Arkansas Rural Water Association

WATER INSIGHT
SUMMER 2017

Conference Dates: September 10–13, 2017
Exposition Dates: September 11–12, 2017

Tools for Success
for Sustaining Our Future

2017 Annual Technical Conference
HOT SPRINGS CONVENTION CENTER • 134 CONVENTION BLVD
HOT SPRINGS, ARKANSAS

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Exposition Dates: September 11–12, 2017
I am writing this article to make everyone of the water and wastewater systems throughout Arkansas aware that President Trump has released his proposed FY18 budget which runs from October 1, 2017 through September 30, 2018. In the President’s PROPOSED FY18 budget, he has ZEROED ($0.00) out the USDA Loan & Grant funding for water and sewer projects nationwide. It is now time for you as elected officials and water and sewer managers, office personnel, and water and wastewater specialist to contact the Arkansas U.S. congressional members: Senator John Boozman, Senator Tom Cotton, Congressman Rick Crawford, Congressman French Hill, Congressman Steve Womack and Congressman Bruce Westerman to ask that they support putting those funds back in the FY18 budget for small and rural communities in Arkansas and across this nation! The answer isn’t to require small and rural water and wastewater systems to compete for SRF funds against larger systems or to finance improvements with local banks or on the private market as President Trump advises systems to do.

Rural Water programs consisting of the USDA Circuit Rider, Wastewater Technician, Energy Program, and FSA Source Water would also be eliminated with the President’s Proposed FY18 Budget. That in a nutshell would then require that each of your water or wastewater systems would have to pay for any type of technical assistance or training service that ARWA has provided to your system in the past. That is why these services that USDA provides are the most common sense programs that save your utility many thousands of dollars and also saves the federal government money by ensuring that those borrowers stay in compliance and up-to-date on their payments to USDA.

We encourage all members of congress to review all federal programs with strict scrutiny and make prioritization of federal dollars. I believe the Rural Water programs will rank as high as any of the federal government programs in existence today, and sustainable water and wastewater systems provide the avenue for growth of businesses, jobs, and tax dollars for the local rural and small town America.

To continue funding for the Rural Water programs will require YOUR system to start telling the Arkansas Congressional members of the need for these very vital technical assistance and training programs. These programs have assisted your City, Water District, PWA, PFB, and Water Associations for years and must continue to assist your communities in the future to stay in compliance and sustainable for your communities to thrive into the future.

Please remember to reach out to ALL of the U.S. Arkansas Congressional members about this very important issue.

On to another topic that I hope everyone will be making plans to attend, is the upcoming Arkansas Rural Water Association 40th Annual Technical Conference September 10-13, 2017 at the Hot Springs Convention Center, Hot Springs, Arkansas. Make sure you pre-register to be eligible for the GRAND PRIZE drawing, a brand new 4-wheeler on Tuesday, September 12, 2017 at the luncheon. The staff has designed a great agenda for the water and wastewater personnel, and we will have the exhibit hall full of exhibitors displaying the latest water and wastewater products for all to see.

So, make plans for this event, and watch the mail for all the registration information to be coming out soon. Till then, take care, and remember to call ARWA at (501) 676-2255 for any of your training and technical assistance needs.
Arkansas Rural Water Association

Working To Improve Life
In Rural Arkansas

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Rodney Baldwin, Circuit Rider
Chris Harris, Circuit Rider
Roy Richards, Circuit Rider
Tee Easley, Energy Circuit Rider
David Quattlebaum, USDA Source Water Technician

ARWA is affiliated with NRWA

E-MAIL: arkrwa@sbcglobal.net
E-MAIL: arkrwa@arwa.net
Web page: arkansasruralwater.org

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Cover Photos

40th Annual Technical Conference
Magazine Editor – Fatina 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 •
WASHINGTON — A Greenbrier, Ark., man urged U.S. lawmakers Tuesday to support legislation that would give small public utilities greater access to federally funded wastewater experts.

Dennis Sternberg, executive director of the Arkansas Rural Water Association, urged members of the Senate Environment and Public Works Committee to support the proposed Small and Rural Community Clean Water Technical Assistance Act.

Speaking before the subcommittee on fisheries, water and wildlife, Sternberg urged senators to pass the bill “as soon as possible to help small communities with the operation of their wastewater utilities and compliance with the federal regulations under the Clean Water Act.”

If approved, Congress would authorize $15 million per year for five years, money that would be spent providing expertise to public wastewater systems that serve 10,000 individuals or less.

The legislation also would allow states to use some of the federal money they receive to provide similar technical support.

U.S. Sen. John Boozman, a Republican from Rogers, is chairman of the subcommittee and is co-sponsoring the measure.

Tuesday, he stressed the bipartisan nature of the legislation. Sponsored by U.S. Sen. Roger Wicker, R-Miss., it has seven Democratic co-sponsors and six Republican co-sponsors, from states as blue as Hawaii and as red as Wyoming.

Congress has already authorized technical assistance to help small nonprofit water companies comply with the Safe Drinking Water Act.

The roving experts, called “circuit riders,” can visit 20 communities a month, helping them fix problems and avoid the costly fines that sometimes result from noncompliance with federal anti-pollution laws.

Similar help is needed for sewer systems, Boozman said.

“Many wastewater treatment systems operated by small and rural communities have few staff and limited resources. As a result they may not [have] the expertise to maintain compliance with the Clean Water Act requirements and may not be able to afford a full-time technical expert. On-site technical assistance and education offered by circuit riders provides a cost-effective way to address this issue,” he said.

Sternberg told the subcommittee that 80 percent of the nation’s 16,000 wastewater utilities serve areas with a population of less than 10,000. The percentage is higher in Arkansas where roughly 340 of the state’s 370 wastewater systems are in small communities, he added.
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Mission flexibility allows you to expand your system as you are ready and on your terms. Mix and match any of our products one at a time or all at once, the choice is yours. That is why you will find Mission SCADA in over 2,300 municipalities across the United States and Canada.

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IS YOUR NAME ON THE LIST?
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Denal Water Solutions, LLC
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Eagle Water Tank Inspection Service
Eco Advance
Engineering America - TANKS
Engineering Services, Inc.
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Ferguson Waterworks
Ferguson Waterworks - Meter & Automation Group
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Instrument & Supply, Inc.
Inetedata Systems
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Luckett Pump
M & H/ Kennedy Valve Company
Magnolia River
Maguire Iron, Inc.
Master Meter, Inc.
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McGoodwin, Williams and Yates, Inc.
McIntire Management Group/D&W System Sales
MIC Sales, Inc.
Midland/MIDCO
Mid-South Tank Consultants
Morrison Supply, Co.
Mueller Company
NEI
Neptune Technology Group
New Water Systems
Nextbillpay
Pittsburg Tank & Tower Maintenance Co.
Pumps and Controls
Red Bud Supply, Inc.
Rep Com/Viva/Metrotech
RG3 Meter Company
Rural Water Impact/Municipal Impact
Rycom Instruments, Inc.
SELTECH, Inc.
ServLine
Sewer Sentry, LLC
Skuph and Associates, Inc.
Site Solutions
Smith-Blair, Inc.
SourceOne Output Technologies
Southern Pipe Supply
T & B Auto Sales, Inc.
TANK INDUSTRY CONSULTANTS
Taylor Power Systems, Inc.
Tencarva Machinery Company
Tomcat Consultants, LLC/T.A.P. Company
TownMate, LLC
Transaction Warehouse, Inc.
USABlueBook
USDA RURAL DEVELOPMENT
Utility Service Co., Inc.
Vermeer MidSouth, Inc.
Water Tech, Inc.
Water Utility Data Base Systems (WUDP)
Wholesale Pump & Supply
Xylem Dewatering Solutions
Arkansas Rural Water Association would like to thank all Exhibitors & Attendees for participating in EXPO 2017!
### Sunday

**ARWA 40th Annual Technical Conference Agenda**

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
<th>LOCATION</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td>ARWA Golf Tournament</td>
<td>Diamondhead Golf Course</td>
<td>Water for the “Water Taste Test” must be turned in by noon on Monday, September 11, 2017. Taste Test - 2:30 pm - 3:00 pm at Exhibit Hall “A” on Monday, September 11, 2017. Winner announced at the Tuesday ARWA Luncheon.</td>
</tr>
<tr>
<td>1:00 pm - 6:00 pm</td>
<td>ARWA Registration - Registration Desk is outside of Exhibit Hall “A” in the Convention Center</td>
<td></td>
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</tr>
<tr>
<td>2:00 pm - 6:00 pm</td>
<td>Exhibitor’s Set-Up</td>
<td>Exhibit Hall “A”</td>
<td>4-Man Scramble</td>
</tr>
<tr>
<td>6:00 pm - 10:00 pm</td>
<td>ARWA Hospitality Room - The Hotel Hot Spring’s BAR</td>
<td>Sponsored by – ARWA &amp; Crews &amp; Associates</td>
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</tbody>
</table>

### Monday

**ARWA 40th Annual Technical Conference Agenda**

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITY</th>
<th>LOCATION</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 am</td>
<td>ARWA Registration Opens</td>
<td>CLASS I WASTEWATER ROOM 207, DIRECTORS AND ADMINISTRATION &amp; OFFICE PERSONNEL ROOM 208, ARKANSAS DEPT of HEALTH ENGINEERING SECTION ROOM 209, GENERAL WATER SESSION ROOM 203, GENERAL WASTEWATER ROOM 204</td>
<td><strong>MONDAY</strong></td>
</tr>
<tr>
<td>8:00 am - 9:00 am</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>EXHIBIT HALL “A” OPEN, CONTINENTAL BREAKFAST, CLOW VALVE FIRE HYDRANT COMPETITION*, ARWA ANNUAL BUSINESS MEETING EXHIBIT HALL “B”</td>
<td><strong>MONDAY</strong></td>
</tr>
<tr>
<td>8:00 am - 9:30 am</td>
<td>BREAK - EXHIBIT HALL OPEN</td>
<td>LADIES PROGRAM - ARLINGTON ROOM (9:00 am - 11:00 am)</td>
<td><strong>MONDAY</strong></td>
</tr>
<tr>
<td>9:30 am - 10:30 am</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>How to Effectively Communicate &amp; Offer Stellar Customer Service to Your Residents through Websites &amp; Social Media, Drinking Water Program Update, Science of Mixing Water Storage Tanks, Sewer Jetting Nozzle Technologies</td>
<td><strong>MONDAY</strong></td>
</tr>
<tr>
<td></td>
<td>Shannon Farmer/Shelly Howay</td>
<td>James Barkie ARWA</td>
<td>Mike Henard, Henard Utility Products, Inc.</td>
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<td></td>
<td>RuralWaterImpact.com</td>
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<td>MunicipalImpact.com</td>
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<tr>
<td>11:00 am - 12 Noon</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>Financing of Improvements To Water &amp; Sewer Systems, Lead &amp; Copper, Latest Developments, The Route To Resilience, Solving The Mystery of Storm Water Inflow &amp; Sewer Gas</td>
<td><strong>MONDAY</strong></td>
</tr>
<tr>
<td></td>
<td>Jill Bryant &amp; Jill Drewyor</td>
<td>James Barkie ARWA</td>
<td>David Putnam, Sewer Sentry, LLC</td>
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<td></td>
<td>Mitchell Williams Law Firm</td>
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<tr>
<td></td>
<td>Teresa Lee, P.E./ADH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Speaker(s)</td>
<td>Company/Title</td>
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<tr>
<td>1:30 pm - 2:30 pm</td>
<td>Class I Wastewater&lt;br&gt;James Barkie&lt;br&gt;ARWA</td>
<td>Economic Update &amp; Water System Sustainability&lt;br&gt;Taylor Gunn &amp; Bentley Hodges&lt;br&gt;CoBank</td>
<td>Wellhead Protection: Connecting the Public with the Science&lt;br&gt;Darcia Routh, P.G./ADH</td>
</tr>
<tr>
<td>2:30 pm - 3:00 pm</td>
<td>BREAK &amp; WATER TASTE TEST - EXHIBIT HALL “A”</td>
<td></td>
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<tr>
<td>3:00 pm - 4:00 pm</td>
<td>Class I Wastewater&lt;br&gt;James Barkie&lt;br&gt;ARWA</td>
<td>Legislative Updates 2017&lt;br&gt;91st Arkansas General Assembly&lt;br&gt;Representative Tim Lemons&lt;br&gt;District 43</td>
<td>Bacteriological Sampling&lt;br&gt;Adam Osmo/ADH</td>
</tr>
<tr>
<td>4:00 pm - 5:00 pm</td>
<td>Class I Wastewater&lt;br&gt;James Barkie&lt;br&gt;ARWA</td>
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<tr>
<td>7:00 pm - 12:00 am</td>
<td>“ARWA DANCE” – “The Billstown Band”&lt;br&gt;Band Sponsored By - HD SUPPLY WATERWORKS, Ltd.</td>
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<tr>
<td>September 12, 2017</td>
<td>ARWA 40th ANNUAL TECHNICAL CONFERENCE AGENDA</td>
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<tr>
<td>Time</td>
<td>CLASS I WASTEWATER&lt;br&gt;ROOM 207</td>
<td>DIRECTORS AND ADMINISTRATION &amp; OFFICE PERSONNEL&lt;br&gt;ROOM 208</td>
<td>WATER ARKANSAS DEPT OF HEALTH ENGINEERING SECTION&lt;br&gt;ROOM 209</td>
</tr>
<tr>
<td>7:00 am</td>
<td></td>
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<tr>
<td>8:00 am - 9:00 am</td>
<td>Class I Wastewater&lt;br&gt;James Barkie&lt;br&gt;ARWA</td>
<td>USDA &amp; ANRC Funding For Utilities&lt;br&gt;Stephen Lagasse, USDA Community Program Director&lt;br&gt;Mark Bennett, ANRC Water Development Division Manager</td>
<td>Water Storages Tanks: Optimizing Design and Operation&lt;br&gt;Lance Jones, P.E./ADH</td>
</tr>
<tr>
<td>9:00 am - 10:00 am</td>
<td>Class I Wastewater&lt;br&gt;James Barkie&lt;br&gt;ARWA</td>
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</tr>
<tr>
<td>Time</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>“Why are Engineers so Expensive?” Aaron M. Benzing, M.S., P.E., Principal Hawkins-Weir Engineers, Inc.</td>
<td>D-DBP Control – What Works Aaron Hilborn, P.E./ADH</td>
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<tr>
<td>10:30 am – 11:30 am</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>NO MEETING</td>
<td>Chlorination</td>
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<tr>
<td>11:30 am – 1:30 pm</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>NO MEETING</td>
<td>Water License Exams &amp; Updates Martin Nutt/ADH</td>
</tr>
<tr>
<td>2:30 pm – 3:00 pm</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>NO MEETING</td>
<td>Class II and Class III Wastewater Exams ADEQ</td>
</tr>
<tr>
<td>3:00 pm – 5:00 pm</td>
<td>Class I Wastewater James Barkie ARWA</td>
<td>NO MEETING</td>
<td>Class II and Class III Wastewater Exams ADEQ</td>
</tr>
</tbody>
</table>

**DINNER ON YOUR OWN**

**WEDNESDAY**

**September 13, 2017**

**HOT SPRING CONVENTION CENTER**

<table>
<thead>
<tr>
<th>Time</th>
<th>Water Exam Room 201-202</th>
<th>Class II and Class III Wastewater Exam Room 203</th>
<th>Class I Wastewater Exams Room 204</th>
<th>Class I Wastewater Exams ADEQ</th>
<th>Lunch (on your own)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 am - 1:00 pm</td>
<td>Water Exams AR Department of Health</td>
<td>Class II and Class III Wastewater Exams ADEQ</td>
<td>Class I Wastewater Exams ADEQ</td>
<td>Class I Wastewater Exams ADEQ</td>
<td>Lunch (on your own)</td>
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<tr>
<td>12 Noon - 1:00 pm</td>
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<tr>
<td>1:00 pm - 5:00 pm</td>
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AN EXCLUSIVE PROGRAM
FOR THE RURAL WATER SYSTEM

AQUASURE is an exclusive program offered through Risk Services of Arkansas/INSURICA and is endorsed by the ARWA. Through the AQUASURE Program you will have access to customized analysis, risk management and insurance solutions that are specifically tailored to the unique exposures your industry faces.

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- Cyber
- Directors & Officers
- Local Claims Service and Professional Safety Consulting

For More Information Contact:
David Feild, Risk Services of Arkansas INSURICA
501.666.6653 | David.Feild@INSURICA.com
USDA Acting State Director Visits Arkansas Rural Water Association

On May 25, 2017, Arkansas Rural Water Association was honored to have Arkansas’ USDA Acting State Director, Karen Petrus and Michelle Y. Wert with USDA D.C. - Faith Based and Neighborhood Partnerships Coordinator.

I was honored to show the two around the ARWA facilities and showcase the equipment ARWA has for systems to utilize in a time of emergency.

ARWA is always excited to have officials drop by and take a tour of our Headquarters/Training Facility.

Karen Petrus, Dennis Sternberg and Michelle Y. Wert

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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DUCTILE IRON PIPE FLOW CONTROL INTERNATIONAL SPIRALWELD PIPE STEEL PIPE
Safety and Risk Management Announcement
This announcement is to inform you of 3M’s voluntary recall of its original DBI-SALA Lad-Saf Sleeve in August of last year.

After more than 30 years of use in the fall protection industry, the original Lad-Saf™ sleeve has been replaced by a completely redesigned next generation Lad-Saf sleeve.

Capital Safety/3M, formerly DBI Sala, reviewed the performance of the original Lad-Saf sleeve in the field, including a limited number of incidents involving a serious injury or death in the United States while using the sleeve. Although their review did not reveal product hazard or risk scenarios that would arise in the ordinary and proper use of the product, it did reveal potential misuse scenarios that could result in serious injury or death. The potential misuse scenarios include interference with the braking mechanism (such as entanglement with cords, lanyards, clothing or other materials, or grasping the sleeve prior to or during a fall), or result from the user attaching the sleeve upside down (user inversion). No safety regulator has made a finding that the design of the original Lad-Saf sleeve is defective.

In light of the reported incidents and potential misuse scenarios, 3M has discontinued sale of the original Lad-Saf sleeve, and are voluntarily initiating a full recall of all original Lad-Saf sleeves.

Owners / Users of original Lad-Saf sleeves must:
Immediately stop using and quarantine all original Lad-Saf sleeves. Affected part numbers are: 6100016, 6116500, 6116501, 6116502, 6116503, 6116504, 6116505, 6116506, 6116507, 6116509, 6116512, 6116535, 6116540, 6116541, 6116542, 6116500C, 6116500SM, 6116507A, 6116540b

Contact 3M Customer Services at 1-800-328-6146 (ext. 2012), or email us at LADSAFNA@mms.com to discuss the replacement of your returned units with an X2 or X3 sleeve, depending on your needs, at no cost to you.

At Risk Services of Arkansas/INSURICA, we take safety and risk management seriously. It’s important to us to bring awareness of this announcement from 3M to our clients and others. The recap of this notice from August of 2016 is being shared as a courtesy and should be acted on according to which product your facility uses. If there are questions or concerns, please reach out to 3M for further advice.
Great day fellow Arkansas Operational Specialists,

Times….they are certainly changing, maybe it’s a new house, better position within your organization, a new baby or grandchild, or the chance to share with someone special in your life. There is a famous saying that the only thing to rely on is change. There are certainly changes about to happen again with the ABC Board of Certification water exams.

As these changes become more finalized and we obtain more information and details from the ADH, be assured that the ARWA will work with the Licensing Division to continue to provide the highest quality training available in our great state.

Speaking of changes, if you live in Rural America like the majority of Arkansans, me included, please pay attention to the Federal budget being proposed as it wipes out funding for RUS programs. These programs are vital to the livelihood of Rural America’s water and wastewater systems. It is up to each constituent to write their Congressional Representative and Senators and encourage them to support funding for these essential rural programs.

The water & wastewater renewal classes have been extremely well attended this year and provide a unique forum with industry professionals. I thank every speaker for their time, expertise, and willingness to help educate Arkansas operators. ARWA has numerous activities planned, such as the scholarship golf tournament, EXPO, and the 40th Annual Technical Conference. We hope to see lots of y’all there.

Until my next letter, please continue to educate yourself and your public, work safe, and most importantly, keep that water flowing.

WHY SHOULD I JOIN?

The rural water and wastewater industry face many challenges now and in the future due to increasingly complex regulations. These regulations place an increasing technical and financial burden on small communities and systems. Rural communities and systems must stay informed to keep up with changing laws and regulations governing their systems. Operators, managers, board members, and owners must maintain an adequate level of training to deal with these changes. ARWA offers numerous services and educational opportunities in order to make this possible. We welcome communities and utilities to join our association.

• ARWA is a non-profit organization with the purpose to assist water systems with day-to-day operational and management problems.
• Largest water and wastewater utility membership association with over 600 utility members.
• Training and renewal hours in Water, Wastewater, Backflow Tester Certification and Backflow Recertification, Backflow Repair, the ARWA EXPO, and the ARWA Annual Technical Conference.
• Governed by a sixteen member non-paid Board of Directors.
• Water Circuit Riders, Wastewater Technicians/Trainers, Water Trainers, and Source Water Technician that provide on-site training and technical assistance.
• Legislative voice for water and wastewater utilities.
• Employs field staff that provides water and wastewater training and on-site technical assistance for ARWA members year-round.
• Through our quarterly magazine, “Water Insight”, members stay up to date on water related news and association activities.
• Comprehensive technical training program for water and wastewater operators, managers and board members.
• Members receive a yearly Training Calendar of continuing education training sessions each January.
• All of the training sessions for operator certification renewal offered by ARWA are approved by Arkansas Department of Health and Arkansas Department of Environmental Quality. Members receive discounted prices at ARWA’s Annual Technical Conference and Operator Expo.
• ARWA works with the Arkansas Department of Health, Arkansas Department of Environmental Quality, the USDA Rural Development Administration, the Arkansas Natural Resources Commission, and other state and federal governmental entities that influence water, wastewater, and solid waste policies in Arkansas.
• Lobbying - Arkansas Rural Water Association monitors water and wastewater legislation in both Little Rock, Arkansas and Washington, D.C.
• NRWA Water Rally - The Washington, D.C. “Water Rally” provides an opportunity for small system representatives to meet with our Congressional delegation to express the concerns of the water and wastewater industry on funding and regulations.
Most rural water and wastewater systems experience cash flow challenges at some point— whether it’s the result of revenue shortfalls, emergency repairs or unbudgeted technology needs. Many of them have found that a revolving line of credit can be the perfect way to fund such unpredictable or variable short-term needs.

Lines of credit can also be a helpful tool for kick-starting new construction projects. With a reliable way to pay for pre-design costs such as preliminary engineering, surveys and environmental reviews, a water system can get its project off the ground while it awaits long-term financing. In most cases, these pre-development costs can then be rolled into the long-term financing once it becomes available.

Here’s how it works: A revolving line of credit is a flexible loan that provides a specified maximum amount that may be drawn as needed, similar to a credit card. Those borrowed funds can then be paid back and re-borrowed against, as new needs arise, at the borrower’s discretion. Interest accumulates on the borrowed amount, and payments can be made interest-only or with principal.

Lines of credit can provide a number of advantages for Arkansas rural water and wastewater systems, including:

1) **Flexible Access to Cash**

Funds can be drawn immediately or as an emergency reserve, or whenever needed, as opposed to a traditional loan, where all funds are advanced upfront whether there is an immediate need or not.

2) **Flexibility of Use**

Funds can be used for any general business need and for multiple purposes, versus many traditional loans that are earmarked for a specific need. A line of credit is the perfect “rainy day fund” for those unplanned needs and helps systems avoid dipping into cash reserves that may be better utilized for larger capital improvements down the road.

3) **Flexible Payment Terms**

Traditional loans have specific repayment periods and set amounts, whereas a revolving line of credit offers flexible payment amounts.

4) **Ability to Pay Down and Reuse**

The revolving nature of the line of credit allows funds to be borrowed, paid back and borrowed again for multiple uses over the line of credit term which is typically one year and extended annually. With a traditional loan, once the funds have been paid down, they can never be borrowed again.

5) **A Benefit for Engineers**

Engineers often have to decide between working for customers who are able to pay them right away for the work they are doing and working for those who cannot pay them until their state, federal or commercial financing comes in. That puts the water and wastewater systems at a disadvantage when they’re seeking in-demand engineering firms for pre-construction work. A line of credit allows the borrower to pay the engineering firms immediately for that work, then roll the costs into the financing once construction begins. Given all the expenses that come before your new project breaks ground, a line of credit can be the difference that allows a utility to hire and pay top-quality engineers up front.

**CoBank as an Experienced Lender to Rural America**

CoBank, a member of the Farm Credit System, has served the borrowing needs of agriculture and rural infrastructure across rural America for over 100 years. Our rural water and wastewater borrowers include not-for-profit associations, municipalities, special districts and investor-owned water utilities.

**Interest Rate Outlook**

In June, the Federal Reserve chose to increase its benchmark Federal Funds rate, increasing the figure to 1.00 percent to 1.25 percent. The Fed governors cited an improving economy, reasoning that a slightly higher rate would help forestall inflation without damaging economic growth.

**CoBank Line of Credit Highlights**

- No fees
- Low, variable rate financing
- Immediate access to cash
- Amounts sized for your specific needs up to $1 million
- Flexible payment terms
- Ability to roll borrowed amounts into longer-term financing

Despite the rate increase, borrowers should not be misled into thinking rates are high. In fact, interest rates are still extraordinarily low by historical standards across the entire yield curve. That’s good news for water systems looking to invest in their systems. Now is an ideal time to invest in the education and technical assistance of employees, as well as exploring newer technologies that can improve operating efficiencies and moving forward with necessary capital improvements.

If you’d like to find out more about whether a line of credit might be right for your water or wastewater system or how we can help finance your next project, please contact Bentley Hodges at CoBank, at 303-793-2139, or bhodges@cobank.com
Arkansas Rural Water Association held their Annual Jack Lambert Memorial Golf Tournament on June 21, 2017 at the Eagle Hill Golf Course in Little Rock, Arkansas. It is a very nice golf course, and thanks to Jeremy Smith, Course Manager, for all his help in organizing the tournament.

I would like to take a moment to Thank everyone who came out and participated in the Arkansas Rural Water Association’s “Jack Lambert Annual Memorial Golf Tournament” with proceeds to benefit the ERNIE FAUCETT Scholarship Fund”. This year 66 players experienced a wonderful day for the tournament, a great golf course, great golf and fellowship. This tournament wouldn’t be what it is today without the great sponsorship from the following companies: Corporate Sponsors - Crews & Associates and HD Supply Waterworks. Other companies donating to the scholarship fund were Smith Blair, Inc., Lee Mastell & Associates, Tyler/Union, Brad Greer & Associates, Sigma Corp., Advanced Drainage Systems, McWane Ductile, and Powerseal Pipeline Products. If one of these companies calls on you in the future, take a minute to thank them for their support of the ARWA Scholarship program which benefits the dependents of member utilities of Arkansas Rural Water Association.

A big thank you to our partners David Field with Risk Services of Arkansas, LLC / INSURICA for sponsoring the lunch for all the players in the golf tournament. The food was excellent and everyone had great comments about the hamburgers and sausages. Thanks to the great cooks, David Field and ARWA staff Terry Fortenberry for assisting in cooking. Thanks to Donna McGaha for handling registration, David Quattleman-official camera man, Jim Philipp, Jim Barkie, Tim Carey, and Shannon Wayson for operating the hospitality wagons for the tournament. We were not able to get pictures of all the winners, as many of them left early.

ARWA will provide Scholarships at Arkansas Rural Water Association’s 40th Annual Technical Conference on September 10-13, 2017 in beautiful Hot Springs, Arkansas.
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- Luckett Pump
- Aquasure
- Henard Utility Products
- Eagle Water Tank Inspection Service
- Baldwin Construction, Inc.
- Environmental Products Mid-South
NOTE: All member systems must be pre-registered for the conference by August 11, 2017 to be eligible for the grand prize drawing for the 4-wheeler.

Please print or type. Complete a separate form for each person. Photocopy if you need additional forms.

NAME ______________________________________________________________________________________________

REPRESENTING _________________________________________________________________________________________

ADDRESS _______________________________________ CITY ______________________________ STATE ___________

COUNTY _____________________________ ZIP __________________ PHONE __________________________________

Enter last four digits of Social Security No. to obtain credit hours (for Water & WW license): _________________

___________ Check here if you have special needs and would like an ARWA Associate to contact you.

ARWA MEMBER:

PRE-REGISTRATION  (includes Registration, 2 Continental Breakfasts and 2 Luncheons)
_____ $165 per person, $150 Aquasure Member Discount per person
_____ $195 per person, after August 11, 2017, $180 per person Aquasure Member Discount

NON-MEMBER:

PRE-REGISTRATION  (includes Registration, 2 Continental Breakfasts and 2 Luncheons)
_____ $240 per person
_____ $270 per person, after August 11, 2017

ARWA MEMBER AT THE DOOR:

REGISTRATION AT DOOR  (includes Registration, 2 Continental Breakfasts and 2 Luncheons)
_____ $220 per person, $200 Aquasure Member Discount per person

NON-MEMBER AT THE DOOR:

REGISTRATION AT DOOR  (includes Registration, 2 Continental Breakfasts and 2 Luncheons)
_____ $295 per person

SPOUSE REGISTRATION - NAME __________________________

SPOUSE LUNCHEONS (2) $75 PER PERSON ________________

ARWA GOLF TOURNAMENT PRE-REGISTRATION FEE: $80 EACH ________________

Golf Tournament will be held at the Diamondhead Golf Club

TOTAL ENCLOSED _______________________

ARWA HAS A NO REFUND POLICY

PLEASE RETURN TO: ARWA Conference, P.O. Box 860, Lonoke, AR 72086

HOTEL HOT SPRINGS & SPA 877-623-6697 $109-single $10 for each additional person all room sizes (cutoff 8/14/17)
ARLINGTON 800-643-1502 $101 single (cutoff 8/10/17)
EMBASSY SUITES 501-321-4430 $144 single (cutoff date 8/9/17)
Mention you are attending the ARWA Conference to get these rates
Arkansas Rural Water Association is looking for the “BEST TASTING WATER” in the state.

The State Water Taste Test will be held on Monday, September 11th, 2017 at 2:30 pm - 3:00 pm at the ARWA Annual Technical Conference in Hot Springs, Arkansas.

All member water utilities are encouraged to enter.

Arkansas Rural Water Association will choose the best of the best to represent the Arkansas Rural Water Association in Washington, D.C. at the NRWA Water Rally February 5-7, 2018.

Systems need to bring a quart of water, labeled with their system name, to the ARWA Annual Technical Conference registration desk by Noon on September 11th, 2017.

For more information, contact the Arkansas Rural Water Association at 501-676-2255.

2016 WINNER
City of Chidester
Energy is the ability or capacity to do work. The most common form of energy used in water/wastewater treatment plants is electric energy. Water and wastewater treatment plants are typically the largest energy consumers, often accounting for as much as 30 to 40 percent of the total energy used in a municipality. Currently, energy costs can form a bigger portion of the operational budget for water/wastewater utilities, second only to staffing.

The largest energy used by far for many water utilities is pumping. For surface water systems, it is estimated that, on average, 86 percent of total energy demand is for raw, in plant, and finished water pumping. For groundwater systems, pumping is an even higher amount, because treatment energy costs are often insignificant.

The largest energy used by wastewater treatment plants is aeration. Aeration is the single largest energy user, on average, being 50 percent, followed by pumping systems. Improving the operation of aeration systems is one of the best ways to reduce the energy costs for wastewater treatment.

How do you save energy?

1. Don’t design it wrong
   - Invest in a good design
   - Decide how it will operate before spending too much time with layouts and equipment
   - Pick pumps/motors that will operate efficiently
   - Consider VSD’s or smaller pumps to improve efficiency at low flows

2. Operate smart
   - Pump as slow as possible
   - Utilize storage to level out pumping rate
   - Eliminate throttling

3. Fix stuff
   - Test pumps on a regular basis
   - Perform a visual inspection of interior
   - Modify or replace the impeller to match the conditions
   - Replace old motors that are pre Energy Act, 1992 to 1997

Many systems I have visited spend unnecessary funds rewinding motors, which will actually make the motor less efficient, rather than purchasing newer high efficiency motors. Easier said than done to buy a new motor. If you figure the costs of the new motor, the efficiency of a new motor, annual kWh saved, and the payback in months from your new investment, it’s definitely worth the money and the headache of future breakdowns due to aged equipment that has been poorly maintained or not maintained at all.

If you need further information on how to save energy, please feel free to contact us at 501-676-2255.
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<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personalized Company Info</td>
<td>Affordable Monthly Fee’s</td>
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<td>Multiple User Security Levels</td>
<td>Automatic Tracking Of Inquiries</td>
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<tr>
<td>New Customer Inquiries</td>
<td>Notice Of Matches Upon Login</td>
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<td>Debt Customer Entry</td>
<td>Establishes Communication</td>
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<tr>
<td>Built In Request Forms</td>
<td>Ultimately Reduces Bad Debt</td>
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</tbody>
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A rural water district located between the Ozark and Ouachita Mountains in Alma, Arkansas, Highway 71 Water District No. 1, services approximately 2,500 water customers scattered across 175 miles of distribution lines throughout the countryside. The utility prides itself on providing safe, high-quality water to its community, while maintaining a standard of excellence in customer service and environmental conservation.

However, Highway 71 was facing challenges. The large service area and distance between meters made it difficult to detect leaks, resulting in high percentages of water loss. Highway 71 managers knew something had to be done.

**Finding a Leak Detection Solution**

Working with its local metering distributor, Henard Utility Products, Highway 71 identified potential solutions. “The team at Highway 71 had tried several leak detection solutions in the past. When we introduced Badger Meter’s BEACON® Advanced Metering Analytics (AMA) managed solution, they found the system that met their needs,” said Mike Henard, owner of Henard Utility Products. “Highway 71 was already familiar with Badger Meter, having used the company’s drive-by automatic meter reading technology, ORION® Classic (CE), for nearly 10 years. So, the utility knew Badger Meter would offer reliable and accurate water meters and meter reading systems.”

BEACON AMA is a cloud-based software analytics platform that provides utilities with real-time actionable data to monitor and manage their water systems. Its first-in-the-market cellular network technology, ORION Cellular, was ideally suited for most of the Highway 71 installations. Because BEACON AMA is also compatible with fixed network and drive-by meter reading systems, it provided flexibility in deployment for those areas of the district that did not receive strong cellular signals. By implementing the BEACON AMA solution, Highway 71 employees were able to monitor meters from the office to identify areas with leaks, saving considerable time and money in obtaining meter readings across the large rural countryside.

Along with the decision to implement BEACON AMA to help identify leaks in its system, Highway 71 leaders also needed an effective way to further isolate the location of the leaks so they could be quickly fixed to reduce water loss.

**Zoning for a Solution**

“Because our system encompasses a large area of land, we decided to implement a zoning or district metering solution. By breaking down the system into ten zones, we were able to...
to come.

With these solutions in place, Highway 71 Water District No. 1 is well-equipped to offer its rural Arkansas customers safe, high-quality water and exceptional customer service for years.

Badger Meter’s stainless steel E-Series Ultrasonic meters use solid-state technology in a compact, totally encapsulated, weatherproof, and UV-resistant housing and monitor consumption, rate of flow, reverse-flow indications, and alarms.

“They are designed to be used where reliability and accuracy are of utmost importance. The E-Series meters are battery-powered, have no moving parts and will be more accurate over time compared to mechanical meters. I trust that these meters will be reliable, accurate and will last,” said McChristian.

Badger Meter’s ModMAG® M-Series® battery-powered mag meters. Like a tree trunk, the zone meters serve as the intermediary to the residential “branches” or meters. With the implementation of the district metering solution and BEACON AMA, Highway 71 was able to identify numerous leaks throughout its system, equaling approximately 125 gallons of water a minute. With the new solution in place, Highway 71 easily located the leaks and repaired the damage, saving the utility $260,000 a year in non-revenue water purchased from its supplier.

“We are still looking at the BEACON AMA – we currently have 227 units deployed on zone and residential meters – we are already seeing results. We’ve cut down on time spent reading meters and have cut our water loss in half,” McChristian added. “In fact, the BEACON AMA solution has already paid for itself. We could not be happier.”

Highway 71 customers have also started to use the EyeOnWater® mobile and tablet application that is part of BEACON AMA. When using the app, utility customers can see and understand their water use in real time, allowing them to take a hands-on approach to monitoring their water usage. The utility is saving time in responding to customer questions, and its customers now have greater control of their water consumption.

The BEACON AMA and district metering solutions have saved Highway 71 money, time and water. With increased revenue coming to the utility, Highway 71 was even able to hire a new full-time employee and is upgrading its meters.

### New Meters

“The money we’ve saved identifying and repairing costly leaks in our system will now be used to upgrade our meters. We will be deploying Badger Meter’s E-Series® Ultrasonic meters and High-Resolution Encoders (HR-E®). Our team liked that the E-Series meter has no moving parts and will be more accurate over time compared to mechanical meters. I trust that these meters will be reliable, accurate and will last,” said McChristian.

Badger Meter’s stainless steel E-Series Ultrasonic meters use solid-state technology in a compact, totally encapsulated, weatherproof, and UV-resistant housing and monitor consumption, rate of flow, reverse-flow indications, and alarms.

With these solutions in place, Highway 71 Water District No. 1 is well-equipped to offer its rural Arkansas customers safe, high-quality water and exceptional customer service for years to come.

### Highway 71 Solution

- **BEACON® Advanced Metering Analytics (AMA)**
- **ORION® Cellular endpoints**
- **EyeOnWater® smartphone/tablet app**
- **E-Series® Ultrasonic meters**
- **ModMAG® M-Series® mag meters**

### Results

- Faster and more accurate leak detection
  - Non-revenue water loss is tracked daily
  - System is easily deployed and flexible
- Increased operational efficiency and cost savings
  - Reduced truck rolls and employee costs generate cost savings
  - Savings enabled utility to hire new employee and replace older meters
- Improved customer service
  - Faster customer notification of leaks
  - Customers can easily see their water usage via smartphone or tablet
  - More detailed usage information enables the utility to proactively reach out to customers who may have an issue and quickly resolve billing questions

Making Water Visible®

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All of our regular training classes are free of charge to all ARWA members. Non-members will be charged $99 a day for each person attending our training sessions effective January 1, 2015. These fees cover the cost of training materials provided in each class. If you want to update your ARWA membership you can print our membership form online at www.arkansasruralwater.org

You can also call us directly at 501-676-2255.

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27.44 seconds – City of Lonoke

2nd Place: Eric Havens
36.25 seconds – Wooster Water

3rd Place: Justin Surratt
37.66 seconds – Paron-Owensville PWA

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Is generating water from the atmosphere even possible? According to Wikipedia, an Atmospheric Water Generator (AWG), is a device that extracts water from humid ambient air. Water vapor in the air is condensed by cooling the air to a temperature below the dew point, exposing the air to desiccants (an item that draws moisture to it, causing everything around it to stay dry), or pressurizing the air.

This sounds simple, but realistically it can be pretty expensive to do. Some of the AWG processes require a lot of energy to function. There are traditional processes that rely on natural temperature differences and require no outside energy source. Some research has developed AVG technologies that produce useful yields of water at a much lower cost.

The Incas were able to maintain their culture in an area above the rain line by collecting dew and channeling it to cisterns where they stored this water for later distribution. Their collection process was similar to the use of a type of fog fence. A fog fence is a canvass or some other large surface where the moisture in the fog is collected for later use. This type of water collection would be fairly inexpensive. They require no external energy source other than the natural changes in air temperature.

Finding new water resources is becoming critical, because the world’s lakes, aquifers and streams are being drained and not replenished. The world’s ice glaciers are shrinking. The depletion of water resources has become a real problem in parts of the United States. As water costs continue to increase, the process of generating water from the atmosphere could become more attractive if the costs associated to it can be kept at a minimum.

In South Texas one company did a study attempting to justify producing water using atmospheric water generation at a reasonable cost as opposed to bringing water in by truck, train, or by pumping the water to the location desired. This study found that to supply the 20,000 barrels of water per day required for the proposed job and with the mobility required to do the job at hand, the cost would be $0.11 per gallon using atmospheric water generation. This cost does not reflect the initial investment in the equipment required to produce the water. Their cost to haul the water would be around $0.18 per gallon after purchase of the water.

For a location that has no access to water locally, atmospheric water generation might be a viable option. The cost to produce water using this method would be pretty extreme if there are other options available. This is a virtually untapped source, but is the cost too much?
### 2017 ARWA TRAINING SCHEDULE

#### BACKFLOW TESTER CERTIFICATION

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Address</th>
<th>Instructors</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/10-14/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Jeff Ford/Terry Fortenberry</td>
</tr>
<tr>
<td>10/23-27/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
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#### BACKFLOW TESTER RE-CERTIFICATION

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<td>8:00 am – 5:00 pm</td>
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<td>240 Dee Dee Lane – Lonoke</td>
<td>Jeff Ford/Terry Fortenberry</td>
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#### BACKFLOW REPAIR

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<td>8:00 am – 5:00 pm</td>
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<td>240 Dee Dee Lane – Lonoke</td>
<td>Jeff Ford/Terry Fortenberry</td>
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#### ARWA WATER TRAINING SCHEDULE

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<td>7/25/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>Community Center</td>
<td>222 Webber St – West Fork</td>
<td>Basic Water Math</td>
<td>Jim Philipp</td>
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<tr>
<td>7/27/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>Community Center</td>
<td>222 Webber St – West Fork</td>
<td>Applied Water Math</td>
<td>Jim Philipp</td>
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<tr>
<td>8/15-17/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>Operations Center</td>
<td>710 E Main St – Clarksville</td>
<td>Intermediate Distrib.</td>
<td>Jim Philipp</td>
</tr>
<tr>
<td>8/30-31/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Water Exam Review</td>
<td>Jim Philipp</td>
</tr>
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<td>9/26-28/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>Community Center</td>
<td>222 Webber St – West Fork</td>
<td>Basic Treatment</td>
<td>Jim Philipp</td>
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<td>Advanced Distrib.</td>
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<td>Community Center</td>
<td>222 Webber St – West Fork</td>
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<td>Water Exam Review</td>
<td>Jim Philipp</td>
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<td>12/12/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Basic Water Math</td>
<td>Jim Philipp</td>
</tr>
<tr>
<td>12/14/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Applied Water Math</td>
<td>Jim Philipp</td>
</tr>
<tr>
<td>12/19-21/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Basic Distribution</td>
<td>Jim Philipp</td>
</tr>
</tbody>
</table>

#### ARWA WASTEWATER TRAINING SCHEDULE

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<tr>
<th>Date</th>
<th>Time</th>
<th>Location</th>
<th>Address</th>
<th>Class</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>7/11-13/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>NTI Collegiate Building</td>
<td>709 S. Old Missouri Rd. – Springdale</td>
<td>Class I WW</td>
<td>Jim Barkie</td>
</tr>
<tr>
<td>7/17-21/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Class III WW</td>
<td>Susan Poe</td>
</tr>
<tr>
<td>8/14-17/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Class II WW</td>
<td>Susan Poe</td>
</tr>
<tr>
<td>9/11-13/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>Hot Springs Conv Center</td>
<td>134 Convention Blvd – Hot Springs</td>
<td>Class I WW</td>
<td>Jim Barkie</td>
</tr>
<tr>
<td>10/16-19/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>Charles R. Newton Center</td>
<td>170 Dillard Rd – Midway</td>
<td>Class II WW</td>
<td>Susan Poe</td>
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<tr>
<td>12/4-8/2017</td>
<td>8:00 am – 5:00 pm</td>
<td>ARWA Training Center</td>
<td>240 Dee Dee Lane – Lonoke</td>
<td>Class III WW</td>
<td>Susan Poe</td>
</tr>
</tbody>
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To see our entire schedule of classes or to get more details please go to our website:

[www.arkansasruralwater.org](http://www.arkansasruralwater.org)
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**Rural Cooking**

### Pecan Chicken
4 boneless, skinless chicken cutlets (tenders or sliced breast)
3 Tablespoons stoneground mustard
3 egg whites
1 cup bread crumbs
½ cup chopped pecans
½ cup heavy cream
Olive oil

Heat a large skillet with olive oil over medium heat. Mix 2 tablespoons mustard and egg whites together in one dish. In another dish, mix bread crumbs and pecans. Dip the chicken in the egg white mixture, then into the bread crumbs. Cook chicken in the heated oil for about 5 minutes on each side, until cooked through. Reduce the heat if the coating gets too brown. Remove chicken from pan, leaving drippings. Whisk the heavy cream and 1 tablespoon mustard into the pan drippings. Heat until it begins to bubble, and serve over warm chicken.

### Blueberry Jell-O Salad
2 3oz packages grape gelatin
2 cups boiling water
21 oz blueberry pie filling
20 oz canned crushed pineapple undrained
8 oz cream cheese at room temperature softened
16 oz sour cream
1 teaspoon vanilla
½ cup chopped pecans or walnuts
Whole blueberries for topping

Dissolve gelatin in boiling water. Let stand in refrigerator until syrupy, about 15 minutes. Add pie filling and pineapple. Pour into casserole dish and refrigerate until gelatin mix is set. When set, mix together cream cheese, sour cream, vanilla, and nuts. Spread on top of gelatin mixture. Garnish with whole blueberries. Slice into squares and serve.

### Buttermilk Chess Pie
2 sticks butter
3 cups sugar
6 large eggs beaten
½ cup flour
1 teaspoon salt
2 teaspoons vanilla
1 cup buttermilk
2 9” unbaked pie crust

Combine all the filling ingredients into a bowl and mix well. Pour half the mixture into each unbaked pie crust. Bake at 350 degrees for 45 minutes or until set. Let pies cool on a wire rack before serving at room temperature. Top with fresh whipped cream.

### Fresh Whipping Cream
1 pint heavy whipping cream
¾ cup sifted powdered sugar
1 teaspoon vanilla

The most important step before you begin to make homemade whipped cream, is to make sure everything is really cold. Place the beater and bowl of the mixer in the freezer for about 15 minutes. Also place the heavy whipping cream in the freezer at the same time.

As the beaters whip the cream the coldness of the bowl helps the cream maintain its structure. If the cream is not cold, it will have a little more liquid at the bottom.

Place the cream, powdered sugar and vanilla in a stand mixer. Turn the mixer on low at first, until all the ingredients are fully mixed. Then turn the mixer on medium speed. Medium speed is the key to making the best homemade whipped cream.

Whip the cream until almost stiff peaks form. The best way to tell if it is ready, is when the beaters are lifted out of the cream you can see little peaks, that do not fall right away. If you whip too much you will make butter.

### Egg Salad
6 hard boiled eggs
4 pieces of cooked bacon
½ cup shredded mild cheddar cheese
3 Tablespoon mayonnaise
½ teaspoon salt
¼ teaspoon fresh cracked pepper

Place hard boiled eggs in a mixing bowl along with the mayo, salt and pepper. With a hand held mixer blend into a semi creamy mixture. Add finely chopped bacon and cheddar cheese into the egg mixture. Serve on toasted bread. Add fresh spinach if you like.

### Sausage and Pepper Frittata
1 pound ground sausage
½ yellow onion, diced
1 cup diced bell peppers
4 cups fresh spinach
Salt and Pepper
8 large eggs, whisked
½ cup milk
½ cup shredded sharp or mild cheddar cheese, whichever you prefer

Preheat oven to 350 degrees. In a large oven proof skillet, (like cast iron) brown sausage. Drain grease. In same skillet sauté the onion for a minute, stirring to get browned, and add bell peppers and cook an additional 4 minutes. Add the spinach 2 cups at a time to the skillet stirring until it begins to wilt. This looks like a lot of spinach, but it will wilt down.

In a separate bowl, crack 8 large eggs and add the milk, cheese, salt and pepper. Whisk until combined, and pour the mixture into the skillet with the veggies and sausage. Stir once to make sure everything is evenly spread among the egg mixture. Let cook 5 minutes, or until the edges of the frittata start to pull away from the sides of the skillet. Transfer to the preheated oven for 18 minutes, until completely set and slightly golden.
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 January 1, 2017. 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.

<table>
<thead>
<tr>
<th>EXAM DATE</th>
<th>REGISTER DEADLINE</th>
<th>CITY</th>
<th>LOCATION</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1/2017</td>
<td>7/18/2017</td>
<td>Fayetteville</td>
<td>Fayetteville Operations Center, 2435 S Industrial Dr</td>
<td>9:00:00 AM</td>
</tr>
<tr>
<td>9/1/2017</td>
<td>7/18/2017</td>
<td>Lonoke</td>
<td>ARWA Training Facility, 240 Dee Dee Ln</td>
<td>9:00:00 AM</td>
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<tr>
<td>9/1/2017</td>
<td>7/18/2017</td>
<td>Mtn. Home</td>
<td>Baxter Co OEM Training Facility, 170 Dillard Dr, Midway</td>
<td>9:00:00 AM</td>
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<tr>
<td>9/8/2017</td>
<td>7/25/2017</td>
<td>Camden</td>
<td>AR Environmental Training Academy, 100 Carr Road</td>
<td>9:00:00 AM</td>
</tr>
<tr>
<td>9/8/2017</td>
<td>7/25/2017</td>
<td>Clarksville</td>
<td>CLW (Operations Bld) 710 East Main (Hwy 64 East)</td>
<td>9:00:00 AM</td>
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<tr>
<td>9/8/2017</td>
<td>7/25/2017</td>
<td>Jonesboro</td>
<td>Jonesboro CWL Office Training Rm, 400 E Monroe</td>
<td>9:00:00 AM</td>
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<tr>
<td>9/13/2017</td>
<td>7/31/2017</td>
<td>Hot Springs</td>
<td>ARWA Conference, HS Convention Center</td>
<td>9:00:00 AM</td>
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<td>12/1/2017</td>
<td>10/17/2017</td>
<td>Fayetteville</td>
<td>Fayetteville Operations Center, 2435 S Industrial Dr</td>
<td>9:00:00 AM</td>
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<tr>
<td>12/1/2017</td>
<td>10/17/2017</td>
<td>Lonoke</td>
<td>ARWA Training Facility, 240 Dee Dee Ln</td>
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<td>12/1/2017</td>
<td>10/17/2017</td>
<td>Nashville</td>
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The above exam session information is subject to change. You should confirm this information just prior to the scheduled examination period. Also, the latest exam schedule information can be viewed on the Internet at: <http://www.healthy.arkansas.gov/eng/autoupdates/oper/operexam.htm>.

You must register for the paper-based exam, at least, 45 days in advance.
Please use this webpage to register for an exam: https://health.arkansas.gov/wa_engTraining/ExamType.aspx or call (501) 661-2623, ask for Water Licensing Program.

Please verify that your license application has been filed with this office and that the required exam fee for each exam has been paid. The license exams require significant preparation prior to sitting for the exam. The preparation must include extensive study utilizing the study guide and recommended reference materials. Credit for the mandatory Certification Training Courses must be obtained before taking an exam. Copies of your training documentation must be provided when registering for an exam or provide documentation of its attendance by the exam session.
ARWA GETS LETTERS AND E-MAILS FROM SYSTEMS

• Dennis Sternberg
  March 6, 2017
  I am Jon Brown, Operations Manager for Arkansas State Parks. I wanted to drop you a short email to thank you and your team for outstanding training for my Wastewater and Water Plant operators in Arkansas State Parks. I am over the state park water & wastewater treatment plants program along with the day- to-day operations of our 52 state parks in Arkansas. I am responsible for all training for all my 450 employees within the state park system and your training in keeping our (30-35) operators up to date in current certifications. I also have a class III water and wastewater license since the late 1980’s, and your agency and team has been there to assist in our agency to meet all state and federal requirements. The past few years, you have had Jim Philipp, training officer, that has built a great relationship with our agency and built a great education base for future growth. I learned from my past training class by Jim, the program of improving lift station maintenance. This education is going to save the state thousands of dollars in cost over the next few years. Also, Jim indicated a new requirement on cleaning out elevated water storage tanks every five years. I am requesting if you could have Jim or someone in your agency to send me that regulation. I will start implementation of this requirement. Once again, your staff has excellent training skills and I’m looking forward to having our second class at Ozark Folk Center in the near future. Thanks again to Jim Philipp and staff.

Jon Brown, Manager
Arkansas State Parks

• Hey Dennis,
  March 9, 2017
  I wanted to let you know how much I appreciate Chris Harris’ assistance to our system. Chris responded to my call for help concerning an air problem I was having on 12/28/16 while he was on vacation for the holidays. I cannot express how important it was to me for Chris to come to my system at a time when most were home with families. It sure shows his dedication and concern to help when the call comes in.

Sincerely,
Elizabeth Shelton
SPG WATER

• Mr. Dennis Sternberg
  March 16, 2017
  Thank you for sending David Quattlebaum to help us with the City of Rosston’s vulnerability assessment and emergency response plan. He was a lot of help and had a lot of information.

Thanks again,
Lewis Jackson, Mayor
The City of Rosston

• Dennis,
  March 21, 2017
  Please pass along a special thank you to your staff for their assistance in preparing our Emergency Response Plan and Vulnerability Assessment. Two years ago, Jim Philipp helped with the first one and today David Quattlebaum assisted with the updates. Susan Poe was scheduled to be here at 9:30 AM, but, at the last minute, she had to cancel. She was able to get David to fill in for her which kept me from having to reschedule. I appreciate their efforts. You have an exceptional staff that has helped Lonoke White PWA in many ways. That includes me personally with training. In 2013, your instructors made it possible for me to get the proper training in order for me to pass the D-4 and T-4 test.

Thanks again,
Woody Bryant, General Manager
Lonoke White PWA

• Mr. Sternberg,
  March 22, 2017
  I would like to express my gratitude to David Quattlebaum for getting our Source Water Protection and Emergency Response Plan up to date. The time he spent driving around the area to update the assessment area is highly appreciated. It is very thorough, and we couldn’t have done it without him. We have been working on Emergency plans for our other departments, and it’s a relief to have such a comprehensive one already prepared for our Water department.

Sincerely,
Christina Walker
Dover Water & Sewer

• Mr. Sternberg,
  April 10, 2017
  The City of Blue Mountain Water Department and the citizens of Blue Mountain would like to thank you and Mr. Josh Freeman for his efforts in completing operational tests on some of our residential water meters. We have been having error concerns about these particular meters for some time. Josh was very efficient and did an excellent job in testing these meters, and he has helped us to solve the problems associated with these meters. Also, Mr. Freeman taught us how to run flow tests and pressure tests on all of our fire hydrants and even loaned us the “Pitot Gauge” to conduct the tests. These tests are very important for us to meet the very rigorous requirements for our community’s I.S.O. rating updates. The assistance that you, Josh, and your entire staff provide the rural water systems of Arkansas is priceless. You continue to help us make our water systems safer, with greater efficiency, and with better quality water than ever before. We appreciate the timely response to requests that you have always shown us and we are forever indebted to you.

Again, Thank you,
Henry Chamberlain, System Operator
The City of Blue Mountain Water Department

• Dear Dennis,
  April 3, 2017
  On behalf of myself, our Board of Directors, and our staff here at City Corporation, I want to extend our sincere appreciation to you and the ARWA staff for providing the testing of our fire hydrant meters. Our Customer Service Tech, Ricky Biffle, was very appreciative and complimentary of Josh Freeman who conducted these tests on behalf of ARWA. Please extend our appreciation to him as well. The results that we obtained were very helpful and provides us with key information that will have a direct impact on our revenues and unaccounted water. As with most water systems, we are doubling our efforts with respect to unaccounted water, and this service that you provide free of charge allows us to address that contributing factor. I have also spoken with David Quattlebaum, your Source Water Protection Technician at ARWA, and we are working on a date when he will come to discuss developing a Source Water Protection Plan much like he has done for our neighboring system, Tri-County Regional Water. Again, we thank you and ARWA for providing such services free of charge which allows us to better manage our facilities. We value our membership with ARWA and really appreciate all you folks do for us and other facilities across Arkansas.

Sincerely,
Steve Mallett, Chief Executive Officer
City Corporation

• April 15, 2017
  I would like to thank the staff for the most needed help at Cotton Plant Water Dept. Rodney Baldwin, and Tim Carey.
Your assistance was most appreciated. Thanks.

Tony Scroggins
Cotton Plant Water dept.

• Dear Mr. Sternberg, April 18, 2017
  I am writing today because I have not expressed the appreciation the City of Mayflower has for the hard work that Arkansas Rural Water Association provides to our state. Mr. Sternberg, I deeply appreciate your immeasurable support that you provide in Arkansas and in Washington D.C. to ensure the required attention that is needed for federal regulation and aide. I also would like to applaud you for the most respected, knowledgeable, and professional support team that is onboard with ARWA. This association is a tremendous asset to small water and wastewater companies in this state. I would also like to thank some of the other team members for the wonderful job they are doing. A few months ago, I learned that ARWA provided a service that I did not know about, and that is GIS Mapping for water & wastewater systems. I spoke to Mr. Jeff Ford about when the City of Mayflower could get on schedule for this service and within just a few months they got started on our system. Thank you Mr. Jeff Ford, Mr. James Philipp, and Mr. Roy Richards. I appreciate the hard work that has been accomplished in the short period of time. Thank you again ARWA for all the support, training, and hard work you provide.

Respectfully,
Raymond Arnold, Superintendent
The City of Mayflower

• Dennis, April 21, 2017
  I would like to thank the ARWA and Josh Freeman for testing our master meters. Your help is very much appreciated. You all provide a great service to us water operators and to our water systems. Again, thank you.

Rodney Reynolds
Madison County Water Facilities Board

• Dear Dennis, May 4, 2017
  At a time when I needed a helping hand on a very stressful water main leak situation, Chris Harris was there! Chris made himself available to our system when he was knee deep in alligators. He was extremely busy helping a neighboring system, but when I asked for help, he was there. I don’t know if he has ever been referenced as a hero, but he was that day. I just can’t say how important that help was to me as a water operator at a time when things were overwhelming, as we all know! Thanks to you all at Arkansas Rural Water we operators, can provide safe drinking water to all our friends and family.

Sincerely,
Elizabeth Shelton
SPG Water Association, Inc.

• Dear Mr. Sternberg, April 27, 2017
  This letter is in appreciation for the assistance of Mr. David Quattlebaum yesterday, April 26th in the updating of the City of Leslie’s water and wastewater VA and ERP. Thank you, Mr. Sternberg, Mr. Quattlebaum, and all the others in your organization for all that you do to assist rural water systems.

Sincerely,
Benny Davis, Recorder/Treasurer
City of Leslie

• Dennis Sternberg, May 1, 2017
  Thank you so much for sending David Quattlebaum to complete the Vulnerability Assessment and Emergency Response Plan for Sugarloaf Wastewater Treatment Plant. We appreciate your help.

Thank You
Sheila Tucker, Sec/Treas
David Green, Plant Operator
Sugarloaf Wastewater Treatment District

• Dear Mr. Sternberg;
  I would like to thank Tim Carey for his help repairing a leaking fire hydrant. We had a fire hydrant that would not shut off. We are just a small system and don’t have the tools to rebuild fire hydrants. I called Tim Carey and he said he had the tool and would be glad to help. He came by and about 30 minutes later we had a rebuilt hydrant. Thanks again for all Arkansas Rural Water does to help small water systems.

Clint Rhine
City of Briarcliff

• ARWA,
  The City of Havana would like to thank you for the time and equipment provided to conduct the smoke test on our sewer system. We certainly appreciate Jim Barkie for his expertise and knowledge of the process. Many repairs have been made, and it appears that there is already a major difference in the amount of ground water infiltrating into the system. As you know this will save our department money and expand the life of our pumps. We appreciate all that you do and are grateful to be a member of ARWA.

Sincerely,
Rick Bryant, Mayor
City of Havana

• God Bless your day of blessings filled to the brim, a day of good things that come from him. A day of beauty, a day of grace, a day of sunshine touching your face. A day that keeps you in peace and rest, a day that brings you all of God’s best. There’s so much in God’s heart for you! Praying his blessings overflow in your life today. Big thank you David Quattlebaum. You were such a big help.

Lizzette Slaughter

• Dear Mr. Sternberg,
  I am writing this letter on behalf of the City of Minturn. Our city would like to thank you personally for the help Arkansas Rural Water Association provided to our small community. I would especially like to thank Rodney Baldwin and Roy Richards for all of their hard work and time they have put into helping us with getting our city’s sewer system up and running again. These two men were exceptional in the work that they done and the help that they provided. On behalf of our community, thank you for your company’s assistance. It is truly appreciated.

Sincerely,
Gary Light
City of Minturn

• June 2, 2017
  Thank you for the invaluable teaching that Mr. Jim Philipp provided for me. I turned in my test, confident that success was there. Thanks’ ARWA!!! See you in June for the Expo.

With gratitude,
Victor Barnes

• June 4, 2017
  I just wanted to let you know that I have attended several of Jim’s classes in an effort to pass my Treatment IV exam, which I took Friday. Jim has been very helpful to me during the classes as well as outside of class. I texted him several times even on weekends, and he always got back to me. I just wanted to tell you that I also appreciate everything that the ARWA does. Hope you can continue these services in the future, for they are very helpful.

Keith Johnson
Mtn. View Water
Fire Hydrant Maintenance

By Terry Fortenberry, ARWA Circuit Rider

Just like any other part of a water system, Fire Hydrants require some maintenance to ensure proper operation. When installing Fire Hydrants, they should be installed so proper operation and maintenance will be ensured.

When installing a Fire Hydrant, the location should be one that will ensure that the Hydrant will not be damaged by something hitting it or should be protected in some manner that will prevent the Hydrant from being hit and damaged. Break away Hydrants have a mark that indicates the bury depth, so if the Hydrant is hit, it will break at the break away point to prevent total damage to the Hydrant.

When installing a Fire Hydrant, if it is a dry barrel type, which is common in cold weather states such as Arkansas, this type is designed to drain the water from the barrel of the Hydrant after it is turned off. This is accomplished by water draining through weep holes located in the foot of the Hydrant. To ensure this will happen, the area around the foot of the Hydrant should be filled with washed gravel to prevent the weep holes from becoming plugged with dirt, which would result in the hydrant not being able to drain thus having the chance of freezing and bursting in cold weather.

Also, the Hydrant should be blocked to prevent it from blowing off. When doing this, care should be taken to prevent plugging the weep holes.

Installing a valve in front of the Hydrant is a good idea. It will help in repairing the Hydrant should it be necessary to replace a damaged seat, or if the Hydrant was to get broken off due to something hitting it, the valve could be used to shut the water off to just the Hydrant until it could be repaired.

Some maintenance that is necessary on Fire Hydrants is to periodically check the lubrication of the operating nut. To ensure easy operation of the Hydrant, this lubrication is usually achieved by an oil filled reservoir in the Hydrant bonnet. The oil level can be checked and added, if needed, by a plug located in the bonnet or in the top of the operating nut. On other brands of Hydrants, this lubrication is achieved by adding grease through a grease fitting located on top of the operating nut. Sometimes the operation of the Hydrant operating nut can become impossible if this lubrication is not added and maintained, and it may be necessary to disassemble the operating nut and clean it.

(continued next page)
The caps on the outlets should be removed and the treads should be cleaned with a wire brush and lubricated with a small amount of food grade grease and then replaced, so the caps can be removed with little effort when necessary.

When shutting a Hydrant off, it should never be necessary to apply a lot of force in order to shut the Hydrant off. The Hydrant should never be forced shut, because this could damage the seat if there was something like a rock in the seat. If a Hydrant will not shut off with little force, this could be an indication that there is something in the seat. Forcing the Hydrant could damage the seat, thus resulting in having to replace the seat. If the Hydrant will not shut off with little force the Hydrant should be reopened to full flow to try to remove anything that may be lodged in the seat. If this doesn’t work, it may be an indication that the seat is in need of replacing. If it is noticed that water is leaking from around the barrel of the Hydrant that is shut off, this could be an indication of a bad seat. A way to determine if this leaking is due to a bad seat or due to something else would be to open the Hydrant, full flow, with the caps still on the outlets of the Hydrant. This leakage will stop if it is due to a bad seat. Caps and outlets should be in good condition in order for this to be done.

If ARWA can be of any assistance in helping you with Fire Hydrant Maintenance or any other matter, please contact us at 501-676-2255.
NRWA Fleet Program

The National Rural Water Association has created partnerships with the Ford Motor Company and the Chrysler Group to offer special fleet discounts to State Rural Water Associations and their utility system members.

The Rural Water 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.

Contact your State Rural Water Association to access the Rural Water Fleet Program. Vehicles may be purchased at your local dealer or through the national fleet auto group at www.nrwafleet.com.

Incentive discount pricing is available on fuel efficient cars, vans, SUVs and trucks. Systems can save up to $6,750 off factory invoice per vehicle.

Happy shopping!

Program Details

- Entities must be current members of State Rural Water Associations to be eligible
- 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 Arkansas Rural Water Association 501-676-2255 to get your Fleet Identification Number (FIN)
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