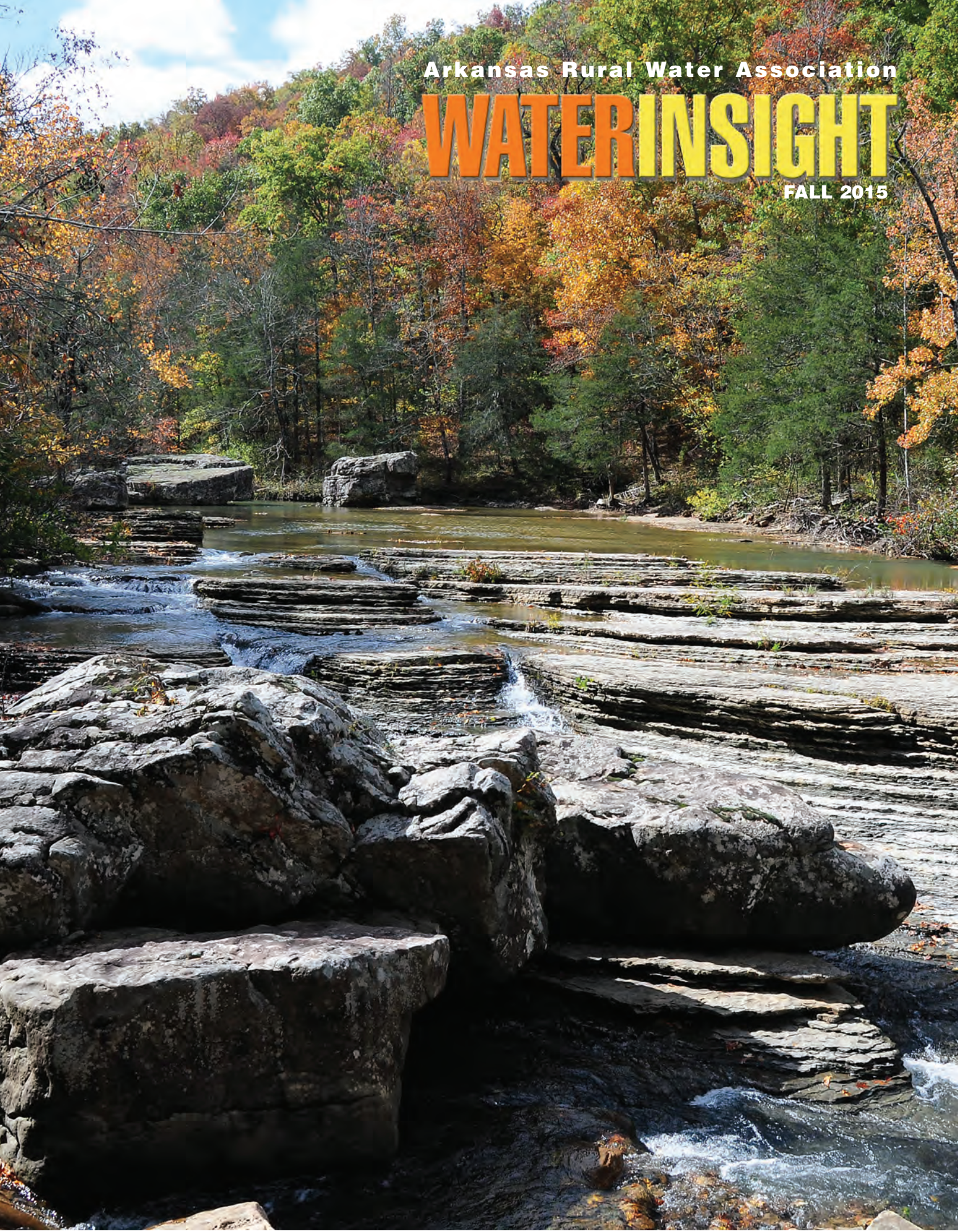


Arkansas Rural Water Association

WATERINSIGHT

FALL 2015



FROM YOUR CHIEF EXECUTIVE OFFICER

DENNIS STERNBERG

I would like to thank everyone who participated in the Arkansas Rural Water Association's 38th Annual Technical Conference in Hot Springs, Arkansas, September 13-16, 2015. This year's conference featured six different concurrent sessions with something for everyone depending on your position with your utility. The exhibit hall was full with exhibitors displaying their latest products in the water and wastewater industry. Hopefully, everyone had a chance to stop by the booths and visit with each of the exhibitors to discuss their products and how their products or services can assist you in your time of need.

ARWA had a total attendance at this year's conference of 840 water and wastewater industry personnel. I would like to give a special thank you to the 75 exhibitors who used 88 booths displaying their products at this year's ARWA conference. Also, a special thank you to those exhibitors who donated those great gifts to the Arkansas Rural Water State PAC and to everyone who purchased tickets to win those prizes. This year's Arkansas Rural Water raffle was a huge success thanks to everyone who participated.

A special thank you also goes to National Rural Water who provided a Shotgun for the ARWA Federal Water PAC raffle. A GoPro was donated by myself with monies going to the Federal Water PAC. Also, a thank you to everyone who purchased tickets to win that shotgun and GoPro which made this year's event a great success.

I would like to thank all the systems that competed in this year's Arkansas Great Water Taste Test at this year's conference. A thank you to this year's Water Taste Test judges, John O'Connell, with New York Rural Water Association, Mike Chandler with ANRC, and Randolph Polk with ANRC. Congratulations to the 2015 winner for the Best Tasting Water in Arkansas goes to

Western Greene County RWDD, Walcott, Arkansas.

Western Greene County RWDD will go on to compete in Washington D.C. at the Great American Water Taste Test at the National Rural Association Water Rally, February 8-10, 2016.

This year's Annual Golf Tournament was held on, Sunday, September 13, 2015, at the Diamond Head Golf Course. I want to thank all the sponsors and all the players who showed up to play. The group had a beautiful day to play golf and a great day of golf on a very beautiful golf course.

Again, a special thank you to everyone that attended ARWA's 38th Annual Technical Conference this year. Because of your support, it was a huge success, and to the ARWA staff for working to put on another great conference. Thank You.

So, mark your calendars for next year's ARWA's 39th Annual Technical Conference, September 18-21, 2016, to be held in Hot Springs, Arkansas.

Thanks for all your support in the past and for your continued support in the future. If you have any questions, please feel free to contact ARWA at 501-676-2255.





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Cover Photo

Falling Water Creek

Photo courtesy of Arkansas Department of Parks and Tourism

Magazine Editor — Fatima Dodson

ARWA Mission Statement

*To provide Arkansas' Rural Water Utilities the highest level of
Training and Technical Services in order to obtain
Quality Water at the lowest possible cost.*

Arkansas Rural Water Association is a non-profit organization of rural and small publicly owned water and wastewater systems. Our goal is to enhance the lives of Arkansans. Our efforts to achieve this goal are focused on providing training and technical assistance to the managers and operators of all eligible systems serving populations not greater than 10,000. We work with other non-profit organizations in representing the interest of public water and wastewater systems at both the local and national levels.

- ARWA is affiliated with the National Rural Water Association •

Congratulations Ernie Faucett Scholarship Winners for 2015



The Scholarship Committee was proud to announce the Ernie Faucett Scholarship winners at our 2015 ARWA Conference in Hot Springs.

Scholarships are awarded to students who are dependent children or step children of employees of ARWA member water utilities. The funds available to provide these scholarships are earned through donations and your support of our Ernie Faucett Scholarship fund raising events throughout the year. Thanks to our supporters and golf tournament participants, we were able to award the most

scholarships that we've ever been able to award. We were privileged to be to give twenty three scholarships this year. Twenty of these were for \$500.00 and then three were awarded in the amount of \$1000.00 each. The thousand dollar scholarships were sponsored by HD Supply and Crews & Associates & the Aquasure Program from Risk Services Insurance. This is our way of giving something back to you and your families and saying "Thank you" for your enduring support.

These applicants were chosen at random from over thirty entries we received from our member systems.

The winners are as follows:

NAME	SYSTEM	COLLEGE
1 *** Anna Best	Lafe Rural Water Assoc.	Arkansas State University
2 M. Allison Canale	Clark Co Country Water	Henderson State University
3 *** Hailey Chatman	Harrisburg Water	University of Arkansas - Fayetteville
4 Jake Chatman	Harrisburg Water	University of Arkansas - Fayetteville
5 Mary Catherine Clatworthy	Marianna Water Dept	University of Arkansas - Monticello
6 *** Shelby Hicks	Bonanza Water	Northeastern Oklahoma A & M
7 Brian Hooten	Guy Water Works	University of Ark Com College-Morrilton
8 Carly Jackson	Beebe Water	UAMS-Little Rock
9 Faith Lawrence	Huntington Water	University of Arkansas - Monticello
10 Jacob Carles Lively	No. White Co. Rural Water	Arkansas State University - Beebe
11 Madison McCord	Fulton Co. Water Authority	Ozarka College
12 Bayley Lee McDermott	Kimzey Regional Water	National Park College – Hot Springs
13 Sydney McFarland	Summit	Arkansas State University-Mtn. Home
14 Evan McKinnon	Parkers Chapel Water	Ouachita Baptist University
15 Allison Moore	Hampton Water Works	Southern Arkansas University of Magnolia
16 MaKaleigh Paige Riddle	Harrisburg Water	Arkansas State University – Jonesboro
17 Logan Hannah Riley	Newport Municipal Water	Arkansas State University – Jonesboro
18 Kattie Riney	Etowah Water	Arkansas State University – Jonesboro
19 John Ethan Roberts	Krooked Creek Water Assn	Arkansas Tech University
20 Molly Rodgers	Pangburn Water Dept.	Arkansas State University – Heber Springs
21 Alexander Scheffler	Piggott Water	Arkansas State University
22 Jessica Scheffler	Piggott Water	Three River College
23 Courtney Zollicoffer	Ozark Water Dept	Arkansas Tech University

*** Denotes \$1,000.00 winners

We are honored and proud to be able to award these scholarships to these students and hope this financial award will help in their educational endeavors.

SCHOLARSHIP WINNERS



SCHOLARSHIP WINNERS



09/17/2015

ARKANSAS RURAL WATER ASSOCIATION
PO BOX 860
LONOKE, AR. 72086

Re: The Ernie Faucett Foundation Scholarship

I would like to take a moment and thank the Arkansas Rural Water Association. I am very honored to be one of the recipients of the Ernie Faucett Foundation Scholarship. This year I am a Junior at the University of Arkansas at Monticello majoring in history and minoring in communications. This scholarship will go a long way in helping me to reach my goals.

Thank you again for choosing me and it is very much appreciated.

Sincerely,
Mary Kate Clatworthy
Mary Kate Clatworthy

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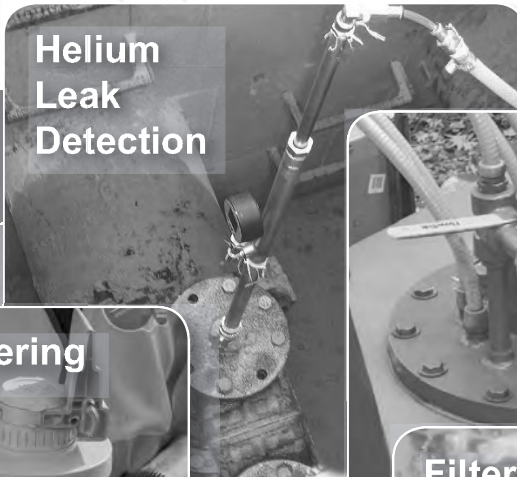
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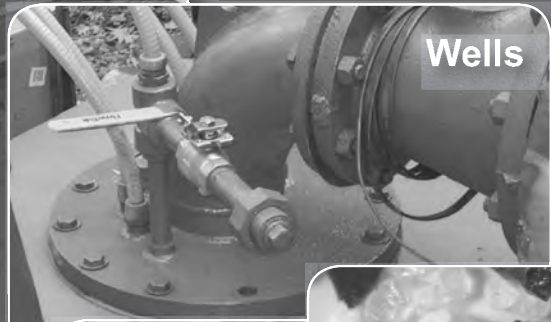
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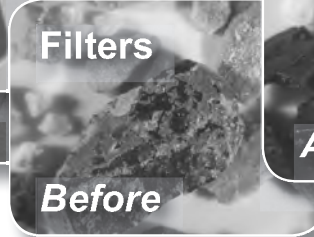
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What Can ARWA Do For You? *By Chris Harris, ARWA Circuit Rider*

I just want to take a little time and talk about the program I work under and some of the things I have learned in my time with Arkansas Rural Water. The program I spend most of my time and efforts on is the Arkansas Department of Health contract. This contract is to help systems with a population of less than ten thousand with different areas of water treatment and distribution such as technical, managerial, and financial assistance. What I am referring to technical assistance involves many different things.



One of the biggest forms of technical assistance is leak detection. Some of the tools Arkansas Rural Water utilizes that I am learning and becoming more familiar with are electro-acoustical detection and the use of ultra sonic meters. Electro-acoustical detection is the use of listening devices that detect the sound of water leaking out of a main. Another tool that we use, very fascinating I might add, is an ultra sonic meter. This is a device that one can attach to the outside of a water main and monitor the flow, very accurately, through a pipe. Other ways I have seen Arkansas Rural Water offer technical assistance are trouble-shooting issues in water plants and distribution systems, ranging from pressure fluctuations to process failures in the plant itself. I recently had the privilege to assist in the complete rebuilding of a booster station.

Arkansas Rural Water has its own machine to cut and thread pipe on site which was critical in retro fit-

ting a new booster station to existing infrastructure. The managerial assistance comes in several ways as well, but just a few are help in developing a long-range plan, emergency plan, and coming very soon, a board-training program that will educate new and interested board members. The long range plan is a ten year plan outlining expansion and maintenance the system may encounter and what the system is doing to prepare financially for the future. An emergency plan is simply an evaluation and guide of what could go wrong and how the system would address the problem. The board training program will hopefully offer insight into policy and governing duties of a water board member. As far as financial assistance is concerned, we are not giving out money; however, we do offer help with rate studies to evaluate whether or not your rates are enough to keep your system operating in the black.

And we do hope the FREE assistance we offer will save you money. If you do find your system needing any of these services, you are more than welcome to contact the office at (501) 676-2266, or myself at (870) 448-7647.



At the ARWA 2015 Conference, Randy Richardson of Horsehead Water Association is the winner of a Genesis E-330 Gas Grill sponsored by David Feild with Aquasure.

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Benton County Water District #1
Bethesda Water Association, Inc.
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Highway 63 Water Users Association
Highway 71 Water District No. 1
Highland Public Water Authority
City of Highland Sewer Department
Horsehead Water Association
City of Hoxie
Independence Jackson County Regional Water Users
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Johnson Township Water
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City of Kingsland
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The Worst Case Scenario *By Steve Frankenberger, USDA Energy Tech*

One of the first design principles of engineering design is to make sure your picture never shows up on the front page of the morning paper. The designer that makes a bridge 10% too strong goes unnoticed and unknown. The designer that makes a bridge only 90% as strong as needed results in a failure and you guessed it—someone's picture is in the paper — not good.



What does that mean to you and me? It means that many of the systems we operate everyday are over designed. Aerators are sized big enough for the worst conditions. Lift station pumps and booster pumps are sized for the highest flows. This is not a bad thing. It is necessary, but all of this excess capacity costs money to operate, especially in wasted energy. In recent years, new technology has made it possible to speed motors up or down to apply only as much capacity (and energy) as needed. New technology has allowed us to measure and monitor dissolved oxygen (or ORP) instantly and even continuously. Aerators can be sped up, slowed down, or turned off and on as needed automatically. The energy savings can be substantial. Statistics show that about 40% of the wastewater plant energy consumption is aeration. Statistics also show that two to three times as much aeration is needed in the hottest weather than in the coldest weather. If you are running the same amount of aeration all year long, you are missing an opportunity to save a lot of energy and money.

The same is true with pumps. A booster pump station that is designed for a single pump to handle that worst-case scenario is usually too big for the day-to-day flows. Instead of having this pump installed with a spare pump, a better plan is to utilize three pumps.

The worst-case condition can be handled with two pumps, with a third as an installed spare. Most of the time, a single pump can meet the demand. A second, or even the third pump, can be brought on line (usually automatically) for the rare worst case. Often in conjunction with variable speed drives, the pumps operate very near their most efficient flow. The pumps last longer, use less energy, and are more reliable.

Often the total installed horsepower is lower. This means the installed cost is also lower.

Lift station pumps are often designed to allow for significant inflow and infiltration. Obviously, it is better to reduce or eliminate the excess flow. Big pumps sized for inflow/infiltration and operating for short periods of time are less efficient than smaller pumps operating for longer times. Many possibilities exist for making this more efficient, including variable speed drives, a combination of smaller pumps for day-to-day operation with larger pumps for the worst case.

The problems are many and vary, and so are the solutions. Give your Rural Water Association an opportunity to help identify the problems and sort out the options.



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Lagoons and Algae

By Jim Barkie, ARWA Wastewater Trainer/Technician

Algae in wastewater lagoons are natural and needed to process the wastewater in the lagoon. During the day, the algae are growing and produce oxygen that is needed by the aerobic bacteria. A properly operating lagoon will have a definite green color to it, with little odor, but when the algae has become excessive, it has a negative effect on the lagoon. It can become thick enough to seal off wind and wave action, thus reducing the dissolved oxygen and causing process problems.

Most operators look to algaecides to help them control the growth of algae in the lagoon. When used properly, algaecides provide a quick solution to excessive growth. Although algaecides are effective, they can be expensive, and if not used correctly, will do more harm than good. Surface aerators can help con-



trol algae by breaking up the water surface and reducing the amount of sunlight that penetrates the water but can also be expensive.

All lagoons will experience algae blooms, but facultative lagoons tend to have more problems. Warm, slow moving water, along with nutrients, contribute to the growth of algae. A temporary solution for facultative lagoons is to use a trash pump. It does not

have to be fancy or elaborate, just a piece of pvc pipe hooked to the pump to move water from the edges back towards the center. Depending on the size of your lagoon, you might need more than one pump. This will help reduce dead zones while adding oxygen to the water. Another option is to put a small boat in the lagoon and simply drive around. Get creative, because the main idea is to get that water moving again.



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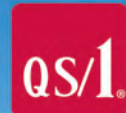
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Storage Tanks, Altitude Valves and Pressure Switches

By Tim Carey, Circuit Rider

I know you probably hear a lot about storage tanks, altitude valves, and pressure switches, but their purposes are seldom discussed. Most people know the type of tank they have in their system and how much water it holds. However, the main reason why your system has the size, type of tank, or equipment is seldom discussed. The reason for a storage tank is to provide a sufficient amount of water to average or equalize the daily demands on the water supply system. Your storage should be able to provide water for average and peak demands. Your storage also helps to maintain pressure throughout your system. This storage helps your fire department to have adequate pressure and quantity to provide fire protection, and, at the same time, supply your system. The amount of industry and the demand of it will play a big role in what size tank you will have. A storage facility can also mean a reservoir. This can mean storage of a few different types. The most common

type of reservoir is a body of water resembling a pond.

There are a few different types of altitude valves on the market. Most of which operate on the same principal. This valve shuts off the flow into an elevated tank when the water level in the

tank reaches a predetermined level. The valve automatically opens when the pressure in the distribution system drops below the pressure in the tank. This valve is responsible for maintaining a given pressure in the system. Most of the time when your altitude valve hangs up or quits, the problem, a lot of times, is just that there is a buildup on the diaphragm of the main valve and on your regulator. This can be taken care of by taking the valve apart and cleaning it about once a year. The main thing is to make sure that you reassemble it the same way it came apart. You should also mark the settings to make sure that you get your adjustment right.

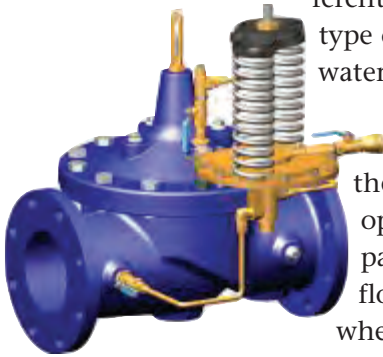
Pressure switches are another subject rarely dis-



cussed. Most pressure switches control your pumps that move water from your water supply to your tank. You have two settings on them: A high-side and a low-side. Your high-side setting is for your highest tank level without running your tank over. Occasionally, it is good to run the tank over to clear out your overflow, but you do not want this happening all of the time. The low-side setting

is there to make sure your tank does not empty or get too low. This enables you to maintain constant pressure and volume for your distribution system. Other types of tank regulators are floats or probes. These applications work almost the same as a pressure switch, except you do not need the water pressure to regulate tank levels. Tank probes operate by the water making or shorting out a contact, making a pump start or stop.

Most of these applications can be repaired or replaced. Make sure you know what you are doing before you try your hand at adjusting or repairing any of these. Feel free to contact Arkansas Rural Water Association for assistance regarding any help we can offer on these matters.



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Things have come a long way since the Land Run of 1889, when settlers got their water from three wells: at the train station, south of the train station and in the vicinity of Santa Fe and Main. Today, the city's water comes from a network of six man-made lakes – much of it fed by the North Canadian River and from southeastern Oklahoma.

Out with the Old

The utilities department is mindful of its heritage while it looks to the future. On the outside, some of Oklahoma City's water facilities have a historic elegance, yet what lies inside is state-of-the-art. While attention is paid to time honored principles like conservation and quality control, city leaders and staff know it takes innovation to meet the challenges of the present and future.

Built in the 1920s, the Overholser Water Treatment Plant on North Pennsylvania Avenue is a monument to the past with a timeless mandate: to supply clean water during periods of high demand, especially the scorching Oklahoma summers. A critical function of the plant is filtration, when the water passes through a sand and carbon filter. To clean the filter, the flow is reversed; the filters are backwashed and the residual material is removed to a settling lagoon.

As the city grew and demand increased, so did the stress on the plant's filtration system. Increased volume meant the filter required more cleaning, but the tank housing the filter was undersized and not equal to the task.

"We would get a partial lift on a filter during the backwash process then run out of water," says Larry Hare, Civil Engineer, City of Oklahoma City. "We'd have to shut down until the tank refilled, making the process inefficient and time consuming."

The Pressure Is On

Hare and his staff had to get Overholser in tip-top shape to pick up the slack due to the drought and the fact that another plant's increased capacity hadn't yet come online. So they met with engineering firm Johnson & Associates, which has consulted with Oklahoma City since 1988 and worked on a number of major design projects including the Bricktown Canal and the Lower Bricktown Entertainment collaborative development.

"We were asked to study and design a solution to a backwash system that was outdated," says Peter Borelli, Senior Engineer

at Johnson & Associates. "Among other things, we needed to find a way to improve backwashing pressures which were less than optimal."

Borelli recommended replacing the old tank with an Aquastore® tank from CST and Texas Aquastore. Aquastore tanks are made of glass-fused-to-steel, they're corrosion free and require little to no maintenance.

It Starts and Ends with Storage

Aquastore is the preferred choice for potable water storage and many other liquid applications. More than 100,000 have been installed in over 70 countries. The big difference is the factory-applied silica glass coating forms a hard, inert barrier on both the interior and exterior surfaces to guard against weather and corrosion.

Aquastore's features include:

- Lowest maintenance requirements over tank life
- Greater lifetime value versus welded or concrete tanks
- Expandable to meet future requirements
- Specific tank designs, options and accessories to meet customer needs

"Ultimately, a decision like this should be based on value and getting the most efficient and sustainable solution for the money," says John Pappalardo, Sales and New Business Manager at Texas Aquastore. "Oklahoma City wisely considered the long-term benefits over short-term savings."

Pappalardo advises utilities to ask several important questions when considering the various tanks on the market:

- How long will the tank last? Is it a "permanent" solution?
- How much maintenance does it require?
- Does it need to be repainted?
- How is it built?
- Is it adaptable? Can it be integrated with existing equipment?

Utilities and other industries are choosing Aquastore tanks for a variety of storage uses because they've come to appreciate what goes into their fabrication:

1. A panel of high-strength low carbon steel is blasted and alkaline cleaned.
2. The edges of the panel are beveled and then it's sprayed with a stainless steel alloy.
3. The panel is sprayed with a specially formulated slurry that gives it durability,

consistency and impermeability. Unlike powder coatings or paint, the slurry is inorganic so it blocks corrosion.

4. The panel is then fired at temperatures above 1,500° F (815° C) to fuse the porcelain coating and the steel.
5. Tests are conducted to verify integrity and durability, including high voltage testing to detect discontinuities.

Compared to concrete or welded tanks, glass-fused-to-steel tanks are easier to assemble and take far less time to construct. Using a sidewall erection process, the panels are bolted together – forming a ring. When completed, the ring is lifted with jacks so the next ring can be assembled directly underneath. Crews don't have to leave the ground and the whole process takes as little as four feet of space beyond the tanks foundation.

"The Aquastore's simplistic design allowed for a straightforward foundation design and installation in a crowded area of the plant where there was limited space to install and bring online before the old tank could be removed," says Borelli.

More Capacity Equals Faster Filtering

With the new Aquastore tank and its 300,000-gallon capacity, backwashing takes about 15 minutes, with enough water left in the tank to backwash another filter.

"The original tank was old, corroded and didn't have the height or the volume to effectively backwash a filter," says Hare. "The new Aquastore tank was designed to address all of these issues."

Hare continues: "We're also looking at a longer lifespan and reduced costs with the Aquastore tank. That's a huge win for the city and its residents."

The Oklahoma City Utilities Department tests the city's water at the three treatment plants every two hours, exceeding the regulatory requirement of every four hours. Residents may not realize it when they turn on the tap, but their water quality is ensured by a leading-edge filtration system and cutting-edge storage solution. That beats hauling a bucket from the train station any day!



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Sustainable Management of Rural and Small Systems Workshop

By Josh Freeman, ARWA Circuit Rider

In efforts to promote long-term sustainable utility management for small and rural utility systems, Arkansas Rural Water's staff will be conducting Sustainable Utility Management Workshops. These workshops will help utilities address a full range of challenges and improve the management of their operations and infrastructure. Utilities will learn how to make improvements in ten key management areas: Product Quality, Customer Satisfaction, Employee & Leadership Development, Operational Optimization, Financial Viability, Operational Resiliency, Infrastructure Stability, Community Sustainability & Economic Development, Water Resource Adequacy, and Stakeholder Understanding & Support.



We are encouraging all managers/operators, office managers, and board/council members to attend these workshops. The agenda will consist of the following: Introductions & Workshop Objectives, Overview of Key Management Areas, Utility 'Self Assessment' Exercise, Self Assessment Results Discussion, Improving Outcomes Exercise, Practices/Tools/and Measures Discussion, Information and Resources for Improvement Discussion, Action Plan Discussion/Exercise, and Workshop Feedback.

If you have any questions on these workshops please feel free to call Arkansas Rural Water Association at 501-676-2255.

We are looking for article and recipe submissions from our members for future editions of Water Insight! Please email your submissions to arkrwa@sbcglobal.net. ARWA reserves the right to edit all submissions, and we do not guarantee that all articles or recipes will be published. We are looking forward to hearing from the Arkansas Rural Water Community!

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Valve Exercising Program *By Rodney Baldwin/ARWA Circuit Rider*

Many systems that I work with have a real problem with valves not being exercised. Many operators need to close valves to isolate a certain area, but the valves either do not work or cannot be found. I recently worked with a system that had a major water line break. Because of the location of this line, we were not able to get to it for the repair to be made. They lost all pressure in town and had to go on a boil order. When I arrived at this system, we located a valve upstream closing it. We were able to install two valves. This allowed a bypass to be installed that gave all customers water, but they were still on a boil order.

Not only will a valve exercise program help you



locate valves that may have to be replaced, but it will also help in locating the valves in an emergency. It will also ensure you the ability to provide safe water for your customer's assets such as, schools, medical clinics, and large groups of customers that are on lines that do not loop back to your main line. You need to address public notification policy and issues such as, a repair or replacement plan. The plan needs to state that no matter how cautious the operators, valves could break while they are exercised. Be ready to make repairs. This may mean you need to have some of your main valves on hand. The question is not if it is going to happen, but when will it happen?

BEST TASTING WATER IN ARKANSAS

Western Greene County Water RWDD

Officials at the Arkansas Rural Water Association (ARWA) have found the best-tasting water in Arkansas. On September 15, 2015, the winner of a state-wide competition was announced in an effort to identify the tastiest rural water in the state and, participants hope, in the nation.

Small and rural water utilities from around the state submitted samples of their water, straight from the tap. The winner of the event was the Western Greene County Water RWDD, whose water sample was chosen by judges as the most appealing. "It tasted clean, pure and refreshing," stated the judges.

"Because of the quality of this water, Arkansas has a good chance at the national taste test in Washington, D.C.," added Arkansas Rural Water Association CEO, Dennis Sternberg.

The competition is part of a Quality On Tap! Campaign to emphasize the high quality, standards and, consequently, taste of rural water. Winners of the state taste test will compete in a national contest at Capitol Hill in Washington, D.C. on February 8-10, 2016. This event is part of the Rural Water Rally, an annual legislative event for the 49 state affiliates of National Rural Water Association.



Water Taste Test Judges: (left) Randolph Polk/ANRC, Mike Chandler/ANRC, John O'Connell, III/National Director, New York Rural Water Association



Larry McFadden receiving award for Arkansas Best Tasting Water, Western Greene County RWDD from Diana Woodle, ARWA Board of Director's President.



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Winners of the Fire Hydrant Contest were Chris Long and Jeff Byerley from Jacksonville Waterworks.

Arkansas Rural Water 2015 Conference



Arkansas Rural Water 2015 Conference



Arkansas Rural Water 2015 Conference



ARWA Golf Tournament

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Southern Pipe & Supply
ARWA – Jeff Ford & Dennis Sternberg



Arkansas Rural Water 2015 Conference



Arkansas Rural Water 2015 Conference



2015 State Water Pac Raffle Winners September 15, 2015

APAC-Central	\$50 Wal-Mart Gift Card	David Coston	Malvern
APAC-Central	\$50 Wal-Mart Gift Card	Judy Collins	Russellville
ARWA	\$100 Bass Pro Gift Card	Timothy Wilson	Mayflower
ARWA	Infrared Scouting Camera	Brent Laws	Horatio
ARWA Staff	Igloo Sportsman Pro Cooler	Jesse McKinnon	El Dorado
ARWA Staff	2 Magic Springs Tickets	Jesse McKinnon	El Dorado
Brad Greer & Associates	Kershaw Funxion Outdoor Knife	John Choate	Russellville
Cheryal McDaniel	Deer Necklace	Bob McKeon	Alexander
Clow Valve	½ Day Guided Trout Fishing Trip	Randy Richardson	Clarksville
Consolidated Pipe & Supply Co., Inc.	\$100 Lowe's Gift Card	Don Draper	Rogers
G & C Supply Co., Inc.	\$100 Wal-Mart Gift Card	James McGriff	Rison
Hawkins Water Treatment Group	Soft Sided Cooler, Blanket, Water Bottle	Terry House	Austin
HD Supply Waterworks	Razorback Tailgate Package	Danny Smith	Pine Bluff
Henard Utility Products, Inc.	145-Piece/Stanley Tool Set	Kevin Elliott	Marshall
Horner & Shifrin, Inc.	\$50 Wal-Mart Gift Card	Noble McCord	Salem
John Ford	Black Swamp Specialty Duck Call	Judy Lloyd	Portia
Magnolia River	2-\$25 Wal-Mart Gift Cards	Brenda Gills	Arkadelphia
Rural Water Impact/Municipal Impact	Kindle Fire	Judy Collins	Russellville
Shupe & Associates	Rod & Reel	John Fisher	Austin
Smith Blair, Inc.	\$100 Wal-Mart Gift Card	Freddie Pierce	Rison
Terry Fortenberry	Razorback Bench	Danny Seaton	Burdette
Winwater	4-in-1 Reed Wrench	Ronnie Wood	Walcott
WUDB	Moultrie Easy-Dash-Lock Feeder	Josh Freeman	Lonoke



**2015 Federal Water Pac Winner
of the Mossberg Shotgun
donated by National Rural Water Association
Danny Clark with
Earle Sewer & Water Works**



**2015 Federal Water Pac Winner
of the Go Pro Camera
donated by Dennis Sternberg
David Feild with
Aquasure**



ARWA GETS LETTERS AND E-MAILS FROM SYSTEMS



• Dear Sir,

May 28, 2015

I am writing to you to let you know that the training classes put on by ARWA was greatly appreciated and very helpful. The instructors did a very good job. They kept classes informative but not boring. The review classes were extremely helpful to me in passing the exam. I made a 96% on the exam. I could not have done that without the help of ARWA and Jim Philipp. Keep up the good work!!

Thank you,
Curtis Baumgartner
Paris, AR

• Dear Mr. Sternberg,

May 29, 2015

I would like to take this opportunity to thank ARWA, particularly Josh Freeman, for his assistance in completing a water rate study for the City of Ozark Water Department. With his help, it has made this, sometimes unpleasant, process go as smooth as possible. As always, your staff goes above and beyond what they are called to do.

We appreciate all of the services that ARWA has provided us through the years and look forward to many more years to come.

Sincerely,
Cecil Zolliecoffer, Manager
City of Ozark Water Department

• Dear Dennis,

June 24, 2015

Again, the time came that I let myself get all the way to the end of my license renewal. I just wanted to take the time out to thank you, once again, for the three-day license renewal class you offered.

Susan Poe and Jim Philipp hit it out of the ballpark with the speakers they had at training. It was a very interesting class, as well as, a lot of informational training help.

Again, what would we do without Arkansas Rural Water Association?

Thank you,
Shawn Hughes, Manager
Pangburn Water and Wastewater

• Dear Mr. Sternberg,

July 20, 2015

I was asked to write to you concerning the water treatment exam I took recently. While I did pass it my first time taking it, I was not as pleased with my results.

I would just like to say that the review class that Jim Philipp does leading up to the test is very helpful. He does a great job of explaining the concepts of water treatment, as well as teaching us how to do the math problems more efficiently.

Also, I think there is a lot more material in the treatment books that appears on the tests than we can cover in class. That being said, I think if people will study the material Jim gives you in the review classes and read over the two books several times, they should have no problem passing these tests.

Thank you for allowing Jim to teach the review classes. I enjoyed them and feel I learned more by attending them.

Stephan Efurd
Kimzey Regional Water District

• Dennis,

July 28, 2015

I would like to tell you how grateful the Barton Lexa Water Association is for your association, and especially Rodney Baldwin. I believe he has gone above and beyond to help us both in the past and most recently, from getting in the ditch with us, driving the backhoe, giving us his opinion on leaks and now showing up at board meetings because of an irate customer. We thank him from the bottom of our hearts. He is very knowledgeable and loyal to the industry, and I believe he is a great asset to your association.

Thank you,
Lettie Ford, General Manager, Barton Lexa Water Association

• Dear Mr. Sternberg,

August 18, 2015

I would like to thank Mr. Terry Fortenberry for his help in finding leaks in our sewer system with your smoke machine. Mr. Fortenberry was very eager to answer any questions that I asked. I appreciated his expertise, time, and effort. This is a very helpful service that the Arkansas Rural Water Association provides to small towns like ours.

Sincerely,
Rosalyn Moore
Waste Water Operator
City of Dermott

• Jim Barkie,

July 28, 2015

My name is Jeremy McJunkin, and I work for the City of Gentry in Northwest Arkansas. I wanted to take a moment to thank you for the recent Wastewater II training that was held at the Rogers Water Department. All three operators from the City of Gentry were extremely happy with the training and the class content. All three of us passed with flying colors! In our experience, ARWA has conducted very high quality training for both wastewater I and II, and we are looking forward to a Wastewater III class in Northwest Arkansas next fall. Please let Jim Barkie know how much he is appreciated, and thank you, again, for the excellent training courses.

Sincerely,
Jeremy McJunkin
City of Gentry

• Dear Mr. Sternberg,

August 17, 2015

I want to express my appreciation for the assistance our water system recently received from Josh Freeman. He performed a water rate analyses for our system and provided valuable information to our board that helped the board make a decision about our new water rates. I want to thank Josh and your entire organization for all your assistance.

Sincerely,
Bill Garner/mk
Chairman
South Logan County Public Water Facilities Board

• Dear Mr. Sternberg:

I would like to personally thank Arkansas Rural Water for the training program in Piggott. Both instructors deserve and A+. They were not only extremely knowledgeable in their training fields, but also very knowledgeable on renewal forms. As I have attended several training programs over the years, I must say this is, in my opinion, the best. I sincerely hope your organization will continue this program.

Thank you,
Tracy Robinson
City of Corning
Water/Wastewater Supt.

• Dear Dennis,

On July 31, 2015, the Pangburn Water Plant had a perfect storm in which we did not have enough water to service our customers and backwash like we needed for our filters to work properly and full capacity. Shawn Hughes made a call to Rodney Baldwin, who as usual, was there to help in an hour and a half. Mr. Baldwin made some recommendations, which resulted in getting our water system back on line.

Again, I would like to thank your company for the support you give us. We do not know what our water department would do without the help of your company. A huge thank you to Mr. Baldwin for sticking to it for 15 hrs. til our water plant was up and running smoothly.

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Once again, we are so thankful for your continued support.

Sincerely,
Tommy Ramsey
Chairman
Pangburn Water Commission

• Mr. Jim Phillip: September 14, 2015

I wanted to send a letter in recognition of your teaching skills and knowledge. You work so hard to make your classes informative and keep everyone's attention, and it shows in your students.

You have always amazed me with your knowledge of water treatment and distribution. If someone asked you a question that you didn't have the answer to, you knew who/where to get the answer. I also like taking license renewal hours at our state parks. We are blessed by having some great state parks. We are usually too busy to notice. Since taking renewal hours at Ozark Folk Center State Park, I took a vacation day and took my youngest son up there for the day. We both had a great day. Thank you ARWA for keeping all the water operators up to date and informed of new and current rules and regulations.

Rusty Paul
Manager
Dota Public Water Authority

• Dear Mr. Sternberg: September 14, 2015

I am writing in appreciation of all that Arkansas Rural Water Association does for the water systems in the state. I had a water leak under the asphalt parking lot of a church on our water system that was not surfacing. The water was showing up way down the hill in the road ditch, leaving us no signs as to where to dig up the parking lot. I contacted circuit rider, Rodney Baldwin, for help. When he showed up with his listening device, I was a little skeptical that he would hear anything other than the roar of truck traffic going by. However, within 15 minutes, he had pin pointed the leak and let us listen to the difference in the sound when it was near the leak. Thanks to Rodney's help, we only had to dig up a very small area to repair this leak. This saved our water system considerable time and money in repairing the church's asphalt parking lot.

Thanks again,
Rusty Paul
Manager
Dota Public Water Authority

• Dear Mr. Sternberg: September 14, 2015

Just wanted to let you know how much we appreciate all the help Tim Carey and Rodney Baldwin have been to our water system. We had some main line valves that had been covered over for years. Rodney and Tim came up and helped us find and exercise those valves. Some of these valves were covered with 2 to 3 feet of material, but we found them. Thanks, again, to Rodney and Tim. You are a valuable asset to the water systems of the state.

Rusty Paul
Manager
Dota Public Water Authority

• To Whom This Letter Concerns: September 15, 2015

As Mayor for the City of Montrose, I am so thankful to have your organization in my corner. Again, your organization has come to our rescue and saved the city from a debt that we could not begin to pay at this time. We are a very small town and only receiving a very small amount of turn back money. When our backs were against the walls, you came to our rescue. I would like to thank Mr. Fortenberry for all his hard and dedicated work that he has done for this City. This man is worth all the money in the world. He has worked so hard in bad weather conditions and never once complained about anything. When the job was done, it was completed perfect. Towns such as ours could not survive without organizations like ARKANSAS RURAL WATER ASSOCIATION.

Again, thank you for all your great services to the City of Montrose.

Sincerely,

Joseph Carlton/Mayor
City of Montrose

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- Dear Arkansas Rural Water Association:
September 25, 2015

Western Greene County Regional Water District would like to express its gratitude for the opportunity to compete and receive the "Best Tasting Water In Arkansas" award at the ARWA Annual Technical Conference held September 14-16 in Hot Springs.

Western Greene County appreciates the effort and support of Arkansas Rural Water through its services and programs it provides to all the state's Rural Districts and Associations.

As the state's winner, Western Greene County is excited to compete in a national taste test at Capitol Hill in Washington, DC scheduled for February 8-10, 2016.

Thank you ARWA for all your hard work in promoting "Quality on Tap!" water in Arkansas.

Western Greene County Regional Water

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EXPO and BEYOND *James Philipp, MPA, USEPA Training Specialist*

Great day fellow Arkansas drinking water operational specialists. It has been a HOT summer thus far, but fortunately for the 2015 Operator EXPO, it was a fabulous, cloud covered, slightly breezy day in Lonoke. With almost 20 suppliers and professional members supporting our industry, we welcomed roughly 100 operational specialists from around the state for fun, fellowship, food, prizes, and the opportunity to operate and learn about the newest equipment available. From generators to chlorinators, tapping equipment to safety garb, the crowd seemed to be enjoying the big top providing some shade and the effort of the exhibitors to display and discuss their products.

We would like to thank each attendee and every professional member that helped make the event another wonderful success. A big shout out to HD Supply for providing the afternoon luncheon. BBQ pork with all the fixings went quick, while friends (old and new) chatted in the comfort of air conditioning. In addition, ARWA had the pleasure of welcoming a third generation "operator-in-training" to our facility and family.

With renewal season behind us for another two



years, I'd like to strongly encourage the licensed operators to maintain good records of your training - as it is your license. You know you need 24 hours of direct and or indirect training to renew your license for the 2015-2017 renewal period. That is why ARWA has offered the LICENSE RENEWAL CLASSES for several years, and we really would like for operators just seeking "hours" to take advantage of these educational, hands-on-classes rather than the same certification course year after year.

Speaking of certification courses for those of you obtaining a license for the first time or those upgrading your license; STUDY, STUDY, STUDY. Get the manuals, read the manuals, ask questions in class and make it a daily ritual to study the information.

We hope to have the 2016 training calendar out by early December for those making plans for future training. We are proud to offer the best training and are pleased to provide technical assistance to water and wastewater systems throughout this great state.

Until I write again, please remember to continue to educate yourself and your public. Always work safe and, most importantly, keep that clean water flowing.

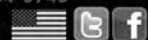
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WATER TOWER SPECIALISTS



New Technology *By Jeff Ford, Deputy Director*

New Technology in the water industry has come a long way in the last 30 years, and is a part in almost every aspect of our utility. Treatment, Operation, Billing, Design, Management and even reading our meters is a whole new ball game. Technology may cost up front but can pay for itself in many ways in the long run. One thing I want to talk about in Technology is water loss and the revenue generated in water loss savings. I want to mention some items that can assist in correcting water loss and increase revenue.

Leak detection equipment is used to help find and pinpoint leaks in a system. Leak detection equipment is not always a miracle cure. It only helps locate and pinpoint the leak once you have it narrowed to a line or location. Leak detection equipment can vary from very simple to quite complicated, but smart. Leak



you purchase water for another system and have a SCADA system (and smart phone) that monitors the master meter, you can valve your system and monitor each section with your SCADA. If you have a pump station that maintains pressure that will not over pressure your system when a valve is closed, you can perform the same task. This is a very easy way to track flows in your system when isolating sections and saves another person watching a master meter.

New meters and billing programs have advanced to a whole new level over the years that can speed up reading and increase accuracy. These new systems can even offer 15-minute data collection and consumption reports, on demand reads, leak alerts, and the list goes on.

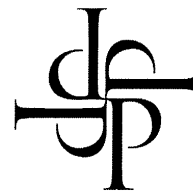
This is only a fraction of the technology available to help manage water loss and increase revenue. If you have any questions about what's available that can help you, talk to your sales person or Arkansas Rural Water. We will be glad to assist you in finding a solution to fit your needs.



detectors can be a simple stick stuck to your ear, leak correlation equipment, real time or correlating loggers. I am not going to say that everyone needs to buy a leak detector but it can be a valuable asset if your water loss is enough to justify the cost.

Portable Ultrasonic Meters have been around for several years but not widely used. We started using these meters about 5 years ago and have found them to be one of most used pieces of equipment by our circuit riders. These meters use two sensors that are strapped to a pipe at a programmed distance from one another on pipe from 2" to 24" (can go larger with longer rails) to measure flow. The biggest down fall to using sonic flow meters in a distribution system is exposing the pipe for a short distance. This usually requires the pipe to be uncovered 3 or 4 feet in order to attach the sensors. The meter can check flow in gpm in just a few minutes or less on the pipe and total the flow over a period of time. These Ultrasonic Meters can be used in many places for a number of applications.

SCADA system (supervisory control and data acquisition) may be one of the best tools in the box for leak detection, depending on your setup. For instance, if



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What is Potable Water?

By David Quattlebaum, ARWA Source Water Tech

Potable water is water that is safe to drink and is free of dangerous organisms, impurities, and pollution. The safety of drinking water in the United States is ensured by Federal law under the Safe Drinking Water Act (SDWA) and ensured by the Office of Ground Water and Drinking Water under the United States Environmental Protection Agency (EPA).



The protection of these water sources comes from a cooperative of many entities such as the Association of Metropolitan Water Agencies, The American Water Works Association, The Clean Water Fund, River Network, U.S. Geological Survey, and many others.

Protecting potable water sources involves using state assessment programs for identifying the geographic areas that most need protection and by conducting inventory of potential sources of contamination. State assessment programs have completed assessments for almost every public water system. The state assessment program is further enhanced and used in greater detail on the local level.

The public is able to contribute to source water protection by employing safe methods in and around their homes and by volunteering to help clean up watersheds or well heads to help prevent contamination.

History

Potable water safety and health was thrust into the national spotlight in 1974 when Congress passed the SDWA to ensure the quality of America's potable water.

Laws

Legal limits are set on the level of contaminants in potable water under the Safe Drinking Water Act. Individual states set and enforce their own potable water standards on par with that of the EPA's national standards.

Quality Control Measures

The EPA and your community potable water system provide an annual water quality report known as the Consumer Confidence Report, or CCR. The CCR, issued each year by July 1, details the source of your water, the level of contaminants, and what health risks exist based on the presence of listed contaminants.

Protecting the Sources

Potable water comes from a number of sources including springs, rivers, streams, ground water, and lakes.

Misconceptions

While public drinking water and community potable water systems come under the jurisdiction of the EPA, private, individual household wells do not. For information on potable water in your region or state, visit the EPA's private drinking water wells site in Resources.

Source:

U.S. Environmental Protection Agency: *Drinking Water and Health: What you need to know*

U.S. Environmental Protection Agency: *Safe Drinking Water Act*



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Bradley Scheffler presenting Diana Woodle with the Presidential Plaque Award.



Dennis Sternberg presenting Jeff Ford with \$3,000 check for 30 years of service with Arkansas Rural Water Association.





Rural Cooking

• Deer Chili

4 to 5 lbs ground deer
2 onions chopped
Small bell pepper chopped
2 jalp peppers seeded and chopped
Several cloves garlic chopped
Olive oil to fry with
3 – 27oz can tomato sauce
1 – tomato sauce can of water
1 – 27oz can Chili beans rinsed
Chili powder - start with ¼ cup
Cilantro - good amount
Cumin seed - start with 2 Tbl
spoons
½ tsp Celery seed
1 or 2 cans rotel tomatoes

Fry meat with olive oil, onion and peppers. Just before done add garlic to pan. Mix with all other ingredients and simmer. You can salt and pepper to taste, but be careful with salt.

• Very Cherry Cake

Makes one 9" round double layer cake.
This is an amazing cake and worth every ounce of trouble. Try it and you will see.

1 cup butter, softened
1 ¾ cups sugar
2 tablespoons maraschino cherry juice
½ teaspoon vanilla
3 cups cake flour
2 ½ teaspoons baking powder
¼ teaspoon salt
1 cup whole buttermilk
5 egg whites, beaten until stiff
1 cup finely chopped maraschino cherries

Preheat oven to 350*. Grease and flour 3 (9") cake pans.
In a large bowl, beat butter and sugar at medium speed with mixer until fluffy.

Add cherry juice and vanilla, beating until combined.

In a medium bowl, combine flour, baking powder, and salt; sift. Gradually add to butter mixture, alternately with buttermilk, beginning and ending with flour mixture, beating until combined after each addition. Gently fold in beaten egg whites until mixture is smooth. Gently stir in maraschino cherries.

Spoon batter evenly into pans. Bake 20 to 25 minutes, or until woken toothpick inserted in center comes out clean. Be careful not to overbake. Let cool 10 minutes. Remove from pans and cool completely on wire racks. Spread Cream Cheese frosting between layers and on top and sides. Garnish with maraschino cherries the more the better.

• Cream Cheese-Cherry Frosting

12 oz cream cheese, softened
1 1/8 cup butter, softened
1/3 cup maraschino cherry juice
9 cups confectioners' sugar

In a large bowl, beat cream cheese and butter at medium speed with mixer, until creamy. Slowly beat in cherry juice until smooth. Gradually add confectioners' sugar, beating until smooth.

• Fudge Brownies

1 cup butter (softened)
2 cups sugar
4 eggs
10 tablespoons cocoa
1 cup flour
1 teaspoon vanilla
Optional 1 cup chopped walnuts

Mix butter, sugar and cocoa well. Add eggs. Add flour. When mixed Add vanilla. Bake in a 9x13 pan sprayed with pam in a 350 preheated oven for 30 minutes. Cool in pan for 10 minutes.

I have baked these brownies so many times that I couldn't count and they were always a hit. I have given this recipe to lots of folks. BE SURE TO USE REAL BUTTER, not the imitation stuff!

• (Tim) Tebow's Pizza Pie

1 lb ground beef
Cup chopped green pepper
1 pkg Italian style spaghetti sauce mix (dry)
6 oz can tomato paste
1 cup water
1 large can refrigerator biscuits
1/3 cup grated Parmesan cheese
6-8 oz shredded Mozzarella cheese
Brown the meat, drain. Add green pepper, cook until tender.
Stir in sauce mix, tomato paste, and water.
Simmer 10 minutes.

Line and grease 9" pie pan with biscuits, press together to seal. Sprinkle Parmesan cheese over the crust.

Fill with meat mixture. Sprinkle top with Mozzarella cheese and remaining Parmesan cheese. Bake at 400 degrees for 15 to 20 minutes.

Servings: 4-6

Total cook time: 30-60 minutes

The sauce can be made ahead and reheated to facilitate last minute preparations. I use a large can of biscuits and a small can to make sure I have a thick crust. I also use a little more Parmesan cheese than the recipe calls for. This recipe was given by Tim Tebow's mom on TV. She was asked about some of Tim's favorite food. She said he likes to fix these when friends would come over.

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ARKANSAS RURAL WATER ASSOCIATION **BACKFLOW PROGRAM**

Arkansas Rural Water has been approved by the Arkansas Department of Health and is now offering training courses for persons wishing to be certified in backflow prevention and cross-connection.

Below, you will find courses offered and their cost. If you wish to attend a course, please fill out and return this registration form, along with a check for the amount of the course.

Please mail to: Arkansas Rural Water Association, P.O. Box 860, Lonoke, AR 72086

You may also fax your registration form to 501-676-2266

and we can take a credit card payment over the phone. **Class fees are non-refundable.**

ASSEMBLY TESTER CERTIFICATION COURSE

COST: ARWA MEMBER: \$400.00 NON-MEMBER: \$445.00

The Assembly Tester Course is a 40-hour course that consists of classroom training and actual hands-on training to train the student to field test various backflow prevention devices.

NOTE: (It is required by the Arkansas Department of Health that anyone wishing to be a Certified Tester, attend and pass this type of an approved course and also pass a test given by the Arkansas Department of Health after completion of this course.)

ASSEMBLY TESTER RE-CERTIFICATION COURSE

COST: ARWA MEMBER: \$100.00 NON-MEMBER: \$125.00

The Assembly Tester Re-Certification Course is an 8-hour course that consists of lab training to re-certify CERTIFIED TESTERS.

NOTE: (It is required by the Arkansas Department of Health that Certified Testers attend and pass this type of an approved course every two years in order to maintain Certification.)

ASSEMBLY REPAIR CERTIFICATION COURSE

COST: ARWA MEMBER: \$300.00 NON-MEMBER: \$345.00

The Assembly Repair Course is a 24-hour course that consists of classroom training and hands-on lab training to train the student to be able to repair Assemblies in the field.

NOTE: (It is required by the Arkansas Department of Health that before someone can be a Certified Assembly Repair person they must be a Certified Tester, attend and pass an Assembly Repair Course and also pass a test given by the Arkansas Department of Health after completion of this course.)

**PLEASE FILL OUT THE INFORMATION ON THE FOLLOWING PAGE & MAIL IT TO
ARKANSAS RURAL WATER
10 WORKING DAYS PRIOR TO THE CLASS DATE YOU ATTEND.**

If you have additional questions you can contact ARWA at 501-676-2255 or

arkrwa@sbcglobal.net or arkrwa@arwa.net

BACKFLOW CLASSES

Please fill out information below and mail to Arkansas Rural Water, with payment, ten working days prior to the class date you wish to attend:
ARWA - P.O. Box 860, Lonoke, AR 72086. You may also fax your registration form to 501-676-2266 and we can take a credit card payment over the phone.

Class fees are non-refundable.

REGISTRATION FORM

Class Time: 8:00 a.m. - 5:00 p.m.

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE _____

EMPLOYER: _____ ARWA MEMBER: YES ___ NO ___

NAME OF CLASS: _____

DATE OF CLASS: _____

BACKFLOW CLASSES IN 2015-2016

October 12-16, 2015	Tester CertificationLonoke
February 8-12, 2016	Tester CertificationLonoke
April 4-8, 2016	Tester CertificationLonoke
July 11-15, 2016	Tester CertificationLonoke
October 17-21, 2016	Tester CertificationLonoke
October 12, 2015	Tester Re-Certification Lonoke
February 8, 2016	Tester Re-Certification Lonoke
April 4, 2016	Tester Re-Certification Lonoke
July 11, 2016	Tester Re-CertificationLonoke
October 17, 2016	Tester Certification Lonoke
March 15-17, 2016	Repair CourseLonoke
August 16-18, 2016	Repair CourseLonoke

**If you have additional questions you can contact ARWA at 501-676-2255 or
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WATER OPERATOR LICENSE EXAMINATIONS DECEMBER 2014 – DECEMBER 2015 – SCHEDULE

Most current Exam Schedule is available at <http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm>

You must register for the exam 45 days in advance. Call (501) 661-2623, ask for Water Licensing Program.

Listed below are the dates and locations of examination sessions as scheduled, as of **October 2, 2014**. All Treatment and Distribution exam grades will be available at the sessions. Acceptable photo identification (Drivers License or equivalent) will be required to sit for an Exam. Cell phones, pagers and other electronic communication devices are not allowed. Non-Programmable calculators are allowed in exam sessions.

EXAM DATE	REGISTER DEADLINE	CITY	LOCATION	TIME	DISTRICT
12/4/2015	10/20/15	Fayetteville	Fayetteville Operations Center, 2435 S Industrial Dr	9:00 AM	1
12/4/2015	10/20/15	Lonoke	ARWA Training Facility, 240 Dee Dee Ln	9:00 AM	8
12/4/2015	10/20/15	Nashville	Carter Day Center, 200 Nichols Drive	9:00 AM	6
12/11/2015	10/27/15	Camden	AR Environmental Training Academy, 100 Carr Road	9:00 AM	5
12/11/2015	10/27/15	Clarksville	CLW (Operations Bld) 710 East Main (Hwy 64 East)	9:00 AM	7
12/11/2015	10/27/15	Jonesboro	Jonesboro CWL Office Training Rm, 400 E Monroe	9:00 AM	3

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New Staff Member *By Roy Richards/ARWA Circuit Rider*

Hello, my name is Roy Richards, and I am the newest member of the Arkansas Rural Water Association's staff.

I have 10 plus years of experience in water, water treatment, and the wastewater industry. I have worked for just about every type of water and wastewater system from



totally rural purchase water systems to wastewater systems that do 15MGD to small town ground water treatment facilities.

Please call me at 501.231.5128 if I can be of assistance to you and your system. I look forward to hearing from you soon.

ARWA TRAINING AND EVENTS 2015-2016

ARWA WATER TRAINING SCHEDULE 2015-2016

October 28, 2015	Energy Conservation/Water Loss	Huntsville
November 17-19, 2015	Advanced Distribution	Lonoke
December 9-10, 2015	Exam Review	Lonoke
December 16, 2015	ADH Compliance Course.....	Lonoke
December 17, 2015	Applied Water Math.....	Lonoke
January 12, 2016	Basic Water Math	Clarksville
January 14, 2016	Applied Water Math.....	Clarksville
January 26-28, 2016	Basic Treatment	Lonoke
February 9, 2016	Basic Water Math	Lonoke
February 11, 2016	Applied Water Math.....	Lonoke
February 23-25, 2016	Basic Distribution	Clarksville
March 2-3, 2016	Water Exam Review.....	Lonoke
March 15, 2016	Basic Water Math.....	Bono
March 17, 2016	Applied Water Math	Bono
March 29-31, 2016	Intermediate Treatment	Lonoke

ARWA WASTEWATER CLASS SCHEDULE 2015-2016

October 19-22, 2015	Class II Wastewater	Lonoke
December 7-11, 2015	Class III Wastewater	Lonoke
January 19-21, 2016	Class I Wastewater.....	Lonoke
February 17, 2016	Sustainability Workshop	Lonoke
February 22-25, 2016	Class II Wastewater	Lonoke
March 21-25, 2016	Class III Wastewater.....	Arkadelphia

To see our entire schedule of classes or to get more details please go to our website: arkansasruralwater.org



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ARKANSAS WASTEWATER OPERATOR LICENSING PROGRAM RECOMMENDED STUDY REFERENCE MATERIALS

ORDER FORM

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P.O. Box 860
Lonoke, AR 72086

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Phone: 501-676-2255

Fax: 501-676-2266

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Street Address : _____ City, State, Zip: _____

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Training Materials Title	Quantity	Price	Total
Operation of Wastewater Treatment Plants, Vol. 1 - 7th Edition	_____	\$50.00	_____
Industrial Waste Treatment, Vol. 1 - 3rd Edition	_____	\$50.00	_____
Operation of Wastewater Treatment Plants, Vol. II - 7th Edition	_____	\$50.00	_____
Advanced Waste Treatment - 5th Edition	_____	\$50.00	_____

Please make checks payable to: ARWA Wastewater Education Account – P.O. Box 860 – Lonoke, AR 72086
Prepayment is required on all book orders!

Shipping & Handling: \$8.00 per book or \$20.00 per set.
Shipping/Handling must be included for order to be processed.

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