte, NC 28204
Phone: (800) 849-7708
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Gap, PA 17527
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*Eagle Research Corporation
1076 State Rt. 34
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Bel Air, MD 21015
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WVRWA Associate Members - Winter, 2020

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Frederick, MD 21701
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Delaware, OH 43015
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See Our Ad Page 16

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South Charleston, WV 25309
Phone: (304) 345-3959
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Phone: (304) 776-4405
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*Suzi Water Advanced Solution
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Atlanta, GA 30309
Phone: (855) 526-4413
See Our Ad Page 13

*Total Equipment Company
400 Fifth Avenue
Coraopolis, PA 15108
Phone: (412) 269-0999
See Our Ad Page 15

*Tri State Industrial Coating
Contractors Alliance
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Parkersburg, WV 26101
Phone: (304) 429-6732
See Our Ad Page 24

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Phone: (304) 414-6500
See Our Ad Page 15

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

*Zenner USA
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Addison, TX 75001
Phone: (972) 386-6611
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### Voting Member
Beckley Sanitary Board

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<th>National Radio Astronomy Observatory</th>
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<td>Valley Vista Adventist Center</td>
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<td>Twin Falls State Park</td>
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<th>Matthew Stanley</th>
<th>Gary Wilson</th>
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<td>Samme Gee</td>
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<td>Matt Dawson</td>
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<td>Doug Uring</td>
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<td>Rod Carmichael</td>
<td>Dwayne Duffield</td>
<td>Ernie Jack</td>
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