Planning Minimizes Risk with Multiple Vendor Approach to Berea’s AMI Upgrade Project

By Carl M. Siefried, P.E., Senior Project Manager, Burgess & Niple
Sandy O. Vosar, P.E., Utility Engineer, City of Berea

OVERVIEW: The City of Berea has just over 6,900 active water billing accounts serving a population of 19,015. Prior to 2006, the City never had a widespread meter replacement program. In July of 2006, a citywide fixed based meter read system (ACLARA) was purchased and installed, but less than one third of the accounts were converted with new meters that could be read by the new AMR system. Over time, as meters failed or problems arose, old meters were replaced with new meters. At the commencement of this project, there were 2,660 active MTUs in the system (39%) installed by city forces during the ten year period. Berea had taken a first step and could see the advantages of having a fully automated meter reading solution to collect data and provide its customers with accurate utility bills.

Ten years later, the remaining 4,300 meters were more than 50 years old and in need to being replaced. There are a variety of meter styles installed indoors and few in curbside meter vaults. These meters were manually read on a quarterly basis, with most of them requiring entry into customers’ premises for readings.

Today, a number of utilities are challenged by the costs incurred in upgrading their older reading systems to the Advanced Meter Infrastructure (AMI) technology. Considering the useful life of a meter is about 25 years, these past-their-prime units give erroneous readings and require meter readers to access homes to obtain water meter readings each quarter. Once installed, the new automatic digital meters will provide more accurate readings, report data hourly, and help identify leaks or water line breaks throughout the city.

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Introducing the 6500 Series® by Gorman-Rupp. These large end suction centrifugal pumps are perfect for pumping influent, effluent, RAS/WAS and most other treatment plant pumping applications. The line offers pumps from 3” through 16”, heads to 500 feet and flows to 15,000 gpm. And like all Gorman-Rupp pumps, they’re engineered to last with features like double volutes, heavy-duty alloy steel shafts, and oversized, oil-lubricated bearings. Unique features like a clean out access port and adjustable Smart Scroll™ discharge design, and the addition of a five year warranty, make the 6500 Series one of the best pumps in the industry.
Wow! It is an honor and a privilege to be your 2017-2018 Ohio Section Chair. I would not be here if it wasn’t for the encouragement and support from all the other Governing Board members. I would like to thank all of them for volunteering their time to make the Ohio Section great. I would also like to thank the City of Toledo for hosting this year’s Annual OAWWA conference. Doug Dunn and his team did an awesome job handling all of the local arrangements and representing the City of Toledo. Thank you to Laura, Emily, and their staff at AOM for coordinating the technical sessions, making sure everyone was scanned in and out, and developing the conference app which was very useful throughout the week. Soon, we will have this show closed out and can start focusing on the 2018 One Water Conference in Columbus. I would like to congratulate all of our competition participants and winners from this year’s ACE: City of Columbus - men’s tapping, City of Cincinnati, Ductile Iron Diva’s - women’s tapping, Northeast District - top ops, City of Hamilton - water taste test, Kevin Brown, City of Columbus - meter madness, and City of Toledo for hydrant hysteria. Great job to everyone that participated and good luck to those going to ACE 18 in Las Vegas.

We have another busy year planned. It will be full of training, expositions, fly-ins, and ‘One’ big conference. As mentioned earlier, we will be working with our wastewater brothers and sisters to arrange our second One Water Conference. This conference was a big hit in 2014 and is gearing up to be just as good, if not better. Please join us the week of August 27th in Columbus to experience all the excitement. Besides the big show in Columbus, we will also be having all of our district meetings with training events throughout the year. The district officers do a great job coming up with some exciting venues and current topics for their meetings. Also, do not forget about our Northeast and Southwest Expositions. These are great opportunities to see all your vendors in one place. While you are there, take advantage of the tours and training sessions. Please look on the OAWWA website for more information on upcoming training opportunities.

Each year, the OAWWA participates in the Washington D.C. fly-in. This is an opportunity for some of our peers to meet with legislators to discuss water concerns and future funding for projects. Mr. David Weihrauch and Mr. Mike Gradoville have participated in this for years and have been quite successful.

There are two items that I would like the board to focus on in the coming year. First, improve the communication and collaboration between the Committees, districts, and participating organizations. Like in any relationship, communication and support can always be improved. The second item we will focus on this year will be Membership. The Young Professionals have done a great job getting the word out to college students and other young professionals in the business. The Membership Committee has also been busy getting the word out. Don’t be surprised if you are approached by someone at the next training session or District meeting asking if you are or would like to become an OAWWA member. We can always use new faces and fresh ideas. Ask a friend or a coworker if they would like to be a member.

In closing, I would like to thank all of you for giving me this opportunity to serve as your Ohio Section Chair. I’m looking forward to working with all our OAWWA members this year to make the Ohio section the best section in this association.

Jason Adkins, Ohio Section Chair
Let’s work together for a better Ohio...

The 2017 OAWWA Annual Conference in Toledo focused on the future of water and addressed the many challenges the water industry faces from regulatory, water assets to succession planning that all revolve around us protecting the public health. Technical talks concentrated on improving the environment to meet regulatory approaches improvements through good science and industry advancement. As water use increases, more legislation has been developed to manage water quality and quantity. This has created gains in environmental protection and should remain as a catalyst in continuing progress.

Public health and personnel challenges facing the water industry are tougher when faced without the support of AWWA and its members. AWWA gives you access to numerous avenues to resources and tools to address these challenges. These avenues include: AWWA Standards, manuals of water supply practices and other specialized subject matter products, advocating for clean, safe drinking water by impacting legislative affairs on Capitol Hill and giving back to membership through the Water Equation program. AWWA’s Water Equation program invests in our water professionals by funding water operator education and training, advanced academic scholarships and Community Engineering Corps’ mission of providing underserved communities with water infrastructure solutions.

Your membership also allows for the ability to take advantage of local training and networking opportunities and create a means to making an impact in your community.

An avenue to give back to your community is through the AWWA Veterans Workforce Initiative to help veterans get jobs in the water industry. AWWA believes military members are a good fit for the water sector because of their technical expertise and experience working nontraditional hours in a regulated environment. AWWA is looking for volunteers who are willing to help veterans find work in the water industry. This includes being able to:

- communicate training/education/certification requirements,
- make personal connections to utilities and employers to help veterans get their foot in the door.

AWWA will provide training and resources to volunteers. A time commitment will vary depending on requests – most volunteers will spend less than 10 hours/year on this project. This volunteer opportunity can be 100% virtual. Volunteers are not required to meet in person with separating military personnel.

To volunteer for the Veterans Workforce Networking Initiative contact Chad Weikel, Education and Workforce Manager, 303-347-6130 or Amy Brown, ETS Coordinator, 303-347-6189.

Within the Ohio Section, Robin Rupe is working on updating the Operations Manual for the organization. Robin is spearheading this committee and has been challenging the Board, District Officers, Committee and Council Chairs to update the manual and develop process SOPs. Please support and be responsive to requests as this initiative moves to completion.

The Water Utility Council has been diligently working and responding to the Ohio EPA on key issues of the Operator Certification Rules. Based on our comments, AOMWA and others, Ohio EPA has made changes to the original suggested rule language. The next step is for Ohio EPA to propose the rules to JCARR with an additional opportunity for interested party comment. Please contact AWWA or Ohio EPA Certification Unit on the proposed rule updates.

Thank you for the opportunity to support you as your Section Director. If you have questions on the Association activities, please contact me at Lorraine.brown@daytonohio.gov or 937.333.6135

Let us work together for a better Ohio through better water.
Tyler Converse Elected Vice Chair

Tyler holds a Bachelor of Science degree from the University of Akron and a Master of Business Administration degree from Walsh University. He is also a Stark County Government Leadership Academy graduate and a current board member of Leadership Stark County, which exists under the umbrella of the Canton Chamber of Commerce.

Tyler has 28 years of experience in the drinking water industry, 15 years of which were spent in laboratory and compliance work and the remainder in executive level management. He was appointed Superintendent of the Canton Water Department in 2009. There, he is responsible for the comprehensive management of the municipal drinking water system which includes three water treatment plants; 650 miles of water distribution system pipe; 3 storage water reservoirs; the utility billing department; and a staff of 105 drinking water professionals. He has also served on labor-contract negotiating teams for multiple mayors. Tyler currently focuses heavily on implementing best-business practices for utility management, including infrastructure replacement, as he and the staff work to position Canton's public water system for long term success and viability.

Tyler has been actively involved in Ohio AWWA for 21 years, having previously served as Chair of the Research Committee, Chair of the Northeast District, and At-Large Trustee on the Ohio Section Governing Board. He also served as statewide coordinator and instructor for OTCO's microbiological testing courses for many years. He is currently finishing a three year term as Chair of the Ohio AWWA Water Utility Council which represents Ohio's public drinking water utilities on all state and federal regulatory and legislative issues.

Tyler's been married to his high school sweetheart, Lucy, for 29 years. The pair have two sons. Along with traveling, Tyler and Lucy enjoy good food, good wine, good conversation, and plenty of laughter with family and friends when the day's work is done.

George Sendrey Elected Secretary

George Sendrey is a project manager at Environmental Design Group who specializes in water distribution systems and water treatment. He has a bachelor's degree in biology from Mount Union and a bachelor's degree in mechanical engineering from Cleveland State University. He currently lives in Brecksville with his wife, Jennifer, and their two kids, Matthew and Lauren. In his spare time, he enjoys playing golf and fishing as well as playing, coaching and watching soccer.
Mike Giangiordano Elected At Large Trustee

Mike Giangiordano is a water treatment engineer with CH2M in Columbus, Ohio where he has enjoyed his career after graduating The Pennsylvania State University in 2007. He has been fortunate to be a team member on several challenging and high profile drinking water treatment projects which have included a multitude of treatment processes and technologies. He specializes in design and commissioning of drinking water processes and, like many engineers, Mike enjoys providing solutions to the most complex problems that the water industry has to offer.

Mike began his involvement in AWWA with the Young Professionals where he has served as both the Ohio Section Young Professionals Committee Southeast District Representative and most recently the Ohio Section Young Professionals Committee Chair from 2015 to 2017. He has recently presented projects with the City of Columbus at District Events and the Section Conference. Mike has also assisted the AWWA Young Professionals Committee at ACE 2016 and as part of the planning committee for the annual AWWA/WEF Young Professionals Summit. He looks forward to continuing his career with AWWA and hopes to be able to contribute as much as the Association has provided to him.

Mike enjoys exercise and staying active. In his free time he can often be seen jogging at local Columbus Metro Parks, playing indoor soccer or brewing beer in his new garage. Mike recently coached the Ohio State Women’s Soccer Club during the 2014, 2015 and 2016 seasons and looks forward to spending quality time with his family this fall.

Nichole Sajdak Elected Southwest Trustee

Nichole Sajdak holds a MS in Environmental Engineering from the University of North Carolina in Chapel Hill and has more than 18 years of experience in the drinking water industry as a consultant. Nichole is currently an Associate at Hazen Sawyer’s Cincinnati office. Her projects span study, design and construction phase services for treatment plants ranging from 3 MGD to 245 MGD. Nichole has volunteered with the Ohio Section of AWWA on a section and state level since 2010. She served on the Southwest District Board for the past 5 years and currently co-chairs the Technical Committee.
Thank You for Your Service and Dedication!!

Cliff Shrive
Water Consultant
Outgoing Association Director

Franco Lucarelli
City of Warren
Outgoing At Large Trustee

Brett Norton
Quicksall & Associates
Outgoing Northeast District Secretary

Richard Griffing
Retired
Outgoing Section Secretary
**CHALLENGES:**

One of the challenges facing any utility looking to implement its first system, or upgrade a legacy Automatic Meter Reading/Advanced Meter Infrastructure (AMR/AMI) system, is understanding the process and avoiding the pitfalls that result in overruns, schedule delays, or low percentage (<90%) of completions that fall back on the utility to complete with its internal staff.

The planning and design process can be daunting, especially if the utility has already made an investment in new meters or AMR system upgrades, and is looking to improve the system capabilities, or reduce the cost to collect meter data, improve the accuracy of water consumption. The resulting new system has immediate benefits in reducing costs and improving customer relations by improving the level of service, while reducing customer billing complaints with fair, accurate, and consistent water bills.

Goals and objectives for the Berea Water Meter Replacement Program included:

- Automate 4,300 manually read meters
- Install new meters and encoders on meters >10 years old.
- Install new transmitters on new manually read meters
- Replace large compound meters for commercial accounts.
- Upgrade or replace existing ACLARA AMI system.
- Improve customer service through more accurate reads that result in fair and equitable bill for water consumed.
- Interface with existing CMI utility billing software that are integrated with existing City financial systems.

The Meter Replacement Program included three phases: Contract A was for purchase of the water meters through a competitive bidding process in which Badger Meter was successful bidder for the meter.

Contract B was for installation of the new water meters and Meter Transmitter Units (MTUs). NECO was selected as the Installation Contractor through a qualification based procurement process. This contract also included project management, appointment scheduling, and additional work such as meter well upgrades and shut off valve replacements.

Contract C was for procurement of AMI system, including hardware and AMI software, MTUs, and technical support services. This contract would include the upgrade of the 10-year-old system with new ACLARA technology, or replacement with technology offered by other AMI vendors.

Initially, Sandy Vozar P.E., Utility Engineer for the City of Berea, explored a number of possibilities to upgrade and expand its existing ACLARA AMI system. However, technological advancements in AMR/AMI raised the question whether to upgrade

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**THE OPPORTUNITY**

How many times in one’s career do you work on a project that affects every customer account, where you are in direct contact and perform the work in their homes and businesses.

You must overcome a hesitant public that must schedule an appointment to have the City’s installation contractor gain access into their home and change out their water meter, install a new Meter Transmitter Unit, and leave the work area clean and the customer satisfied with the overall experience.

Complicating this issue is that you have to download the new meter data, validate that the new meter is reading accurately, verify that the new AMI system is transmitting and receiving thousands of new hourly meter reads while transferring that data into the utility billing system. In the end, the overall customer experience is a true measure of how well the project was planned and executed.
the existing ACLARA AMI system, or consider a complete replacement with new AMI hardware and software.

Preliminary investigations showed that the City had to upgrade its existing Data Collection Units (DCUs) to improve data collection from the existing Meter Transmitter Units (MTUs) installed in customer basements and curb-site meter vaults and the central database at the Utility Department. Several options were evaluated, including several preliminary proposals for a complete system replacement, cellular-based MTUs and communications, and web-based Software-as-a-Service (SaaS).

After careful review, the most cost-effective approach appeared to be purchase of additional Badger M25 meters that were compatible with the new ACLARA 2-way MTUs. It was determined that the existing DCUs would provide complete coverage of the service area without the construction on any new antennae. The recently upgraded DCUs already supported the new 2-way MTU communications for future use in expanding the system.

The recommended plan of improvements included replacement of all residential and larger commercial/industrial meters, installation of new ACLARA MTUs, and replacement all meters with units compatible with the ACLARA MTUs.

The City was able to pursue a single-source procurement with ACLARA to upgrade and expand the existing AMI system. ACLARA would provide upgrades to the current AMI software licenses and hardware, including: 4,300 new two-way MTUs, providing technical support services during implementation, training, and to purchase extended software and hardware maintenance service agreements for the ACLARA system after the warranty period expired. In addition, the City decided not to replace its Customer Information System software since ACLARA had a working interface with the CIS, FIS, and Utility Billing Software.

The City would fund the project by obtaining a 20-year loan from the Ohio Water Development Authority.

PLANNING PHASE

The City had attended several presentations related to AMI upgrades, and realized that there were a number of areas where they needed guidance from an independent party to assist with the planning, design, and construction phases of the project.

The City already had a head start compared with other utilities planning a meter replacement program, including:

- A good understanding and knowledge of its ACLARA AR/AMI systems
- A knowledgeable staff of meter readers, technicians, and utility billing staff
- Full integration of the existing AMI system to the existing utility billing systems
- An experienced staff that was familiar with supporting and managing the interface between the existing utility billing system and the City’s financial systems.

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The City decided to take the lead in managing the project, but would retain an experienced AMI consultant to provide its expertise during the planning phase, lead the development of the final bid specifications, assist with the bid and award of the contracts, and provide support during the construction phase of the project.

Berea officials approached Burgess & Niple to lead their project after attending a presentation given at an AWWA meeting about the success of the Canton (Ohio) Water Meter Replacement Program. This project included an upgrade of their ACLARA system, and was successfully completed in 2006. The Canton Meter Replacement Program was featured in the Summer 2014 Edition of Ohio Section Newsletter.

In November, 2015 B&N was retained by the City to assist with the planning and preparation of bid specifications for the project. The City's schedule to bid and award the project in the spring were realized, and the project was successfully completed on time and under budget by the end of 2016.

**PROJECT TEAM**

B&N was selected to assist the City with the technology evaluation, procurement of water meters and AMI hardware, software and services. The City's Project Manager, Utility Engineer Sandy Vozar, P.E. was able to lead the City's effort, but chose B&N, based on its past experience with AMI projects, to provide subject matter expertise on the technology assessment, provide guidance with planning and design of the AMI system, assist with the preparation technical specifications and contract documents.

The City would manage the installation phase of the project, and coordinate the meter and MTU deliveries, and the day-to-day progress during the construction phase of the project. B&N would be available to assist with resolving technical issues related to meter data collection and uploading, communication issues, migration from the old to the new AMI systems, tracking progress, and attending monthly progress meetings.

B&N met with the City, and recommended the formation of a project team of stakeholders who could support the planning, design, procurement, and installation phases of the project. The City's project team included a project manager, meter technician, and staff familiar with the ACLARA STAR software, CMI Utility Billing software, and the city's Financial Customer Information System.

**PLANNING AND DESIGN PHASE SERVICES**

B&N was tasked with providing the following technical guidance and leadership to the project team, including:

- Assist with planning, upgrade, and migration plan for ACLARA AMI System
- Prepare a map of meter service area, delineation of meter reading zones, DCU locations, and service areas to be served by upgraded AMI project.
- Meet with City's Purchasing Department and/or Legal Department representatives to discuss various methods of procurement.
- Review customer information database to identify meter manufacturer, type, sizes, age, register types, and MTU.
• Develop final quantities to be included in Bid Specs for procurement of ACLARA MTUs, meters, and installation services.
• Evaluate various technologies for meters including ultrasonic and magnetic flowmeters for commercial accounts.
• Evaluate integration of existing water meters and registers with ACLARA MTUs.
• Develop technical specification for bidding various types water meters.
• Develop specifications for procurement of installation services by an independent installation contractor, including project management, tracking, reporting, field supervision, data management, progress meetings, schedule, and quality control, and workmanship.
• Assist with preparing scope of supply and assist with "sole-source procurement" negotiations for procurement of new ACLARA MTUs, software upgrades, programmers, software warranties, and technical services.
• Finalize bid quantities for installation contractor to include on bid form, with accurate count to obtain unit prices for the various types of installations, including: 1.) complete removal and replacement with new meter and MTU, 2.) reuse existing meters/encoder and install new MTU, 3) retain MTU and install new meter and encoder, and 4) new meters and/or meters in pits.
• Prepare budgetary cost estimates and Engineer's Opinion or Probable Cost for legal advertisement.
• Provide assistance with advertising for bid proposals, and award of contracts. Assist with review of final bid proposals bid forms and contract documents.
• Provide assistance during the installation phase of the project and help resolve technical issues and attend project meetings.

LEVERAGING THE EXISTING INVESTMENT

The first task associated with the Planning Phase was to validate the feasibility of leveraging the investment the City had made with the initial purchase of the ACLARA fixed based AMI system, and latest upgrades to the ACLARA DCUs and AMI software and servers. In addition, with 2,300 Badger Meters that were now approaching 10 years old, the City wanted to confirm whether these could be re-used and integrated into the new AMI system.

The end result was to develop a migration strategy to avoid stranding assets and leverage previous investments:

• AMI system upgraded to handle 7,000 existing and new residential and commercial water meters
• Install 4,600 new Badger meters with ACLARA 2-way transmitters
• Utilize the five existing Data Collection Units (DCUs) installed 2006, and upgraded in 2012)

Since the original ACLARA MTUs were limited to providing one-way communication, there was concern how these would work with newer ACLARA 3300 Series MTUs that supported two-way communications.

After preliminary meetings, it was decided to retain and reused the existing one-way MTUS and meters that were less than 10 years old, and replace all the remaining residential and commercial meters and MTUs, upgrade the existing AMI software and hardware to the latest version, and retain the existing utility billing system. This would allow the City to upgrade the AMI software before adding new installations into the existing utility billing system only after being fully checked out and tested for accuracy. When the project was complete, the new system would have been in successful operation for six months, and fully tested prior to each new billing period.

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On a cost basis, a residential meter with MTU and installation could result in a savings of $250 to $400 depending on size and type of meter. It was determined that the older MTUs and meters could be integrated into a hybrid system since the DCUs were capable of supporting both the 1- and 2-way communications protocols. Thus, the City could realize a savings of approximately $600,000 by leveraging the current meters, MTUs, and AMI system.

WORKSHOPS
At various steps in the planning and design, workshops were held with the Project Team to discuss the following areas:

- Inventory of the existing utility system and ACLARA database structures.
- Evaluation of procurement alternatives
- Evaluation of meter types (compound, turbine, ultrasonic, and/or magnetic flow meters) and selection of types of meters to be specified,
- Preparation of detailed specifications for installation including project management, scheduling, installation, and progress reporting.
- Preparation of cost estimates
- Council meeting to present the project justification, scope, costs, schedule, and rates.

The City’s Service Director and Finance Director participated in workshops and technical meetings to review the various options presented to the City, and how each would impact current and future operations. The workshops resulted in building consensus amongst all parties regarding the final recommended plan of improvements.

Based on the final recommendations, detailed specifications, bid documents, and budgetary cost estimates were prepared. A final presentation was made to City Council to document the need for the improvements, scope of work, customer appointment scheduling process, project costs, schedule, and impact on rates. With Council authorization, the project would move forward with the Bidding and Installation Phases of the project.

INVENTORY OF METERS
A critical element of any successful meter installation project is to have an accurate meter database with all the correct customer information, including account ID, customer name, billing address, phone, meter billing zone, meter manufacturer, serial number, size, type, age, MTU active/inactive, etc. This is usually available from the existing AMI system database or the utility billing system software. In addition, the Customer Information System (CIS) that is part of the City Financial Systems includes additional information on billing cycle, rates, consumption data, payment record, and special instructions related to account status.

Once an accurate customer database has been compiled, the meters are sorted by zone, street, meter size, type, age, MTU type, etc. A summary of active meters to be replaced was compiled. When sorted, approximately 2,600 meters were shown to be less than 10 years old, having been installed during the original AMI project implementation in 2006. In addition, any new meter installations or replacements of defective meters were tabulated. Special meter accounts for fire-sprinklers, irrigation sprinkler systems, and sewer only meters (waters supplied by another utility), and any other exempted free meter accounts were identified. Inactive accounts were removed from the database if no action was to be taken under this project. Finally, special conditions such as newer meters that require only a MTU meter, all meters in curb-side meter vaults that required non-metallic lids, any accounts requiring a new meter vaults and lids were tabulated, and included as separate bid items on the bid proposal form.

A project database was compiled in Microsoft Excel that would serve as the meter replacement project database. Any inaccuracies found by installers were noted and tabulated in the final database.
The meter database was key to the project’s success because it would serve as the basis for estimating the quantities used for bidding and procurement of equipment and obtaining competitive unit price bids by the installation contractors. This project database would be provided to the successful installation contractor to use in planning his work, scheduling appointments, collecting installation data, and reporting progress.

A detailed review of current operational problems with the existing AMI software showed that new software and hardware were needed to process the addition meter installation and provide additional meter reading data storage. ACLARA provided proposals for updated AMI software and additional programming software licenses and laptop computers for use in the field to configure the MTUs and for meter data collection. Standard one-year equipment warranties for new hardware and software were extended to two years after final completion.

The system was configured to provide two redundant servers to communicate with the DCUs, improve system reliability, and minimize loss of meter readings. All field data, including photos of the old and new installations, were stored offline for future reference. All pertinent meter data obtained during the programming of the new meters and MTUs was immediately transmitted back to the central database of the AMI system and stored, but was not immediately migrated to the utility billing system until it was scrubbed for errors, checked for accuracy, and uploaded to the UBS.

B&S assisted the City with a qualifications-based procurement process to obtain competitive bids from installation contractors and award the contract to the “lowest and best bid” based on a weighted scoring system for qualifications and price.

This hands-on approach and project methodology is key to avoiding costly overruns due to quantity variations, poor quality and workmanship, and software integration issues that frequently are encountered between AMI software and billing system software. The attention to details in all aspects of planning, design, and installation phases enhance customer satisfaction throughout the entire process and make it a hassle-free experience.

The final schedule was to receive bids for Contracts A, B, and C in March, obtain OWDA approval of the loan in April, and start construction in May 2016. The City would take on project management responsibilities, including coordinating the delivery of the meters and MTUs to suit
the installation contractor schedule and conducting daily team planning meetings and monthly progress meetings to help make sure all installations are completed in the six-month timeframe. Meter data collected using tablet computers were uploaded each day to the AMI database and reviewed by the City for accuracy before being uploaded to the utility billing system.

COUNCIL PRESENTATION AND PUBLIC COMMENTS

Presenting the Meter Replacement Program to Council was a critical step during the planning phase to explain features and benefits to the Mayor and Council members and obtain authorization to use OWDA to fund the $1.6 million project.

The presentation explained how the City will be able to automate its meter reading capabilities and provide customers with accurate and timely utility bills. The proposed project will leverage the City’s previous investment in its existing Automatic Meter Reading (AMR) system valued at nearly $500,000 to reduce the overall upgrade costs to $1.6 million for the meter replacement program. The next council meeting authorized that bids be taken and that an OWDA loan be secured to fund the project. Installation was scheduled to start in May and be substantially complete by the end of the year.

“DROP IN THE BUCKET”

It is expected that Berea customers will pay a $2 per month meter service charge to cover the cost of the program.

The following day, an article appeared on Cleveland.com, quoting a resident who referred to the service charge increase as “a drop in the bucket,” echoing what seems to be a favorable reaction to the program that was outlined during a City Council meeting.

The method used to schedule appointments and professionalism by installation crews had been thoroughly planned and fully addressed by the project team. Citing successful implementations on similar projects that used the same methodology the team demonstrated to Council members that the new system would provide accurate meter reads and would be completed within budget at a minimal risk.

BID AND AWARD PHASE

Bid documents for Contract B and C were completed and the project was advertised in March. Bids were received for the meters and installation contracts. The final bid prices were used to obtain OWDA financing and the notice to proceed was issued in April. Additional tasks included: review of the legal advertisement for bids, pre-bid meeting with vendors and contractors, response to questions from bidders, preparation of addenda, and attendance at the bid opening.

CONSTRUCTION PHASE:

Originally slated for completion in December 2016, the project was extended to March 2017 to complete some difficult installations that required coordination with property owners. Specifically, Baldwin Wallace University (BW) was unable to be completed in the summer of 2016 due to the Republican National Convention hosted by the City of Cleveland in which BW housed workers and security forces for the event. The balance of
BW installations were scheduled to be completed during winter break, but some were extended until spring break of 2017.

The first installations by NECO were completed in mid-June of 2016, starting with commercial meters and the pilot area. At the height of installations there were six installers completing approximately 70 work orders per day. Installations peaked in August and September of 2016.

During the six-month installation period, NECO completed 4,022 installations while City employee Pat Lane completed approximately 103 installations that required special attention to site conditions, accessibility, or customer concerns.

The final total project cost was $1.376 million, 20% under the original estimated project cost of $1.7 million. Savings were realized due to some of the special or more complex installations being completed by City forces (183 installs). Many of the nonconforming work items such as running wire across crawlspace, new service valves, and locating the MTU outside of the buildings were minimally performed and not performed by the installation contractor (NECO) as originally expected.

The installation contract included bid items to install the specified number of meters, and separate bid item for project management services. In addition, ten bid items were included to allow for a minimum quantity of non-standard work to be performed without having to process a change order. This meant work could be completed while the installer was on site rather than making a return visit. Examples of non-standard work included replacement of faulty included shutoff valves, additional wiring, setters, piping specials, grounding straps, and replacing curb valve vault assemblies and lids with non-metallic lids.

Several minor setbacks were encountered during the project including the loss of the billing clerk, difficulties programming meters, and data cleansing. The project was completed on time and under budget with a 99.8% completion rate. Some accounts, such as seasonal pools, irrigation systems, and City accounts, are not planned for automation at this time. The City of Berea has realized a successful project and can now continue to improve the level of services to its utility customers by providing regular, efficient, and accurate billing.

**LESSONS LEARNED - WHAT WORKED WELL**

- Leveraging the existing investment in meters and MTUs proved easy to integrate with new equipment.
- City negotiated procurement of AMI software, hardware, software maintenance agreements, and an allowance to provide technical support for project management, technical support, troubleshooting, and on-site training.
- Having separate contracts for the purchase of water meters, AMI supplier, software, and the services of the installation contractor resulted in significant savings to the City, with minimal risk.
- Developing a solid master meter list with the customer account database assisted in planning work in zones and tracking progress.
- Providing office and storage space for the contractor at the water plant site was convenient for the project team and contractor and supported open communications between all parties.
- The seven-step notification system used to inform customers and schedule appointments worked well.
- Water shutoffs are critical to attaining 98%+ installation rates. They are also critical to maintaining the production schedule and avoiding delays caused by return trips to completed zones.

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- Including a provision in the bid to have the contractor provide makeup piping and fittings to install new 2-inch ultrasonic and 3-inch, 4-inch and 6-inch magnetic flow meters for larger commercial accounts made it easy to retrofit into existing piping systems.
- Daily scrubbing of meter data by the contractor before being uploaded to AMI system is critical avoiding importing bad data in billing system.
- Daily logs of problem accounts were reviewed with the contractor and corrected on a weekly basis to avoid a huge backlog or problem accounts that would impact billing cycles.
- Daily morning meetings with the project manager and on site installation supervisor to review scheduled work and resolve problems was critical to maintaining the project schedule in conjunction with billing cycles.
- Weekly progress reports were provided every Monday morning to track work zones, notification stage, completions, scheduled work for the next week, and remaining work.
- Separate listing of “problem” accounts was maintained with explanation of what was needed to complete work, reschedule, bad plumbing waiting for owner repairs, or inability to schedule an appointment.
- When all notifications were completed, a list of remanded accounts was provided to the City and City would issue two shut-off notices. Water would be turned on after the owner scheduled an appointment. Failure to do so initiated “FINAL NOTICE”. At this point, the account was returned to the utility and was excluded from the contract.

FINAL RESULT – A SUCCESSFUL PROJECT

The project success is measured by the 99.8% completion rate, for 4,022 meters, with only ten outstanding accounts that still need to be converted. Seven of these will be converted by this fall. The remaining large commercial meters are on hold, awaiting the release of a new style of ultrasonic meter available in the spring of 2018. Only one meter is an inside read (Cleveland Browns Main Building, while the other nine are in curbside meter vaults can be manually read until the conversion is completed.

Acknowledgements
Burgess & Niple wishes to thank the Mayor, Service Director, Finance Director, and Council for allowing B&N to serve the City on this important project. Special thanks to Sandy Vozar, PE, Utility Engineer and her staff for their assistance throughout the planning, design, and construction phases of the project. We also would like to express our appreciation to Badger Meter, ACLARA, and NECO for their efforts and cooperation in making this a successful project.

Berea Water Meter Replacement Program

Final result: Success!
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Southern Ohio Utility Expo for Water & Wastewater Professionals

Tuesday, April 10th, 2018

Exposition from 8am—3pm
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For more information contact Lance Livesay, 1st Vice Chair: 937.754.3097 or lance.livesay@ci.fairborn.oh.us

Annual OAWWA Northern Expo

Where: Community Center
735 Lafayette Road
Medina, Ohio 44256

When: Thursday, April 12th, 2018
Time: Registration begins at 8:30am

For more info: Kevin Givins, Expo Chair
City of Wooster
1123 Old Columbus Road
Wooster, Ohio  44691
Phone# 330-263-5285
Fax # 330-263-5209
expo@woosteroh.com

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Northwest District – Scott Ballenger, Aqua Ohio
Southwest District– Nicole Diak, Montgomery County Environmental Services
Northeast District – Adam Basile, City of Warren
Southeast District – C.R. Weaver, City of Columbus

Longevity Awards

Wendell R. Ladue 20 Year Awards
William Albrecht
Verna Arnette
Bernard Ashyk
William Bowers
John Cordier
Greg Dungan
Donald Dyar
Jeff Ekstrom
Gary Fedak
Gregory Foltz
Kenneth Gerard
Steve Heimlich
Gregory Heinrichs
Stan Hershberger
Timothy Koch
William Lewis
Randy Phares
Jason Phillips
Chris Sallee
Joseph Smith
Matthew Steele
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Jack Thornsberry
Michael Watts
Alex Yavich
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Water Department
Village of Spencerville

Silver Water Drop 25 Year Award
Dave Benson
Henry Biggert
Brent Bolin
R. Todd Brown
Scott Bryant
Raymond Byrom
Ralph Castellucci
Robert Davis
Christopher Day
Andrew Eribo
Timothy Griffith
Chris Huebner
Jennifer Jenkins
Andrea Kroma
Richard Miller
Timothy Linn
Robert Lulfs
Scott Moegling
Tim Newland
Terry Palmer
David Reimer
Gregory Reinhart

Gold Water Drop 50 Year Award

Life Member Status Award
Brian Bisson
Collette Clinkscale
William Dorman
Kenneth Golick
John Hanagan
Donald Houchins
Dan Miklos
Stephen Schreiber
Jay Shutt
Warren Fuller Award
Karen Hawkins

The career of this year’s recipient of the Fuller Award began over thirty years ago, surprisingly NOT directly within the Water Community. However, within a short time this person was in the Water Department, and made it a home. During these 30+ years, this individual also joined AWWA, likely as a suggestion from a supervisor. Quickly finding a way to be an active volunteer, by assisting the Southwest District through the chair positions; and also the Ohio Section Governing Board as a Secretary/Treasurer, a Trustee, and eventually the Chair of the Section.

From a police dispatcher, to secretary, to Water Project Manager, Superintendent of Water and Sewer, and most recently the Public Works Director for the City of Fairborn, this year’s recipient has made a career of learning everything she can about her role, duties and responsibilities. And then the student becomes the teacher, where she shares that information with whomever is lucky enough to listen.

Teaching not only water professionals, but also children throughout the Dayton Area, she has created many opportunities to share her passion for Water at the Dayton Water Festival plus within individual school classrooms.

One of her favorite pastimes is entering contests, with the intention that “someday I’ll win big.” Little did Karen Hawkins realize that when she entered the Water Community, that her selfless actions would one day bring her to be recognized as a recipient of the AWWA Fuller Award.

Congratulations, Karen!

Operator Meritorious – Treatment Award
Terry Huber, City of Lima

Presented to an individual who has demonstrated consistent and outstanding contributions to WTP operations and maintenance, installation of new equipment, and training of WTP operators.

Terry Huber has been employed by the City of Lima for over thirty five years, the last 21 as Supervisor of the Water Treatment Plant. Terry is known as a calm, quite manager but as people learned from the very beginning of his employment at times he might not say much but when he does you had better listen. During his tenure at the plant he has been very instrumental in many improvements. From working at changing shifts to be more operator friendly to the becoming more efficient going from 24 employees to 14. There have been many improvements and upgrades to the 30 MG Water Treatment Plant thru the years to improve the water quality, keeping abreast of the EPA requirements and more automation for operator ease. In the last four years Terry has over seen the building a 5.9 billion gallon reservoir, new pump station, a 1 1/2 million gallon elevated water tank and a 14 million dollar upgrade to the Water Treatment plant adding granular activated carbon filters and work on clear well water storage.

Terry has been a supporter of AWWA. After serving as NW District Chairman Terry encouraged his brother to become involved and serve as district chairman and has had two employees become officers. He also has supported the Top Ops contest by having teams from Lima plus has had employees on the NW District team. Which have represented Ohio at ACE.
Operator Meritorious – Distribution Award
Anthony Lorenzo, City of Avon

Presented to an individual who has demonstrated consistent and outstanding contributions to distribution operations and maintenance, installation of new equipment, and training of water distribution personnel.

Anthony has been in the water field for 30 years. His career started with the City of Cleveland Water and has held numerous jobs for them including: Water Repairman then moving over to their Meter Shop progressing up to Unit Leader and Meter Shop Foreman scheduling and managing daily work assignments of the crews. Anthony also was on the Cleveland Water Division tapping team that won the Ohio competition twice and then to the AWWA National competition. For the last 5 years Anthony has been the Utilities Superintendent for the City of Avon which is a rapidly growing community. Anthony has overseen numerous water projects while there that include: new 3 million gallon water tower, new water mains for growth, city wide residential and commercial water meter change out, new Utility Billing Software, new Backflow Prevention Software, development of a GIS system that used OTCO students from Cleveland Ginn Academy and Glenville schools to gather points. Anthony believes in training and offers his employees numerous educational opportunities. Anthony holds an OEPA Class III Water, Class II Wastewater Collection and is OTCO Backflow Certified.

Richard F. Melick Award
Doug Mayo

Presented to an individual for giving unselfishly to the field of operator training and technical education through the Ohio EPA, AWWA and the Operator Training Committee of Ohio, Inc.

Doug consistently volunteers for instructor opportunities whenever needed. He teaches Water I and Water II / III classes at the SW District Study Sessions. In addition, Doug became actively involved in OTCO and ORWA to work on educational opportunities for their constituents. His dedication to advancing the knowledge of new operators has earned him respect from his students and throughout the industry.

John Sadzewicz Award of Excellence
Judy Stottsberry, Ohio EPA

Presented to an individual for outstanding contribution to public health practices, encouraging the use of proven new technologies, and promoting sound operational approaches in meeting regulatory requirements and ensuring safe potable drinking water.

Judy Stottsberry has been working at the Ohio EPA to ensure safe drinking water for over 23 years. She graduated from Youngstown State University with a Bachelor's Degree in Civil Engineering. For most of her career at the Ohio EPA, Judy has been an important part of the regulation of surface water treatment plants. She has become the agency specialist on treatment of surface water and has contributed heavily to the development of policies, rules and guidance documents related to its treatment. Judy has also become the technical specialist for the agency on ultraviolet (UV) disinfection used in surface water treatment. Judy is a member of the Comprehensive Performance Evaluation team, a member of the UV workgroup in partnership with USEPA, Indiana, and Kentucky, and a member of the Ohio AWWA Technology Committee. During the last 5 years, Judy has taken on the additional responsibility of assisting in a major renovation of the Toledo water treatment plant.
John Lechner Award of Excellence
Timothy Wolfe, MWH Global

An individual award of excellence to recognize a Section Service Provider Member (SVP) who has demonstrated exemplary service to the drinking water community and to AWWA’s Mission and goals.

Dr. Timothy A. Wolfe has been helping to move drinking water in Ohio forward for several decades. Tim has been a key member of Ohio AWWA’s Technology Committee, and its Subcommittees, since its inception. He has been a big factor in assisting with both Guidelines that outline procedures for Ohio EPA to approve high-rate and emerging technologies for PWSs, and the Approved Capacity document that establishes the basis for Ohio EPA and PWS to come to agreement on the approved capacity of water systems. Tim is currently working with Ohio EPA and the Ohio State University to establish design criteria for emerging technologies to supplement the limited design criteria available in Ten State Standards. He has been a regular speaker at Section meetings and conferences sharing valuable information about drinking water treatment and conveyance. Tim has served each year as moderator of the Top Op’s competition since it began years ago – helping to give water treatment operators the public recognition they deserve.

Dr. Wolfe was a partner of Havens & Emerson that in 1993 became part of Montgomery Watson that became MWH. Tim recently became a Vice President emeritus at Stantec when MWH was absorbed into Stantec. Tim is an adjunct professor at the Ohio State University where he serves as the instructor for CEGE’s Capstone course that introduces senior-level environmental engineering students to actual DOW and DOSD projects.

Kenneth J. Miller - Water for People Founder’s Award
Bichvan Boyles, City of Columbus Water

This award was established to recognize volunteers for their outstanding service and leadership in the advancement of the Water for People mission at the local committee and regional levels. This award may be presented annually to a person who demonstrates exemplary service to Water for People through fundraising, education, publicity, committee leadership, volunteer service abroad, and/or raising the awareness of Water for People and its work.

Bichvan Boyles has been dedicated to the water industry for over 18 years and has been a member of AWWA for 7 years. She is currently employed as a Water Research Analyst in the Water Quality Assurance Laboratory for the City of Columbus, Ohio. There, she oversees the Biological and Environmental programs for regulatory compliance with the Safe Drinking Water Act; monitors current and future treatment processes of two Class 4 surface water treatment plants and a Class 4 groundwater plant; and monitors the drinking water quality in the distribution system for Columbus and its surrounding communities. She holds a Bachelor of Science in Biology from Bowling Green State University, an Ohio EPA Class 3 Water Supply Operator License, and certifications for the chemical and biological analysis of drinking water.

Bic’s committed involvement in AWWA, Water for People and the Boy Scouts of America (BSA) organizations is a testament to her desire to better the world around her. She has been a member of AWWA for seven years and currently chairs the organizing committee for the Race for Global Water in Columbus. She also serves as a parent committee leader for BSA Troop 284 and is a member of the Diversity and Inclusion Steering Committee for the Columbus Department of Public Utilities.

Call for Ohio Section Governing Board Nominations

Over the next few months, the Governing Board will be discussing nominations for two Section-level positions - Vice Chair and Northwest Trustee. These positions will be elected during the Annual Conference Business Luncheon in Columbus August 29, 2018.

If you or someone you know is interested in being considered by the Nomination Committee, please forward their name and phone number to Tyler Converse at 330-705-6953 or tyler.converse@cantonohio.gov.

The persons elected will have the opportunity and responsibility to help guide our organization by serving on the Governing Board as the Northwest Trustee (4-yr term), and Vice Chair to a 1 year term both beginning at the conclusion of the 2018 Annual Conference.

If elected, you will also develop many lasting friendships with people throughout our profession. This volunteer position requires attendance at a number of committee and Governing Board meetings in addition to various District meetings and committee workshops throughout the year.

Because the work of the Governing Board does take time, the individual selected by the nomination committee must have full support of his/her employer. In addition to time requirement, we also ask the employer to be prepared to absorb a significant portion of travel and lodging expenses related to Governing Board business.
Focus on the Future of Water
2016 Champions Successfully Defend Title

The 2017 Ohio Section Conference Exhibition Hall opened the day after the Ribbon Cutting Ceremony with the usual Pipe Tapping Contest. Last year’s winners, the Ductile Iron Divas of GCWW and City of Columbus Water Men, were here to defend their titles.

On the Women’s side, we need more women to organize teams throughout our Section. The Greater Cincinnati Water Works Ductile Iron Divas had no competition this year but went through their routine and will be representing the Ohio Section again in 2018 at ACE18 in Las Vegas in June. This year, they did not have their best times, but we know they will work hard before June because they have been hovering around the Champion every year at ACE. Last year just after ACE16, the Ductile Iron Divas went to the Great Lakes Cup in Troy, MI and knocked off the ACE16 Champions on their home turf. This team consists of Coach Lorraine Jordan, Copper Vanessa Pleasant, Cranker Zebra Primus and Feeder Lela Moustafa.

On the men’s side, we had only 4 Ohio Section teams competing and were entertained by an exhibition tap by the Mid South Elite Tappers CUD from the TN/KY Section. The Ohio Section teams were Cincinnati Tappers, City of Columbus Water, Lima City Tappers and City of Toledo.

In the first round, Columbus made up of Coach Patrick Crumley, Copper Ricco Ratliff, Cranker Dan McClain, and Feeder Chris Briggs started out with a time of 1 minute 37.25 seconds which was only going to be bettered by their own time of 1:31.81 in the second round. Cincinnati Tappers consisting of Coach Tony Jones, Copper Milton Davis, Cranker Ron Payne and Feeder Sean Tolbert had the second place time of 2:03.07.

The City of Columbus Water Men’s Tapping team will be joining GCWW’s Ductile Iron Divas in Las Vegas in June at ACE18. Congratulations to both and bring home the Gold next year.

Besides thanking all the teams that competed we would also like to thank the judges that donated their morning to this event; Keith Wempe of GCWW, Tom Parsons of Troy Water, and Wayne Kopp Retired. Cliff Shrive again acted as emcee for Tapping. The City of Toledo also provided this event with great workers that kept the event moving smoothly.
Top Ops – Toledo 2017

Top Ops 2017 consisted of competitors between the NE and NW District teams. After three rounds of head-to-head closely fought competitions, the NW District team from Lima, Ohio consisting of Emily Kerber, Steve Backus and Darrin Sevitz prevailed as champions. The NE District team from the Cleveland Division of Water consisting of Shawn Justus, Richard McCain and Vince McMichael came in as a close second. The winners have earned a spot for Top Ops National Competition at ACE 18 next June in Las Vegas. Congratulations.

This year’s competition was much more interesting. The entire question was read and the contestants wrote their answers on grease boards for the judges to see. Not only does this method mirror that of the AWWA national competition, it avoids Top op teams memorizing the answers – i.e., a much fairer competition that is pleasing to the audience present to root on their favorite teams.

The contest was moderated by Tim Wolfe and the judges were Nick Pizzi of Aqua Services, Andy Barienbrook of Ohio EPA and Richard Lorenz of the City of Westerville. A special thanks to Dan Barr of MS consultants and his administrative assistant Amy Shoaf for coordinating the questions and competition logistics.
Meter Madness: Third “NEW” Champion in a Row

This year’s Meter Madness brought together a reigning champion, a former champion and two wanna be’s. The day ended with a first time winner.

Meter Madness consists of individuals that are given a bucket of disassembled water meter parts. Their mission, if they choose to accept it, is to assemble a meter that works and has no loose parts. This year we had Defending Champion John Rutter from the City of Wooster, Past Champion Paul Tucker of City of Lima Water, Kevin Allen of Montgomery County Environmental Services, and Kevin Brown of Columbus Water. Meter Madness has District Competition in April each year to designate district winners to challenge the Defending Champion at the finals during the Section Conference.

In the first round, John Rutter had the best time of 40.25 seconds. Kevin Allen had 50.25 and Paul Tucker had a time of 42.31 but had a penalty of 10 seconds for a loose bolt. Kevin Brown did not finish his first round assembly. In the second round, Paul Tucker had the best time of 37.46 but again had a loose bolt for another 10 second penalty for total time of 47.46. This time around, Kevin Brown completed his task in a time of 39.32 with no penalties. Kevin Brown of the City of Columbus Water will be the third consecutive “new” champion from Ohio Section to compete in the Nationals. He will be joining his fellow Columbus Tapping Team workers at ACE18 in Las Vegas in June.

A special thanks goes out to NECO and Neptune Technology for donating the Neptune Meter that will be the meter for the Nationals at ACE18. Mike Gradoville acted as emcee.
Once again, Hydrant Hysteria lived up to its name. This year was our first open registration for the event. Last year, being the inaugural year as a sanctioned AWWA event, Ohio Section invited just 2 teams, Greater Cincinnati Water Works and City of Columbus Water. This year six cities registered to compete in this event where each team was given a disassembled fire hydrant that they had to assemble with speed and accuracy.

Each team consisted of 3 individuals, a coach and 2 participants. The teams were Greater Cincinnati Water Works with Coach Tremaine Willis, DeAndre Watson and Adrian Cook, City of Columbus Water with Coach Jon Good, James Roberts and Mark Evans, City of Lima with Coach Steve Beemer, Sam Bodine and Alex McPheron, Montgomery County Environmental Services with Coach Ben Bennett, Brett Shephard and Alex Simpson, City of Toledo Water with Coach Sam Loy, Joel Zakorzeny and David Ellis, and City of Wooster with Coach Milan Steiner, Barb Hardin and Ed Flinner.

The contest consisted of 2 preliminary rounds by each team with the top 2 teams with the best time (including added time for penalties). In the first preliminary round, Toledo had the best score of 1 minute 39.82 seconds with Columbus a close second with 1:42.93 and Lima third with 1:45.15. In the second round Toledo was again first with an improved 1:37.31, Lima second with 1:39.08 and Montgomery County third at 1:41.62. Thus Toledo and Lima advanced in the “winner take all” Championship round.

The crowd was all wound up to see who would capture the prize of being able to represent the Ohio Section AWWA at ACE18 in Las Vegas next June. With judges ready and the contestants ready, the final event started with a whirlwind of activity. Each team circled around their hydrant like a tornado putting on parts and tightening properly. When the dust settled, Lima had finished with a penalty FREE time of 1:39.25 and Toledo with a penalty FREE time of an unbelievable 1:29.84.

Beside thanking all the contestants, we would like to thank the great crowd that was also partaking in the MAC mixer, and our judges; Lenny Solomon and Jeff Shivers of Clow Valve, Mike Ramsey of Westmont Water, IL and National Chair for Hydrant Hysteria, Ryan Caron of MH/Kennedy Valve and Mike Gradoville Competition Chair and A. Y. McDonald Mfg. Co. rep. Mike Gradoville also acted as Emcee.

A big thank you to Clow Valve for donating all the practice hydrants for each team and the hydrants for the competition. Clow Valve and McWane, Clow’s parent company, are the companies that stepped forward to make it possible for the event to take place at AWWA and local Sections.
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Focus on the Future of Water
Young Professionals Committee

Tyler York, YP Committee Chair

The Young Professionals Committee is experiencing a period of rapid growth as we look to better position ourselves to serve the needs of water industry YP's across the State of Ohio. As a committee, we have restructured ourselves to better carry out our mission of engaging and advancing YPs through education, networking, student outreach, philanthropic work, and promotion of membership within AWWA. In addition to networking and learning opportunities which our committee has championed in the year's past, we are working diligently to develop additional programs and opportunities for YPs to better serve our mission.

State Conference

This was a banner year for Young Professionals at the State Conference! The YP Committee hosted a number of great events, and general YP attendance was at its highest level in years with 55 YPs attending at least one day of the conference. Highlights included a fundraising raffle which raised over $350 to support our committee and student engagement, our annual Fresh Ideas Paper Competition, and Wednesday night Fresh Water Mixer which was a co-sponsored event between the Membership and YP committees.

Fresh Ideas Student Paper Competition

Each year, undergraduate and graduate students at Ohio's colleges and universities submit technical papers to the YP Committee for the chance to participate in the OAWWA Fresh Ideas competition. This event gives students the opportunity to present their water-related research and compete for prize money. The 2017 Annual Conference of the Ohio Section AWWA represented the 17th year in which the YP Committee hosted this event. This year, 12 abstracts submissions were received and the University of Toledo, University of Cincinnati, and The Ohio State University were all represented. Each submitted paper was carefully reviewed by a team of ‘seasoned’ professionals, with the top overall paper winner invited to present their research during Thursday's technical sessions. Remaining students were given the opportunity to present a poster of their research during Wednesday's MAC expo. A grand prize of $400 dollars was awarded to the overall 1st place winner, while the top three poster winners were awarded prizes of $200, $150, and $100, respectively.

Congratulations to this year’s OAWWA Fresh Ideas Winners!

OVERALL 1ST PLACE FRESH IDEAS COMPETITION AWARD:

MS. YING HUANG,
UNIVERSITY OF CINCINNATI
Applications of CO3: Removing Contaminants of Emerging Concern by UV/NO3−/HCO3 in Water Reuse and Detoxification

1ST PLACE POSTER AWARD:

MS. GHAZALEH VASEGHI,
UNIVERSITY OF TOLEDO
Novel Charge Mosaic Membranes and Operational Modes
Fresh Ideas is a program originally launched by the Association Young Professionals Committee. As our overall 1st place award winner, Ms. Huang will represent the Ohio Section at next year’s national Fresh Ideas competition during the AWWA Annual Conference and Expo (ACE). To help fund the student’s travel, the YP Committee will donate $750, along with funds raised at the YP exhibit booth during this year’s state conference.

The YP Committee would like to thank this year’s participants and our judges for making the event such a success! Are you a student or professor at one of Ohio’s colleges or universities? Email oawwayp@gmail.com, for additional information on how you can become involved with OAWWA Fresh Ideas.

Calling all Young Professionals

Are you a YP looking to become more involved or grow your network? We encourage you to reach out directly to one of our YP committee members to learn about the many exciting things happening for 2018!

Tyler York, YP Committee Chair; Black & Veatch, Columbus, OH yorkta@bv.com
Taylor Browning, NW District YP Representative, Fresh Ideas; Ohio EPA, Toledo, OH Taylor.Browning@epa.ohio.gov
Christina LaPointe, NE District Co-YP Representative, Hazen and Sawyer, Cleveland, OH clapointe@hazenandsawyer.com
Lexi Killinger, NE District Co-YP Representative, DLZ, Akron, OH akillinger@dlz.com
Scott Eardley, SW District Co-YP Representative; Ohio EPA, Dayton, OH Scott.Eardley@epa.ohio.gov
Julie Amenta, SW District Co-YP Representative; Hazen and Sawyer, Cincinnati, OH jamenta@hazenandsawyer.com
Danny Yodzis, SE District Co-YP Representative; Brown and Caldwell, Columbus, OH dyodzis@BrwnCald.com
Randall Berkley, SE District Co-YP Representative; CH2M, Columbus, OH Randall.Berkley@ch2m.com
Pooja Chari, YP Committee Communications Chair; ftC&h, Cincinnati, OH pschari@FTCH.com
Sarah Hayes, Fresh Ideas; Stantec, Columbus, OH sarah.hayes@stantec.com
Congratulations to the City of Hamilton, this year's winner of the Ohio Section Water Taste Test. By winning, the Hamilton will represent Ohio at the annual “Best of the Best” Water Taste Test at the AWWA’s 2018 Annual Conference and Exposition.

Best-of-the-Best 2017 Water Taste Test

Participation has held steady since the competitions inception at the 2010 Annual Conference, with ten municipalities signed up to participate in the 2017 Taste Test during the Section Conference in Cleveland:

- Columbus
- Fairborn
- Hamilton
- Montpelier
- Oxford
- Sandusky-Big Island
- Wilmington
- Wooster
- Wyoming
- Xenia

The competition took place during the afternoon of September 27, as part of the Conference Exhibits. The winner was announced that afternoon, and recognized again during the Annual Business Lunch.

The water samples were tasted by judges David LaFrance, AWWA Executive Director; Mark Coleman, visiting AWWA Vice President; Larry Valentine, past Section Director; and Gina Hayes, of the Ohio EPA. Cliff Shrive was the coordinator for the Taste Test and assisted the judges.

The Ohio Section Competition Committee encourages all utilities in Ohio to participate next year in Columbus, during the 2018 One Water Joint Conference.
Best Paper and Presentation Awards

2017 Best Paper Award
Preventing Pipeline Failures and Protecting Public Health Through Implementation of Surge Improvements
Bo Copeland and Crystal Broadbent, Hazen and Sawyer

2017 Best Presentation at an Annual Conference
Lead after Crises – What Utilities Should Do
Jeff Swertfeger, Cathy Bailey, Verna Arnette and Stephanni Schweitzer, Greater Cincinnati Water Works

2017 Best Presentation at a Regional Conference
Impacts of Flint, MI Water Crisis
Nick Pizzi, Aqua Serv

2017 Best Presentation at a District Conference
Del-Co’s O’Shaughnessy Raw Water Pump Station
Adam Bittinger and Dan Barr, ms Consultants

2017 Best Paper or Presentation by an Operator
Overcoming Challenges to Achieve Optimization at the Crown Water Treatment Plant
Barbara Martin, AWWA
Mark Petrie, Cleveland Water

2017 Best Presentation/Paper Benefiting a Small System
Funding Sources for Public Water and Wastewater Projects
Erin R. Begue
W.E. Quicksall
One Water

OAWWA / OWEA 2018 Technical Conference & Expo
August 27th - August 30th, 2018
www.onewaterohio.org

Hilton Columbus Downtown August 27-30, 2018 Greater Columbus Convention Center

Call for Papers – Abstract Submission Opens October 26th
Visit www.onewaterohio.org to submit your Abstracts Online by Friday, February 2, 2018

We are excited to develop a technical program for this joint OAWWA/OWEA conference. The water and wastewater industries both face similar challenges with new and current regulatory requirements as well as development of emerging technologies and industry practices. Efficient, cost-effective operation and maintenance of our aging infrastructure is at a premium for our water and wastewater providers.

We are looking to provide our members and conference attendees with a unique opportunity to gain professional development and educational opportunities for both industries at one time. We have selected the technical tracks (listed right) for our concurrent technical program to cover the educational goals of this joint conference.

We are only accepting on-line submissions of abstracts in order to streamline the submission process and gathering of your information. Visit www.onewaterohio.org to submit an abstract. Please remember to provide concise information and submit the required abstract (600 words, submitted in either Microsoft Word or PDF format) and biography information. This information will be used to review and select presentations for the conference technical program.

Presentation time slots will be 30 minutes long. Actual presentations should be 25 minutes in length with 5 minutes allowed for questions.

Once again, we are excited about this unique opportunity and look forward to an excellent technical program.

Technical Program Co-Chairs
Robin Rupe, NEORSD, ruper@neorSD.org
Fred Smith, CDM Smith, smithf@cdmsmith.com

For general questions regarding the One Water Conference please contact info@onewaterohio.org
Advanced Degree/Continuing Education Scholarship

Purpose: To encourage water industry related education through scholarship. This scholarship program has been created in an effort to give back to the individuals who support the water industry and the Ohio Section of the American Water Works Association.

Awards: The Scholarship Committee will award scholarships for the fall 2018 academic season.

The respective awards will be:  
First Prize $3350  
Second Prize $2400  
Third Prize $1750

Dates: Application submission deadline - February 9, 2018.  
Award notification anticipated June 2018.

Eligibility: Any student residing in Ohio and attending an Ohio accredited institution of higher learning during the scholarship year, in a water industry related program (i.e. science, engineering, management, computer information systems, or other water related field).

Details: Current Committee members or their immediate families are not eligible to receive a scholarship. State Governing Board members who themselves or immediate family members applied for a scholarship cannot vote for scholarship award winners.

No student shall receive more than two scholarships from this program within a ten-year period.

If no students meet the criteria, no awards shall be given during that calendar year.

The scholarship will be paid directly to the awardees school for tuition costs. A current invoice must be provided for this payment to be processed.

Applications can be obtained from: (if not attached)  
George Sendrey  
Ohio AWWA Secretary  
gsendrey@envdesigngroup.com  
450 Grant Street  
Akron, OH 44311  
330-375-1390

Rev. 9/14/17
Are you currently a member of AWWA, or are you covered under a utility or technical membership? _______     Your AWWA member No.: ___________

Is one of your parents a current member of AWWA? ____ If yes, their membership No.: _______

Academic status during upcoming scholarship year (check one): __Freshman   __ Sophomore  
__Junior   __Senior   __Graduate Student   __Adult Continuing Ed.

Estimated cost of scholarship year tuition: $ ______________

Estimated amount of scholarship year tuition cost covered by your employer, other scholarships, and/or grants: $ ______________

School name & admissions phone number: _____________________________________

Educational experience: List high school, colleges, universities, or technical schools beginning with the most recent.

<table>
<thead>
<tr>
<th>School Name</th>
<th>Major Field</th>
<th>Dates Attended</th>
<th>Degree Received</th>
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Work experience: List work experience, starting with the most current.

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<tr>
<th>Job Title</th>
<th>Employer</th>
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Professional Organizations:

List other professional/student organizations, societies, etc., in which you hold membership:
List extracurricular activities, social work, volunteer work, etc., in which you participate:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Personal Statement: On a separate paper, provide a brief description of your career goals upon graduation or course completion. Include how you see your field of study benefiting the advancement of the drinking water industry. Also, include ways in which you may use your experience and education in support of the American Water Works Association. Please do not include any personal identifiers in this document.

Finally, attach a verified copy of your scholastic record (transcript) to this application.

Completed application and associated documentation must be received by February 9, 2018.

Send application to:  
George Sendrey  
Ohio AWWA Secretary  
gsendrey@envdesigngroup.com  
450 Grant Street  
Akron, OH 44311

Below is for Scholarship Review Board only. Do not complete.

To be completed by Section Secretary.

| *Verify the applicant submitted all requested application information. Circle one. | Yes | No |
| *Verify the applicant will be attending an accredited institution of higher learning during the scholarship year, in a water industry related program (science, engineering, management, computer information systems or other water related field). Circle one. | Yes | No |
The **One AWWA Operator Scholarship**

The **One AWWA Operator Scholarship** is funded through the support of AWWA's The Water Equation Campaign and the Ohio Section.

**PURPOSE of AWARD**

AWWA's The Water Equation Campaign and the Ohio Section will award a **One AWWA Operator Scholarship** in the amount of $2,000.00 for Water Operator training and education.

Scholarship award can be used for certification/licensure, two-year water related associate degree, technical school program, professional training program, books and manuals, and operator related conferences.

Each scholarship recipient will receive a one-year AWWA Operator membership.

**ELIGIBILITY/GUIDELINES**

- Applicant must be a current water operator or seeking to enter the water operator profession.
- Applicant must be pursuing an Operator’s License or Certification, two or four-year degree related to the water operator profession, or professional development.
- Disbursement of the funds will be made directly by the Section to the financial office of recipient’s college, university, or technical school.
- Items related to books, manuals, conferences, professional development courses, and other eligible expenses will be reimbursed to recipient upon presentation of eligible receipts.
- Applicant must reside or work within the geographical boundaries covered by the sponsoring Section.
- Acceptance of scholarship constitutes permission to use recipient’s name and scholarship story for purpose of promotion.

**APPLICATION PROCESS: DEADLINE/SELECTION/PRESENTATION**

| APPLICATION DEADLINE: February 9, 2018 | SCHOLARSHIP AWARDED: Spring 2018 |

Please submit completed application and all requested information to:
George Sendrey, Ohio Section Secretary at gsendrey@envdesigngroup.com

This is an operator focused scholarship created to support and encourage water industry operators professional growth and individuals seeking entry into the water profession.

No recipient shall receive more than two scholarships from this program within a ten-year period.

If no applicants meet the criteria, no awards shall be given during that calendar year.
The One AWWA Operator Scholarship
APPLICATION

APPLICANT INFORMATION
Name: __________________________________________________________________________________________________________________
Address: ________________________________________________________________________________________________________________
__________________________________________________________________________________________________________________________
Phone: ___________________________ Email: ______________________________________________________________________________

EMPLOYMENT INFORMATION
Employer: ________________________________________________________________________________________________________________
Address: ________________________________________________________________________________________________________________
__________________________________________________________________________________________________________________________
Phone: ___________________________ Current Position: _________________________________________________________________________
Number of Years at Job: ____________ Operator Level: _______________
Member of AWWA:  Yes  No
Veteran:   Yes  No

HOW YOU WILL USE THE SCHOLARSHIP FUNDS
☐ 2- or 4-year Water Operator Related Degree  ☐ Technical School  ☐ Operator Certification or Licensure
☐ Professional Development Program or Conference  ☐ Books and Manuals

ATTACH THE FOLLOWING TO THIS APPLICATION FORM:
• One page essay of career objectives and how this scholarship will enhance your ability for professional development and bring value to the water industry.
• Résumé
• Two letters of recommendation/reference

CERTIFICATION
I certify that the information included in this application is true and complete to the best of my knowledge and I grant permission to AWWA’s The Water Equation Campaign and sponsoring Section to release my name and award for promotional use.

Signature: _____________________________________________ Date: ________________
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www.swan-analytical-usa.com 847-229-1290
Asset Management is a Requirement, Now What?

Recently, Governor Kasich signed Senate Bill 2 into law. With its passage, all public water systems are required to have an asset management program. While the requirements of an asset management program have been discussed in previous publications, each water system’s program will be suited to their individual needs. The first step in creating a program is to understand what an asset management program is and what it can do for you.

Ohio EPA’s Public Water Systems website has a variety of resources available on the Public Water Systems webpage under the Asset Management tab 1 to help you get started. The webpage will be updated periodically as new information becomes available. Other resources can be found through the Ohio Rural Community Assistance Program (RCAP)2, U.S. EPA3, the Environmental Finance Network4 and AWWA5.

To help water systems implement these requirements, Ohio EPA is offering Asset Management Planning loans. Nominations for these loans will be accepted at any time. The loan terms will be five years at zero percent interest, with up to $10,000 of principal forgiveness. More information can be found at: epa.ohio.gov/ddagw/financialassistance.aspx. For questions or more information, please email Susan Schell (susan.schell@epa.ohio.gov) or Emily Pohlmeyer (emily.pohlmeyer@epa.ohio.gov) or call (614) 644-2752. Stay tuned for periodic updates and training opportunities as they become available.

Site Investigations Based on Revised Total Coliform Rule (RTCR)

The Revised Total Coliform Rule (RTCR), issued by U.S. EPA in 2014, changed the monitoring requirements for total coliform bacteria and the way that public water systems (PWSs) must respond when samples show that repeated total coliform bacteria (TC) and/or E. coli bacteria are detected. Ohio EPA adopted the new requirements, which went into effect on April 1, 2016. In accordance with the new rule, many small PWSs have received a level one or level two assessment (assessment) site visit with an Ohio EPA inspector. These site visits are field investigations to determine a possible cause of TC bacteria. Most of the assessments are done at small, non-community systems that serve less than 1,001 individuals.

Such systems generally consist of a well, a pressure tank and often no treatment. Some of the common questions we are receiving about this new rule are: How should small transient and non-community PWS plan for the site visit with an inspector? and What are some basic things that field inspectors have cited as a possible cause for the TC bacteria?
Once an assessment is triggered, a PWS should, at a minimum, visually inspect the entire system and attempt to identify areas of concern. The best way for each PWS to prepare for the assessment site visit is to download the assessment form, available at epa.ohio.gov/ddagw/rtcr.aspx#175645033-non-community-systems-serving-1001, and be prepared to answer the questions.

- Some of the most common issues cited following an assessment are:
  - Well cap or conduit is not completely secured
  - Inadequate or no disinfection performed after depressurizations or maintenance
  - Cross connections – drain lines not air gapped
  - Water is pooling around the well casing
  - Incorrect sampling procedure – (for example, using dirty gloves, tap disinfection)
  - Inadequate sample station/location – (for example, swivel taps, aerator not removed)
  - Ion exchange softener malfunction or dirty brine tank
  - Illegal casing extension
  - Depression around the well
  - Well casing damaged by equipment (for example, mower, backhoe, etc.)
  - Weather issues (for example, lightning strike at the well or flooding, etc.)
  - Bacterial growth in pressure tank
  - Well and equipment located in a pit (below grade)

PWSs should watch for these issues when preparing for an assessment or completing a level one assessment form.

It is possible that an assessment may not provide a conclusive answer as to why TC bacteria are detected in the water. In such a case, the PWS should disinfect the system. Please work with your district inspector for the proper disinfection procedure. Disinfection references, along with more information, are included on the website above.

**Tips for Writing Your CCR**

Consumer Confidence Reports (CCR) became a requirement for all community public water systems (PWSs) as a part of the 1996 Amendments to the Safe Drinking Water Act (SDWA). The main goal of this piece of legislation was to promote the public right-to-know.

Since then, there have been many rule changes, both at the state and federal level, that have impacted the way information is communicated to consumers within the CCR. Because of the vast amount of information that must be included in the CCR, it is easy for some of it to get overlooked. Included in this article are reminders of mandatory language, data that must be included in your table of detected contaminants, and helpful links for writing your CCR. Ohio EPA provides a wide variety of CCR guidance material, all of which can be found online on Ohio EPA's CCR homepage.

Several requirements are commonly missed: **Mandatory language** is language that must be in the CCR exactly word for word. Mandatory language that is often overlooked includes Source Water Assessment Plan (SWAP) information, public participation information, mandatory turbidity language (for surface water and
purchased surface water systems only), and the status of your license to operate. All mandatory language and examples of how to include all this information can be found in the Ohio EPA CCR template2.

**SWAP language** from the susceptibility analysis paragraph must be included. Specifically, the level (low, moderate, high) of susceptibility to contamination of your source water and the reasons for this determination are required. If you do not have your SWAP, you can look it up on Ohio EPA’s interactive SWAP map3. Type your PWS ID, name or address in the search bar in the top, left-hand corner of the map and hit the search button. This will open a little window where you can find the Link to Report. Within the report you can find the required text for your PWS under the section titled Susceptibility Analysis.

**Public Participation** and contact information are separate requirements. Many systems that do not have regular meetings do not realize they must still describe to their consumers how to participate. If meetings will be held only if water issues arise, systems can say “While we do not hold regular meetings, should the need arise customers will be notified for participation” or, if no meetings will ever be held, you can write “To participate, or for more information, contact ________” if that is the only way for water customers to participate.

**The table of detected contaminants** is another section of the CCR that often proves difficult. You can find instructions on what to include and how to perform the appropriate calculations in Ohio EPA’s CCR Instructions4. To look for specific contaminant instructions, use Ctrl+f while viewing the instructions to open a search bar and type in the contaminant name. Tables should include detections from the most recent samples obtained for the PWS. Contaminants that are sampled less than annually and detected should remain in the CCR until a new sample is taken and then updated to reflect the new results. Special attention should be given to how lead and copper is reported in compliance with the new statutory lead and copper requirements of 6109.121(C)(2) (b). You can find an example of everything that needs to be included in the CCR template2.

**If your PWS has a population of less than 500**, your complete table is available at the bottom of the CCR homepage1. Select the district your PWS is in and scroll through the list, which is in numerical order by PWS ID, or use Ctrl+f to open a search bar to find your table. Tables may be copied and pasted into the CCR.

CCRs do not need to be a complicated process. Visit Ohio EPA’s website devoted to CCR guidance and preparation and take advantage of the available resources, including: tables for systems with populations of less than 500; updated templates and certification forms; instructions; and links to programs like CCR iWriter to help you make a CCR that not only meets the requirements but is easily readable for your consumers.

---

1 [http://www.epa.ohio.gov/ddagw/pws.aspx#113432740-consumer-confidence-reports](http://www.epa.ohio.gov/ddagw/pws.aspx#113432740-consumer-confidence-reports)
3 [https://oepa.maps.arcgis.com/apps/webappviewer/index.html?id=38d04980a40d41f59d832a50f3fc0b92](https://oepa.maps.arcgis.com/apps/webappviewer/index.html?id=38d04980a40d41f59d832a50f3fc0b92)
The Fourth Cycle of the Unregulated Contaminant Monitoring Rule

The 1996 Safe Drinking Water Act (SDWA) Amendments require that, once every five years, U.S. EPA issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The fourth Unregulated Contaminant Monitoring Rule (UCMR4) was published in the Federal Register on Dec. 20, 2016. This cycle of UCMR will run from 2017 to 2021 with monitoring occurring in 2018-20201.

All systems with a population greater than 10,000 must conduct UCMR4 monitoring, and U.S. EPA has randomly selected 1,600 systems with a population less than 10,000 to monitor as well. U.S. EPA pays for all analytical costs associated with UCMR4 monitoring. Great Lakes Environmental Center should have contacted these systems to complete inventory assessments and coordinate monitoring. Large systems must monitor and fund the analytical costs themselves. These systems can access their monitoring schedule and inventory lists through the Central Data Exchange (CDX)2. To generate a full schedule, the PWS must upload inventory data into CDX. Systems on reduced monitoring for disinfection byproducts should only enter data for the sites used on their current reduced monitoring schedule. Monitoring will begin in 2018 so PWSs are urged to log into CDX to verify monitoring schedules and upload inventory before Dec. 29, 2017.

As this is the beginning of a new cycle of UCMR4, PWSs selected for monitoring should familiarize themselves with UCMR4 contaminants, their sample schedules, and verify their inventory data to assure correct sample locations are utilized. More information about UCMR4 can be found on U.S. EPA’s webpage 3. Systems may also contact Great Lake Environmental Center’s UCMR message center at 1-800-949-1581 with questions. General questions about UCMR4 in can also be directed to Ohio EPA’s Emilie Eskridge by email (Emilie.Eskridge@epa.ohio.gov) or phone at (614) 644-2752.

---

2 https://cdx.epa.gov/
3https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule
Water Main Replacement with a Twist
Bromfield Road Water Main Project and Service Relocations

Author: Kristen VonderBrink, EI, Project Engineer – RA Consultants, LLC

Since 1924, Montgomery County Environmental Services (MCES) has provided high quality water and sewer service to more than 250,000 citizens and businesses in Montgomery County, Ohio. The department also provides solid waste transfer and disposal, and recycling services to the entire county. Today, they employ 295 people, who operate and maintain approximately 1,200 miles of sanitary sewer and 1,400 miles of water main lines. Their environmental lab tests more than 12,000 water samples each year to ensure quality and safety. Montgomery County drinking water consistently meets or exceeds all state and federal drinking water safety and quality standards.

For a number of years, MCES has used a collaborative approach with local government entities like the City of Kettering, City of Centerville, and Harrison Township to coordinate water main infrastructure replacement coupled with street improvements and pavement resurfacing projects. Accessing Ohio Public Works Commission (OPWC) financing for local public infrastructure improvements has provided MCES with additional financial resources beyond their rate supported capital improvement investments. The Bromfield Road Water Main Replacement project in the City of Kettering is a prime example of this collaborative approach.

In May 2016, MCES entered into a contract with RA Consultants, LLC (RA) to provide engineering services including field surveying, base mapping, detailed design, and construction services for the replacement of existing 4” and 6” water mains with approximately 4,650 LF of new 6” and 8” mains, along with 763 LF of 12” main to be installed by horizontal directional drilling techniques.

A unique aspect of this project was the re-alignment of several existing water mains from behind houses in easements to the street in front of the house. This re-alignment required the relocation of water service branches from the rear of homes to the front so that they could be connected to the proposed water mains (see figure 1).

Survey and design work for the water main replacement was completed in December 2016. The water main replacement project went out for bid and was awarded in March 2017. MCES selected RA for this project partially as a result of their previous experience in dealing with public work being performed on private property. Therefore, they contracted with RA to provide contract management services to coordinate the relocation of the water service branches on private property by private plumbers working directly for the home owners.

MCES administered an Agreement between themselves and the homeowners to have this work performed on their property. The Agreement was needed to provide MCES with a legal means to pay for the branch relocation work. The homeowner was not required to pay for the work, but was required to contract with a plumber to have the work performed. In total, there were 31 water service branches that required relocation. On several dates, meetings with the homeowners were held at the Kettering Municipal building in order to explain the project and provide the homeowners with needed documents, such as the Agreement and rights-of-entry. A separate meeting was

Figure 1: Homes in project area requiring water service relocation work.
also held with the interested plumbers who were registered to perform work in the county. They learned that the work would include relocating the water meter in the basement to a new meter pit at the right-of-way, running the new service line between the house and the right-of-way, and in most cases, residential plumbing work would be required in the homeowners’ basements. The plumber was also required to stake out at the right-of-way where they wanted the curb stop to be located for the water main contractor. By holding and attending the meetings, it ensured that all parties involved would be equipped with the necessary information to allow for a successful project.

As a part of the Agreement, homeowners were required to solicit quotes from three separate plumbers for the proposed work. Montgomery County supplied a list of approved plumbers to the homeowners. The homeowners were not required to select a plumber from the list but, in the end, they all used County-recommended plumbers. Once completed, RA reviewed the quotes and provided a recommendation for plumbers of choice to MCES and the homeowner. RA encouraged homeowners to fulfill their responsibilities and was also available to help coordinate and assist with any questions or issues that arose.

Getting the homeowners to solicit bids from plumbers required extensive follow up by RA staff. Three homeowners were particularly delinquent in their solicitation, but eventually secured the necessary quote(s) to meet the deadline. Organization and persistency regarding this matter was key in keeping the project on schedule and on budget.

Many of the residents recently had bad experiences with other utility work in their neighborhood. This, in part, helped engage the residents on this project because they did not want a repeat experience. It also emphasized the importance of holding public meetings and proactive resident outreach, which the residents responded well to.

It was important that this work be completed because relocating the water mains provided easier and better access for maintenance of the new water main. Neither the property owner nor MCES would have benefitted from digging up the rear yards to perform a repair. By placing the new line in the right-of-way, it also allowed for better maintenance conditions in the future. Overall, this project helped set an example of a successful coordination effort model, which can be implemented by other utilities. Many water utilities are facing the issue of replacing lead service branches on private property. This model may be applied to such work with some modification. All of the water main work was completed in October 2017 and the water service relocation work is set to be finished in late 2017.

Contributors:
Eric Hammons, Senior Designer – RA Consultants, LLC
Edward Schlaack, PE, Senior Engineer – Montgomery County Environmental Services
David Swanson, EI, Associate Engineer – Montgomery County Environmental Services

Figure 2: A typical water service re-routing plan from the homeowner’s rear yard to the front yard either internally or externally.
Veterans Volunteer Network Wanted

Several years ago, AWWA created a Veterans Workforce Initiative, led by AWWA Past President Katie McCain, to investigate ways to help veterans get jobs in the water industry. Although we’ve made some progress, we know there are many more employable veterans separating from military service and lots of open water industry jobs. AWWA believes military members are a good fit for the water sector because of their technical expertise and experience working nontraditional hours in a regulated environment.

In early August 2017, AWWA President Brenda Lennox, CEO David LaFrance, McCain, and other Association volunteers and staff met in Washington with representatives from Soldier for Life, Marine for Life, Veterans Affairs, the Department of Labor, and Department of Defense to build awareness and strategies that help veterans work in the water sector. And a defined strategy behind the Veterans Workforce Initiative was born.

The goal of the Veterans Workforce Initiative is to help veterans secure jobs in the water industry. The program has two aspects:

- A volunteer support network
- Tool kits —
  - One for separating military personnel (How to Find a Job)
  - One for utilities (How to Hire a Veteran)

AWWA will oversee and manage the volunteer network. We will triage the requests and forward them to the appropriate section volunteer. AWWA will provide training for the volunteer network. The tool kits will be finished by ACE18. They will include resources for veterans that explain the training needed to work in the water sector and how to connect with education programs and utilities. AWWA will manage the development and promotion of the tool kits.

AWWA is currently seeking volunteers to serve on the Veteran Network. Volunteers need to be able to

- communicate training/education/certification requirements.
- make personal connections to utilities and employers to help veterans get their foot in the door.

AWWA will provide training and resources to volunteers. A time commitment will vary depending on requests; most volunteers will spend less than 10 hours/year on this project. This volunteer opportunity can be 100% virtual. Volunteers are not required to meet in person with separating military personnel.

To volunteer for the Veterans Workforce Networking Initiative contact Chad Weikel, Manager Education and Workforce, 303.347.6130, or Amy Brown, ETS Coordinator, 303.347.6189.

If you have questions about the Veterans Workforce Initiative, feel free to contact Chad Weikel, Manager Education and Workforce, 303.347.6130, or Amy Brown, ETS Coordinator, 303.347.6189.
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Southwest Summer Meeting Held at the Cincinnati Zoo & Botanical Gardens – July 28, 2017

The summer meeting of the Southwest District was held at the Cincinnati Zoo & Botanical Gardens on July 28. Technical sessions were held in the morning and included a wild animal encounter in which a zoo handler brought a small python to the meeting room for an up close and personal experience! Following the technical sessions, the attendees were provided a tour of the new Hippo Cove and behind the scenes pump facility. During the tour the new baby hippo, Fiona, decided to surprise the groups with an occasional appearance in her outdoor enclosure. After the tours, the groups headed back to the meeting facility for one more final presentation before concluding the event.

The officers would like to thank the speakers for their interesting and informative presentations – topics included the Revised Total Coliform Rule (Mark Verbsky, Ohio EPA); Groundwater Softening (Brian Phillips, FTC&H); Surge Wave Theory (Bill Nicholl, VAG-USA); Extending the Service Life of Water Storage Tanks (Buddy Stanford, Ohio Coating Consultants); Challenge Accepted: Planning Treatment for New and Future Regulations (Matthew Charles, Hazen & Sawyer); Maintenance, Pump Training, and Trouble Shooting Course (Dan Quenneville, Process Pump & Seal); and the Cincinnati Zoo & Botanical Gardens staff and animal handlers.

Technical Presentation - Tree Tops Conference Meeting Room
Animal Encounter with Zoo Handler
Baby Fiona
Hippo Cove Pumping Facility
Farm bill provides an opportunity to grow partnerships that protect drinking water
By David B. LaFrance
CEO, American Water Works Association

We all know that everyone needs safe drinking water, whether it comes from a local utility or a private well. We also know that farmers and ranchers do heroic work to put food on America’s tables, and that they endeavor to accomplish their work without harming the drinking water of neighboring communities.

But as a country, we need to explore new solutions to a pressing issue. Nutrient run-off threatens drinking water supplies throughout the United States. We must act with urgency to prevent events like the 2014 Lake Erie harmful algal bloom, which shut down water service to 400,000 people in Toledo, Ohio, for two days.

The time is right for a new era of voluntary collaboration and cooperation between the agricultural and water sectors. The coming reauthorization of the Farm Bill provides the perfect opportunity to encourage partnerships among everyone interested in productive farming practices and safe water.

We at the American Water Works Association, with 51,000 members dedicated to finding solutions to effectively manage water, are asking U.S. Congress to emphasize source water protection in the farm bill’s conservation title. Many existing conservation measures address a host of environmental issues, but the direct connection between these practices and drinking water quality has not been made explicit in previous farm bills. We would like to see that change by:

• Providing strong funding for conservation programs.
• Adding a specific goal of protecting sources of drinking water as a priority for all Natural Resources Conservation Service (NRCS) conservation programs.
• Encouraging NRCS state conservationists, State technical committees, and working groups to work with water utilities in identifying priority areas in each state
• Increasing the NRCS cost-share for measures that provide considerable downstream water quality benefits
• Dedicating 10% of conservation funding to protecting sources of drinking water through existing programs.

While many water utilities have developed monitoring, treatment, and response strategies to protect their source waters, ultimately, it’s critical that we reduce the nutrient loads that reach water system intakes.

Agricultural production often runs on thin margins, and farmers and ranchers who strongly desire to implement practices to protect source water often lack the resources to do so. But there are already examples of how NRCS programs can help agricultural producers and utilities collaborate to get the job done.

In recent years, several water utilities have committed to working cooperatively with agriculture through programs such as the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Agricultural Conservation Easement Program (ACEP), and the Regional Conservation Partnership Program (RCPP). In Beaver Water District, Arkansas, over $8.5 million in combined federal and local funds is being applied to protect sources of drinking water, and in Cedar Rapids, Iowa, over $4 million in combined federal and local funds are going to source water protection. And both projects are being done in cooperation with agriculture.

At AWWA, protecting sources of drinking water is part of what we call a Total Water Solutions approach to managing water, recognizing that water serves many important purposes. Working in partnership with other stakeholders in water management, we are always looking for innovative ways to protect drinking water supplies while recognizing the interests of large and small businesses and the wider economy.

Congress would do well to preserve and enhance funding for the conservation programs while increasing the focus on protecting sources of drinking water. We look forward to working closely with our friends in the agricultural community to encourage a Farm Bill that recognizes the critical nature of both agricultural production and safe and affordable water.

This column originally appeared in the Oct. 12, 2017 edition of Agri-Pulse.
ANNOUNCEMENTS

William C. Blakely accepts position of Utilities Director for the City of Sidney

William (Bill) Blakely has recently accepted the position of Utilities Director for the City of Sidney as of August 28, 2017. Bill started his Water and Wastewater Utilities career with the Village of Montpelier in March of 1993 and has worked in the Water and Wastewater fields for the past 24 ½ years. He was originally hired in at the Montpelier Wastewater Plant and worked in that department 2 ½ years before transferring to the Water Treatment Plant. In 2003, Bill took over the position of WTP Superintendent and was heavily involved in the design and construction of their new 2MGD Lime Softening Plant. Montpelier has won the Gold Medal 4 times in the Annual International Berkeley Springs Water Tasting Competition and is also a winner in the Ohio AWWA Best Tasting Water competition. In 2012, Bill was promoted to the position of Water and Wastewater Utilities Supervisor to oversee the treatment plants as well as the underground department until accepting his new position with the City of Sidney.

Bill holds Class III Water and Class III Wastewater certifications and is presently working on his Class IV Wastewater certification. Bill continues to serve on the OAWWA Governing Board as the NW District Trustee and has been a member of AWWA for 23 years.

Bill and his wife Maryanne now reside in Sidney and look forward to this new adventure. They have 4 children and 9 grandchildren.

Ramesh D. Kashinkunti, P.E., BCEE, MBA hired as Chief Engineer for MVSD

Ramesh Kashinkunti is a Board Certified Environmental Engineer of the American Academy of Environmental Engineers and Scientists with over 25 years of engineering, research, regulatory, and management experience in the Water and Wastewater sector. He is a licensed Professional Engineer and a Class IV Operator in the State of Ohio.

Mr. Kashinkunti holds both a Bachelor's and a Master's degree in Civil Engineering along with a Master's degree in Environmental Engineering from Washington State University. In addition, he also holds a Master of Business Administration (MBA) from Thomas More College in Kentucky.

Over the last 21 years, he has been an employee of Greater Cincinnati Water Works serving in various management and engineering capacities. His experience with GCWW includes compliance monitoring with OEPA rules, process engineering, corrosion control, capital planning, and various applied research projects. Of significance include commissioning of a 240-MGD (million gallons per day) state of the art UV (ultraviolet) disinfection treatment. As co-project manager, the project was successfully executed and implemented at a cost of $30-million. Over the last couple of years, he's been involved with procurement, water rate studies, finance and affordability. He has published and presented several technical papers in trade journals and proceedings.

Prior to joining GCWW in 1996, he worked as an Associate Sanitary Engineer with the California State Drinking Water Program. Mr. Kashinkunti will officially assume OEPA Operator of Record, and Chief Engineering duties for the Mahoning Valley Sanitation District on October 2, 2017.
ANNOUNCEMENTS

PRIME Welcomes Buchenic to its Water Resources Practice

Akron, OH (July 5, 2017)

Mark Buchenic, PE, has joined PRIME AE Group, Inc. (PRIME) as Vice President, Ohio Water/Wastewater Business Lead in the Water Resources practice. Working out of the Akron, Ohio office, Buchenic brings more than 30 years of experience in water and wastewater working with municipalities, counties, and state and federal agencies in the planning and development of their major capital improvement projects.

Buchenic comes to PRIME after spending time as a Vice President of a large engineering firm where he designed and managed projects throughout northern Ohio. He developed new business growth strategies and managed multidisciplinary projects affording him an in-depth understanding of business development, project management, and the successful execution of key projects for the firm.

“Mark’s business development and project management background will enable us to better serve our clients in Ohio as we continue to focus on our growth in the Midwest,” said Kumar Buvanendran, PE, President and Chief Executive Officer. “Mark’s strengths in client development will complement the water resources team in our Ohio operations.”

Buchenic is a professional engineer licensed in Ohio. He earned his Bachelor of Science degree in civil engineering from Youngstown State University in Youngtown, Ohio and is member of American Water Works Association, Ohio Water Environment Association, and Water Environment Federation.

Contact information: mbuchenic@primeeng.com and 330.730.1984

Larry Broughton retires from the City of Sidney

Larry F. Broughton retired from the City of Sidney on October 13, 2017 after 32 years of service. Starting in 1985 as a part time operator in training at Sidney’s Water Treatment Plant, Larry became the Assistant Superintendent in 1997; Superintendent in 2007 and Utilities Director in 2013. Larry will miss his hard working staff and the opportunity to serve the community. He and his wife plan to spend more time with the grandchildren and catching up on the many projects left incomplete while he was working for Sidney’s residents.
Great Lakes Cup Tapping Contest

The 2017 Great Lakes Cup Tapping Contest was held in Ohio for the first time at Fairborn Water, the mecca of Pipe Tapping in North America, and Columbus Men’s team set a new standard for Ohio Section with a time of 1 minute 13.78 seconds on their first tap. That time bettered the previous best time of 1:14.16 set in 2008 by Columbus Water at the Conference in Toledo.

This year’s Columbus team consisted of Cranker Daniel McClain, Feeder Chris Briggs and Copper Ricco Ratliff with Coach Patrick Crumley. Patrick was the Cranker on the 2008 Columbus team along with Copper Mike Spriggs and Feeder Bruce Farley.

At this 5th Annual Great Lakes Cup, 2nd Place went to Arlington Heights, IL with a time of 1:27.37. Troy, MI came in third with 1:35.31 with Lansing, MI having a time of 2:05.53. Columbus mixed up their team for the second tap. Patrick Crumley jumped in to his old position of Cranker while Daniel McClain assumed the Coach position. That new team claimed the 2nd best time of the day at 1:21.97.

There were 3 teams in the Ladies Division: the Land of Lincoln Ladies of Chicago, our Ductile Iron Divas of GCWW and Lethal Ladies of Lansing, MI. First Place went to the Lethal Ladies of Lansing, the current National Women’s Champion, with a time of 2:40.94. Second Place went to The Land of Lincoln Ladies with a time of 2:41.66 and the Ductile Iron Divas consisting of Coach Lorraine Jordan, Cranker Zebra Primus, Feeder Lela Moustafa and Copper Vanessa Pleasant, had a time of 2:55 including 15 seconds of penalties.

Judges for this event included Mike Ramsey of Westmont Water, IL (Chair of Great Lakes Cup), Mike Schlegelman of City of Troy, MI, Keith Wempe of GCWW, Tom Parsons of Troy, OH and Mike Gradoville.

Fairborn Water was an excellent host for this event. We would also like to thank all the sponsors who through their contributions made this contest possible. We would also hope that all Utilities would support these contributors when possible.

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June 11-14: Las Vegas, NV - AWWA Annual Conference and Exposition

2018 Section Meetings

March 8: One Water Government Affairs Workshop, Columbus
July 10: Water Distribution Seminar

2018 OAWWA/OWEA One Water Conference
August 27-30: Columbus, Ohio

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Deadline for material to be in the 2018 newsletters are:
Spring Issue - February 2 - Target mailing week of March 26
Summer Issue - May 11 - Target mailing week of June 11
Winter Issue - October 5 - Target mailing week of December 3

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