ZANESVILLE, OHIO: The Ohio Rural Water Association (ORWA) reviewed our work for the first quarter of 2018 and determined that the organization provided over $975,000 in total benefits to Ohio’s rural water and wastewater utilities. These benefits included training operators, detecting water leaks, protecting drinking water sources, providing energy audits, and inspecting sewer systems.

Considering our federal grant income of about $150,000 this quarter, ORWA estimates that we provided an overall net benefit (without federal assistance) of over $825,000 to rural water and wastewater systems during these three months.

Put another way, ORWA’s grant management is extremely effective and efficient as for every dollar of federal assistance we were given, ORWA provided $5.50 in benefits to rural Ohio.

To illustrate the work of the Ohio Rural Water Association through an example:

• The superintendent of New Carlisle, Ohio contacted an ORWA circuit rider requesting assistance with implementing the EPA asset management program for them, which will soon be required in Ohio.
• Using a template developed by the Ohio Rural Water Association, the circuit rider was able to provide the necessary information and training that New Carlisle needed.
• Ohio House Bill 2 mandates that all water systems in Ohio have an asset management plan in place by October 1, 2018. The Ohio Rural Water association is on the front-end of this mandate, at the ready to assist smaller water systems in the great buckeye state get in compliance with this new legislation.
• The ORWA Circuit Rider’s work for New Carlisle is a great example of the association’s work with the mandated asset management program in Ohio.

The Ohio Rural Water Association was founded in 1976, with the goal of improving the quality of life in rural Ohio. With funding primarily through membership dues and federal grants, ORWA offers free on-site technical support to water and wastewater systems, both large and small. This includes: assistance with the operation and maintenance of water and wastewater treatment plants; source water protection planning; and distribution system troubleshooting such as leak detection, smoke testing, line locating, and sewer line inspecting. ORWA also offers training opportunities on the operation, management, finance, and governance of water and wastewater utilities.

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Creating An Emergency WARN-ing for Utilities
As the threats to water and wastewater treatment plants posed by climate change and human-caused incidents continue to grow, utilities should be able to rely on one another for support.

OHWARN: Ohio's Water/Wastewater Agency Response Network
A mutual assistance agreement and process for sharing emergency resources among water and wastewater agencies statewide

Why Source Water Protection Planning Will Be Helpful for Asset Management
With the passing of Senate Bill 2, source water protection planning could become a lesser priority as busy managers focus on ensuring that the new asset management planning requirements are addressed.

Asset Management 2018: What is Asset Management?
Asset Management is a planning process that ensures you get the most value from each of your assets and have the financial resources to maintain rehabilitate and replaces when necessary.

ORWA Board Members and Staff

Executive Director’s Message
By Joseph Pheil

President’s Message
By Tom Reese

Lock Out & Tag Out 101

Squeeze the Most Out of Your Power Dollars

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Executive Director’s Message

REFLECTION:
A Letter from Ohio Rural Water Association’s Executive Director.

It has been just over six months since I officially became the Ohio Rural Water Association’s Executive Director. The time has passed quickly, but looking back over everything that has transpired makes it hard to believe that it has only been six months.

There has been a considerable amount of progress made in our Technical Assistance, Training, Events, Relations, Communication, and Legislative Advocacy. Although I have been involved, it could not have been possible without the support and encouragement of our Board of Directors and Staff. The Board of Directors have encouraged and empowered me to pursue efforts to strengthen all aspects of the Association, and the Staff have been dedicated and supportive every step of the way.

Together with both the Board and the Staff, we have been able to make a lot of progress towards developing a comprehensive program to assist with the development and implementation of asset management programs for our member systems. The Ohio EPA is mandating that all public water systems must have one. This issue is of great importance to ORWA and its members. Many of our smaller system members can neither afford nor have the manpower to develop and implement such a program. Through the work we have done, and the work we will continue to do, we intend to assist those members through this difficult process as cheaply as possible.

Our Deputy Director, Ben Merrill, has been expanding our training program far beyond what it was six months ago. We have been fortunate that so many of our system members have opened their facilities to us, and our associate members have been able to provide affordable and knowledgeable trainers. The trainings we are providing are affordable, relevant, and are being offered at various locations to make them easier to attend. Later this month, we will be holding our Water University Utility Management Certification class at Northern Ohio Rural Water’s facility in Norwalk. This workshop is a great opportunity for professional development, and to enhance your ability to advance the industry.

Recently I had the pleasure of attending the Board Retreat of one of our member systems, Jackson County Water Co. This was a great opportunity for me to increase my understanding of the important issues facing our members, and to get feedback on the initiatives we have been pursuing. I was greeted with open arms, and I appreciated that they would invite me to their Retreat. A lot of strong relationships have been built over the years in this Association, and they have endured for decades. I sincerely hope to rekindle those relationships and develop new ones. I would love to attend more events like this soon and throughout my tenure as ORWA’s Executive Director.

Legislative advocacy, where do I begin… Prior to becoming ORWA’s Executive Director I had never met an active legislator in person. Six months later I have pictures with some, hand written letters from others, and more official business cards than it takes to level a crooked table. I’ve shaken hands with a US Senator in Washington, DC, and I’ve had a conversation about classical philosophy with a legislator that previously I had only seen on television.

Without question these past six months have been the most exhausting, stressful, busy, thought provoking, and humbling time of my life. That being said; I have made so many new relationships, experienced new things, visited to new places, and grown leaps and bounds as a person. It has been such a rewarding experience, and there is no more deserving of an industry to devote oneself too.

I look forward to continuing this journey, and I will remain steadfast in my commitment to progressing and strengthening this Association for the benefit of all our members.

Joseph Pheil
ORWA Executive Director

Thanks to the leadership of our Board President, Tom Reese, and the utilization of the template from National Rural Water Association, we are nearing official registration of the first nationally recognized Apprenticeship Program for water and wastewater operators in Ohio. We will be working with Apprentice Ohio to get this program officially registered, and then build on relationships with supportive organizations to begin educating and training the next generation of water and wastewater operators.
Hello to All,

The last 11 months have flown by, and they tell me if time is going by fast you are having fun. It has been fun but a lot of hard work, right Joe! The transition has brought a number of changes that Joe, the staff, the board, and myself have worked on. Here are a few of them:

• Our membership is up 10%, which was a goal of the Board of Directors.

• Fee Base training has started to make some progress and will be up four times over last year.

• Our Apprenticeship program and Asset management program are in their final stages of completion. Both of these programs will be a tremendous help to our financial position.

• Legislatively, the efforts in Columbus and Washington, DC have produced tremendous results. Thank you all who have contributed to Ohio Rural Water Association- PAC and Buckeye Legislative. A special thanks to Le-Ax Water for their contributions to Buckeye Legislative.

• The Affinity Program has had a slow start, I ask all of you to please check them out on our website. There is a program for everyone.

Our Ohio Rural Water Association is growing; we need all of us to continue to support and grow our organization further.

Thank you.

Sincerely,

Tom Reese
OHRWA President
As the threats to water and wastewater treatment plants posed by climate change and human-caused incidents continue to grow, utilities should be able to rely on one another for support.

“Incidents that impact water utilities require specialized equipment and operational knowledge to recover these systems quickly and efficiently,” said Kevin Morley, a federal relations manager at AWWA, a utility membership organization that provides information tools, technical resources, and training. “The purpose of WARN is to provide a method whereby water and wastewater utilities that have sustained damages from a natural or manmade incident can obtain emergency assistance in the form of personnel, equipment, materials, and other associated services from other water and wastewater utilities.”

With at least 4,400 participating utilities scattered across the country, the hope is that short-term emergency services provided by fellow utilities can be delivered quickly in order to restore critical operations.
Those that may be in a position to offer their help today could be in need of it tomorrow.

“Being a WARN participant is like taking out a nearly no-cost insurance policy,” Morley said of the cost-to-benefit ratio for participating utilities. “There are many tangible benefits for utilities, such as reduced cost to purchase and maintain backup portable generation capability, reduced revenue loss from water and wastewater services after an emergency, reduced costs of carrying contingency supplies and equipment, and reduced costs in responding to adverse incidents”.

Morley also cited some intangible benefits, like the real-life emergency training a utility’s staff would receive in helping a peer recover from disaster and the potential for improved public confidence.

WARN grew from a longstanding, communal approach to emergencies within the treatment sector, where federal help can sometimes be slow to materialize. The program grew from a mutual aid and assistance framework developed by California water systems following the Loma Prieta earthquake in 1989 and the East Bay Hills firestorm in 1991. Florida systems looked to mimic that program following three major hurricanes in 2004 and it grew into the national WARN program following the 2005 hurricane season that included Katrina, Rita, and Wilma.

“Based on observed response actions by Florida water systems and sheer scale of the impacts, it was clear that the water sector needed a mechanism that could provide an organized response to facilitate a ‘utilities helping utilities’ process,” said Morley. “The need for water sector self-sufficiency became very clear during these events. Neither state nor federal resources are designed to recover water utility operations; only water systems have the skills, equipment, and resources necessary to expedite recovery following an incident.”

The efficacy of WARN was evident in Texas and Florida as the two states recovered from large-scale hurricanes this summer. The Texas chapter of the program, TXWARN, deployed crews from San Antonio to Port Aransas in less than 24 hours after Hurricane Harvey hit land. FlaWARN leveraged support from the national WARN program to provide aid for the Florida Keys Aqueduct Authority, and utilities from Tennessee, North Carolina, and South Carolina all deployed crews there.

That recent display of value led to an invitation for WARN officials from the U.S. House Subcommittee on the Environment.

“The request to testify was based on a recognition that the WARN program was very effective in responding to impacts to water systems in both Texas and Florida,” Morley said. “The testimony highlighted the value of the collaboration between Texas WARN and state emergency management and primacy agency.”

AWWA also used the opportunity to recommend federal changes that would better support the water sector during emergencies. Representatives recommended that the government create a single federal agency that is responsible for supporting the water sector during major incidents, as opposed to the current structure which has multiple agencies sharing that responsibility.

The success of WARN shows how powerful a program dedicated to water and wastewater recovery following emergencies can be. As the government mulls the creation of such a federal program, utilities will have to continue to rely on one another.

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What is WARN?
A Water Agency Response Network (WARN) of “utilities helping utilities” to:
• Prepare for the next natural or human-caused emergency
• Organize response according to established requirements
• Share personnel and resources using a statewide agreement

Mission
The mission of WARN is to support and promote statewide emergency preparedness, disaster response, and mutual assistance matters for public and private water and wastewater utilities for natural and human-caused events.

Past disaster responses and lessons learned tell us:
• Utility operations are specialized
• Utilities must be self-sufficient and fill the gap between disaster onset and arrival of other government aid
• Customers can live with power and phone interruptions, but not without water
• Water restoration provides hope

What can WARN do for you?
WARN establishes a standardized mutual aid agreement for statewide use. This agreement decreases the amount of time it takes to provide relief to member utilities during emergencies, and:
• Enhances access to specialized resources
• Is consistent with the National Incident Management System (NIMS)
• Facilitates information exchange
• Highlights best management practices
• Can be utilized as a day to day resource for something as small as locating a hard-to-find repair part
Purpose

**OHWARN provides water and wastewater utilities with:**
- A mutual assistance agreement and process for sharing emergency resources among water and wastewater agencies statewide
- A mutual assistance program consistent with other statewide mutual aid and assistance programs and NIMS
- A forum for developing and maintaining emergency contacts and relationships

Benefits

- Increased planning and coordination
- A single agreement providing access to all member utilities statewide
- Access to resources during an emergency without pre-contractual limitations or retainer fees
- Expedited arrival of aid
- A pre-established relationship under which partners are able to share resources during an emergency at the discretion of each participating agency
- A list of emergency contacts and phone numbers
- Reduced administrative conflict
- Indemnification and workers’ compensation provisions to protect participating utilities and, as needed, reimbursement of costs
- Avoids federal bureaucracy

Coordination

The OHWARN Steering Committee exists under the umbrella of the Ohio Section of American Water Works Association and is available to all public or private, water and wastewater utilities. The Steering Committee coordinates with the Ohio Emergency Management Agency and the Ohio Environmental Protection Agency to prepare for emergency situations, assist with the sharing of emergency resources, and develop a strategy for releasing information. Members of the steering committee include large and small water systems, and also:

- Ohio Section of American Water Works Association
- Ohio Water Environment Association
- Ohio Rural Water Association
- Ohio Environmental Protection Agency
- Ohio Emergency Management Agency
- Ohio Rural Community Assistance Program

Partners

*Eight national associations – The Joint Policy Statement of Mutual Aid and Assistance Networks – support a WARN program in every state in the nation:*
  - National Rural Water Association
  - American Water Works Association
  - Association of Metropolitan Water Agencies
  - Water Environment Federation
  - National Association of Clean Water Agencies
  - Association of State Drinking Water Administrators
  - Association of State and Interstate Water Pollution Control Administrators
  - National Association of Water Companies

Participation

Participation is voluntary, membership is free (aid reimbursement is at cost). The WARN Mutual Assistance Agreement is available to all public and private water and wastewater utilities in the state.

Ohio WARN Member Agencies

Nearly 100 members - public and private utilities, counties, cities, villages, and regional districts/authorities - from every region of the state, including:
- The cities of Cleveland, Cincinnati, and Columbus
- The cities of Akron, Troy, Gallipolis, and Dayton, and Montgomery County
- The villages of Hebron, Chagrin Falls, and Wellington
- Approximately 25% of all county emergency management agencies in Ohio

Meetings

OHWARN Steering Committee Meetings are open to all members and non-members, and are held at 10:30 a.m. the first Monday of every even month at:

City of Columbus
Department of Public Utilities
910 Dublin Road
Columbus, OH 43215

Questions about WARN?

See American Water Works Association’s (AWWA), WARN Resources page:

http://www.awwa.org/resources-tools/water-knowledge/emergency-preparedness/warn-resources.aspx
Why Source Water Protection Planning Will Be Helpful For Asset Management

By Ben Merrill

The Source Water Assessment and Protection Program (SWAP) has traditionally been a frequently utilized program for protecting water utility assets in Ohio. However, it is possible that with the passing of Senate Bill 2, source water protection planning could become a lower priority as busy managers focus on ensuring that the new asset management planning requirements are addressed. This would be an unfortunate occurrence as the SWAP program focuses on protecting our water sources from contamination, making it an invaluable tool in helping to maintain uninterrupted production of clean drinking water.

“A protection plan’s core goal is to provide defenses for water sources and by doing this it will also assist utilities in utilizing existing assets to their full potential.”

SWAP focuses on protecting our water sources from contamination, making it an invaluable tool in helping to maintain uninterrupted production of clean drinking water. A protection plan’s core goal is to provide defenses for water sources and by doing this it will also assist utilities in utilizing existing assets to their full potential. Unintended contamination of a water source can lead to expensive rehabilitation efforts that ultimately undermine the accuracy and effectiveness of asset management plans. The SWAP program helps to guard against these costly situations and that will make it a valuable tool for asset management, rather than a time-consuming distraction.

It is evident from currently available information that a large goal of the asset management legislative initiative is to ensure the continued operation and protection of Ohio’s water infrastructure and the equipment that keeps it operating. Maintaining financial solvency of the system at large will also remain an important aspect. Regularly servicing existing assets, assessing their condition, and planning for their future replacement is a huge part of this process. Let’s say a manager plans for all of this and has a well-developed asset management plan that will cover the foreseeable future. How heavily affected would the plan be if a large chemical spill were to occur from a nearby industrial plant and require the water system to construct an entirely new well field or decontamination facility to address it? The answer is “very.” Protection plans help to prevent these sorts of scenarios. Developing a protection plan can achieve this prevention through the process of implementing “protective strategies.”

Protective strategies are designed as preemptive responses to potential contamination threats located near a system’s water source(s). Each contamination threat is identified through on-site surveys and prioritized according to their potential to impact the water source. These threats come in the form of roads and railways, industrial sites, commercial businesses, agriculture, municipal infrastructure, and more. The goal of a protective strategy is not to correct an already existing problem, but to prevent that problem from ever occurring at all. Strategies to combat threats include community outreach,
inspections, encouraging best management practices, signage, zoning, etc.

The majority of protection strategies can be implemented with little or no financial investment, making them exponentially more cost effective than system cleanup or rehabilitation. In this way, source water protection minimizes the chances of an important asset being damaged by contamination and costing the utility a fortune to correct. This also means that your asset management plan and the financial goals associated with it will better protected from large, unexpected expenditures.

Another large positive factor source water protection is that each plan's strategies are tailored to the community because it is developed by the people who live and work there. A strategy that may work well for one community may not be as effective for another, and vice versa. This allows individuals involved with the planning planning process to ensure are of their efforts are appropriate for their particular system's needs.

It is the author of this article's opinion that operators and managers will be seeing an increased push by Ohio's government agencies to develop source water protection plans, as the goals of a protection plan align closely with asset management and plan development is often cost-free. It will be highly beneficial for communities to start developing their protection plans sooner rather than later, as it is possible that demand for guidance on the planning process will limit the availability of individuals who specialize in source water protection. One thing for the future is highly likely: source water protection planning will remain an effective tool when it comes to developing asset management plans.
Machines inevitably break down and need to be serviced. It’s not enough to just shut them down and make repairs. According to OSHA machines need to have the ability to remove power and to be locked out, tagged out and isolated from the source to prevent injuries to personal.

Injuries occur when someone thinks the machine or piece of equipment was safely shut off. Lock out tag out is a way to protect yourself and others by ensuring that the equipment does not have the ability to start until proper repairs or maintenance can be performed.

Today manufacturers are more focused on cutting cost and improving production numbers so there is no need to sacrifice employee safety. The consequences of not following OSHA guidelines are drastic – penalties, fines, not only the down time of equipment. A safe lock out tag out program minimizes interruption in daily operations.

To change the way we use to do regular maintenance and day to day operations we need to have a long term vision for plant safety.

That’s why it is more important now than ever to make village personal aware of and how important LO / TO is and that they are properly trained.

Lock out tag out is not something new OSHA put the federal standard in place in 1989. While the purpose of LO/TG hasn’t changed the advancement in equipment design has. With complex PLC’S and remote computer controls you never can be sure that the equipment could be started from another location.

Five Main Causes of LO/TO Injuries
• Failure to stop equipment
• Failure to dissipate residual energy
• Failure to disconnect the power source
• Accidental restarting of equipment
• Failure to clear the work area before restarting

Whether you are a facility manager or plant operator it is important that you practice safe work procedures during the work day. Lock out tag out insures that everyone has the right to go home as safe as they came.
The Ohio Rural Water Association's (ORWA) Energy Efficiency Assessment Program can help small water and wastewater systems squeeze the most out of their power dollars. An Energy Efficiency Assessment is a no-cost auditing of electrical usage by our ORWA technician that includes a comprehensive report with recommendations for reduced kilowatt consumption, increased electrical efficiency, and projected electricity cost savings. The Energy Efficiency Program brings to our members a focused awareness of power costs and comparisons of costs with similar utilities for informed management decisions.

Water and wastewater treatment plants are generally the largest power consumers and the major portion of any village’s electricity bill. Saving money in water and wastewater operations lets a community maintain affordable utility costs for their residents and gives the option to spend those savings for other desirable services.

ORWA’s no-cost Energy Assessment Audit provides four main benefits

1. Contract for the lowest market electricity rates.
   ONYX Power & Gas Consulting LLC is an Affinity Partner with ORWA. Their expertise in the energy supply arena affords our member villages the lowest competitive rate for electricity and natural gas supply. An example appears below:

   This Onyx Budget Report illustrates a 26.3% savings obtained for an ORWA-member village in January 2018. The total savings for that village over the 36-month contract period is $21,478 or about $7,150 annually. This Affinity Partner service is available to our ORWA members at no cost and at no obligation and proves to be a valuable energy supply management tool for current and future contracts.

2. Confirm utility tariff and rate classifications through review with power provider.
   If a village water or wastewater treatment process has changed over the years, the rate charges for electric power may not be current. It is advisable to have the power utility’s customer service representative review all the village’s electricity accounts for tariff and rate accuracy. An example is ownership of the step-down transformer(s) used at the plants. Generally, the power utility charges a lower “primary” rate if the customer owns the transformer versus a higher “secondary” rate if it is utility-owned. If a water or wastewater treatment plant has done extensive upgrades, these might have included transferring ownership to the village of a new transformer. If so, ensure that the electricity rate structure has changed to reflect a lower cost.

3. Assessment of electricity consumed by water and wastewater processes and electricity consuming devices.
   Each ORWA Energy Efficiency Assessment results in an inventory of the power-consuming devices at a village’s water and/or wastewater treatment facility. This inventory yields a table within the assessment report tabulating motors (pump, aeration, feed, etc.), motor horsepower and NEMA efficiency ratings, hours of run-time daily, and the kilowatt-hour (kWh) usage of motors as well as other devices (lights, heaters, fans, refrigerators, etc.). This tabulated information is also presented graphically, and it becomes clear which devices and processes are the major consumers of electricity. Energy efficiency recommendations are then based upon that information.
4. Review of treatment operation protocols to explore energy savings available through operational changes.

An outsider’s view can offer alternate ways to provide the same treatment or process result but using less power consumption. Example: A new water plant had been put into operation and was being supplied by three groundwater wells. The current treatment protocol specified always having two wells run simultaneously to provide flow to the plant. However, once the flow reached the plant it was throttled down using a valve to reduce the flow to what could be handled by the treatment process. Each well had sufficient flow independently to supply the required flow. See the table above supporting the recommended change.

Note that just changing the protocol to operate only one well instead of the two specified in the operational manual, a nearly 25,000 kWh per year reduction in electricity consumption could be realized. This change would require no out-of-pocket cost, and result in more than $2,300 savings annually for that village. Adding variable frequency control (VFD) to the wells could result in further kWh reduction, but with a long payback period if only one well is used. However, if the protocol to use two wells had to be maintained, then VFDs on the well could still provide substantial kWh reduction, and with a very reasonable 8-9 year payback period for the VFDs purchase and installation costs.

The ORWA Energy Efficiency Program is designed to investigate, recommend and promote energy efficient practices in ORWA-member water and wastewater systems that serve communities under 10,000 population. The Program is funded by the National Rural Water Association through a grant from the U.S. Department of Agriculture Rural Utilities Service. The program is implemented by the Ohio Rural Water Association.

To request an Energy Efficiency Assessment, contact Tim Ray, Certified Energy Efficiency Technician employed by Ohio Rural Water by email tray@ohioruralwater.org, or call 740-455-3911 (office); 740-624-1972 (cell).

Let ORWA help your village squeeze the most out of your power dollars.

<table>
<thead>
<tr>
<th>Project Item</th>
<th>Energy Efficiency Measure</th>
<th>Annual Energy Savings (kWh)</th>
<th>Annual Energy Savings ($)</th>
<th>Est’d. Cost of Improvement</th>
<th>Payback (Years)</th>
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<td>1</td>
<td>Change well operation to run only one well at once.</td>
<td>24,900</td>
<td>$2,330.14</td>
<td>$0</td>
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<td>2</td>
<td>Install 7.5-HP VFD controls on each well; and assume the one-well operation.</td>
<td>4,980</td>
<td>$466.03</td>
<td>$9,900</td>
<td>21.2</td>
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<tr>
<td>2 Alt.</td>
<td>Install 7.5-HP VFD controls on each well; and assume the current two-well operation.</td>
<td>12,000</td>
<td>$1,122.96</td>
<td>$9,900</td>
<td>8.8</td>
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Asset Management is a planning process that ensures you get the most value from each of your assets and have the financial resources to maintain rehabilitate and replaces when necessary.

Asset Management also includes developing a plan to reduce costs while increasing efficiency and reliability of your assets. Successful Asset Management depends on what you know about your future needs.

So what is an asset?
It is any building, tool, piece of equipment or machinery used in the generation of your system. Some common questions that we receive include:

Is my computer an asset? Yes! In today’s world you cannot operate a water system without some type of computer technology, from SCADA systems to filling out daily reports, researching parts to make repairs.

Are our vehicles included in Asset Management? Yes! Employees an Asset? Yes! Employees are the most valuable, intangible assets in a utility. In today’s dynamic and continuously changing world, it is the human assets and not the pumps, motors, tanks and valves that make the difference.

Today knowledge distinguishes a progressive utility from a utility that consistently struggles. Employees leaving a utility might be replaced physically, however, their knowledge and specific experience of how your utility works is gone. It is well known that the skill of employees can account for 85% of a utilities assets.

What should you know about your assets?
- What would it cost to replace it?
- In determining the cost of replacing a motor or pump are they readily available or would it need to be special ordered?
- Would it require special handling? Would you need to hire someone to put it in or would you do it in house?
- Would it require specialized equipment to move it and put it in place?
- All of these add to what it will cost. You may easily find that part price, but that does not reflect the many things that add into what it will really cost to make it run.

What is the Assets condition?
- Has it been properly maintained according to the manufacturer’s specifications?
- Have you always used the proper lubrication at the recommended intervals?
- Have you performed testing on a regular schedule to make sure that there are no hidden problems?

What do you need to do to the asset?
- Should it be replaced because maintenance has not been performed on regular interval and lubrication was whatever you had on hand?
- How soon should it be replaced?
- What is your prioritization plan?
- How much will it cost?
- Has maintenance on your water tower been deferred will past when it should been done and now it has become structurally unsafe?
- How do you pay for your needed repairs or replacements?
Water Log

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SPECIFICATIONS
COLOR SPACE: Full Color
FREQUENCY: Bi-Annual
BINDING: Saddle-stitch
TRIM SIZE: 8.375” x 10.875”

Water Log magazine is a bi-annually publication that aims to highlight current propane industry issues and trends. The publication is distributed to over 900 members of the Ohio Rural Water Association and is also available online to double your advertising exposure. ORWA, along with its publishing partner E&M Consulting, is dedicated to promoting and protecting the safety and education of Ohio’s water and wastewater industry.

ORWA continues to expand the base of benefits we provide to our members. This magazine is one of those benefits, providing insights and information on the industry. What makes it so successful is your input! Fully utilize your membership and share your industry advances with your peers.

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