Greg Breckler has worked in the wastewater treatment field for over 18 years. His reputation relies on the equipment he uses. That’s why when it was time to replace the 42-year-old Gorman-Rupp pumps in one of his hardest-working lift stations, he stuck with Gorman-Rupp Super T Series® self-priming, solids-handling pumps. And he expects them to be around long after he retires.

GORMAN-RUPP PUMPS OFFER LOW TOTAL COST OF OWNERSHIP... 
AND OUTLAST THE COMPETITION.
Throughout my career with the City of Canton and my leadership roles in Ohio AWWA, I’ve had the privilege of working closely with a diverse group of professionals. They have included the rank-and-file backbone of our public water systems, I.T. staff, engineers, all levels of elected officials, legal professionals, high-level business executives and community leaders.

One common denominator continues to jump out at me. It is the overall quality and professionalism of those in the drinking industry. Proud, hardworking, self-sacrificing, conscientious, dedicated, skilled, intelligent, straight forward, no nonsense professionals who come to work each day for love of community and to get the job done. You are true civil servants in every way. Don’t ever take that for granted because it is clearly not like that in all professions. You should be proud of yourselves and the industry in which we work. No finer group of professionals exists under the sun, in my experience, and I thoroughly enjoy working with all of you.

Speaking of professionals, we have a group of unsung heroes that I believe are often overlooked for their role in the overall success and public perception of our utilities. That group is the customer service staff.

Consider this: What part of our organizations has more one-on-one interactions with our rate-paying customers than the customer service staff? None, of course. Sure, people see our fire hydrants, drive past our water treatment plants and occasionally chat with the crews working in the field to restore water service. But the number of these interpersonal interactions with our rate-payers does not even remotely compare to the literally tens of thousands of interactions per year that our customer service reps have—even for a city the size of Canton.

Clearly our customer service staffers are the utility’s front-line liaisons with our customer base and the faces of the utility. Therefore, the quality of these interactions and the impressions left on our customers by the customer service reps sets the tone for the utility’s reputation. The customer service group must be professional and well-trained to handle the many often challenging interactions that are part of every single day.

Are your customer service personnel receiving the
Franco A. Lucarelli is the Director of Utility Services for the City of Warren, Ohio, where he oversees the billing of four departments. The four departments include Water, Waste Water, Storm Water, and Sanitation. Within the Water Department, he is responsible for the operation of treating, delivering, and providing safe drinking water. Franco believes in the importance of providing a safe quality drinking water to the public. Franco has a strong foundation of both administrative and hands-on experience having risen through the ranks throughout his 21-year career as a utility professional. Franco holds a Class II Water Treatment License and has been a member of the American Water Works Association since 2006. He began his commitment with the AWWA volunteering with the Northeast district assuming all the chair positions. From there he went on to serve and continues to serve to this day. Franco was the At-Large Trustee on the state governing board of the Ohio Section of AWWA and has also served on numerous committees such as Membership, Strategic Planning, Young Professionals, Finance and Audit to name a few.

When Mr. Lucarelli isn’t directing the four divisions of the Water Department, he also volunteers cleaning up neighborhoods along with numerous projects in the revitalization of the city of Warren. The incredible feeling that comes along when he is able to help a student understand reading just a little better as he reads aloud to elementary students in the local school system is worth every minute of his time. Franco, being born and raised in the city of Warren, believes he can make a difference through his actions.

Franco is an active member of his community and enjoys spending time with his wife Joanne and their two children Nico and Gina. While Franco’s daughter, Gina is finishing her junior year in high school, his son Nico has successfully attained his Bachelor of Science degree in Mechanical Engineering and is currently pursuing his master’s degree in the same field. Along with spending time at the lake with his family, he and his wife Joanne enjoy walking their dog Charlie around the neighborhood, which also affords them time to discuss their daily events.
NOMINATED VICE CHAIR: SIERRA MCCREARY

Sierra McCreary has 15 years of experience in the water and wastewater industry. She has been with Black & Veatch since 2005, where she is currently a Project Manager. Sierra is a graduate of Drexel University with Bachelor's and Master's of Science degrees in Environmental Engineering.

Sierra has been a member of AWWA for 15 years. She began her journey with AWWA in Pennsylvania where she received the Rising Tide Award for service on the Conference Planning Committee and as Chair of the Young Professionals Committee. Sierra relocated to Columbus in 2010 and continued her involvement with the young professionals, serving as Chair of the Ohio Section Young Professionals Committee from 2011 to 2014. Sierra received the Larry Valentine Recruitment Award for two consecutive years in recognition of her efforts in recruiting new members to the section. She also assisted with planning of the joint AWWA/WEF One Water Ohio conferences in 2014 and 2018. For the past four years she has been serving on the board as the Southeast District Trustee.

Sierra was born and raised in Saudi Arabia, coming to the US in 10th grade to continue her education. She enjoys CrossFit, travel, music, and spending time with her husband, Nick, and six year old daughter, Anya.

NOMINATED AWWA DIRECTOR: DANELLA PETTENSKI

Danella Pettenski is the Assistant Administrator for the City of Columbus Division of Water. She is a licensed professional engineer in the State of Ohio and holds a Bachelor of Science degree in Civil Engineering from Ohio University. She worked 18 years for an engineering consulting firm designing and managing various water and sewer utility projects for both small and large clients. In 2007, Danella moved over to the public sector and became employed by the City of Columbus Division of Water to oversee their Distribution Engineering group. In 2012, she was promoted to Assistant Administrator and is now responsible for overseeing supply, treatment and distribution operations which includes three water treatment plants, four supply reservoirs, one well field and over 80 water booster stations and elevated storage tanks.

Danella became a member of AWWA in 2000 at the encouragement of the late John Sadzewicz. After joining, she immediately became active serving in the Southeast District and became the Chair of the district in 2004. Danella then moved on to serve on the Ohio Section Governing Board and became Chair of the Section in 2009. Throughout her years of involvement in AWWA she has been active on several committees, attended the AWWA Fly-in in Washington D.C. and has been a judge at several Ohio Science Fair and Young Professionals poster contests; always being amazed at the knowledge and passion of the students. She has also been active in the Water Utility Council providing feedback on many state regulatory matters; and most recently led a team of utility members to work with OEPA to create realistic and practical Asset Management Rules.

Danella has been married for 25 years to Bob and they have 2 children - Andrew, who just graduated from Ohio State University with a business degree in Finance and Anna who earned her cosmetology license and works at a nail salon. She enjoys the outdoors and growing a vegetable garden every year while sharing her excess bounty with her co-workers. She also enjoys all kinds of sports and is a fan of the Columbus Blue Jackets, Cincinnati Bengals and Ohio State Women’s basketball.
NOMINATED AT-LARGE TRUSTEE: STACIA ECKENWILER

Stacia Eckenwiler is a Project Manager with the City of Columbus Department of Public Utilities, where she manages capital improvement projects through design and construction at the city’s water and wastewater treatment facilities, where she has been since 2011. Prior to joining with the city, she worked for the design firm AECOM for nearly 10 years, where she was a design engineer for various water and wastewater treatment projects in Ohio and around the country. She has a Bachelor’s degree in Civil Engineering from The Ohio State University, is a Registered Professional Engineer in the State of Ohio, and holds a Class III Water Supply Operator Certification in Ohio.

Stacia’s involvement with Ohio AWWA started when she joined the Technical Programming Committee back in 2012, which solicits and reviews abstracts for the State and other OAWWA conferences, prepares the Technical Program and delivers presentation awards each year. She became Chair in 2013, and remained in this position through 2016, which included involvement with the 2014 Joint One Water Conference. In 2017 and 2018, she served as a Co-Chair for the Joint One Water Conference as well. She has been a member of AWWA since 2002.

Stacia enjoys one-on-one mentoring of future engineers and water professionals, and gets involved with various learning and teaching opportunities such as the OSU Senior Engineering Capstone Design Course, the Children’s Water Festival and other opportunities to learn about the activities and responsibilities of a water professional in our industry.

She is married to her husband Max of 15 years, and enjoys cooking, gardening, traveling, playing with her pets and volunteering at her favorite non-water organization CHA Animal Shelter.

NOMINATED SOUTHEAST TRUSTEE: LUKE MURRY

Luke Murry is Stantec Consulting’s Water Discipline Lead for Ohio, Illinois, and Indiana. In this role, he leads the firm’s water and wastewater engineering and associated services (surveying, construction administration and inspection, community development, etc.). Luke is also responsible for connecting more than 150 professionals throughout these states to ensure quality services and encourage synergy across Stantec’s water business line both nationally and globally. Luke is committed to providing safe drinking water and treatment of sewerage to the public. He is passionate about working with municipalities to provide lasting, cost-effective solutions.

Luke is a registered professional engineer in the state of Ohio and has been a member of AWWA since beginning his career in 2006. He has served as the Membership Committee Chair of the seventh largest section throughout all AWWA for over three years. In that capacity, Luke genuinely enjoys promoting and serving our great section and members. Finally, Luke is the Southeast District Chair, transitioning to the past chair this fall.
In addition to AWWA, Luke is also the co-coordinator for the Central Ohio Children’s Water Festival. This festival brings together approximately 650 central Ohio fifth graders to teach them about water – our most important natural resource. The children participate in hands-on workshops covering topics such as water conservation, water-related science principals, utility maintenance, infrastructure design, and much more.

Within his community, Luke serves as a member of the Utility Committee that privately manages their own water and sewer treatment and distribution/collections facilities. This involvement has created an even deeper respect for entities providing these services and a greater drive to promote impactful change from our organization’s extremely knowledgeable voice. Outside of work, Luke enjoys mediocre golfing, woodworking, and most importantly, spending time with his wife April and four-year-old twins, Gabe and Aggie, preferably outside and any activity in and around water.

**NOMINATED ASSISTANT TREASURER: VALERIE MEYERS**

Valerie A. Meyers is the Operations Supervisor at the water filtration plant for the City of Warren, Ohio, where she has been overseeing plant and laboratory operations over the last thirteen years. She graduated from Youngstown State University with a Bachelor of Science in Chemistry. She holds a Class IV Water Supply license and Chemical and Microbiological Laboratory Certification as well.

She is active within AWWA and continues to serves on the Technical Program committee. Valerie enjoys spending time with her entire family, including her two children, Olivia and Mason. She has served as President of the Executive Board for the local PTO for several years and as a Deacon at her church, First Presbyterian Church of Mineral Ridge.
Like many water utilities, Cleveland Water, a public water service provider operated by the City of Cleveland, is looking for innovative solutions to address the numerous and complex challenges it faces every day. Aging infrastructure, source water quality, and water equity are all issues that it’s attempting to tackle in order to ensure 1.4 million customers across 80 communities receive affordable, high-quality drinking water.

Knowing that issues like these are best addressed with input from the community, Cleveland Water turned to a highly visible means to help its customers better understand and connect to their drinking water: a 94-foot mural.

Working in partnership with LAND studio, a local nonprofit focused on art and placemaking, Cleveland Water covered its
Garrett A. Morgan Surge Tower with a simple but powerful tribute to water.

The surge tower was built in 1978 and is named for the water treatment plant that it supports. Its singular but critical purpose is to store 400,000 gallons of water that, in the event of a pump failure at the plant, prevents a water surge and the resulting transmission main damage.

Decades of exposure to the environment as well as the tower’s highly visible location made it somewhat of an eyesore. The tower stands along a lakeside thoroughfare and straddles two vibrant urban neighborhoods in Cleveland’s near westside, Ohio City and Detroit Shoreway.

In need of maintenance and an exterior refresh, $250,000 in capital funds were dedicated to rehabilitating the tower with work scheduled for the summer of 2018.

A year before improvements began, an opportunity arose to leverage the planned capital investment into a community benefit. An anonymous donor looking to fund a major public artwork in Cleveland reached out to LAND studio who, in turn, reached out to Cleveland Water about the possibility of creating a mural on the surge tower given its iconic presence.

“When LAND contacted us, it seemed like the perfect way to creatively integrate our infrastructure into the community,” said Jason Wood, Chief of Public Affairs for the City of Cleveland Department of Public Utilities. “At the same time, highlighting the tower in this way was an opportunity to bring awareness about the value of drinking water and our water resources.”

A community advisory committee with representatives from city council, city planning, Cleveland Water, the artistic community, nearby neighborhoods, community organizations, and local businesses selected world-renowned artist Sam3 to complete the mural.

Sam3 came to Cleveland in January 2018 for a site visit and to attend a public meeting in order to gain input and inspiration for the mural design. With the technical considerations and community feedback he received in mind, Sam3 developed a final design concept titled “Walking on Water.”

Work began in September, with contractors sandblasting, priming, and painting a blue top coat on the tower. The top coat acted as the base for the mural, both of which were which were painted using a specialized high gloss two-part paint that will protect the surge tower from extreme weather and resist mold.

The final blue-themed design shows two interlaced figures stretching toward one another as they wrap around the tower. The silhouettes are composed of strong, fluid lines that are meant to soften the tower’s straight lines and evoke movement and change.

By partnering with a local arts organization and leveraging their capital funds, Cleveland Water was able to generate media and community interest for a project that likely would have likely gone unnoticed otherwise. It’s this kind of interest that Cleveland Water is hoping will bring more awareness to water-related issues.

“The mural was a major upgrade for the tower,” said Cleveland Water Commissioner Alex Margevicius. “But more importantly, there was much more involvement from the community than there would have been without it. And we hope that involvement will make our customers feel more invested in future projects.”
Arcadis Delivers Industry-Leading GAC Solutions to PFOA/PFOS Treatment Projects

Arcadis’ team of per- and polyfluoroalkyl substances (PFAS) experts has been working for over 15 years to advance innovative analytical methods like the Total Oxidizable Precursor (TOP) Assay and destruction and removal techniques, including sonolysis, ozofractionation, electron beam, and a more familiar treatment within our drinking water industry, granular activated carbon (GAC).

Conventional drinking water treatment processes do not remove perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) – the two most commonly regulated PFAS compounds. At this time, research continues to confirm that GAC is the most effective removal process for drinking water scale treatment. As a national leader in GAC treatment Arcadis offers several strategies for reducing the life-cycle costs, including:

• Selecting an empty-bed contact time that minimizes both the capital cost and the GAC replacement frequency.
• Evaluating and controlling the fouling effects of background organic matter.
• Identifying the best-performing and most cost effective GAC type(s).

Arcadis has designed GAC systems for utilities throughout the US, including the two largest post-filter GAC systems in the country – Cincinnati, OH, and Scottsdale, AZ. Furthermore, our experts recently co-authored a comprehensive reference book on activated carbon. When it comes to implementing GAC treatment for PFOA/PFOS removal, Arcadis’ solutions provide the highest level of performance at the lowest cost.

Authors:
Gwen Kuba, PE
Joseph Quinnan, PE, PG
Kirk Nowack, PhD
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Preliminary Schedule

TUESDAY, SEPTEMBER 10TH
• Preconference Workshops
• Golf
• Tours
• Welcome Social

WEDNESDAY, SEPTEMBER 11Th
• Exhibits
• Competitions

THURSDAY, SEPTEMBER 12TH
• Technical Sessions
• Business Luncheon
• Gala @ Punch Bowl Social

FRIDAY, SEPTEMBER 13TH
• Technical Sessions

The Westin Cleveland Downtown
777 St Clair Ave NE • Cleveland, OH 44114
216.771.7700

Hotel Rate for standard room (Single/double) will be $189.00 (as available)
Get Fit, Have Fun, And Support A Great Cause!!!

Many developing countries lack the clean water systems, sanitation facilities, and education necessary to provide their people the safe water resources needed to survive.

This fall, three 5K races will be held in Ohio in support of Water For People, an organization that works in several developing countries to ensure access to clean water systems and sanitation facilities, promote public health, and prevent the spread of disease. Please consider sponsoring or signing up for these great 5k run/walks.

**Fairfield Race - Saturday, August 3rd**
WATERWORKS PARK • 5133 GROH LANE, FAIRFIELD


For more information on the Cincinnati area race or sponsorship, contact:
Claudia Dawson,
513.340.2429,
claudia.dawson@hamilton-oh.gov

**Columbus Race - Saturday, October 5th**
HOOVER RESERVOIR PARK • 7600 S. SUNBURY ROAD, WESTERVILLE

VISIT: https://runsignup.com/Race/OH/Westerville/CbusWaterForPeople5K

For more information on the Columbus race or sponsorship, contact:
Afaf Musa,
614.847.6858,
MusaAB@cdmsmith.com

**Cleveland Race - Saturday, Sept. 28th**
ROCKY RIVER RESERVATION • 24000 VALLEY PKWY NORTH OLMSTED

VISIT: https://runsignup.com/Race/OH/FairviewPark/dd

For more information on the Cleveland race or sponsorship, contact:
Becky Andrus,
216.563.7866,
Becky_Andrus@ClevelandWater.com
Represented by over 150 volunteers from 49 states and Puerto Rico, AWWA had another fine showing at the 2019 Water Matters! Fly-In held in Washington D.C., March 27-28. The Ohio Section sent 6 delegates to meet with our representatives on Capitol Hill which included 2 new delegates, Sarah Van Frank from Butler County and Blake Jordan from Delaware. They joined Fly-In veterans Jeff Bronowski from Akron Water Supply, Tyler Converse from Canton Water, Robin Rupe from NEORSD and Dave Weihrauch.

The message to our representatives on Capitol Hill revolved primarily around the importance of continued infrastructure funding through the state revolving loan fund (SRF) program and the relatively new Water Infrastructure Financing and Innovation Act (WIFIA). We also gave thanks and emphasized maintaining full funding for the conservation portion of the Farm Bill, which is something new that you may have recently heard or read about. Keep in mind that the nation’s drinking water utilities continue to press for ready access to low cost dollars, not free money, so that we may continue to reinvest in our utilities and position them for long-term success and viability.

We also wanted to make sure our congressional representatives were aware of the potential “per” and “poly”-fluoroalkyl (PFAS) contamination issue. Beyond awareness, we asked that they support USEPA in using data gathering and evaluation, sound science and stakeholder meetings to accurately and effectively address the unregulated contaminant.

Overall, AWWA’s efforts on Capitol Hill have resulted in positive results on behalf our nation’s public drinking water systems. Likewise, our messages were well received by Ohio’s congressional representatives, all of which makes the undertaking well worth the time and effort.
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<table>
<thead>
<tr>
<th>POTABLE WATER</th>
<th>WASTEWATER</th>
<th>LAKES, RAW WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce THMs</td>
<td>Improve mixing</td>
<td>Reduce cyanobacteria</td>
</tr>
<tr>
<td>Active tank mixing</td>
<td>Save energy</td>
<td>Mitigate taste, odor, toxins</td>
</tr>
<tr>
<td>Manage residuals</td>
<td>Improve compliance</td>
<td>Reduce manganese, iron</td>
</tr>
</tbody>
</table>

---
2019 Annual Conference
September 10-13 | Cleveland, OH

Tuesday, September 10
7:00am-7:00pm  Registration
8:00am-5:00pm  Golf Outing
9:30am-4:00pm  Plant & Brewery Tour
8:00am-4:00pm  Research Workshop
3:00pm-5:00pm  Exhibits Set-up
7:00pm-10:00pm Welcome Mixer

Wednesday, September 11
7:00am-5:00pm  Registration
7:30am-9:30am  Exhibits Set-up
8:00am-10:00am Kick-Off Breakfast/Awards
10:00am-5:00pm Competitions
12:30pm-1:30pm MAC Lunch
5:00pm-7:00pm  MAC Mixer
Fresh Water Mixer*

Thursday, September 12
7:00am-5:00pm  Registration
7:00am-8:00am  Continental Breakfast
8:00am-11:50am Morning Technical Sessions
11:00am-12:00pm Women’s Networking Event
12:00pm-1:40pm Business Luncheon
1:50pm-5:00pm  Afternoon Technical Sessions
6:00pm-9:00pm  Gala & Game Night

Friday, September 13
7:00am-11:00am Registration
7:00am-8:00am Awardees Breakfast
7:00am-8:00am Continental Breakfast
8:00am-11:50am Technical Sessions
10:00am-12:00pm Governing Board Meeting

*Sponsored by the Diversity/Membership/YP Committees
# Attendee Registration Fees & Deadlines

## Full Conference Registrations

<table>
<thead>
<tr>
<th>Registration Description</th>
<th>Registration Type</th>
<th>by July 31</th>
<th>Aug 1-Aug 27</th>
<th>Aug 28-Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Sessions, Expo Events, Kick-Off Breakfast, Breakfast, Lunch, and Wednesday &amp; Thursday Evening Events</td>
<td>Full Conference Member</td>
<td>$340</td>
<td>$390</td>
<td>$440</td>
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<tr>
<td></td>
<td>Full Conference Nonmember</td>
<td>$460</td>
<td>$510</td>
<td>$560</td>
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<tr>
<td></td>
<td>Full Conference Retired</td>
<td>$210</td>
<td>$245</td>
<td>$280</td>
</tr>
<tr>
<td>(Includes meal tickets and social events)</td>
<td>Guest Package</td>
<td>$210</td>
<td>$245</td>
<td>$280</td>
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</table>

## Single Day Registrations

<table>
<thead>
<tr>
<th>Day of: Technical Sessions, Expo Events, Meals, and Evening Events</th>
<th>Member</th>
<th>by July 31</th>
<th>Aug 1-Aug 27</th>
<th>Aug 28-Onsite</th>
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<tbody>
<tr>
<td>Wednesday Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Technical Sessions, Expo Events, Kick-Off Breakfast, Breakfast, Lunch, and Evening Events</td>
<td>Wednesday Only Member</td>
<td>$200</td>
<td>$225</td>
<td>$250</td>
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<tr>
<td></td>
<td>Wednesday Only Nonmember</td>
<td>$245</td>
<td>$270</td>
<td>$300</td>
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<tr>
<td>(Includes meal tickets and social events)</td>
<td>Thursday Only Member</td>
<td>$200</td>
<td>$225</td>
<td>$250</td>
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<td></td>
<td>Thursday Only Nonmember</td>
<td>$245</td>
<td>$270</td>
<td>$300</td>
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<td></td>
<td>Friday Only Member</td>
<td>$105</td>
<td>$130</td>
<td>$155</td>
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<tr>
<td></td>
<td>Friday Only Nonmember</td>
<td>$155</td>
<td>$180</td>
<td>$205</td>
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## Extra Tickets

<table>
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<tr>
<th>Extra Ticket</th>
<th>by July 31</th>
<th>Aug 1-Aug 27</th>
<th>Aug 28-Onsite</th>
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<tbody>
<tr>
<td>Kick-Off Breakfast Ticket (Wed)</td>
<td>$45</td>
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<tr>
<td>MAC Lunch (Wed)</td>
<td>$40</td>
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<tr>
<td>MAC Mixer Ticket (Wed)</td>
<td>$40</td>
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</tr>
<tr>
<td>Business Lunch (Thurs)</td>
<td>$50</td>
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<td>$70</td>
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<tr>
<td>Gala Ticket @ Punch Bowl (Thurs)</td>
<td>$65</td>
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## Preconference Events

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<th>Event</th>
<th>Member</th>
<th>by July 31</th>
<th>Aug 1-Aug 27</th>
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</thead>
<tbody>
<tr>
<td>Research Workshop</td>
<td>Member</td>
<td>$100</td>
<td>$120</td>
<td>$140</td>
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<tr>
<td></td>
<td>Nonmember</td>
<td>$125</td>
<td>$150</td>
<td>$175</td>
</tr>
<tr>
<td>Plant &amp; Brewery Tour</td>
<td>Member</td>
<td>$100</td>
<td>$120</td>
<td>$140</td>
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<tr>
<td>Welcome Mixer</td>
<td>Member</td>
<td>$40</td>
<td>$50</td>
<td>$60</td>
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## Budget Options

<table>
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<th>Option</th>
<th>by July 31</th>
<th>Aug 1-Aug 27</th>
<th>Aug 28-Onsite</th>
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</thead>
<tbody>
<tr>
<td>Technical Sessions and Expo Access Only - does not include meals or events</td>
<td></td>
<td></td>
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<tr>
<td>Wednesday Expo Only</td>
<td>$125</td>
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<tr>
<td>Thursday Tech Program Only</td>
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<td>$175</td>
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<tr>
<td>Friday Tech Program Only (half day)</td>
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<tr>
<td>Full Tech Program Only</td>
<td>$300</td>
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<td>$400</td>
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Pre-registration closes August 27, 2019.

Register online: [www.oawwa.org/event/2019AC](http://www.oawwa.org/event/2019AC)
## Thursday, September 12

<table>
<thead>
<tr>
<th>Time</th>
<th>Treatment</th>
<th>Distribution</th>
<th>Potpourri</th>
</tr>
</thead>
</table>
| 7:50 AM | Selecting Effective PFAS Treatment Strategies  
Rebecca Slabaugh, Arcadis | Meter Right-Sizing: Potential Accuracy Problems in the Field  
Greg Sattler & James Lehman, Cleveland Water | Source Water Protection and the Farm Bill, Part 1  
Adam Carpenter, American Water Works Association |
| 8:30 AM | Corrosion Control Studies - Identifying and Mitigating Risks from Lead  
Emily Tummons, Black & Veatch | Get the Lead Out: Logistics of Finding and Replacing Lead in Drinking Water Systems  
Tim McCann, Quirien Muylywyk & Jacob Ogonek, AECOM | Source Water Protection and the Farm Bill, Part 2  
Adam Carpenter, American Water Works Association |
| 9:10 AM | Selecting Effective PFAS Treatment Strategies  
Rebecca Slabaugh, Arcadis | Meter Right-Sizing: Potential Accuracy Problems in the Field  
Greg Sattler & James Lehman, Cleveland Water | Source Water Protection and the Farm Bill, Part 1  
Adam Carpenter, American Water Works Association |
| 9:50 AM | Technical Partnerships are Key to Successful Management of Algal Toxins in a Drinking Water Source  
Cheryl Green, Black & Veatch | Removing Lead Lines in Cleveland  
Scott Moegling, Cleveland Water | Professional Ethics Review  
Keshia Chambers, OHM Advisors |
| 10:30 AM | Microplastic Detection Throughout Drinking Water Treatment Process  
Michelle Helsel & Keiji Janku, Cleveland Water | Raising Our Meter IQ: Fairborn’s Migration to an AMI System  
Keshia Chambers, OHM Advisors |
| 11:10 AM | Ozone Treatment Facilities for Algal Toxins Control at The City of Toledo  
Collins Park WTP  
Amanda Canida, Black & Veatch; Andy McClure, City of Toledo | Systematic Oversizing of Water Meters and Service Lines  
Christopher Douglas, University of Cincinnati | Evaluating Ethical Dilemmas: A Case Study of Ethical (or Not) Behavior  
Keshia Chambers, OHM Advisors |

### Business Luncheon

<table>
<thead>
<tr>
<th>Time</th>
<th>Treatment</th>
<th>Customer Service</th>
<th>Potpourri</th>
</tr>
</thead>
</table>
| 2:00 PM | Treatment of Domestic Wastewater by Simulated Solar-Light Mediated NB-codoped TiO2 AOP for Reuse  
Wael Abdelraheem, University of Cincinnati | "I never received any notice!": Communication Strategies for Complex Infrastructure Projects  
Leslie Westerfelt, City of Columbus | Water Quality Profiling Supporting Data-Driven Source Water Management of Harmful Algal Blooms  
Ashley Bair, The Ohio State University |
| 2:40 PM | Leveraging Source Blending and Existing Treatment Processes to Address Microcystins  
Matthew Charles, Hazen & Sawyer | AMR/AMI Installation - Lessons Learned From Two Rounds of AMR/AMI Deployment  
Fred Roberts, Cleveland Water | Practical Technologies and Containment Strategies for Protecting Surface Water Supplies  
Mark Delisi&Brian Bisson, CT Consultants; Jon Jamison, Mahoning Valley Sanitary District |
| 3:20 PM | A Sustainable Approach with a Noticeable Shift in Water Treatment Residuals Management  
Stacia Eckewiler, City of Columbus; Bret Casey, Hazen & Sawyer | Improving Water System Operations and Customer Service to the End User  
Richard Sanders, Zenner USA | Aligning State Mandated Asset Management Plans with the New Digital Era  
Sara Ferrara, Arcadis |
| 4:00 PM | Permanganate Oxidation of Cyanotoxins and the Impact of Natural Scavengers  
Juliana Laszakowicz, The Ohio State University | Using Technology to Improve Communication - Case Studies  
Kerry Zwierschke, Bennett & Williams | Using Smart Technology to Reduce Seasonal Demand  
Glenn Marzluf, Del-Co Water |
| 4:40 PM | Elyria Water Works Improvements - Optimization of Plant Capacity, Operation and Safety  
Jennifer Zajic & Robert Hrusovsky, Stantec | Making Improvements to Customer Service Panel | A Condition Assessment Framework to Satisfy Ohio EPA Requirements and Produce Meaningful Data  
Kevin Campanella, Burgess & Niple |
### Friday, September 13

<table>
<thead>
<tr>
<th>Time</th>
<th>Regulatory</th>
<th>Distribution</th>
<th>Utility/Asset Management</th>
</tr>
</thead>
</table>
| 8:00 AM | Ohio EPA Update  
*Amy Jo Klei, Ohio EPA* | Improve Water Quality and Restore Capacity with Unidirectional Flushing  
*Dave Lewis, Wachs Water Services* | Frost Study  
*Edward Beirne, Cleveland Water* |
| 8:40 AM | What Can Technology Committee Do For You?  
*Scott Moegling, Cleveland Water* | Hydrant Flushing Initiative: Fire and Water combine to promote excellence in fire suppression  
*Christine Seda, Cleveland Water* | A Case Study in Asset Inventory  
*Jeff Pesler, Woolpert; Christina LaPointe, Hazen & Sawyer* |
| 9:20 AM | How to Comply with New Risk Assessment and Emergency Response Plan Requirements  
*Chrissy Dangel, USEPA* | Embracing Pre-Chlorinated Pipe Bursting and Directional Drilling  
*Kelly McRobb-Ackland, Wade Trim Associates* | Succession Planning: Toledo’s drive to become "An Employer of Choice"  
*Andrew Faley, Stantec; Kelly O’Brien, City of Toledo* |
| 10:00 AM | Regionalization Challenges with Ohio EPA Lead Regulations  
*Jeff Kauffman, Del-Co Water* | Leveraging Your GIS Program to Meet Compliance Challenges in Asset Management and Lead Lines  
*Laura Schuch, Brian Beyeler, & Sam Eitner, Great Lakes RCAP* | Rocking & Rolling (out) a Major Work Order System Expansion to Cleveland’s Water Treatment Plants  
*Melinda Raimann, Cleveland Water* |
| 10:40 AM | Talking Lead with Water Customers: Implementing an Awareness Campaign & the 2018 Ohio Lead Laws  
*Brenda Culler, Cleveland Water* | New Haven Indiana Water System Modeling and Planning Results  
*Stanley Diamond, Wessler Engineering* | Fixing Those Affordability Challenges Requires a Full Toolbox  
*Joe Crea, Raftelis* |
| 11:20 AM | Development of Design Criteria to Supplement Ten State Standards in Ohio  
*Linda Weavers, The Ohio State University* | Sampling for Lead in Drinking Water: Approaches and Applications  
*Casey Formal, ORAU* | 0 to 60: Development of a Holistic Corrosion Prevention & Control Program  
*Nicholas D’Angelo, Cleveland Water* |
PRE-CON
TUESDAY, SEPTEMBER 10
Don’t miss out on these great events!

**Boulder Creek Golf Club**
Streetsboro, OH

- Individual Golfer:
  - $90 by 7/31 | $100 after 8/1
- Team of 4:
  - $340 by 7/31 | $380 after 8/1

Register online:
oawwa.formstack.com/forms/2019golf

**GOLF OUTING**

Join us Tuesday, September 10 and help us kick-off the 2019 Annual Conference!

The Welcome Mixer will be held at the Westin Downtown Cleveland. Make sure to by your tickets in advance - prices increase July 31!

**WELCOME MIXER**

Register by July 31 & save!
oawwa.site-ym.com/event/2019ac
PRE-CON
TUESDAY, SEPTEMBER 10
Don't miss out on these great events!

Earn up to 5.5 contact hours at the 2019 Research Workshop!

Agenda available on page XX

Fees before July 31
$100 member | $125 nonmember

Fees August 1-August 27
$125 member | $150 nonmember

RESEARCH WORKSHOP

Take a tour of the Garrett Morgan Water treatment plant, followed by a lunch and tour of the Market Garden Brewery.

Fees by July 31: $90
Fees: August 1-27: $120

Space is limited - register soon!

PLANT & BREWERY TOUR

Register by July 31 & save!
oawwa.site-ym.com/event/2019ac
### RESEARCH WORKSHOP
**TUESDAY, SEPTEMBER 10**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:00am-8:30am</td>
<td>Registration</td>
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<tr>
<td>8:30am-9:00am</td>
<td>Preliminary Nationwide UCMR4 Results</td>
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<tr>
<td>Devon Fitzgerald, City of Columbus</td>
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<tr>
<td>9:00am-10:00am</td>
<td>Active Control of THM Levels in Drinking Water</td>
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<tr>
<td>Tom Caulifield, PSI Water Technologies</td>
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<tr>
<td>10:15am-11:00am</td>
<td>Michigan Taking Action on PFAS</td>
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<td>Steve Sliver, Michigan DEQ</td>
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<tr>
<td>11:00am-11:30am</td>
<td>Mycobacterium</td>
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<tr>
<td>Stacy Pfaller, USEPA</td>
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<tr>
<td>11:30am-12:15pm</td>
<td>Corrosion Control and Factors that Influence Corrosion</td>
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<tr>
<td>Michael Schock, USEPA</td>
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<tr>
<td>12:15pm-12:45pm</td>
<td>Molecular Methods for the Detection of Geosmin and</td>
</tr>
<tr>
<td>Erin Stelzer, USGS</td>
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<tr>
<td>12:45pm-1:30pm</td>
<td>LUNCH</td>
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<tr>
<td>2:00pm-3:30pm</td>
<td>NEORSD Lab Tour</td>
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</table>
EXHIBITS

WEDNESDAY, SEPTEMBER 11
10:00 am-7:00 pm | Cleveland Public Auditorium

Showcase your product
Maximize your exposure and connect directly with decision-makers and other professionals

Build relationships
This tradeshow is a great opportunity to network with and meet new professionals in the industry

Boost your exposure
Over 600 Ohio water professionals attend the Annual Conference - make sure they see your company

Register by June 30 & save!

oawwa.formstack.com/forms/2019exhibitor
### SPONSORSHIPS AT A GLANCE

<table>
<thead>
<tr>
<th>Sponsorship</th>
<th>Premium</th>
<th>Platinum</th>
<th>Gold</th>
<th>Silver</th>
<th>Bronze</th>
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<tr>
<td>Full registration - Thursday</td>
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<td>Gala &amp; Game Night Ticket</td>
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<td>Sponsor recognition during event</td>
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<td>Company listed in conference promotions</td>
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<td>Listing in OAWWA newsletter</td>
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<td>Logo listed on <a href="http://www.oawwa.org">www.oawwa.org</a></td>
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Sponsor Level

- **Platinum** $1,500
- **Gold** $1,250
- **Silver** $1,000
- **Bronze** $750

**Premium** $2,500

Please select one premium opportunity below:

- Awardee Breakfast
- Thursday Continental Breakfast
- YP/Diversity/Membership Mixer
- Friday Continental Breakfast
- On-site Program
- Welcome Mixer
- Tech Session Coffee Breaks
- Gala & Game Night
- Attendee Gift

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City: State: Zip Code:

Phone: Fax: Email: Website:

Contact Name:

Complimentary Registration(s) (dependent on appropriate sponsor level)

Name: Email: 

Name: Email: 

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- Check

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Send completed form with payment to:

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Get Ready For Risk And Resiliency Assessments

Adam Arnold, Water/Wastewater Project Manager, HDR

Water utilities across the Country provide an improved quality of life to its customers, whose health and safety is in the hands of the professionals tasked with managing the treatment and distribution infrastructure. Malevolent acts including terrorism pose a continuous threat to water utilities of any size, and operators consequently take on a role as first responders. Following the events of 9/11 the Safe Drinking Water Act (SDWA) was amended in 2002 requiring community water systems serving a population of more than 3,300 persons to conduct an assessment of the vulnerability of its system to intentional acts intended to substantially disrupt the ability to provide a safe and reliable supply of drinking water. The Vulnerability Assessment (VA) was to include, but was not limited to, a detailed review of:

1. source water, treatment and chemicals;
2. water collection, conveyance and distribution;
3. physical barriers;
4. control systems, network architecture, diagrams, and data flow controls;
5. financial infrastructure; and
6. operations, maintenance and monitoring practices.

As summarized in Table 1, a written copy of the VA had to be submitted directly to the U.S. EPA Administrator. Within six months of submitting the VA, the water utility was then required to certify that it had prepared or revised an Emergency Response Plan (ERP). The new or updated ERP was to include, at minimum, a description of actions, procedures, and equipment that can:

hinder or significantly lessen the impact of a malevolent attack; and

be implemented or used in the event of a malevolent attack.

In the decade and a half following the amendment to the SDWA, water treatment and distribution infrastructure has been subjected to increased stress resulting from more frequent and intense weather events, and/or changes in source water quantity and quality. Hurricane Katrina (2005) and Superstorm Sandy (2012) crippled water supplies in Louisiana.

<table>
<thead>
<tr>
<th>Past Requirement</th>
<th>Current Requirement</th>
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<tbody>
<tr>
<td>Safe Drinking Water Act (Section 1433)</td>
<td>America’s Water Infrastructure Act of 2018 (Section 1023)</td>
</tr>
<tr>
<td><strong>KNOWN AS:</strong></td>
<td>“Vulnerability Assessment (VA)”</td>
</tr>
<tr>
<td><strong>COVERS:</strong></td>
<td>“Risk and Resiliency Assessment”</td>
</tr>
<tr>
<td><strong>EPA COMPLETION REQUIREMENTS:</strong></td>
<td>Malevolent acts, natural hazards and cybersecurity</td>
</tr>
<tr>
<td>1. VA Submittal to EPA</td>
<td>1. Certification Letter of Assessment Completion</td>
</tr>
<tr>
<td>3. No mechanism to ensure kept up-to-date</td>
<td>3. Certification of Review every five years</td>
</tr>
</tbody>
</table>

Table 1. Comparison of Requirements – SDA vs. America’s Water Infrastructure Act (AWIA)
and New Jersey, respectively, due to submergence of equipment, lost power and pipeline breaks. Regionally, the formation of harmful algal blooms has become an annual occurrence in Lake Erie, which is the water source for 2+ Million Ohioans. And at the time of this writing water utilities from South Dakota to Missouri are struggling to maintain uninterrupted service due to elevated and sustained rainfall that has led to widespread flooding.

Furthermore — in only the past couple of years — the Directors of National Intelligence, Federal Bureau of Investigation (FBI) and Department of Homeland Security (DHS) have collectively defined cybersecurity as the top threat facing U.S. business and critical infrastructure. Government intelligence has confirmed that water utilities are directly targeted “as part of a foreign government’s multi-stage intrusion campaign”, and “individual criminal actors and groups threaten the security” of the Country’s water systems’ operations and data. Though customer health and safety is the primary concern, cybersecurity incidents also have the potential to result in regulatory liability, and/or negatively impact a utility’s reputation.

In response to the natural hazard and cybersecurity threats described above, America’s Water Infrastructure Act (AWIA) of 2018 defined new requirements for community water systems (service population > 3,300 persons) to complete a Risk and Resilience Assessment (RRA) and update the ERP (or create one, in the case of new system). The RRA generally considers the elements of a VA, but also includes the risk to the infrastructure from natural hazards and cyber resilience. A detailed RRA should culminate with a report that provides summaries of critical assets including a description of threats and vulnerabilities, and mitigation measure alternatives to improve resiliency.

The U.S. EPA will provide some baseline information about malevolent attacks that could cause significant disruption to water utilities. The agency will not prescribe the use of specific methodologies, and will not mandate certification of personnel leading the assessments or developing response plans. It is expected that this work will be performed by knowledgeable multi-disciplinary teams well-versed in the guidance resources and technical aspects of water systems, as well as physical and cybersecurity.

**AWIA deadlines are coming up soon!** A letter certifying that the RRA or ERP has been completed must be submitted to the U.S. EPA Administrator by the date outlined in Figure 1. As shown, deadlines are based on water system size. RRAs need to be certified beginning in March 2020; new/updated ERPs require certification beginning in September 2020.
Water utilities that do not submit a certification letter before the defined dates could be subject to direct enforcement including penalties of up to $25,000 per day.

Unlike requirements in the SDA, AWIA requires that both the RRA and ERP be reviewed and updated, as necessary, at least every five years. For water systems serving less than 3,300 individuals, the U.S. EPA recommends completing and RRA and preparing an ERP, but it is not required. Guidance for these small water utilities is currently in development.

Managers of most utilizes large and small have already integrated security procedures and preparedness into their organizational culture, but for many formalizing an approach is now mandated with very tight deadlines. The various components of these studies require staff with decades of experience in risk analysis, mitigation development and prioritization, disaster preparedness and response, utility master planning, and asset management. In order to serve this need in our water industry, a core team of individuals from HDR offices across the Country recently completed (2-day) national risk and resilience program training; many of whom (including the author) are now in the process of completing the AWWA risk and resilience certificate program.

It is recommended to conduct the RRA in compliance with ANSI/AWWA J100 standard for Risk and Resilience Management of Water and Wastewater Systems. The advantage of conducting the analysis to meet J100 is that it can provide liability protection to a water utility and result in a comprehensive report including a plan to assist in prioritizing and scheduling implementation of mitigation measures identified. Other methods are simply not as thorough.

A collaborative approach to carrying out both the RRA and preparing the ERP is also recommended. This collaborative approach includes a series of hands-on workshops with staff in the areas of communications, engineering, finance, HR, operations, IT, and safety, as well as representatives from local law enforcement, the local hazardous material team and fire department, state and local regulatory agencies, and local DHS and FBI representatives. Including additional participants provides critical information about threats to the water utility and promotes an understanding of the water system to all participants, particularly first responders. The workshops also enable engaged brainstorming and all efforts required from utility staff are performed within the workshop timeframe, meaning no homework!

To learn more about the AWIA requirements and/or how a tailored work plan can be developed to fit a water utility’s needs, please email Adam Arnold at adam.arnold@hdrinc.com or Rich Atoulikian at rich.atoulikian@hdrinc.com – both of whom work out of HDR’s Cleveland office.
AMERICAN Zinc: A SMaRT Product for Smart Cities

The list is growing— from San Jose to Miami, from Boston to Birmingham, and cities in between. From north to south, east to west, across the country cities are recognizing the benefits of specifying and installing zinc-coated ductile iron pipe. Why zinc? The zinc-coating system is a proven, life extending product for iron pipe, adding years of life and service to an already reliable and resilient product. And, ductile iron pipe is the only pressure pipe to be SMaRT certified, a designation given to products that use recycled materials, provide energy savings and are environmentally safe. With zinc-coated ductile iron pipe, water utilities can be confident that their customers will have sustainable and dependable water service for generations to come. And, it’s made in America by AMERICAN.

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Engaging employees in training is fundamental in cultivating an agile, evolving, productive and efficient organization. The Lake County Department of Utilities (LCDU) has always had a rich history of employee training and education, with topics including customer service, dealing with difficult people, interpersonal effectiveness, critical thinking, emotional intelligence, time management, and generational differences, to name a few. Like many companies and organizations, the LCDU’s traditional approach entailed solely hiring external experts and professionals to conduct courses of interest that would benefit the staff and lead to further professional development. The preliminary process of instructor recruitment was always the same—solicit professionals from local colleges, universities or within the utilities industry, research their credentials in an attempt to measure effectiveness, engage in various conversations, then meet with the selected facilitator to discuss our organization, mission, values, staff temperament, current issues, and any other relevant details that would lead to a successful seminar. With this information, the facilitator would develop a strategic approach for the training, hoping the information presented would be well-received and cause a lasting impact. This approach, which is likely typical for other companies that conduct employee training, has always been employed by the LCDU and has produced varying degrees of success.

In early 2018, the LCDU decided to test a new, refreshing approach to the method by which training is conventionally conducted. Rather than relying upon external professionals, the department decided to seek guidance from those most familiar with its institution and its culture—the staff members themselves. With little more than a concept, each site superintendent was solicited and asked for recommendations of employees to participate in this initiative. An introductory meeting occurred in February 2018 to a group of ten individuals—all from different facilities, different stages in their careers, with varying responsibilities, and unique specialties. To avoid constraining innovation, the meeting was rather unorthodox in that there was neither a programmed approach nor predefined parameters. The agenda was rather simple: determine a creative method to provide leadership training to a group of 60 LCDU managers so that the material presented resonates and is impactful. The participants were asked to speak with their respective colleagues and return with a list of items that employees feel are important qualities for leadership. Subsequent to reconvening, and after supplying an extensive list, all the characteristics were ranked and a determination was made that the leadership training would focus upon the following items: motivation, incentives, empowerment, critical thinking, responsibility, accountability, respect, integrity, and communication. After eight months of casual brainstorming sessions, formal meetings, organized discussions, proposed
illustrations, on-site mock presentations and several strictly timed rehearsals, two separate leadership training seminars were held in October 2018.

The best word to summarize the entire process: successful. The benefits were far-reaching, profound and more advantageous than anticipated—for the managers, for the presenters, and for the organization alike. The managers heard candid and well-presented information firsthand and directly from their own staff regarding items that matter, items that are deemed important for successful and effective leadership. Even managers who typically do not attend training courses offered by the LCDU were present, engaged and taking notes; and subsequently issued lavish commendation towards this new approach when completing course evaluations. Through the process, the presenters themselves grew—they learned how to work together as a team and network with people outside of their individual work units, they gained departmental awareness, they learned how to conduct research and organize information, they learned how to craft a message, sell a topic and influence; they acquired experience and confidence in public speaking and presenting, and they gained appreciation for others’ roles. Aside from the managers and the presenters reaping immeasurable benefits from this employee-lead initiative, the organization adopted a successful, cost-effective and authentic training approach that not only tapped the talent of its staff, but also supported the dynamic creativity and enduring capabilities that employees so often possess.

Certainly, though, not all topics can be presented by utilizing in-house resources. At times, it is necessary to import expertise and employ knowledge of leading industry experts. This is especially the case when it relates to new technologies or regulations. Other times—typically when it involves concepts of leadership, emotional intelligence, employee satisfaction, or other intangible items and soft skills—organizations should consider relying upon the expansive and ubiquitous repository of employee insights, knowledge, and experiences. Regardless of how an organization determines to blend internal and external training approaches, it is essential to understand that the growth and development of any company is heavily dependent upon employees’ abilities to gain skills, acquire positive behaviors, transmit information, retain knowledge, empower employees to perform their duties, and provide a gateway for enhanced participation on a large scale. Ultimately, any company looking to either incorporate employee training as a first-time approach, or to enhance its current training model by introducing an engaging and refreshing element, should look to its staff as the perfect resource.
Preliminary License to Operate (LTO) Application and Inventory Updates Now Online

An online application for public water system (PWS) owners to maintain system inventory information and view their preliminary LTO fee has been developed by Ohio EPA for all PWSs. Starting this fall for the 2020 LTO application process, PWSs can access their preliminary LTO and inventory forms online and make changes using the portal.

The application will step users through updating and maintaining accurate PWS inventory, contact information and operators of record. In the application, PWSs can update service connections, populations and seasonal operating periods. PWSs also can update or change contact information, names address and phone numbers for the Owner, Administrative Contact and Financial Contact.

In the application, PWSs also can generate an Operator of Record Change Notification form for signatures and submittal if a PWS needs to add or remove an operator of record. This form still must be mailed to Ohio EPA.

The application will be rolled out by late summer 2019. Instructions and user account information will be mailed to PWS owners at that time. In future years, PWSs will receive an annual notification by postcard and email as a reminder to log in and verify this information. PWSs will be expected to access the application and verify or update the required inventory data between August and November every year; however, the inventory application will be available year-round for notifying the division of any changes during the year.

Alternate Procedure for the Verification of Chlorine Meter Calibration

The calibration verification procedure required for chlorine meters has been one of the more difficult and technique dependent procedures performed in many of Ohio’s certified laboratories. Calibration verification is needed to ensure meters are accurately measuring chlorine concentration. The procedure outlined in the “Ohio EPA Laboratory Manual for Chemical Analyses of Public Drinking Water 2014” is a verification of the meter’s calibration; not a calibration of the meter itself. Since laboratories are not establishing the meter’s calibration, Ohio EPA’s Laboratory Certification Section is now permitting an alternate procedure to verify the meter is reading within acceptable limits. The use of secondary standards for calibration verification is an acceptable alternative to the current method of making up various standards and reading them in the chlorine meters.
**What are Secondary Standards?**

Only a few chlorine kit manufacturers provide secondary standard sets (e.g., Hach and LaMotte). Typically, the secondary standard sets contain four vials (a blank and three standards) filled with gel or liquid that simulates the chlorine at various concentrations. Each set of standards is specific to the manufacturer and the meter’s analytical range; low-range (LR), mid-range (MR) or high-range (HR). Verification must be performed per manufacturer’s instructions. Secondary standards are good until the manufacturer’s expiration date and must be stored per manufacturer’s instructions.

**Calibration Verification Requirements for Secondary Standards**

Meters must be verified for all tested chlorine ranges. If chlorine concentrations are observed greater than the limits of the LR setting, then a meter with a MR setting or the meter in the HR setting must be verified using the appropriate secondary standards. However, if chlorine concentrations do not exceed the limits of the meter’s LR setting (2.20 mg/L (Hach); 4.00mg/L (LaMotte)), then only the LR setting must be verified.

1. **All chlorine meters must be checked at least once every three months.**

2. **Observed readings must be within 10% of the manufacturer’s assigned value.** If the observed readings are outside the acceptable range, the meter must be serviced or replaced.

3. **A minimum of three secondary standards must be verified.**

4. **Verification must be recorded, and records must be maintained with the laboratory’s QC records.**

5. **The blank standard provided with a set of standards must only be used with the same set of standards (i.e., LR blank with LR standards of the same lot number).**

6. **All analytical ranges used for reporting chlorine concentrations must be verified (i.e., LR setting with LR standards, MR setting with MR standards and HR setting with HR standards).**

**Daily Use Requirements for a Meter Verified by Secondary Standards**

Samples must be analyzed using a verified meter in the appropriate setting (LR, MR or HR). During sample analysis, meters must be zeroed with the sample to be tested, without DPD reagent added. A meter cannot be zeroed with the blank standard from the secondary standard kit.

**Timeframe for Implementation**

Laboratories may continue to use the verification procedure described in the “Ohio EPA Laboratory Manual for Chemical Analyses of Public Drinking Water 2014.” However, effective immediately, secondary standards may be used as an alternative.

*continued on next page*
to this procedure. Laboratories must use the correct bench sheet for the appropriate verification procedure. Click Here for a copy of the required bench sheets.

For questions, please contact a member of the Ohio EPA’s Laboratory Certification Section or email DWLabCert@epa.ohio.gov. Contact information can be found at the following link: Laboratory Certification Contacts.

**Your Source Water is a Critical Asset**

It is easy for public water systems to not think about the importance of their source water until it has become contaminated or they receive complaints about the water’s appearance, taste or odor. However, no asset is more critical to a public water system than a reliable water source. Without a viable source, a public water system cannot operate. Contamination of a drinking water source can be devastating for public water systems. For the water system to continue to provide water, it may require new wells or intakes, new treatment, or an entirely new source. Although in many instances treatment can allow systems to meet standards, the expanding number of contaminants, greater pollutant loads and loss of natural barriers has increased the chances that contaminants will reach the tap. Protecting the sources of drinking water helps reduce the risk of pathogens and chemical pollutants entering the waters, which can in turn reduce the amount of treatment required and the overall risk and cost to the public water system.

Source water protection consists of an assessment report that identifies a focus area and potential contaminant sources, development of a local protection plan and implementation of protection activities. Ohio EPA usually completes the source water assessment report and may assist with the development of the protection plan; however, source water is truly only “protected” when the plan is implemented at the local level. Implementation is the responsibility of the public water system and its partners.

Effective source water protection is reliant upon developing partnerships with groups interested in improving water quality and protecting public health. These include working with local health districts, soil and water conservation districts and business groups to promote best management practices; working with local emergency responders to ensure coordination if a spill poses a threat; and sharing information about the water source and protective actions in Consumer Confidence Reports or through additional outreach efforts in the community.

If your system has not developed a source water protection plan, please contact your district office. Ohio EPA staff can provide technical assistance to help you create a plan. The development and implementation of a source water protection plan can benefit every public water system through engagement of local stakeholders to ensure protection of the water systems and community’s most valuable and irreplaceable asset.
2019 Lead and Copper Sampling and Lead Consumer Notice Updates

Ohio EPA has updated and improved the lead and copper webpage to help systems ensure compliance and access information in a more efficient manner.

For this monitoring season, several changes have been made to streamline the lead consumer notice verification process. When Ohio EPA receives samples from a certified laboratory, we will send the public water system (PWS) an email confirming the receipt of the samples. Following this notification, systems will now be able to utilize the newly updated consumer notice templates. These templates will be included in the notification email, and are also available now through the webpage. The Verification of Lead Consumer Notice Issuance form has also been updated. Verification from the PWS of an issued lead consumer notice will now be required for each sample based on corresponding lead and copper sample monitoring point ID (e.g., LC###) and lab sample number.

Another significant change is that the PWS will no longer submit the Verification of Lead Consumer Notice Issuance form to the district office. Instead, it must be delivered to Ohio EPA's DDAGW Central Office via email, mail or fax. Verification forms may be submitted electronically or as a scanned copy via email to DDAGW_lead_CN@epa.ohio.gov.

A fact sheet regarding changes on tiering requirements is also available on the lead and copper webpage. Systems are encouraged to review their lead and copper sample monitoring sites to ensure they are tiered correctly to meet the lead and copper sampling requirements.

Please review all the updates and information provided at epa.ohio.gov/ddagw/pws/leadandcopper so you are familiar with, and understand, the changes and associated requirements.
2019 Young Professionals Summit

Ohio Section Young Professionals Committee

Submitted By: Scott Eardley

The Ohio Section Young Professionals Committee sent seven of its members to the Young Professionals Summit in Nashville, Tennessee which kickstarted the 2019 Utility Management Conference. Representatives of each quadrant of the buckeye state as well as the committee’s chair, Tyler York, joined 267 American Water Works Association and Water Environment Federation young professionals for this year’s summit to forecast future trends in the industry, network with their peers, and develop their managerial and leadership skills. The YP Summit began with an AWWA YP Leadership Training seminar followed by a full day of speakers, workshops, and networking opportunities.

Jeff Blakely and Ji Im, Chair and Vice Chair of the AWWA YP Committee, hosted the AWWA YP Leadership Training event which highlighted volunteer opportunities with AWWA and YP section best practices for student engagement, YP recruitment, and succession planning. Participants had a chance to hear from AWWA Chief Executive Officer David LaFrance and AWWA President David Rager as well as some of the organization’s all-star members. The Ohio Section YP Committee

The unofficial theme of this year’s YP Summit was finding your voice. Throughout the YP Summit, attendees were encouraged to get involved, ask for opportunities, and engage in their communities. Keynote speaker Dr. Mark LeChavallier emphasized the great challenges facing the future of the water industry and encouraged young professionals to share their ambition and ideas with a world in need. Representatives of AWWA’s humanitarian affiliate organizations shared ways in which young professionals can deploy their talents to assist communities at home and abroad. A panel of

From left to right: Randall Berkley, Tyler York, Sarah Hayes, Danny Yodzis, Scott Eardley, Alexis Killinger, Pooja Chari
communications professionals, including AWWA President-Elect Melissa Elliott, provided insight and potential strategies on how young professionals and their organizations can effectively communicate with and engage their communities in the work they are doing.

Pooja Chari, Ohio Section YP Committee member and AWWA YP Committee member, assisted in the planning and programming of the YP Leadership Training and served on the marketing committee for the YP Summit. Pooja’s favorite part of the YP Summit was a workshop titled, May the (Work) Force be with You in which YP’s teamed up with an AWWA water industry leader and were given the chance to pick their brains on a host of professional topics. For those young professionals interested in participating in future YP Summits, Pooja had this to say, “The YP Summit is an amazing event where you can learn how to become a better leader or manager in your workplace. YP Summit is a great place to network and build your contacts. I got to reconnect with some folks and meet new YP’s to build on my network.”

For any young professionals interested in attending next year’s YP Summit or getting more involved in their district chapter, contact your district YP representative listed on your district’s page on the Ohio Section AWWA website.

On behalf of the Ohio Section YP Committee, we would like to thank the AWWA Ohio Section leadership and its members for their support and encouragement. Your investment in Ohio’s young professionals is an investment in Ohio’s future.

State Science Day

On Saturday May 11th, members of the YP Committee represented the Ohio Section AWWA at the 2019 Ohio State Science Day. This event brings together nearly 1,100 students in grades 5th through 12th from across the State of Ohio. Each student presents their research to a team of judges from the Ohio Academy of Science and other sponsored organizations to compete for a piece of nearly $500,000 in scholarships and other monetary awards. As a sponsored award participant, OAWWA distributed $1,150 in scholarships to nine students. Congratulations to all of the student winners and a big thank you to this year’s judges.

From left to right: Pooja Chari, Randall Berkley, Luke Baker, Brian Cassidy, Scott Eardley, Tyler York
The OAWWA southwest district young professionals sponsored a booth at the 10th Annual Party for the Planet event hosted by the Cincinnati Zoo and Botanical Garden on May 4, 2019. The event celebrates Earth Day by inviting businesses and organizations from around the region to share their expertise and resources about living more sustainably. During the event, our members promoted the American Water Works Association, praised the benefits of drinking tap water, and encouraged attendees to sign-up for the Race for Global Water 5K Race/Walk on August 3, 2019 which benefits Water for People.

Visitors to the booth were offered AWWA swag and free reusable bottles of tap water generously donated by the City of Hamilton, the 2010 and 2015 winner of the Berkeley Springs International Water Testing competition. While distributing the water, recipients were informed that they could see where the water came from by attending the 2019 Global Water 5K Race/Walk which takes place in the City of Hamilton’s well field. Throughout the event our members engaged local residents in great conversations on the source of their drinking water and how it reaches their taps.

Despite a few rain clouds, the event was a great success with 4,620 guests attending the zoo that day and the booth running dry. Special thanks to AWWA members Rachel Easter and Alyssa Ramsey for volunteering their Saturday and their significant others! We look forward to next year’s Party for the Planet and hope to see everyone at the 2019 Race for Global Water 5K Race/Walk. If you are interested in signing-up for the race or would like additional information, please visit https://runsignup.com/Race/OH/Fairfield/GlobalWater5KRunWalk.

If you would like to get involved or know someone who would be interested in staying up to date on the latest Young Professional events, sign up for our mailing list by scanning the QR code, going to https://goo.gl/VRzLzm or contact one of our committee officers.
Lexi Killinger

Hi there! I’m Lexie Killinger, a Civil Engineer with DLZ in Akron, OH. You may also know me as one of your NE Ohio AWWA YP Co-Representatives. I graduated from The University of Akron with my Bachelor’s and Master’s degrees, and have been working in the field for a few years now. In my time with DLZ, I’ve had the opportunity to work on a variety of water and wastewater projects around NE Ohio including: asset management, conveyance design and rehabilitation, tunnel project pre-design, site stormwater evaluation and design, and OEPA Storm Water Phase II Annual Reports. I’ve also gained a lot of experience with Civil 3D and GIS.

I’ve been involved with AWWA for a few years now, and I’ve really enjoyed planning events and meeting a lot of you at district meetings and state conference! I’ve helped to plan brewery tours, water plant tours, happy hours and even a Lake County Captain’s game. The past two years I have had the opportunity, through Ohio AWWA, to travel to the Young Professionals Summit. It is two days where YPs across the country from AWWA and WEF meet to share ideas and learn more about our industry. It has been an amazing experience making friends and learning more ideas to implement in our NE Ohio YP group!

I also enjoy volunteering at community events for STEM and water/wastewater education throughout the year. When I’m not working, I spend time with my husband and our two dogs. We enjoy participating in local events around the city of Akron and exploring our parks systems. I’ve always been interested in environmental sustainability, and I really enjoy working in the water/wastewater industry to do my part to help keep our waterways clean and beautiful.
The 2008 public service film entitled “Liquid Assets” (Penn State Public Broadcasting), tells users of drinking water and wastewater systems across America that our grandparents suffered from disease and other effects of pollution due to the lack of potable drinking water and sanitation facilities. As our urban populations grew, the small streams that removed our wastes reached their limits. We lived for a while in our own filth. Cities stopped thriving and businesses moved away to find other less polluted water sources. In Philadelphia, 1/6 of its residents died in one year. Public health of our communities suffered.

Then a wonderful thing happened. The citizens of this Country dug deep into their pockets and found the money and the political will to design and build the first modern drinking water and sewage treatment systems known to civilization. They employed innovative techniques and scientific discoveries to create systems that became the envy of the world. Our citizenry was employed to build them. So successful were these accomplishments that leaders in Europe traveled to America to learn from us. They took back our ideas and built their own facilities. Our systems were so soundly designed and constructed that we would enjoy the use of them for 70+ years. Our grandparents took good care of us, leaving us an infrastructure that fostered good businesses and schools and hospitals: all the things that a society needs to thrive.

It’s now 2019, and we are still using the infrastructure that our forbearers bequeathed us. We have done relatively little to invest in that infrastructure. Our lack of investment in public works facilities is often described by engineers as akin to buying a brand-new car and never putting new parts into it unless they break, and then only on a patchwork basis. Our systems are overdue for renewal.

To be sure, there are exceptions. The Cleveland Division of Water and Lake County Department of Utilities come to mind. These are systems that have invested heavily into the treatment facilities and conveyance systems that ensure their rate payers will
have the likelihood of uninterrupted service of the best quality. As a former employee of each, my familiarity with their investment strategies allows me to speak from an informed position.

But not all communities can claim such recurring re-investment. Why is this? Why do we lack the collective will to not only maintain, but to improve our water systems? Popular theories include the notion that our politicians have a hard time raising rates to improve something that is in the ground, unseen, and therefore not something they can show off easily as an accomplishment. Streets and schools, sports arenas and bike paths: these garner votes and smiles from a grateful public. After all, who thinks about it when all we need to do is open the tap or flush the handle.

Politicians of small towns and villages refuse to give up their tiny waterworks. They lack the resources and expertise that the bigger systems have, but the income stream and autonomy is tempting: it is difficult for them to tie into big brother.

Another theory is the idea that Americans have come to expect reliable and safe service for low cost. We willingly pay good money for cell phone service, electricity, and our beloved cable TV or streaming services. Here in sight of Lake Erie’s bounty some folks exclaim “they ought to give the water away for free”.

We buried our pipes and sewers and made ourselves invisible. For a long time, we in the drinking water field fostered that invisibility. We reasoned that if you didn’t see it, you wouldn’t complain about it - especially if it was cheap. We figured that you would not understand the complexities of these engineering marvels, and that was just fine. But old pipes fail. The American Water Works Association (AWWA) estimates that there are 240,000 water main breaks each year in the US, and they waste over two trillion gallons of precious drinking water. AWWA estimates that we need to spend one trillion dollars in the next 25 years to fix this problem before it is too late. (https://www.infrastructurereportcard.org/cat-item/drinking-water/).

We should not hide this information. We need you to notice. We need you to help us persuade our politicians and our boards of directors to invest in infrastructure, and to create water and sewer rates for service that are more realistic. Then we must take that money and do what our ancestors did to make sure their kids and businesses would thrive.

It’s our turn.
Licensed operators of water treatment plants (WTPs) often feel conflicted because of their allegiance to their superiors, to their consumers, and to the regulators that issue their operating licenses. At times, it feels impossible to maintain all three allegiances in a balanced fashion. When operators make poor choices, it’s often because they are stressed, feel under-appreciated, and don’t have the knowledge they need to perform well. When operators choose well, it is because they are trained to achieve that balance. Operator training helps to relieve these conflicts because it prepares operators to make reasoned choices.

Good training comes from professionals who are experienced in their disciplines, and who can impart knowledge to the operator in an effective way. That training should come from the design and research community, the operational community, and the regulatory community. Professional organizations such as the American Water Works Association (AWWA) brings these types of individuals together by providing networking opportunities and by developing standards.

Operators have a direct impact on the public health of the community they serve. Their training should come in two forms: hands-on experience with other more senior operators within their organization, and classroom exposure to operating, design and regulatory instructors who can help them understand all aspects of the drinking water business. Building bonds between all the professionals is important because it fosters trust and respect.

When we develop training for WTP operators, we should focus on the nature of the drinking water system. We can divide the overall system into three groupings of discipline:

1. The design and theoretical process development of treatment and distribution trains;

2. The operation of WTPs and Distribution systems; and

3. The regulatory requirements of the finished product being delivered to the consumer

WTP and distribution system operators desire operational training from individuals like them who have struggled with problems just like the ones that they face: shift work, washing filters, planning for pump changes, initiating dosage corrections, handling customer complaints. They benefit from hearing stories from fellow operators who have faced difficult odds.

So, training for shift employees that incorporates hands-on experience at plants and systems should be made available. Budgetary constraints aside, taking advantage of opportunities to work in real-world operational situations would be invaluable for operational staff, and would go a long way to establish a true learning environment for them.

Of course, it helps if the regulators and design engineers understand the nature and culture of the operator. You can teach a group of operators if you can be more like them. Can you find a way to understand them? When developing your operational education programs, one that brings together drinking water engineers and operators and system designer SMEs and that helps each group experience the other guy’s knowledge may be best.
It’s in the design.
At the Hap Cremean WTP, we helped reduce disinfection byproducts, increase treatment capacity, and meet regulatory requirements.
Top 5 Myths about Benchmarking Your Utility’s Performance

By Frank Roth, senior policy manager, Albuquerque/Bernalillo County Water Utility Authority

Water utilities that benchmark their performance gain valuable insight into where they stand in the marketplace and what strategies can improve their success. However, those who hesitate to participate in AWWA’s Utility Benchmarking Program lose this valuable advantage. These benchmarking myths were compiled at the 2018 Utility Management Conference to help utilities better understand the process.
Myth #1
Benchmarking doesn’t apply to us because we’re unique.

Because every utility is unique, AWWA’s Utility Benchmarking Program applies well-defined, time-tested performance indicators specific to the water sector. Your utility’s practices are compared with others of similar size, geographic location, or treatment processes. The Benchmarking Program uses metric data definitions and calculation methods refined over 15 years for more than 40 performance indicators covering water and wastewater utility business areas.

Myth #2
The survey results are not specific enough for us to use.

Your utility’s performance indicators are compared against aggregate data for participating utilities in the same service group. Your customized report highlights specific areas where performance can be improved, and practices or policies can be established or revised. In addition, benchmarking comparisons can be an effective way to demonstrate your performance to stakeholders such as customers, boards, city councils, and regulators.

Myth #3
The survey takes too much time to complete.

You have approximately 12 weeks between January and April 1st to compile your responses. Start by determining which measures are most relevant for your utility, then regularly track and evaluate the results and link them to improvement strategies. The process also can be used to report on customer and environmental targets, communicate with stakeholders, compare with other utilities, and link to industry-wide frameworks such as Effective Utility Management (EUM).

Myth #4
Our utility is slow to change.

You have approximately 12 weeks between January and April 1st to compile your responses. Start by determining which measures are most relevant for your utility, then regularly track and evaluate the results and link them to improvement strategies. The process also can be used to report on customer and environmental targets, communicate with stakeholders, compare with other utilities, and link to industry-wide frameworks such as Effective Utility Management (EUM).

Myth #5
The survey is more useful for larger, resource-rich utilities.

All sizes of utilities from the U.S., its territories, and Canada participate in the survey. Results are aggregated so they can be generalized for all utilities, regardless of size. AWWA also analyzes outliers to determine if unusually high or low values were intended as reported. All data and information exchanges are based on useful, predictable, and common definitions of data and practices.

NOW THAT THESE BENCHMARKING MYTHS HAVE BEEN BUSTED, SIGN UP TODAY FOR AWWA’S UTILITY BENCHMARKING PROGRAM: WWW.AWWA.ORG/RESOURCES-TOOLS/PROGRAMS/BENCHMARKING.
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For more information on the Cincinnati area race or sponsorship, contact:
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Preliminary Schedule

TUESDAY, SEPTEMBER 10TH
• Preconference Workshops
• Golf
• Tours
• Welcome Social

WEDNESDAY, SEPTEMBER 11TH
• Exhibits
• Competitions

THURSDAY, SEPTEMBER 12TH
• Technical Sessions
• Business Luncheon
• Gala @ Punch Bowl Social

FRIDAY, SEPTEMBER 13TH
• Technical Sessions

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<td>November 8: Yellow Springs</td>
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Publication Information

<table>
<thead>
<tr>
<th>Northwest District Meetings</th>
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<tbody>
<tr>
<td>The Ohio Section AWWA Newsletter is published three times a year. Send articles, comments, news and photos to: Ohio Section AWWA <a href="mailto:oawwa@assnooffices.com">oawwa@assnooffices.com</a> 844.766.2845</td>
<td>Material deadline for 2019 Winter Issue: November 1</td>
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