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water works

FALL 2018

NEWS



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CATCHING THE WAVE OF CHANGE

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FLINT'S PATH FROM CRISIS TO
DISTRIBUTION SYSTEM OPTIMIZATION

MI-ACE 2018
CONFERENCE RECAP



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American Water Works Association
Michigan Section



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LEARNING FROM EACH OTHER

KELLY GLEASON

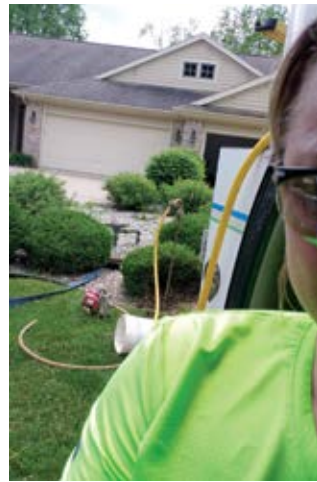
Here we are again, my favorite time of year... fall. I love when the leaves start to change color, the crisp autumn air, and the warm bonfires.

Nothing has slowed down in my neck of the woods. Back in January, I made a resolution to work on professional development. I've been sticking to that by job shadowing. So, instead of analyzing drinking water samples as a chemist in my daily job, I've been able to go out to job sites with many different crews to gain hands-on experience in the water distribution sector. It's amazing what these skilled men and women do to make sure water is delivered clean and safe to your home. I really appreciate the time they take to teach me what they can. With their help, I'll be able to write a license exam in the spring. There are many training opportunities available, see page 44 for the calendar of events.

The Section's annual conference, MI-ACE18: *Riding the Wave of Change*, was held in Kalamazoo this year. While I recently picked up golfing again, I was torn between cycling or golfing to raise money for operator scholarships, but decided to give the new cycling event a whirl... what a great time. The conference was amazing! It was two-and-a-half days of water information, networking, familiar faces, and plenty of new faces, too. I had the chance to hang out at Arcadia Brewing for a short time... they have the best outdoor entertainment area right on the Kalamazoo River. Anyone who didn't attend should make plans for next year – it's always a wonderful event. There is a recap of the conference beginning on page 19.

As always, I like to hear from you – our readers. Is there content you'd like to see covered in *Water Works News*?

Send me a quick note at kelly.gleason@lbwl.com. I would love to hear from you. The deadline for submission of content for the Winter issue is November 2. I hope to see your article soon! 💧



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THE ONLY CONSTANT IN LIFE IS CHANGE

BILL FRITZ, CHAIR

The theme for this year's Michigan Section Annual Conference and Exhibits was *Riding the Wave of Change*. It is difficult to remember a time in the water services sector when changes seemed to occur faster than they are currently. The eyes of the nation are on Michigan as we adapt to new water legislation and regulations. We are faced with managing several difficult issues. These new circumstances in which we find ourselves will certainly test our adaptability. We Michiganders have shown time and again our resiliency and acceptance of unforeseen change. On the bright side, change is also happening in our ability to make great achievements in reliability, efficiency, communications and new technologies.

The only constant in life *is* change. When I was just beginning my career, I experienced rapid and revolutionary changes: graduating college and beginning a full-time job, meeting and becoming smitten by my future wife, being laid-off from that same first full-time job but landing a better job shortly thereafter (a job for which I would not have been looking had I not been laid off...). This all happened in 1989 – within seven months of graduation. I then got engaged in 1990, married in 1991, bought a house in 1992 and had twins in 1993. When you're young, change is welcomed, expected and perhaps even craved. For many people, it is only later in life that complacency can set in, and with it, resistance to change.

Water professionals know that ignoring the wave of change can take you from riding its crest to being pummeled mercilessly under the surf. Like myself, most water services sector professionals have two things in common. First, we



“THE SECRET OF CHANGE IS TO FOCUS ALL OF YOUR ENERGY, NOT ON FIGHTING THE OLD, BUT ON BUILDING THE NEW.”

– SOCRATES

all help to protect and preserve public health, and second, we participate in some aspect of asset management, whether we recognize it or not. Whether in administration, planning, design, construction, parts and equipment manufacturing and distribution or operations and maintenance, everyone plays a part in the over-arching theme: supplying clean and safe drinking water to our millions of customers here in Michigan.

One of the core values of asset management is 'continuous improvement.' This is a polite way of saying nothing stays the same. Studies, plans, and reports can begin to obsolesce the moment they are printed and bound. We continue to develop and integrate systems that leverage technology to allow real-time data collection, condition assessment, analysis and decision-

making. Tools, programs and applications that support these activities will only continue to improve. Other new initiatives, some of which were presented at our annual conference, show our willingness to act rapidly. AWWA's Get the Lead Out program, Veterans Workforce Initiative, the Water Research Foundation's many projects, and affordability and rate setting, being just a few.

By now you probably have realized I am an unremitting optimist. I hope I have instilled in anyone reading this a willingness to accept, and even welcome, change into your lives. In closing, I will repeat a phrase from my predecessor's opening statement and encourage everyone to consider volunteering your time and talents and encourage others to do the same. You won't regret these changes. I promise. 💧

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AWWA STRATEGIC INITIATIVES TAKING OFF

MARK COLEMAN, DIRECTOR



The AWWA Board of Directors Summer Board Meeting was held during AWWA ACE 2018 Las Vegas. Meeting highlights included:

Association leadership changed when Dave Rager, Ohio Section, took the gavel from Brenda Lennox as President of the association. Jeanne Bennett Bailey rolled off the board and Jim Williams came on as President-Elect, a very exciting transition for us as Jim's brother is our very own Section Secretary/Treasurer Mike Williams!!!

Association strategic initiatives that have really taken off include the following:

Veterans Initiative

An initiative started three years ago under the leadership of Association Past President Katie McCain, it is designed to

facilitate the transition of military personnel leaving the service into working in the water business. Their military 'mission-focused' training and skills align very well with our members' employment needs. It took our association some time to fully understand the best way to reach these folks, since each branch of the service has their own language!! Well, we have figured it out and rolled out two documents: one is a toolkit for employers looking to hire veterans that provides the insights needed to reach out and communicate needs to potential veteran employees; the second is a flyer to inform transitioning veterans the value of working in the water industry. Both are currently available online at www.awwa.org/veterans. The association is also identifying an individual in each Section to be the point of contact and facilitate communication between a potential employer and veteran. Our Michigan Section contact is

Jamie Fleming. Veterans and interested volunteers can contact veterans@awwa.org for more information or simply reach out to Jamie.

The Water Equation

The association's newest philanthropic initiative is getting its sea legs (and NO, it is NOT a replacement for our Safe Water for Ecuador program!!). Fundamental to the goals of The Water Equation is a recognition of its fundraising for scholarships, leadership and the Community Engineering Corps.

Initiatives include:

- One AWWA Operator Scholarship (a scholarship offered to operators right here in Michigan)
- Wolman & Larson Academic Scholarships
- Leadership programming for students and young professionals



- Water infrastructure projects in the US through Community Engineering Corps, a partnership with Engineers without Borders-USA and ASCE

The initiative is well on its way toward its aggressive fundraising goal of \$235,000. If you want to donate via your smartphone, simply text WE to 50555 to donate \$10.00 and it will be added to your smartphone bill. If you have a utility or company smartphone, you will be directed to The Water Equation website to make your donation.

Partnership for Clean Water

A companion to our long-standing Partnership for Safe Water, this program is intended to benchmark and facilitate the implementation of best practices at water recovery facilities. To date this initiative has focused on 'inside the fence' items relative to energy efficiency and treatment process improvements to achieve NPDES permit requirements. It will soon be migrating to include collection systems. We have 60 utilities in the program and the number is increasing. A guidance manual has been developed and an awards program has been set up to recognize outstanding utilities. The kick-off program section awards were presented at ACE 2018.

Standards

An AWWA hallmark, the AWWA Standards scope has been expanded to include wastewater, stormwater and reuse. Several new standards in these areas have been published and eight additional standards are in the works. But the most exciting news is that like our *Journal* and *OPFLOW* publications, the standards are in the process of going 'electronic!!' The association is developing an approach to provide our standards online that not only will greatly enhance member use in terms of search features, edition differences, AWWA committee thoughts on the basis for the changes, etc., but also preserve their integrity. This is a huge undertaking scheduled for a fourth quarter 2019 implementation and something we are really looking forward to launching.

Thanks for your attention! Give me a shout if you would like additional information or simply want to chat. 💧



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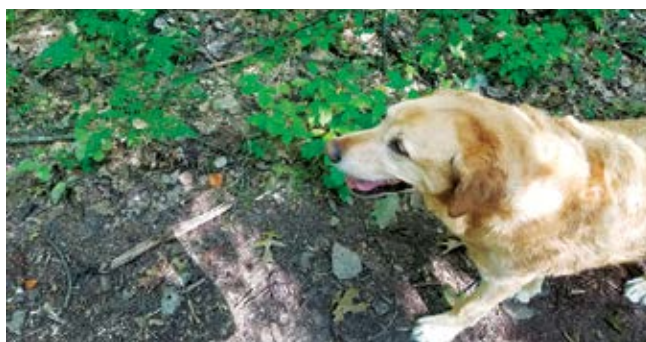
BONNIFER BALLARD, EXECUTIVE DIRECTOR

When all else fails, walk your dogs. It seems that everyone I talk to these days is busy: we are all being pulled in many directions and have pressure on us to do more with less. We're barraged all day long with information, questions, and demands on our time. For an introvert, this can be very draining. I know – I'm married to one. Even for an extrovert like me, this becomes overwhelming. It even has a name. It's called decision fatigue.

I bet all of you are nodding your heads right now. We all have felt this. You reach that point in your day when you just can't decide one more thing. And you either start making bad decisions or avoid making decisions all together.

According to an article earlier this year in *Fast Company* magazine, there are ways to battle decision fatigue. Make the most important decisions when you're at your peak energy, simplify what you have to decide, etc. I have my own: when all else fails, walk the dogs.

Yes, I quite literally mean walk the dogs. I have found that walking my dogs through the woods acts as a reset button. I usually come back refreshed and ready to tackle an issue with clarity. Of course, I'm not always where I can walk my dogs. And not everyone has or likes dogs. In that case, I try to mentally take a walk. I check out of the situation that has me fatigued and do something for a few moments that doesn't require the same kind of energy. For me, using muscle memory helps clear my head so I can give a little more and pay attention to a few more decisions.



It doesn't always work. Sometimes, you have to step away for longer and let yourself fully recharge. Start again tomorrow. But for me, dog-and-trees is the right recipe for getting me back on track. And there's nothing like the dog 'smiles' I get along the way! 💧

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MEET THE LEADERSHIP

Each September at the Annual Business Meeting, members elect new board members.

Here is the 2018-2019 Board of Trustees:



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Joe VanderStel, Trustee

The Annual Business Meeting is also the time when council terms begin. Visit the Section's Council web page at <https://mi-water.site-ym.com/page/CouncilsOverview> to see who is leading the work of the Section. 💧



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SCHEDULE AT A GLANCE

Tue, Feb 5, 2019

- 8:00 am Operators Day Training
- 8:30 am Infrastructure Funding Seminar
- 9:30 am Exhibit Hall opens
Scavenger Hunt hosted by
MI-AWWA YPs and MWEA NPs
- 4:00 pm Exhibit Hall closes
Joint Mixer hosted by MI-AWWA
YPs and MWEA NPs

Wed, Feb 6, 2019

- 7:30 am Cyber Security Workshop
- 9:00 am Water/Waste Water Policy Update
- 8:30 am Exhibit Hall opens
- 2:00 pm Exhibit Hall closes

As Fall begins, planning begins for
Joint Expo & Operators Day.

Check out the schedule for 2019
and make plans to attend!

Booths on sale beginning October 15, 2018.

Exhibitors from the past five years should have already received their points statement. If you haven't, contact staff at MI-AWWA for your company's information.

**Registration for attendees opens
December 1, 2018.**



American Water Works Association
Michigan Section

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FLINT'S PATH FROM CRISIS TO DISTRIBUTION SYSTEM OPTIMIZATION

Christopher Hill¹, Rebecca Slabaugh¹, Gwendolyn Kubacki¹, David Cornwell², Melinda Friedman³
¹Arcadis US, Inc., ²Cornwell Engineering Group, ³Confluence Engineering

INTRODUCTION

The Flint Water Crisis was triggered in April 2014 as a result of a change from purchased treated water from Detroit Water and Sewerage to the Flint River, using the existing City of Flint Water Plant. The switch resulted in a number of distribution system issues, including Total Coliform Rule (TCR) violations, boil water orders, main breaks, disinfection byproduct (DBP) issues, *Legionella* outbreaks and elevated lead levels. The City returned to purchased water in October 2015. In response to the crisis, the City of Flint – with support from Michigan Department of Environmental Quality (MDEQ) and the U.S. Environmental Protection Agency (USEPA) – implemented new programs, practices and treatment, including the addition of a corrosion control inhibitor to restore water quality and to protect public health.

The City recently developed a Distribution System Optimization Plan to restore customer confidence and enhance Flint's water distribution system operation and maintenance (O&M) practices. The planning process included an assessment of current distribution system practices and corrosion control treatment compared to industry best practices and identified associated gaps, as well as human and financial resources needed to implement the recommended prioritized list of improvements for the City of Flint.

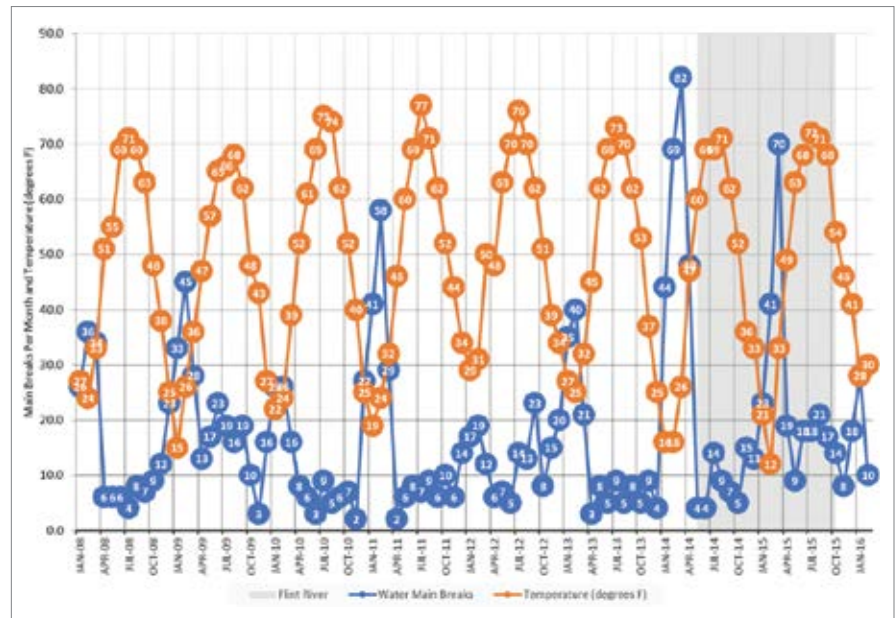
CRITERIA FOR OPTIMIZED DISTRIBUTION SYSTEMS

The American Water Works Association (AWWA) Partnership for Safe Water Distribution System Optimization Program is comprised of a methodology for utilities to optimize their distribution systems

Table 1. Partnership for Safe Water Distribution System Performance Indicators

Performance Indicator	Criteria
Water Quality Integrity	0.2 < Free chlorine < 4.0 95% of the time Monitoring includes problem locations Individual DBP samples less than MCLs
Infrastructure Integrity	≤ 15 breaks per 100 miles per year Reducing trend 5-year rolling average
Hydraulic Integrity	Pressure ≥ 20 psi 99.5% of the time Pressure < utility specific max 95% of time Meet pressure during max and fire-flow Pre-approved SOPs for emergencies

Figure 1. Comparison of Main Breaks and Ambient Temperature



through a phased process of commitment to the program, annual data reporting to the Partnership, self-assessment and optimization. Although the Partnership recognizes it is difficult for any utility to achieve fully optimized status as defined by its performance goals, it offers a process in which all utilities can

advance their system operations to attain performance nearer the Partnership goals. The City is utilizing the Partnership methodology as the basis for optimizing its water distribution system.

The optimization program focuses on three performance indicators, which include: water quality integrity,

Figure 2. Free Chlorine Concentrations at TCR Sites

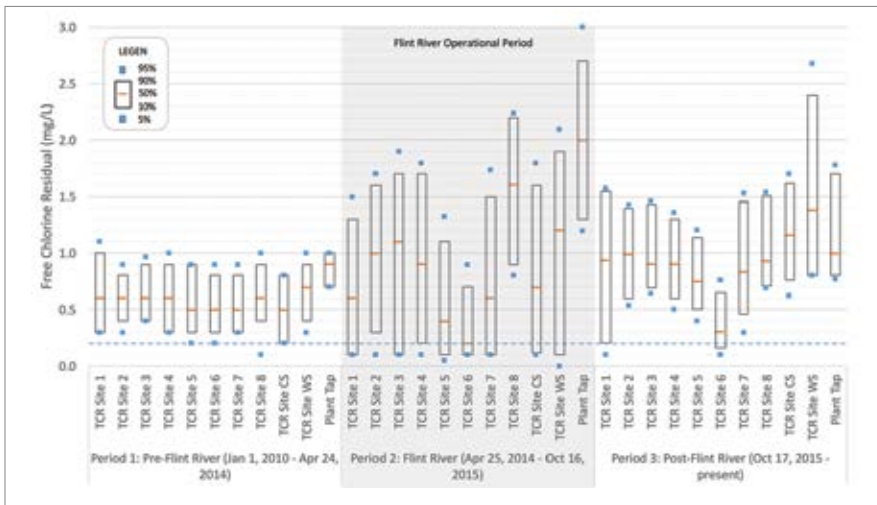
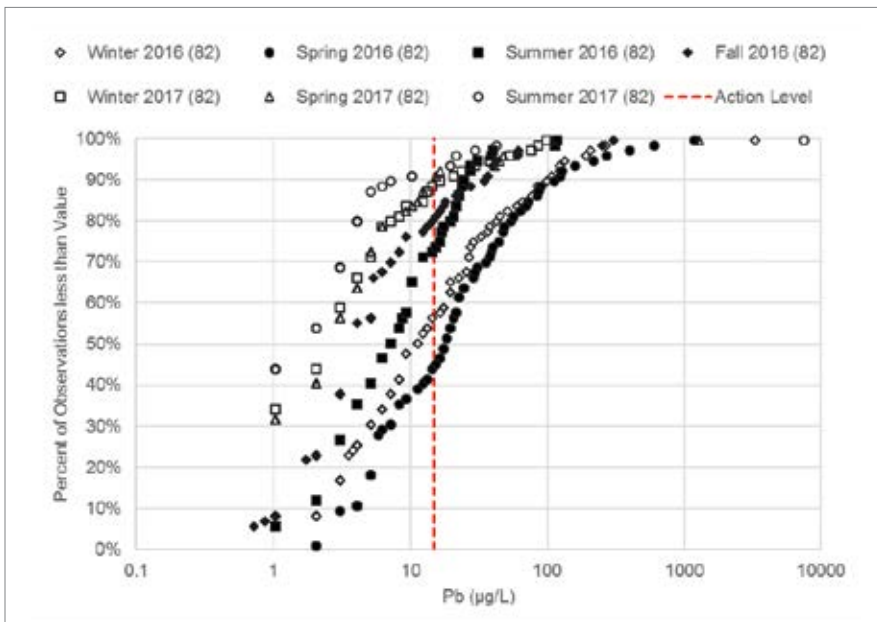


Figure 3. 2016 Maximum Lead Concentration by Season (82 locations for which data was available for all 7 sampling events)



infrastructure integrity and hydraulic integrity. A simplified summary of the performance criteria as they apply to Flint is provided in **Table 1**. Many other factors (administrative, design, maintenance, and operations) influence, or can be influenced by, these integrity performance indicators. Optimization through self-assessment of some or all of these factors (known as improvement variables) is another critical step in the program. Administrative factors – specifically administrative policies, funding and staffing – were also reviewed, as they impact all aspects of a water utility, not just the distribution system.

WATER MAIN BREAK ANALYSIS

One of the most common misconceptions regarding the impacts of the change in source waters was that it resulted in widespread water main failures. **Figure 1** compares the occurrence of water main breaks to temperature. This figure shows that the peak number of breaks occur during cold weather months. The coldest sustained temperatures within the dataset occurred in the winter of 2014 (average median low of 11°F sustained for two months) *prior to the switch to the Flint River*. The coldest individual month occurred in February 2015. The warmest

winter occurred in the 2015-2016 season and had one of the lowest rates of winter breaks/month (based on data available through January 2016). Based on this analysis, temperature played a more significant role in the number of breaks than the change in source water.

CHLORINE RESIDUAL

Through 2016, the City monitored chlorine residual at the entry point (daily) and 10 locations in the distribution system for TCR compliance, including the two main reservoirs (the number has since been increased to 25.)

Figure 2 shows chlorine residual at each of the 10 locations before, during, and after the switch to the Flint River. Since June 2016, the City has targeted a free chlorine residual of 1.7 mg/L leaving the plant. Since September 2016, the City has maintained chlorine residual concentrations above 0.5 mg/L in 95% of samples collected throughout the distribution system. The 0.5 mg/L level, while greater than the Partnership goal, is viewed as appropriate for Flint during the re-stabilization process and to assist with control of microbial growth beyond the customer's meter.

LEAD

Drinking water lead concentrations in the City of Flint may be one of the most intensive water quality investigations ever completed. In total, USEPA, MDEQ and the City collected more than 29,000 lead samples from more than 15,000 homes. The City has been in compliance with the LCR since January 2017, when the reported 90th percentile lead concentration was 12 µg/L (compared to the Action Level, AL, of 15 µg/L). However, further analysis of the lead monitoring results from the extended monitoring conducted by USEPA and MDEQ demonstrate the significant improvements that have been made since January 2016. **Figure 3** presents first liter tap lead concentrations for 82 homes, for which data were available for seven quarters of monitoring in 2016 and 2017. The data shows that through the first half of 2016, more than 40% of the homes sampled had tap lead concentrations greater than the AL. By the end of 2016, less than 10% of homes



“WITH ALL THE PROGRESS THAT HAS BEEN MADE, THERE REMAINS OPPORTUNITY FOR IMPROVEMENT.”

exceeded the AL. The figure also shows the dramatic reduction in maximum lead concentrations in those homes.

A PATH FORWARD

The City has taken a number of steps to improve distribution system water quality, including operational changes to reduce water age, chlorine and orthophosphate residual boosting. In addition, the City has expanded distribution system water quality monitoring to evaluate changes in water quality throughout the system and identify and respond to water quality upsets in a more proactive manner. As a result of these changes, there has been a marked improvement in the City – most notably, the City is in compliance with the LCR, lead concentrations continue to

decline and free chlorine residuals have improved throughout the City.

With all the progress that has been made, there remains opportunity for improvement. The City continues to re-establish optimized corrosion control treatment. Standard operating procedures have been developed for a number of operations and maintenance and water quality functions. An asset management program, risk-based pipeline R&R program and a 20-year capital improvements plan was also completed.

Though considerable effort remains, the City of Flint is on a path to distribution system optimization. That plan will result in continued water quality improvements, improved water system

reliability and more effective operation and management of the City’s water system. Though it will continue to take time, those efforts will go a long way to restoring public and private trust in the City and its water supply, and improving the quality of life for Flint residents.

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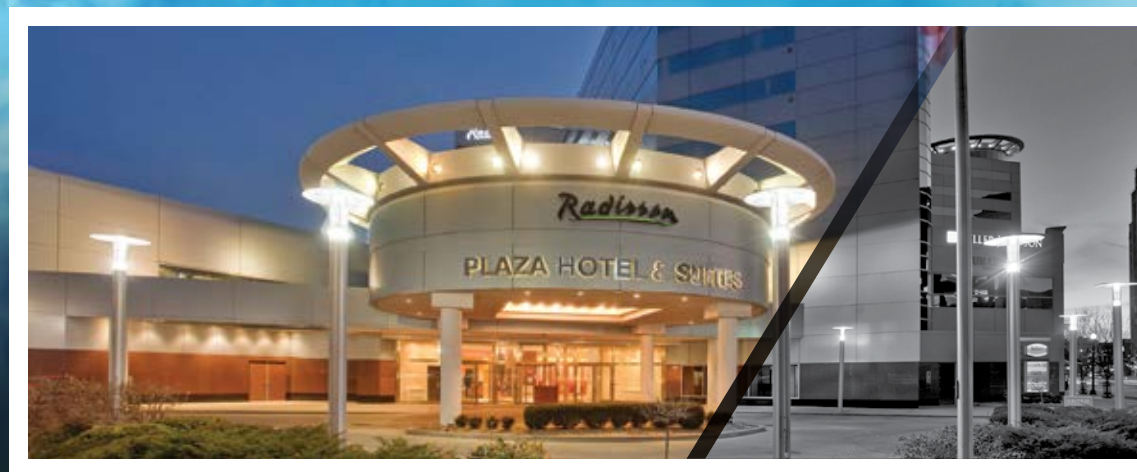
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MI-ACE 2018 RECAP

September 11–14, 2018

Radisson Plaza Hotel at Kalamazoo Center • Kalamazoo, MI



MI-ACE 2018 Recap

Another successful Annual Conference & Exhibits (MI-ACE) in the books and things looked quite different this year. The 80th conference for the Michigan Section boasted speakers from around the state and across the country, with two days of plenaries and breakouts, followed by a day of intense discussion about new rules and regulations and emerging contaminants.

This year, there were two fundraisers: the Annual Golf Outing was held at Gull Lake View Resort. The course was hopping and sponsors raised funds to be split between Safe Water in Ecuador and the One AWWA Operator Scholarship. The new fundraiser, Cycling for Water, had a small turn-out, but riders had a good time and helped contribute to the One AWWA Operator Scholarship Fund.

The conference opened with our visiting AWWA officer and the incoming President of the AWWA Board, Jim Williams. Jim shared an update about activities across the organization and then AWWA DC Executive Director Tracy Mehan provided his insights on water policy on the national stage. Speakers continued to deliver powerful and insightful information throughout the conference.

The Exhibit Hall held more than 40 exhibiting companies showcasing all manner of products, technology and services to help water professionals provide clean, safe water to customers. Many companies brought new information to the Hall and all of the exhibitors brought great energy to the many discussions.

The Best Tasting Water Contest was held and the winner for Michigan selected. See the results on page x. All five competing communities had great tasting water and made the job for the judges very difficult!

As is tradition, many people are honored with awards during MI-ACE. This year, the presentations were a little different, recognizing various awardees at plenary sessions and through the new conference app. See the full list of awardees on page 22.

The conference ended on a serious discussion about PFAS: a contaminant we all will need to learn more about in the coming weeks and months.

Congratulations to all of the Awardees!



Save the date for MI-ACE 2019!

The 81st Michigan Section Annual Conference & Exhibits (MI-ACE 2019) will be held September 10-13, 2019 in Traverse City, MI.

Thank you to our many sponsors this year!
 Their support helped to make the conference a vibrant and engaging experience.

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Wednesday Mid Morning Coffee Break Sponsor



MI-ACE 2018 Recap

RECOGNIZING ACCOMPLISHMENT

Silver Water Drop Award

Presented to individuals who have been members of AWWA for 25 years
Pictured from L to R are Christine Spitzley, Jim Williams, Pat Staskiewicz, Bob McClenney, Mike Grenier, Ted Erickson, Brian Ross, and Marie Davis



Gold Water Drop Award

Presented to individuals who have been members of AWWA for 50 years
James Granger, Albert Posthuma

Life Member Status

Recognizes individuals who have completed 30 years membership in AWWA and are at least 65 years of age
Pictured from L to R are Jim Williams, Randal Ford, Tom DeLaura, Tom Idema, and Christine Spitzley



MDEQ Edward Dunbar Rich Service Award

Recognizes water utility personnel for completing 25 or more years of faithful service in providing and maintaining a safe, dependable and adequate public water supply
Thomas Chinchak, Alan Czamik, Eric Dalman, Douglas Gay, John Laughhunn, Andrew Parrott, Jeffrey Salem, Daniel Scheer, Pat Staskiewicz, Kelly Tatlock, Eric Zelmer



Executive Director's Award

Recognizes outstanding support of Section staff and exemplary volunteer service for the betterment of the Section.
Dave Stinson with MI-AWWA Executive Director Bonnifer Ballard



Chuck Van Der Kolk Volunteer of the Year Award

To recognize and honor an individual AWWA member who has advanced AWWA Denver or D.C. through his/her volunteer time and efforts and has been a support to AWWA staff.
Pat Staskiewicz with Kathy Van Der Kolk



George Warren Fuller Award

Presented to an individual who embodies the life and work of George Warren Fuller; the awardee will be recognized during ACE19.

Clyde Dugan with Jim Williams



Operator's Meritorious Service Award

Recognizes individuals for special performance in one or more of the following areas:

- a. Continuous compliance with public health standards in finished water;
- b. Consistent and outstanding contribution to plant maintenance, thereby prolonging the useful lives of equipment;
- c. Development of new and/or modified equipment or significant process modifications to provide a more efficient or effective treatment;
- d. Special efforts in the training of treatment plant operators;
- e. Special acts not directly related to water treatment, but which demonstrate dedication to the public beyond the normal operating responsibilities; and
- f. Consistent and outstanding contribution to operation and/or maintenance of distribution lines, pump stations and reservoirs.

Shimo Svabic, City of Wyoming, with Jim Williams and Christine Spitzley



Abel Wohlman Award of Excellence

Recognizing those whose careers in the water works industry exemplify vision, creativity, and excellent professional performance characteristic of Abel Wolman's long and productive career.

Eugene Glysson (posthumously)

Scholarship Recipients

MI-AWWA High School Senior Academic Scholarship

Presented to a graduating high school senior who is the son or daughter of a current MI- AWWA member.

Winner selected by lottery of all qualified applicants during the business meeting

Ryan Clark, child of Dale Clark

Raymond J Faust Award

Presented to an individual who exemplifies the life and work of Raymond J. Faust.



Committee Co-Chair
Jon Bloemker with Faust
Awardee Paul Reinsch.



Committee Co-Chair
Bryce Feighner With Faust
Awardee Molly Maciejewski.

Michigan Water Utility Hall of Fame

Presented to an individual who has made a significant, long-term contribution to the water sector in Michigan

Historic Preservation Committee Co-Chair Gary Wozniak pictured from L to R with Eric Way, Jim Cleland, and Bill Dixon



Eric Way



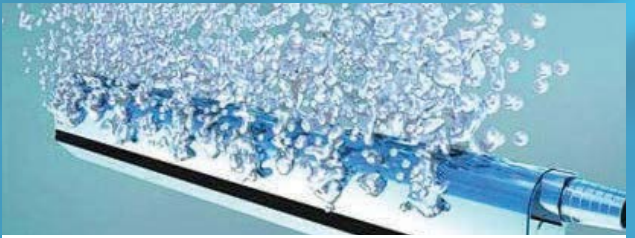
Jim Cleland



Bill Dixon

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MI-ACE 2018 Recap

2018 TASTE OFF : A CRYSTAL CLEAR WINNER

On September 13, 2018, in a sleepy, early morning AWWA Michigan Section business meeting, a champion was crowned. After a back and forth taste off, a fluid situation if there ever was one, a winner became crystal clear.

Regional winners – including City of Ann Arbor, City of Cadillac, City of Grand Haven, Iron River Township, and East Lansing Meridian Water and Sewer Authority – brought their finest H2O. An expert panel of judges, including Jim Williams, the President-Elect of the AWWA, Amy Lachance of the MDEQ, and Jenna Wolfram representing the public, drifted back and forth in their deliberations over aroma, appearance, and taste.

As pressure built, it became clear, all of these systems make incredible water. This truly was hair-splitting to decide the 'Best of the Best.' In the end, the judges agreed, and a fresh champion would be crowned.

The City of Cadillac emerged as the winner, buoyed by a recent investment in a new ground water source and an unwavering commitment to excellence for their customers. It is the city's first championship, and it is well-earned. They will represent the Michigan Section well at the AWWA National Conference Taste-Off, to be held in Denver, CO, in June 2019. So, raise a glass to our champions... they truly make the Cadillac of drinking water. Three cheers!






PIECES FROM THE PAST

DETROIT WATER WORKS PUMPING ENGINES NO. 5 & 6

BY MORRIS A. PIERCE

“**I**n 1903, Detroit Water Works purchases pumping engines No. 5 & 6: two duplicate, vertical, triple expansion, crank and fly-wheel, three plungers, condensing steam pumps, each having a rated capacity of 25 MGD. These engines weigh 900 tons each. The flywheels alone weigh 40 tons apiece. These engines were built by Allis-Chalmers Co. of Milwaukee, WI, at a cost of \$276,000.”

From *The Documentary History of American Water-Works* by Morris A. Pierce, Department of History, University of Rochester, NY. 



WATER WILL BE PLENTIFUL.

The New Engines at the Water Works Will Give Detroit an Abundant Supply.

IN these frigid days Waterworks Park is scarcely recognizable as the beautiful sylvan retreat of summer. The floral clock is shrouded in snow, the trees stand bare and exposed to the wintry blasts that sweep with chilling force from the river and the restful scenes of the "good old summer time" have given place to the gayety of the festive skater. The prosaic, too, enters into the present view of the park. Over near the new addition, which has materially increased the architectural pretensions of the waterworks building, is presented an interesting cold weather scene. There a force of men is employed laying a series of pipes that will be fed by the two new engines now being installed. It doesn't

are obtained and more progress made at such work during the winter months than during the summer, when operations are sometimes delayed through cave-ins and from other causes. "The men work harder, too," observed Mr. Crossley. "They have to in order to keep warm," he added, with a humorous twinkle in his eye. "Not much," retorted a roughly-clad laborer, whose face, pipe and accent betrayed his nationality; "shure, Ol'd rather freeze thin wurruk anny toime."

New Engines in Place.

The parts of the big engines are practically all in place in the building, but it will be some weeks before everything will be in readiness for their operation. They are triple-expansion engines made by the Allis-Chalmers Co. of Milwaukee, and they will have

total capacity of twenty-four million gallons a day. The new engines will be known as being two times as efficient as the old ones. There is no doubt that they will probably meet all the requirements to come. The new engines will be installed in the northern part of the building. The Engineer in Charge, Mr. G. W. Long, and the Chief Engineer, Mr. G. W. Long, are now working on the scale, not toward the future. According to the contractor, the new engines that



DRINKING WATER CERTIFICATION EXAM SCORING PROCESS

Every spring and fall, the Michigan Department of Environmental Quality (MDEQ) offers all categories (D, F, S) and levels (1-5) of drinking water certification exams. Soon after the exam, operators eager to learn their exam score begin asking, "It's only Scantron, why can't we have our results in a couple of weeks or even that day?" The thorough process described below provides the answer.

MDEQ strives to create exams that are fair and contain both appropriate and accurate questions. To this end, there are numerous steps in the exam grading process, including initial grading, statistical analysis and review by Subject Matter Expert (SME) committees. There is a SME committee for each exam category (D, F and S). These committees consist of MDEQ staff and Level 1 operators with many years of experience in the drinking water profession.

The grading process begins once exams return from each exam site to MDEQ's central office. As the exams are scored using an optical Scantron machine, MDEQ staff ensures the exam sheets are properly graded. The computer alerts the grader if there are multiple answers marked or no marks on any question. The exam sheet is then visually inspected to verify which answer was actually marked or not. When initial grading is completed, staff compiles statistics for each exam question.

The SMEs and MDEQ staff then meet to review the statistics of each individual exam question. At no time during this process are

the SME committee members aware of an individual operator's preliminary score, or how an individual operator answered a question. Certain questions may be flagged by MDEQ staff for consideration by the SME committees for reasons such as the following:

1. The question was answered incorrectly by two-thirds or more of the operators.
2. A distractor answer (an incorrect but plausible answer for someone guessing) was chosen more than 35% of the time. This percentage is significantly higher than chance guessing, which would be 25%. This result indicates the distractor could potentially be a correct answer.
3. The question was answered correctly by the majority of operators that scored poorly on the exam, while answered incorrectly by the majority of operators that scored well on the exam.

Questions that meet one of these three criteria are thoroughly reviewed and, at times, debated by committee members. Reference materials, such as the Safe Drinking Water Act and/or the California State University Sacramento (CSUS) books and others, are checked to ensure the given answer is correct. Each question and the correct answer are referenced to these materials. If the committee comes to a consensus that the answer to a question is incorrect or that it had multiple correct answers on the exam, then the question is revised or is removed from the question pool.

Questions are also reviewed to ensure they are still relevant. For instance, questions

may be removed when it is determined they are no longer prevalent in the waterworks industry, such as certain lab procedures. Additionally, the SME committees review questions or concerns submitted by examinees on the Question Comment Form each operator is given at the exam. Operators should make comments relevant to the specific exam questions and take this opportunity seriously. Any question(s) deemed a problem are either thrown out or credit given for multiple correct answers (in the case where two or more of the answers are deemed correct) on the current exam(s). This review process can make the difference for examinees on the borderline of passing or failing.

Problematic questions identified throughout this process are either revised and placed back in the bank of questions for future exams or put on a list of OMITTED questions. Statistics for each question are kept for the life of the test bank. Exams are composed of questions covering all major aspects of the exam classification.

Both the SME committees and MDEQ try their very best to ensure the exams are of the highest quality possible and fairly evaluate the operator for the class and level of certification they are seeking. Exam requirements and applications links can be found on the Operator Training and Certification webpage at www.michigan.gov/deqoperatortraining.

Adapted from an article previously authored by John Holland, MRWA; Richard Benzie, MDEQ; and Paul Brun Del Re, MDEQ. 💧

REVISED LEAD AND COPPER RULE UPDATE

The Michigan Department of Environmental Quality (MDEQ) recently revised the administrative rules promulgated under the **Michigan Safe Drinking Water Act**, 1976 PA 399, as amended, to strengthen lead and copper regulatory requirements. The MDEQ reviewed existing reports and recommendations, sought input from a diverse set of stakeholders and reviewed numerous public comments submitted to the agency. The final rules were filed with the State of Michigan's Office of

Regulatory Reinvention in June 2018. The updated rules will further minimize exposure to lead in drinking water in several ways, including, but not limited to:

- Confirming where lead exists by inventorying distribution system materials.
- Mandating lead service line replacement, regardless of action level.
- Prohibiting partial lead service line replacement, except for emergency repair.
- Updating lead and copper sample site selection criteria and sampling pools.

- Enhancing lead and copper sampling protocols.
- Lowering the lead action level beginning in 2025.
- Enhancing transparency.

Below is a high-level description of significant regulatory changes. The MDEQ is working to develop guidance, training, updated forms and other tools to help water supplies understand and comply with the updated regulations. Please watch for correspondence and training opportunities



as they become available. Also visit our website at www.michigan.gov/deq/leadcopper for information and resources.

Distribution System Materials

Inventories (DSMI): The original lead and copper regulations required water supplies to review their distribution system materials to create a pool of lead and copper tap sampling sites. The revised rules take this further by requiring supplies to confirm that all distribution system components and service line materials are properly identified and tracked. The following requirements have been added to accomplish this goal:

- By January 1, 2020, a preliminary DSMI must be submitted to the MDEQ.
- By January 1, 2025, a final DSMI must be submitted to the MDEQ, with an updated inventory due every five years thereafter.
- Supplies with lead service lines must report to the MDEQ annually on the status of lead service line replacement efforts.
- Supplies must notify residents served by lead service lines within 30 days of determining the service line content.

Partial Lead Service Line Replacement is

Prohibited: Replacing only a portion of a lead service line leaves behind a significant source of lead in drinking water. Additionally, studies have shown that partial lead service line replacement is often associated with short-term elevated drinking water lead levels. As such, partial lead service line replacement is no longer allowed, except in the case of emergency repairs.

Lead Service Line Replacement:

The Lead and Copper Rule previously required replacement of lead service lines at a rate of 7% per year, only when a water supply continued to exceed the lead action level after installing corrosion control treatment. While this requirement remains in effect, lead service line replacement requirements have been expanded to include the following:

- Water supplies with lead service lines, regardless of lead action level values, must replace all lead service lines at an average rate of five percent per year, not to exceed 20 years, or in accordance with an alternate schedule incorporated into an asset management plan, and approved by the MDEQ.
- The full lead service line must be replaced at water supply expense, regardless of ownership.

- A new service line definition was added, and the lead service line definition was updated.

Updated Site Selection Criteria and

Sampling Pools: Original lead and copper tap sampling sites were established based on specific site selection criteria designed to identify high-risk sampling locations. The site selection criteria have been revised to put a greater focus on lead service line locations. Additionally, rules now require sampling pools to be submitted to MDEQ.

- Tier 1 and Tier 2 sample site criteria no longer include sites with copper pipes soldered with lead and installed after 1982. Tier 3 criteria have been modified to include sites with copper pipes soldered with lead and installed before July 1988.
- Lead and copper tap sampling pools must be reviewed, updated as necessary, and submitted to the MDEQ by January 1, 2020.

Lead Action Level: An action level, if exceeded, requires additional steps to minimize exposure to lead and copper in drinking water. The following changes were made to action levels:

- Lead and copper 90th percentile values are now calculated using the highest lead and highest copper results from each site.
- The lead action level of 15 parts per billion (ppb) remains in effect through December 31, 2024. A new lead action level of 12 ppb will take effect January 1, 2025.

Lead and Copper Tap Sampling Protocols Strengthened:

The following lead and copper tap sampling protocols have been strengthened to better represent high-risk conditions:

- Systematic flushing of a sampling site and/or aerator removal or cleaning is prohibited immediately before compliance sampling is conducted.
- A second sample, in addition to the first draw, will be required at sites served by a lead service line (details and instructions are under development). The highest lead result and the highest copper result will be used to calculate the 90th percentiles.
- A supply with optimal corrosion control treatment (OCCT) cannot

reduce to three-year lead and copper tap monitoring unless it meets water quality parameter ranges and either the supply has no lead service lines OR the supply has three annual rounds of sampling with 90th percentiles less than or equal to 5 ppb for lead and 650 ppb for copper.

Water Quality Parameter (WQP)

Sampling: The following changes to WQP sampling are designed to better assess water quality:

- WQP sampling is required for all supplies with OCCT, including small and medium supplies and all supplies exceeding an action level.
- WQPs have been expanded to include chloride and sulfate.
- WQP monitoring can no longer be reduced to three-year monitoring.
- Rules clarified to require establishment of WQP ranges in the distribution system.

Continuity of Sources and Treatment:

The following rule clarifications were made to ensure continuity of water quality during a change in source or treatment:

- Supplies purchasing water from a supply with OCCT must also maintain OCCT.
- The MDEQ may require new or updated corrosion control studies when a supply changes source or treatment, or at any other time as appropriate.

Enhanced Transparency:

While the original lead and copper rule had several requirements for notifying the public, the following new requirements enhance those efforts:

- The consumer notice of results (the results information provided to residents of sampled sites) must now include copper.
- Additional content and delivery requirements for lead public education following a lead action level exceedance.
- Additional Consumer Confidence Report (CCR) content for lead and copper reporting, and lead service line reporting, has been added.
- A statewide advisory council will be created to assist with development of public awareness campaign materials.
- Supplies serving 50,000 people or more must establish a community advisory council to assist with development of public awareness campaign materials. 💧



DRINKING WATER REVOLVING FUND AND SERVICE LINE REPLACEMENT ELIGIBILITY

The Drinking Water Revolving Fund (DWRF) can fund replacement of service lines. All service lines on public and private property are considered DWRF eligible, provided there is a public health threat being addressed and mitigated. Full

service line replacement is required (partial replacement is not eligible). Regulatory provisions governing the use of DWRF funds **do not** require the public water system to have ownership over the private portion of a service line.

The Revolving Loan Section of the DEQ has a Lead Service Line Replacement Private Property Access document (includes examples) available upon request, which highlights some approaches communities have taken to gain private property access.

The DWRF program is designed to assist water suppliers in satisfying the requirements of the *Safe Drinking Water Act* by offering low-interest loans to eligible water suppliers to construct capital improvements. Since its inception in 1997, the Michigan DWRF has provided financial assistance to approximately 290 projects, totaling over \$958 million. DWRF money is appropriated annually by Congress and awarded to each state through a capitalization grant. States are required to provide a 20% match on their federal awards.

A DWRF loan has a below market interest rate, established annually, and a 20-year repayment period, with an option for a 30-year period if the applicant qualifies as a disadvantaged community. The loan can include all related planning, design and bond financing costs, with the possibility of loan forgiveness for a portion to qualifying disadvantaged communities. Eligible projects include, but are not limited to, the following types of improvements:

- Water treatment plant upgrades
- Water main replacement projects
- Replacing or constructing storage tanks
- Pump station improvements
- Well and well structure construction
- Service line replacements

The first step in applying for DWRF funds is to contact the Revolving Loan Section at 517-284-5433. Project plans are due no later than May 1 in any given year and loan closing typically takes place the following year. If you are interested in funding a project or have questions regarding service line or any other eligibility, give us a call! 💧

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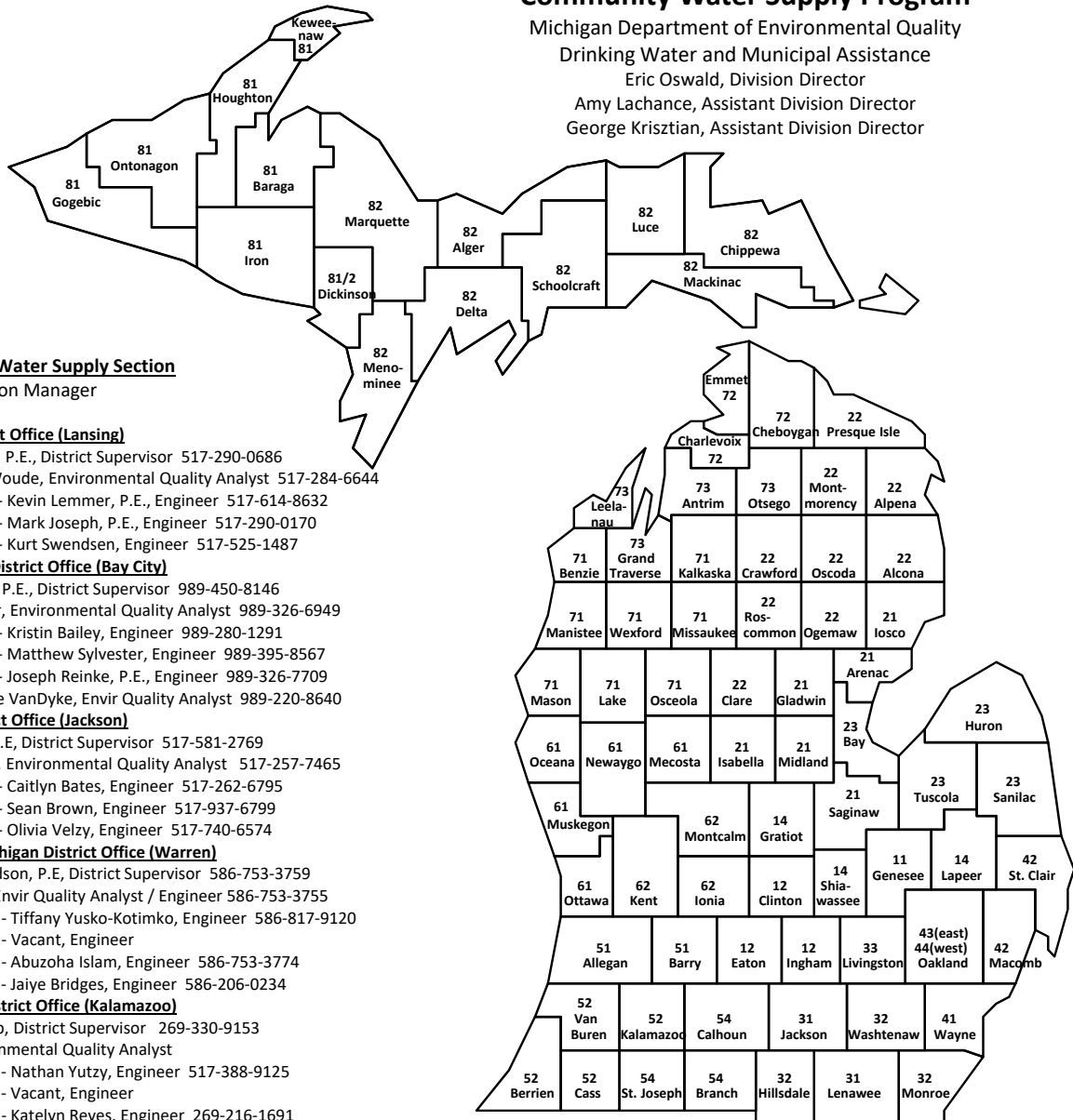
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Community Water Supply Program

Michigan Department of Environmental Quality
 Drinking Water and Municipal Assistance
 Eric Oswald, Division Director
 Amy Lachance, Assistant Division Director
 George Krisztian, Assistant Division Director



Community Water Supply Section

Vacant, Section Manager

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 District 12 - Mark Joseph, P.E., Engineer 517-290-0170
 District 14 - Kurt Swendsen, Engineer 517-525-1487

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 District 22 - Matthew Sylvester, Engineer 989-395-8567
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Community Water Website: www.michigan.gov/deq

Click on Water > Drinking Water > Community Water Supply

* MHC = Manufactured Housing Communities

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 John Koenigsnecht, Environmental Tech 517-284-5430

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 Robert London, P.E., Surface Water Specialist (north) 989-450-7834
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SECOND ANNUAL PLANKTON AND ALGAE SHORT COURSE A SUCCESS

MI-AWWA hosted its second annual Plankton and Algae Short Course in July. The course was coordinated by Scott Schmidt (Michigan Department of Environmental Quality). Instructors included Dr. Richard R. Rediske (Grand Valley State University), Dr. David Szlag (Oakland University), Dr. Erik Rosenfeldt (Hazen and Sawyer), Dr. Judy Westrick (Wayne State University), Mr. Scott Schmidt (Michigan Department of Environmental Quality) and Todd Hone (City of Celina, OH).

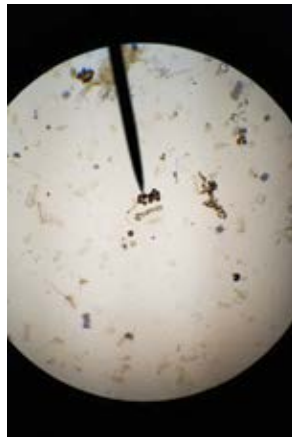
This year, the course was held at Great Lakes Water Authority's (GLWA) Water Works Park Water Treatment Plant in Detroit, MI. The three-day course took place on July 24 through July 26, 2018, and included over 30 water sector professionals from across southeast Michigan.

The course is designed to provide water plant operators and environmental managers with the basic tools to identify the major groups of algae and cyanobacteria found in freshwater systems, an understanding of ecological factors that lead to bloom formation, information on monitoring technologies, and strategies to mitigate the impact of these organisms on the water treatment process.

During the first day, participants used microscopes and taxonomic keys to identify specimens collected from area fresh water lakes. On Day Two, participants went out on Lake St. Clair to collect specimens to identify the major taxonomic groups found in Lake St. Clair and from a local inland lake. Students compared the difference between oligotrophic and eutrophic systems. The final day focused on laboratory monitoring techniques, along with prevention and control strategies for the impact of cyanobacteria and algae blooms on the water treatment process.

GLWA Chemist Steven Lingenfelter attended the course and believes it's important for water operations professionals to learn and understand how algae and plankton can affect freshwater systems.

"For me, the biggest takeaway from the class was learning just how complex



it can be for a water treatment plant to properly deal with algae and plankton in the water. There is a lot of active research being conducted to address problems caused by algae and plankton, such as ways to deal with cyanotoxins which are found in these microorganisms. I feel the information provided in this course would prove useful to all in the water sector," Lingenfelter said.

MDEQ Trainer Scott Schmidt collaborated on the development of the program.

He emphasized the importance of ensuring water professionals understand the impact of cyanobacteria and algae blooms on the water treatment process.

"This is a great course that teaches professionals how to identify major groups of algae and cyanobacteria through case studies and hands-on lab practice. There is opportunity for participants to learn from others in the field and hear about the research that's being done," Schmidt explained. 💧



MEMBERSHIP COUNCIL WELCOMES NEW MEMBERS

By Tina Pawlak

The Membership Council is pleased to welcome two new members to the Council. Following the retirement of Tina Pawlak, Amy Vail of MDEQ's Cadillac Office has been named the new chair of the Membership Council. Amy currently works as an Environmental Quality Analyst in the Drinking Water and Municipal Assistance Division of the MDEQ. Amy has volunteered in many capacities for MI-AWWA, serving on the Lab Practices Committee and most recently as a trustee on the Board. Amy is excited to join the Membership Council team as it carries out its mandate to recruit, retain and engage members.



One of the committees under the umbrella of the Membership Council is the Diversity Committee, and Terri Tabor Conerway has recently taken over as its new chair. Terri has an extensive background in human resource management. She has worked in various capacities for the City of Detroit, including Human Resource Director for the Detroit Public Library and as Organizational Development Director for Detroit Water and Sewerage Department. She is currently

the Chief Organizational Development Officer for the Great Lakes Water Authority. Terri recently held a committee meeting to begin conversations regarding the focus of the committee for this year.

As you can see, the Membership Council touches many different aspects of MI-AWWA and its mission. If you have enthusiasm and energy to spare, consider joining the Membership Council. The Council only meets four to five times a year and attending by phone conference is an option. We are looking for a couple of new members and would welcome you to our group. Please contact Amy Vail at vaila@michigan.gov if you are interested. 💧

GOVERNMENT AFFAIRS COUNCIL UPDATE

GUIDING AND INFORMING WATER POLICY AND RULEMAKING WITHIN THE STATE OF MICHIGAN

By Andrew Reynolds, Vice-Chair, Government Affairs Council

In July's edition of *Water Works News*, you hopefully had a chance to read about the annual Fly-In event and work the Section and the Government Affairs Council are doing to advance the water industry's interests at the national policy level. This month, we wanted to update you on what we are doing to help guide and inform water policy and rulemaking within the State of Michigan.

In July, the Board of Directors and Government Affairs councils for both Michigan AWWA and Michigan Water Environment Association held a joint lobbying strategy session in Lansing. The meeting was facilitated by Midwest Strategy Group, a lobbying firm recently hired by MI-AWWA and MWEA to help us plan for the coming legislative year and speak with one voice, wherever possible.

It was a full agenda. MWSG gave the group an overview of the legislative calendar and when and how to target legislators to help educate them on water issues. To this end, they shared examples of one-page information sheets they have developed for other organizations, and

they emphasized the importance of a quick, easy-to-understand message. MWSG then gave a quick rundown of the nearly three dozen water-related items on the current legislative docket. The group decided the best way to keep track of these and future bills would be to hold a monthly call (open to all members) to allow MWSG to give us its latest analysis on the existing bills and any rumors of bills being drafted.

With such a long list of legislative items and the broad reach of topics that could impact the water and wastewater sectors, another activity accomplished during the meeting was to pick some key issues both organizations wanted to prioritize for the fall session – either to target preemptive education campaigns, or to be prepared to respond to proposed legislation. Informed by a survey of Board and Council members before the meeting, the priority issues identified included (in no particular order):

1. Lead
2. PFAS
3. SRF/availability of funding in general
4. Stormwater management/fees
5. Pipe materials

6. Tipping fees (water and wastewater systems are impacted by landfill tipping fees)

Section leadership will be working with the Government Affairs Council to identify potential 'champions' for these topics – or individual members with a particular expertise or passion who can respond on short notice to requests for information or set up meetings with individual legislators or legislative committees on an as-needed basis. If you are interested in serving as a champion for one or more of these topics, please let us know at info@mi-water.org.

To wrap up the meeting, MWSG encouraged all members to get to know their respective legislators and be prepared to educate a new wave of legislators who will be voted into office this fall. The results of the midterms and the implications for the balance of power in January will likely drive the bills that rise to the top of the legislators' priority list in the lame duck session, so things could move fast after November 6. Stay tuned! 💧

MICHIGAN AND ILLINOIS YPS CONNECT AT UNIQUE NETWORKING EVENT

We all know the Young Professionals are known for their networking events, and their most recent event introduced unique networking opportunities out of state with the Illinois section.

Jenna Karazim (Michigan section YP Chair) collaborated with Catharine Richardson (Illinois section YP) and created a joint networking event in Chicago, IL. The two met at the annual national YP summit, held in February of this year in San Antonio, TX, and they were both eager to try something new with a neighboring state. They created an event that consisted of a Chicago Cubs rooftop game, followed by a networking mixer in the city. There were 15 spots available, which sold out quickly to seven Illinois and eight Michigan attendees. Attendees from both states thoroughly enjoyed the event and connections were made that may have not presented themselves otherwise. The attendees enjoyed themselves so much that there is another joint section event

now on the books! Be sure to check out our plant tour in South Haven, MI, on October 12! Thank you again to Tony Cecchini and Joe Bacik for sponsoring the Cubs tickets and making this unique event possible! 💧



Thank you to Tony Cecchini and Joe Bacik for sponsoring the event!



Michigan and Illinois YPs enjoy a joint event hosted at Wrigley Field.

UPCOMING NETWORKING EVENTS

Come join the YPs as they host happy hours across the state! This is the perfect time to see what the section is about, learn about the committees and meet some of the faces of the current volunteers. If you or someone you know is new to the area, the industry or the

section – this is a great event to attend! Bring your questions and your business cards and join us for drinks and appetizers from 5:00 to 6:30 p.m. at the location nearest you. We'll be hosting in Lansing on October 25 and Detroit on November 8. All industry professionals (not just YPs!) are

invited to attend, but please be sure to register on www.mi-water.org (click on *Training & Events* and then select *Calendar*). An email will be sent a week prior to the event to attendees registered with location specifics. Hope to see you there! 💧

ORIENTATION FOR NEW VOLUNTEERS

On August 15, the Section hosted an in-person orientation for new volunteers. The first part of the presentation was highly informative about AWWA generally, and more specifically, about the Michigan Section of AWWA. The information included the structures of both, the strategic plan for the Section, our existing partnerships and what volunteers can expect and get out of volunteering.

The second part was directed to chairs of committees and councils and council members. This section offered information to improve leadership skills, tips for running meetings and motivating volunteers and how communication flows through the Section.

The third part was by invitation only, giving board-specific information to incoming board members.

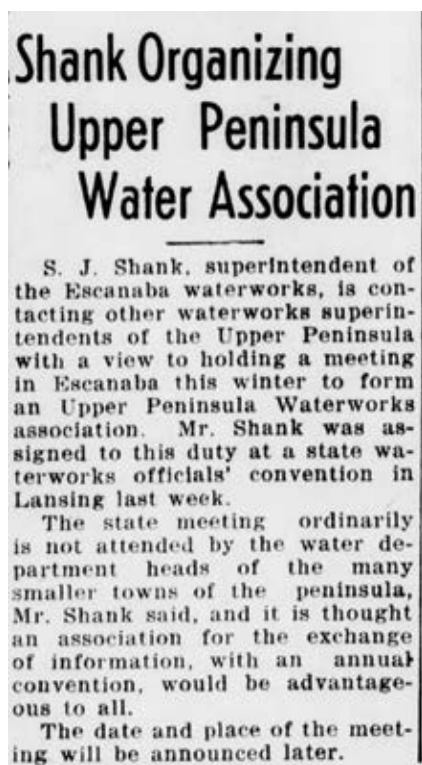
The participants all learned a great deal (even our 'seasoned' volunteers!) and had a good time meeting and networking with other volunteers. Part One of this presentation will be offered through remote participation (webinar format) three other times during the coming year. If you would be interested in joining a presentation, please email Chris Willemin at cwillemin@mi-water.org. 💧



THE U.P. WATER WORKS INSTITUTE

By Greg Alimenti, Trustee

The Upper Peninsula of Michigan contains nearly a third of the state's land mass and only 3% of its population – and while sharing a 200-mile border with Wisconsin, it is physically separated from the Lower Peninsula by the Straits of Mackinac. In spite of this, water professionals in the U.P. have shared a long history with the Michigan Department of Public Health (now MDEQ) and the Michigan Section AWWA.



Sidney Shank, Water Plant Superintendent for the City of Escanaba, organized the first Water Works meeting in the Upper Peninsula (*Escanaba Daily Press*, September 27, 1939, Page 5).

Upper Peninsula towns and villages began sending operators to annual water quality conferences from the very beginning in 1925, at the invitation of the MDPH in Lansing. At the 1928 meeting, Water Analyst Flora LaRoche of Gladstone gave a presentation on taste and odor based on her experience in Gladstone, which was equipped as a

disinfection plant at that time. By 1939, it became apparent an organization was needed in the U.P. Sidney Shank, Water Plant Superintendent of Escanaba, was assigned this duty at the Joint MDPH/ AWWA Conference in Lansing that fall. An organizing committee was formed, which included then-Assistant Engineer Raymond J. Faust of the MDPH, Ralph Rowley from the Cliffs Dow Chemical Co., and WTP superintendents from the cities of Iron Mountain, Escanaba, Gladstone and Menominee.

From newspaper references in later conferences, it appears the name of the meeting was changed to the U.P. Water Works Institute in 1950. The location moved around in those years. Not only were meetings held in the central U.P. in Escanaba, Marquette and Iron Mountain, but as far afield as Sault Ste. Marie in the east and Ironwood in the west. Even small towns were represented, such as Ontonagon in 1967. The meetings included presentations and discussion panels on all aspects of water treatment and plant operation. MDPH operator certification examinations were given, as well for Operator 1st and 2nd Class for full treatment (disinfection, coagulation, sedimentation, filtration and softening) and Analyst, which was limited to disinfection.

MDPH involvement in planning and content remained centered in Lansing, but facilitated through the U.P. district offices, and continues to this day as the Michigan Department of Environmental Quality (MDEQ). Raymond Faust attended several meetings over the years and last appeared as a keynote speaker at the 1974 U.P. Water Works Institute.

From time to time, the annual conference of the Michigan Section AWWA has been held in the Upper Peninsula. In recent memory, Mackinac Island hosted the meeting in 2010 and Sault Ste. Marie in 2015. The 1953 Annual Conference was held in Escanaba, two-and-a-half hours west

of the St. Ignace and nearly seven hours from Detroit – and at a time before construction of the Mackinac Bridge! Nonetheless, 200 'delegates' attended the two-day program. W.F. Shepard, Director of the Michigan Department of Health Engineering Division, gave the keynote address. A tour of the recently completed Escanaba Water Plant was given, and recreation activities included a tour of the ore docks and a log birling demonstration.

Today, the Section's U.P. Coordinating Committee is responsible for the Water Works Institute program and produces a quality meeting. In the past few years, excellent presentations have been given on GAC filter upgrades, waterborne disease prevention, bacteriological analysis, Lake Michigan intake construction, and asset management, to name a few. The Spring 2018 meeting included content on pipe products and tapping, the DEQ Water and Wastewater Rate Survey, new well rules, the history of water, the impact of water quality changes and a TTHM/HAA5 panel discussion.

The Institute always includes a mini-Expo as well, where vendor displays and representatives are on hand to answer questions and demonstrate new products. Educational institutions, such as the Water Resources Department of Bay College, and other allied organizations like the Michigan Rural Water Association (MRWA) are frequent contributors to the program. A Water Taste Off is typically held as part of the spring meeting. The winner goes on to the state competition at the Michigan Section Annual Conference. Participation in the Taste Off from water supplies in the U.P. has always, in fact, been disproportionately high compared to other regions of the state – a point that was made by Gary Wozniak in his presentation on the history of the Taste Off. Taste reflects the perception of water quality, and water quality is important in the U.P. 💧

MDEQ UPDATE ON THE STORMWATER, ASSET MANAGEMENT AND WASTEWATER (SAW) GRANT PROGRAM

Public Act 562 (2012) authorized \$450 million of the Great Lakes Water Quality Bond to be deposited into the Strategic Water Quality Initiatives Fund for the SAW program for grants and loans. \$97 million was available in fiscal years 2014 and 2015. Grants were available, up to \$2 million per municipality, with a match of 10% for the first million and 25% for the second million. Municipalities that qualified for the disadvantaged status received 100% grants.

Applications were accepted beginning December 2, 2013. On March 21, 2014, the total amount requested from SAW applications exceeded the available amount of \$450 million, and no additional SAW applications were accepted. Since the total SAW application dollar amount exceeded the \$450 million available, a lottery was initiated, and 565 applicants out of approximately 598 applications were awarded grants over the course of five


annual rounds of funding. The fifth round of SAW grants were awarded in October 2017 for fiscal year 2018, and \$62 million was appropriated for SAW awards.

As Round 1 through 3 grant recipients have been closing out their SAW grants, some municipalities have used less funds than identified in their grant applications. As a result, unused grant money has been returned to the SAW program and has become available, providing funding opportunities for those applicants further down the lottery list who had not yet received funding.

SAW now has introduced a sixth round of funding – 13 applicants receiving \$8.2 million in grants for this latest round in May 2018. As SAW recipients continue to close out their Rounds 3, 4 and 5 grants, it is anticipated additional grant funds will be made available and hopefully provide funding, in total or in

part, for the remaining 20 applicants. Revolving Loan Section project managers will notify potential applicants of any upcoming developments. In addition, information will be posted on the DEQ's SAW website when available.

While this program does not provide direct funding for drinking water systems, cross-cutting and coordination with drinking water systems and other utilities was encouraged.

Bob Schneider is a member of the joint MWEA and MI-AWWA Asset and Infrastructure Management Committee. If you would like more information on the joint committee, please contact the Committee Secretary, Maureen Wegener at maureen.wegener@c2ae.com or Co-Chairs Deann Falkowski at defalkowski@ftch.com and Lindsey Kerkez at lindsey.kerkez@ohm-advisors.com. 



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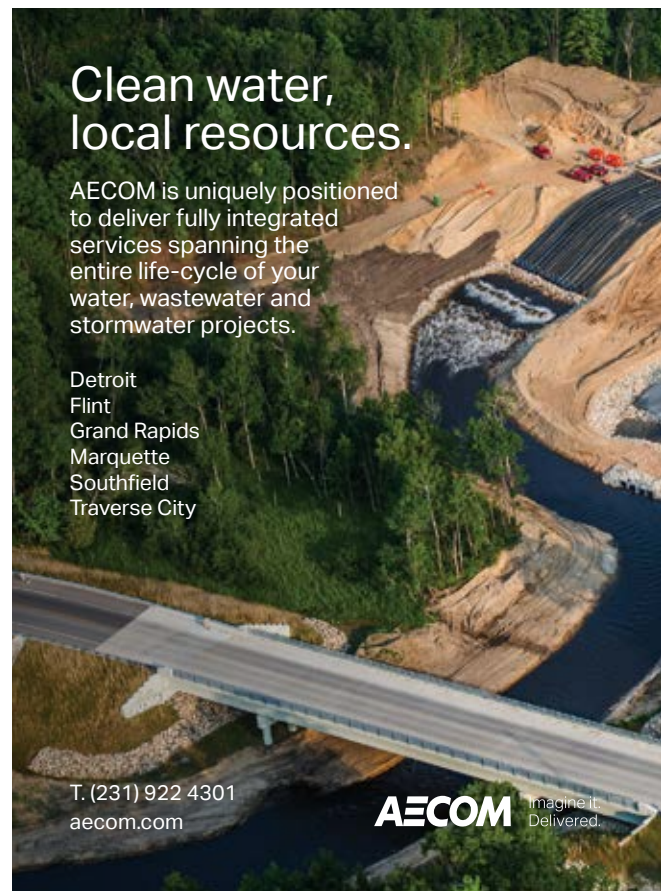
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TECHNICAL NETWORK COUNCIL WE CAN HELP!

The Technical Network Council, or TNC, has been hosting various reach-out events to allow members (and potential members) of similar interests to get together face-to-face in a casual setting to further develop their own network of contacts. Some recent events were sponsored, with companies invited to display their product information and talk about their company during the networking portion of the event. This helped offset any costs related to the venue and leveraged the sponsor's own network to market the event to those within the industry. Keep an eye out for a late fall event to be held on the west side of Michigan related to pipeline risk and management, and a winter tour of a plant in southeast Michigan.

Despite our recent activity, some members may still not understand where our Council fits into the organization. Last year, each Council was asked to develop a Charter to outline its role in serving our members. We hope the following excerpts from the TNC's approved Charter help in understanding the role of our Council:

Purpose and Responsibilities:

- Oversee the development and implementation of projects addressing the Section mission of making a difference in people's lives.
- Connect members and prospective members who have similar problems/interests to foster Section volunteerism and membership retention.
- Promote interest in the Section among active and prospective volunteers.

- Assist with creation and retirement of task forces and committees to allow the Section to be nimble and to be able to respond quickly to hot topics and needs.
- Through its committees and task forces, serve as a place in the Section for new members to become involved.
- Be a volunteer resource to other councils in support of their activities.

Goals and Objectives:

- Promote networking of water industry professionals in MI-AWWA.
- Provide volunteer support to other councils, including identifying potential speakers for conferences and events, connecting members to volunteer opportunities and promoting increased membership.
- Evaluate the future direction for inactive committees and look to reactivate or otherwise incorporate their functions into other activities of the Council if gaps present a need to the Section.
- Reinvigorate the joint committees with MWEA.

What all that means to our current and prospective members is:

If you have an idea or see a need for a new committee, want to find out what happened to an old committee or are interesting in developing a task force to look at a specific issue, **we can help!** We currently provide liaisons to MI-AWWA and MWEA joint committees to ensure they are connected to needed resources provided by the Section. We also help elevate the

work of your group by soliciting for content and volunteers for upcoming Section programs and publications.

If you are on a Council looking for content, speakers or volunteers, **we can help!** While we are still developing tools to better connect with and reach out to membership, we are looking for opportunities and to pilot some ideas. We can use our existing relationships with committees and task forces to help find opportunities.

If you see a need to network with others over a specific technical issue or hot topic, **we can help!** Part of our mission is to be 'nimble' so we can reach out to members to gather folks who want to find others with similar issues, concerns or ideas.

If you are a new member (or long-time member who wants to be more involved) and trying to find where you fit in the Section, **we can help!** As described above, we are in the business of networking – it's in our name and we can help you navigate the organization to find a group or role that would love to have your talents.

Please contact us if **we can help!**

The current Council Chair is Matt Parks (matt.parks@ohm-advisors.com), and Vice Chair is Sally Duffy (sduffy@hrcengr.com). Additional members include Jon Dmitrukj (dmitrukj@wyomingmi.gov), Glenn Hummel (glenn@hesco-mi.com), Peter Schwarz (pschwarz@midland-mi.org), Geneva Vanlerberg (geneva.vanlerberg@lbwl.com) and our most recent addition, Rachel Barlock (barlock@semcog.org). 💧

MICHIGAN SECTION NOW ACTIVE ON SOCIAL MEDIA

The Communications Council continues to engage in hot topics in the water industry. Through the leadership and initiative of Communications Council member Aftab Borka/GLWA, the Communications Council has completed and initiated a social media policy. The Michigan Section is now actively posting on both Facebook and Twitter on a

regular basis. If Section members have items they would like the Section to post on its media sites, please send ideas to aftab.borka@glwater.org. Aftab is currently the clearinghouse for identifying and posting content.

The Section has also been actively involved in the conversation around PFAS. This has become quite a hot topic in the

water industry over the past year. The Section has commented on the recent article on PFAS in MLive and has sent commentary to several media outlets around the state. The Council has also developed an issue brief on PFAS that members can access at <https://mi-water.site-ym.com/general/custom.asp?page=IssueBrief>. 💧

WELCOME NEW MEMBERS OF AWWA

Members who joined between
June 1, 2018 and August 31, 2018

Brent Adams

Eric Anderson,
Lansing Board of Water and Light

Kritin Arya,
Energy Emissions Intelligence

Joe Ash, Kerr Pump & Supply

Ron Beason, City Of South Lyon

Kelsey Blackburn, City of Jackson

City of Ecorse

City of Springfield

Jason Davis, PVS Technologies

Jacob Donahoe,
Infrastructure Alternatives

Timothy Hartman, Village of Akron
Dept. of Public Works

Nicholas Heintz, Kennedy Industries

Amir Shahin Kamjou,
Wayne State University

Garrett Kern

Mark Kryska, MK Associates

Gwendolyn Kubacki, Arcadis

Kevin Lawrence, City of Ecorse

Jacob Mangum,
Great Lakes Water Authority

Timothy Metz,
Village of Romeo

James Meyers,
Village of Vicksburg

Jonathan Moyer

Bob Nieuwenhuis,
City of Plainwell

Aaron Nordman,
Performance Engineers, Inc.

Brian Peterson,
City of St. Ignace Water Plant

Christy Seitz, Paragon Laboratories

Samuel Stanley, Wayne State University

ON THE MOVE



Todd Knepper
From Utility Director for
City of Jackson
To Utilities Superintendent for
City of Tecumseh



Jeffrey Herczeg
From Deputy Director of Infrastructure
for City of Auburn Hills
To Director of Public Works for
City of Novi



Jenna Karazim
From Great Lakes Water Authority
To the Michigan Department of
Health and Human Services



Gary Wozniak
From District Engineer with Michigan
Department of Environmental
Quality Kalamazoo Office
To Engineer in Water Distribution with
Lansing Board of Water and Light





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MI-AWWA ONLINE

This year has been a busy year, with the update to Michigan's Lead and Copper Rule (LCR) and PFAS showing up in all manner of places. The Section has been and continues to work on both issues. If you scroll down just a bit on the home page of the Section website, you'll see these two hot topics listed. Each links to other resources.

LCR continues to have a dedicated page, even though the Rule is now final. The page is updated with the various resources being created to help water systems understand and comply with this challenge rule.

PFAS currently links to a background document created by the Communications Council to help members explain PFAS to their customers, and for use as the Section engages the media on this growing concern.

As the Section gets involved in emerging issues, check the main page of the website for hot topics. If a topic disappears from the main page, odds are it's found a more permanent place. Just email staff to find what you're looking for if the search box doesn't find it for you. 💧



ACCOUNT INFORMATION

Member ID

Your Personalized URL [\(create a personalized url\)](#)

Username [janedoe \(change\)](#)

Password [\(change\)](#)

Email Address *

Confirm E-Mail *

Email Preference [Manage Email Preferences](#)

Headshot Image [Manage Headshot Image](#)

PERSONAL INFORMATION

Gender * Male Female

Title (Example: Mr., Ms., Dr., etc.)

Full Name *

Suffix (Example: Sr., Jr., III, etc.)

Nick/Screen Name

Maiden Name

City/Town

Country

State

IM Handle/Type

ADDITIONAL INFORMATION

Education
 High School/GED
 Certificate
 Associates
 Bachelors
 Masters

Certifications
 C151
 C152
 C153
 C154
 C155

Licensed Op #
 (Not visible in profile) *If you are a licensed operator, please provide your operator # here.*

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 Interest Areas Communications
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MICHIGAN WATER ACADEMY® UPDATE

The Michigan Water Academy continues its development, with the goal of having many classes confirmed by the Winter issue of *Michigan Water Works News*. The classes are being compiled through a combination of partnerships, licensing agreements and the power of dedicated volunteers with experience to share.

As the Academy moves to the final stages of class development, the Section is still looking for trainers willing to conduct trainings across the state. If you are interested either in class development or in serving as a trainer, please contact Bonnifer Ballard at bballard@mi-water.org.

Look for more on the Academy by the end of the year. 💧



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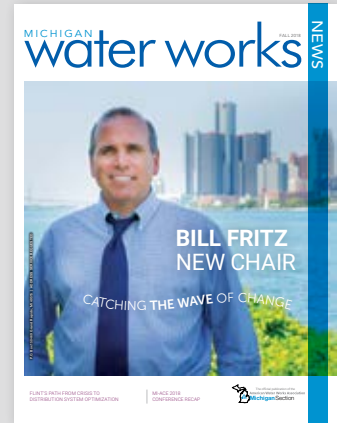
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MI-AWWA 2018 TRAINING REGISTRATION FORM

Course Date _____ Course Name _____ Course Location _____

First Name _____

Last Name _____

Organization _____

Address _____

City _____ State _____ Zip Code _____

Phone _____ Operator ID _____

*Email _____ AWWA Member Number _____

** Pre-event information is only sent via email.*

(Required to receive member discount)

Registration and Cancellation Policy

You must login or include your member number to receive your member discount. Refunds will not be issued for individuals registering for an event at the non-member rate who would have otherwise been eligible for the member discount. You must use any promo code issued you to receive any promotional discount. Refunds will not be issued for individuals registering for an event at the full rate who would have otherwise been eligible for a promotional discount. Registration substitutions within the same organization are allowed; however, registration rates will be calculated according to AWWA membership status. Written cancellations received at least seven days prior to the start of the event will be eligible for a refund less a \$35 processing fee. Cancellations received less than seven days from the start of the event will receive no refund.

PAYMENT \$ _____ **member** \$ _____ **non-member** Promo Code (if applicable) _____

Check enclosed OR Please charge my (check one) VISA MasterCard AmEx Discover

Card # _____

Exp Date _____ CVV _____

Name on Card _____

Signature _____

Billing Address same as registrant

Billing Address _____

Billing City _____ Billing State _____ Billing Zip Code _____

Billing Phone _____ Billing Email Address* _____

** Pre-event information is only sent via email.*

Return completed form with payment to:

MAIL MI-AWWA Payment Processing • Dept 6091 • PO Box 30516 • Lansing, MI 48909 | **FAX** to 517-292-2912

OR REGISTER ONLINE AT WWW.MI-WATER.ORG

A \$35 late fee will be charged for registrations received less than seven days prior to the training event.



October 2018

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
1	2 Fall Regional Meeting <i>Livonia</i> *You Need to Know LCR <i>Gaylord</i>	3 Fall Regional Meeting <i>Kalamazoo</i>	4	5
8	Limited Treatment Short Course Water Distribution Short Course		11	12
15	16 Basic Math & Hydraulics	17 Water Treatment Short Course II	18	19
22	23 Fall Regional Meeting <i>Mt. Pleasant</i>	24 Fall Regional Meeting <i>Gaylord</i>	25	26
29	30 *You Need to Know LCR <i>Brighton</i>	31		

November 2018

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
			1 *SEMCOG University on LCR <i>Detroit</i>	2
5	6	7	8 LCR Workshop <i>Grand Rapids</i>	9
12	13 *You Need to Know LCR <i>Marshall</i>	14	15	16
19	20	21	22	23
26	27	28	29	30

December 2018

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
3	4	5	6 Cyber Security Workshop	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
31				



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AWWA	18	800-926-7337	www.awwa.org
Brown & Caldwell	32	248-680-6708	www.browncaldwell.com
CDM Smith	12	313-963-1313	www.cdmsmith.com
ChlorTainer	45	800-543-6603	www.chlortainer.com
Core & Main	37	586-323-8800	www.coreandmain.com
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Dixon Engineering, Inc.	39	616-374-3221	www.dixonengineering.net
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Ferpal Infrastructure	7	734-946-2034	www.ferpalinfrastructure.com
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UIS SCADA	45	734-424-1200	http://scada.uiscorp.com
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Utility Technologies, LLC	32	513-488-1940	www.utility.biz
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Water Solutions Unlimited, Inc.	11	765-719-2956	www.getwsu.com
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Granite Construction's journey into wastewater pipe rehabilitation began six years ago with the acquisition of Kenny Construction, and took a big leap forward with the 2018 acquisitions of LiquiForce and Layne Inliner.

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