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The Michigan Water Works News is a quarterly publication of the Michigan Section, American Water Works Association.

The deadline for submitting articles for the Summer 2019 issue is August 10, 2019.
Material may be submitted to the Editor.

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Michigan Water Works News is published for the MI-AWWA by

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3rd Floor - 2020 Portage Avenue
Winnipeg, MB • R3J 0K4
Tel: 866-985-9780 Fax: 866-985-9799

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Managing Editor: Scott Kelman and Tammy Marlowe Johnson

Design/Layout: Kristy Unrau

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contents

SUMMER 2019



FEATURES

CELEBRATING WATER	15
FALL PROTECTION FOR STORAGE TANKS AND TOWERS	16
CYBERSECURITY TIPS FOR WATER UTILITIES	19
NAVIGATING MICHIGAN'S LEAD AND COPPER RULE REVISIONS: PART 1	23
18TH ANNUAL AWWA WATER MATTERS! FLY-IN	27
MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY'S DRINKING WATER QUALITY INITIATIVE FOR SCHOOL AND CHILD CARE FACILITIES	28
WHAT'S YOUR DISASTER PLAN?	32
MI-ACE 2019 PREVIEW	37

DEPARTMENTS

Editor's Note	7
Chair's Message	8
Director's Report	10
Executive Director's Message	13
News and Notes	53
Volunteer News	54
Member Update	58
Training	60
EGLE News	63
Advertiser Information Center	66



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Twin KB 100 Biogas CHP Modules Pictured above

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LOTS TO LEARN IN THIS ISSUE

KELLY GLEASON, EDITOR

We have an issue full of information and updates! Drinking Water Week was celebrated by many utilities. See page 15 for the news.

Did you hear Michigan Department of Environmental Quality changed its name? There is an article announcement on page 63.

As always, there is an excellent selection of training opportunities available to you. See page 61 for the training calendar.

So, what have you been up to in the water world? Send pictures, stories, and updates to kelly.gleason@lbwl.com with the subject line *Water Works News*. 💧



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Racing Toward Phosphorus Compliance?



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PLEDGE YOUR TIME, YOUR TALENTS, OR YOUR TREASURE

BILL FRITZ, CHAIR

If you are lucky enough to be reading this magazine while vacationing along a piece of Michigan's 3,000 miles of shoreline, or at one of the thousands of lakes, rivers, and streams, you likely are already enjoying the wealth and beauty that the Great Lakes provide us here in Michigan. Even if you are not, I imagine that anyone reading *Water Works News* probably already has an appreciation for the importance of the world's most precious resource: fresh water.

Most of us who have chosen careers in the water sector realize the vital importance of safe drinking water. For decades, our profession was very much a 'silent service.' The water works profession was synonymous with the US Postal Service and Bell Telephone. All provided an inexpensive commodity that was undervalued and very much taken for granted. The public's appreciation of the value of clean, safe pressurized drinking water delivered 24-7 has grown exponentially over the years.

AWWA's vision statement, *a better world through better water*, illustrates the Association's commitment to the value of water and making it available to all. AWWA's members are well acquainted with Water For People and Safe Water in Ecuador. A quick internet search will confirm there are MANY philanthropic organizations dedicated not only to providing sources of drinking water (paired with sanitation and hygiene programs) to impoverished populations, but are also committed to helping those people help themselves by training them to maintain the newly constructed infrastructure, as well as maintain water quality. My wife and I recently enrolled in a program called World Vision, sponsoring a child in Malawi. We were unaware that in addition

to providing our sponsored child with food, clothing, and school supplies, our contribution also helped fund programs centered around bringing clean water to communities around the world. The literature we received describing these water projects told stories of how lives were changed. Yes, by improving health, but also by impacting the futures of these children. They could now attend school since they no longer had to carry water several times a day back and forth from the source to their homes. Water, as it turned out, was just the beginning of an outward spiral that brought lasting changes to the entire community.

National Drinking Water Week was May 5 through 11. Governor Whitmer went as far as to issue an official proclamation declaring that, among other things, we in Michigan are blessed with an abundance of fresh water, and drinking water is a precious resource whose value to public health and economic vitality cannot be overstated. But her proclamation also reiterates that our supply is neither limitless nor without expense.

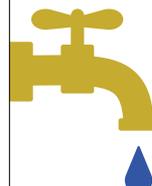
So as my parting message to the community of drinking water professionals, I urge everyone to pledge your time, your talents, or your treasure to the cause of your choice – whether it be participating on one of the section councils or committees, or just for a single event that piques your interest. There are also philanthropic endeavors such as Safe Water in Ecuador, Water For People, any one of the dozens of 501c3 organizations dedicated to helping provide clean, safe drinking water to those in need. There's even a choice for those preferring to provide aid to those right here in the US: AWWA's Community Engineering Corps. 💧

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INTERNATIONAL COUNCIL PURSUING PROJECTS AROUND THE GLOBE

PAT STASKIEWICZ, DIRECTOR

As I write my first report as the Director for the Michigan Section, I'm feeling a mix of emotions. I'm very excited and honored for the opportunity to represent the Michigan Section on the AWWA Board. However, I'm also a bit nervous, because I must once again follow Mark Coleman. He excelled with his Year of the CAT as Section Chair and he has been taking that to the next level as a Vice President of AWWA. Thank you, Mark, for providing such great leadership to AWWA! I will now attempt to follow in Mark's very large footsteps...

MI-ACE19 is right around the corner and we are excited to be back in Traverse City at the Grand Traverse Resort. This will be the 12th time we will have held an Annual Conference in Traverse City. The first was in 1946 and the last in 2009, when Tom Izzo was the keynote speaker. This year, we will have AWWA Vice President Randy Moore as our visiting officer. Randy is from the Missouri Section and works for Tnemec. He has been very involved in the Manufacturers Advisory Council (MAC) and he would like to help Michigan and other Sections build strong MACs. He was also very involved in an innovation initiative and, as a result, was selected as the Chair of AWWA's Innovation Ad Hoc Committee. Be ready to learn about these topics and more at MI-ACE19 and please help me to provide Randy with a warm welcome. If you really want to impress Randy, come ready with a story of how you or your organization have used innovation to solve a problem.

Let me now take your attention away from Michigan, away from North America, and focus on our international members. In 2018, AWWA's 51,632 members included 935 international

members from 97 different countries. Almost half of our international members live in five countries: India, Australia, United Kingdom, Japan and South Korea. AWWA created the International Council (IC) to help manage the needs of the international members. The IC's strategic plan focused on India beginning in 2013 and by 2015, they were able to open the AWWA India office. As a result of that focus, membership has grown from 29 members in 2013 to 253 members in 2018. The organization held its second annual conference at AICE 18 in Hyderabad, and both the student chapters and women's network show promise. The focus for the next few years will shift towards operator training, growing the annual conference, and sustaining the gains that have been made. Many challenges lie ahead, but we are hopeful that India AWWA will continue to grow and provide solutions for our Indian members.

The International Council will continue to focus on targeted countries and will pursue projects in Japan, Singapore, and South Korea, as well as continue the work in India. The IC is also looking to partner with the World Bank, the Inter-American Development Bank, the Asian Development Bank, the US Agency for International Development, Israel, and other selected international organizations to pursue opportunity-based projects. A great outcome from this collaboration is that we open our minds to wonderful new traditions – such as the lighting of the Indian ceremonial Lamp of Knowledge, which was a first at ACE18 in Las Vegas. We are excited to see how the International Council will continue to help AWWA to achieve our vision: a better world through better water. 💧



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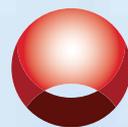
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REARVIEW MIRROR, THEN EYES FORWARD

BONNIFER BALLARD, EXECUTIVE DIRECTOR

It is hard to believe that I have been with the Michigan Section for five years now. The Section has grown since my first day. I'd like to think I had some influence over that, but if I'm honest with myself, the growth the Section has experienced is the result of many factors: an effective staff team, yes; but also, thoughtful leadership, dedicated volunteers, and the trust and commitment of our members.

Here in Michigan, we stood witness to one of the worst water crises in our state's history and continue to strive to bring a calm and reasoned voice to the post-Flint discourse. Over the past five years, we've added additional trainings and networking events. We've held member summits to provide a forum for information sharing about tough issues. We've launched a website, improved communication to members, hired a media consultant, and returned to deeper involvement in Lansing with a lobbyist.

Our committees have morphed and we've added Councils to help coalesce all of the committee work that goes on. Because of the changes in committees and councils, the Board has been able to spend more time on strategic discussions. We've seen many of our colleagues happily off to retirement, said a sad and final goodbye to some, and welcomed those new to water.

Through it all, I have been humbled by the remarkable dedication and commitment AWWA members have to protecting, treating, and delivering clean, safe water. I know I am lucky to be a part of something so special.

It is always good to reflect on where we've been. For a time. Then, it is time to begin looking ahead to what is next. You only glance in the rearview mirror. Then, you have to put your eyes forward, back on where you're headed.

We are now in the midst of the rulemaking process on PFAS and will need to be thinking about how the rule could impact daily operations. We are already living the challenges that have come from the updated Lead and Copper Rule. And many hear demands for bottled water or the talk of in-home filtration systems because people aren't confident in their water supply. As water professionals, you must do whatever it takes to deliver water that is clean and safe for Michigan. Who knows what new challenges are around the corner for water? We must learn to be flexible and responsive, and find ways to adapt as the world around us continues to change.

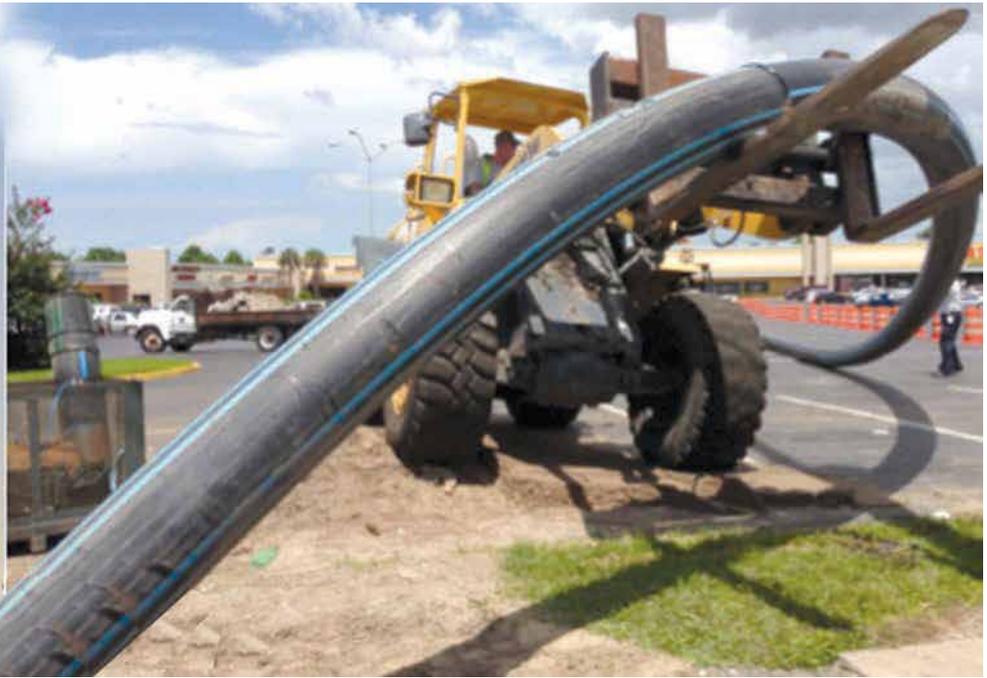
“AS WATER PROFESSIONALS, YOU MUST DO WHATEVER IT TAKES TO DELIVER WATER THAT IS CLEAN AND SAFE FOR MICHIGAN. WHO KNOWS WHAT NEW CHALLENGES ARE AROUND THE CORNER FOR WATER?”

That is the very reason the Section will be going through strategic planning over the coming year. The Section must continue to position itself to respond to member needs as the landscape changes, to ensure each of you finds value in your membership.

This will be a big project. As you see requests for input or participation, I hope you will join the conversation and help us shape the future of the Section and the future of water in Michigan. 💧

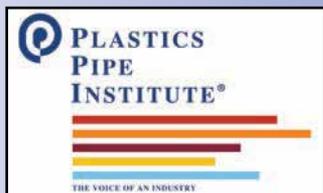


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We get a chance to celebrate water.

DRINKING WATER WEEK



Jenna Karazim, Tony Cecchini, and Jacob Mangum working the booth.

AWWA sponsors National Drinking Water Week. The Section promoted the theme *Protect the Source* this year, but issues op-eds and hosting an information table at the City of Ann Arbor's Open House.

of the Section, and what the public could do to get involved. The open house yielded around 350 attendees, and it was a great event to be able to reach out to the public. Thank you to Ann Arbor for inviting us, and thank you to our YPs for volunteering!

The Section also received a proclamation from the Governor in honor of Drinking Water Week this year.



On Saturday, May 11, the YPs hosted a booth at the Ann Arbor Water Treatment Plant during their annual open house. The City of Ann Arbor hosts an open house every year during Drinking Water Week, and the YPs were there in full force to help promote the Section. They were equipped with flyers and swag, and worked towards educating the public as to why it is important for utilities to be members



Greg Marker as the Water Drop.

WATER AWARENESS MONTH

Also, as a joint effort between MI-AWWA and MWEA, the organizations hosted two networking events, No Water No Beer® Grand Rapids and No Water No Beer® Gross Point Park. Both events were a great time for enjoying friends and meeting new colleagues. 💧

Thank you to the No Water No Beer® event sponsors!



Fall Protection *for* Storage Tanks *and* Towers

By Erin Schmitt, Pittsburg Tank & Tower Group

People who work on storage tanks are usually fearless – ready to climb heights most people would find vertigo-inducing. A drop from such a height would gravely injure or even kill somebody. So, it's not surprising that there are many rules and regulations in place to help prevent fall-related injuries and deaths from happening.

The Occupational Safety & Health Administration recently updated its regulations regarding fall protection and walking/working surfaces. OSHA estimates that approximately 202,066 serious injuries and 345 fatalities occur on average annually. This is about 20% of all fatal or lost workday injuries in general industry. By passing new laws that address fall protection, OSHA estimates 29 fatalities and 5,842 lost workday injuries will be prevented each year.

Employers gain the flexibility to choose which fall protection works best for them. Fall protection equipment is any equipment or device that prevents a worker from falling from an elevated height. It's also equipment that mitigates the effects of a fall. Ladder safety systems and swing gates are some of the most effective fall protection equipment that can be installed on storage tanks.

Ladder safety systems are systems attached to fixed ladders. They have safety climb devices that are cables that run from the top to the bottom of ladders. The cable is tight from top to bottom and has standoffs that hold it in place off the tank. This setup works with both ground storage and elevated tanks. The ladder safety systems don't interfere with the workings of a tank. It's a bolted-

on system, so no welding or painting is required.

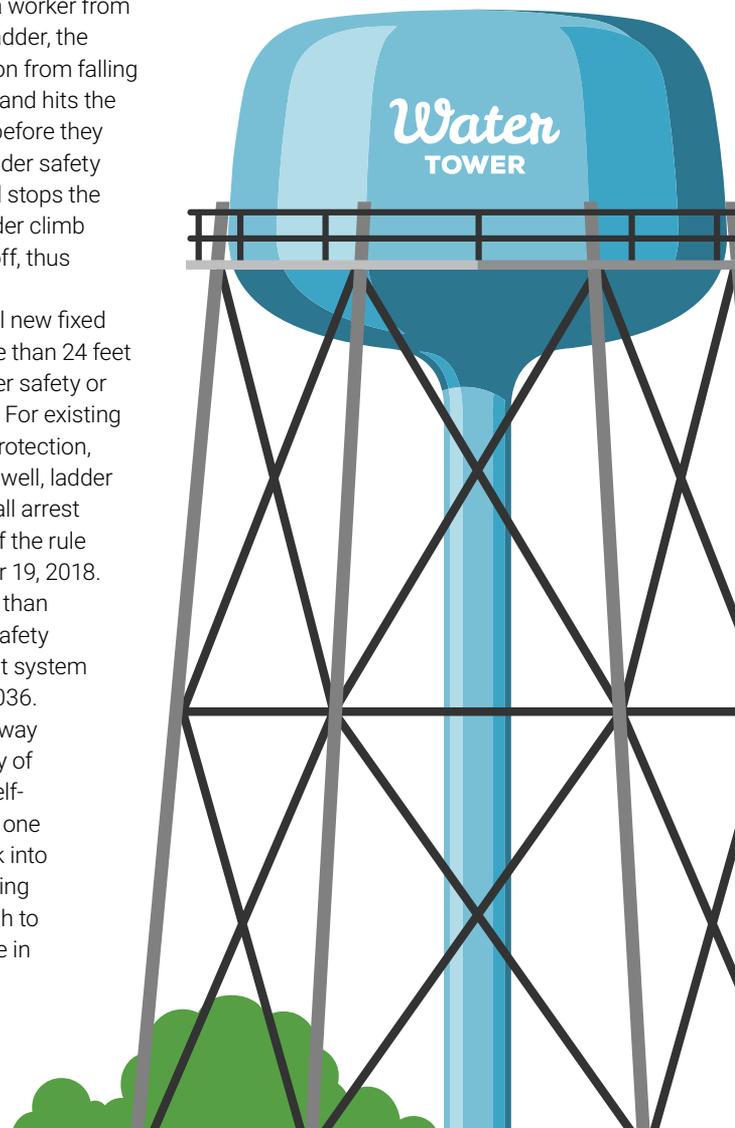
The systems are designed to reduce or eliminate the chances of workers falling from ladders. Ladder safety systems usually consist of a body harness, lanyard, connectors, carrier, and safety sleeve. Cages and wells are not considered ladder safety systems.

While a cage does keep a worker from falling away from the fixed ladder, the cage doesn't prevent a person from falling downward. If someone falls and hits the cage, they will break bones before they even reach the ground. A ladder safety climb braces the impact and stops the person from falling. The ladder climb systems keep workers tied off, thus helping to prevent falls.

As of January 17, 2017, all new fixed ladders that extend out more than 24 feet must be equipped with ladder safety or personal fall arrest systems. For existing ladders that don't have fall protection, owners must have a cage, a well, ladder safety system, or personal fall arrest system installed. This part of the rule was implemented November 19, 2018. *All* ladders that extend more than 24 feet must have a ladder safety system or personal fall arrest system installed by November 18, 2036.

Swing gates are another way to ensure the personal safety of workers. A swing gate is a self-closing gate that only opens one way. If a worker were to back into it, it would stay shut. The swing gate should be sturdy enough to withstand a 200-pound force in any given direction.

"People who work on storage tanks are usually fearless – ready to climb heights most people would find vertigo-inducing."



OSHA 1910.29(b) has been revised to include the following criteria:

According to OSHA, 1910.29 (b)(13)(1) Has a self-closing gate that slides or swings away from the hole, and is equipped with a top rail and mid-rail or equivalent intermediate member, that meets the requirement in paragraph (b) of this section; or (13)(ii) is offset to prevent an employee from walking or falling into the hole.

Investing in ladder climb systems and swing gates is ensuring compliance with OSHA's rules regarding Walking/Working Surfaces and Personal Fall Protection Systems. They are some of the best in regards to storage tanks, but there is more safety equipment required to help keep workers safe. Guardrails are no longer the sole mandated fall protection method, but they are still an important element. Guardrails are railing put in place to help prevent people from falling to a lower level.

OSHA 1910.23(2)(1) states that, "A standard railing shall consist of a top rail, intermediate rail, and posts, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth-surfaced throughout the length of the railing." Mid-rails should be able to sustain a 150-pound force. These are rails that, like their name suggests, are about midway between the guardrail and platform. Full handrails, which are handrails that go around the entire circumference of the top of the tank, are more effective fall protection than 'batwing' handrails, which are handrails that are only on either side of the ladder and resemble a bat's wings.

According to OSHA 1920.29(b)(2)(iv): Other equivalent intermediate members, such as additional mid-rails and architectural panels, are installed so that the openings are not more than 19 inches (48 centimeters) wide.

A toe board is where workers can keep tools. Because it is a walking/working surface, the toe board creates a tripping hazard. Toe boards should be designed to withstand a 50-pound force. Toe boards should be at least four inches tall, with no more than a 1/4-inch gap at the bottom, according to OSHA.

Whether it's installing ladder climb systems or toe boards, tank owners should make sure they are in compliance with OSHA regulations. And more than anything, they should do what they can to ensure their workers' and others' safety. 💧

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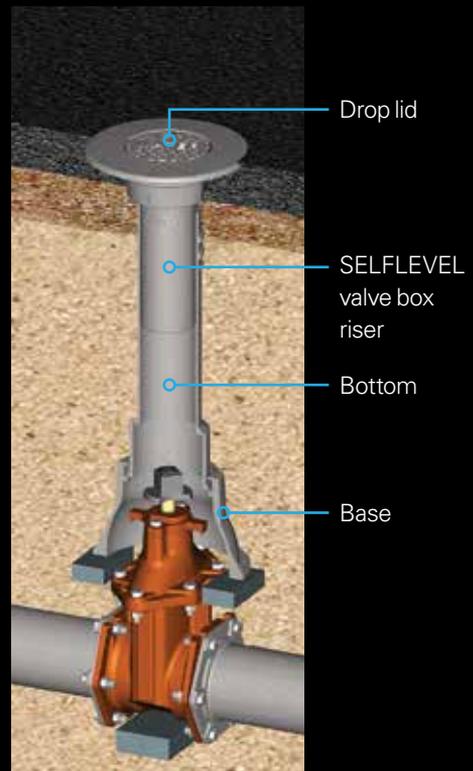


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Cybersecurity Tips for Water Utilities

Take these Steps to Help Keep Systems Safe

BY MATT PARKS, OHM ADVISORS

“With such advanced cyberattacks becoming a regular occurrence, those responsible for public utilities need to be aware of the risks and what can be done to mitigate them.”

Stories of hackers breaching business networks are on the rise – do the Facebook, Under Armour/MyFitnessPal, and Google system breaches last year ring a bell? The stories are real and they’re rampant, and no-one wants it happening inside a community water or wastewater system.

With such advanced cyberattacks becoming a regular occurrence, those responsible for public utilities need to be aware of the risks and what can be done to mitigate them. Simply ignoring technology is not a practical solution when we all have to ‘do more with less.’

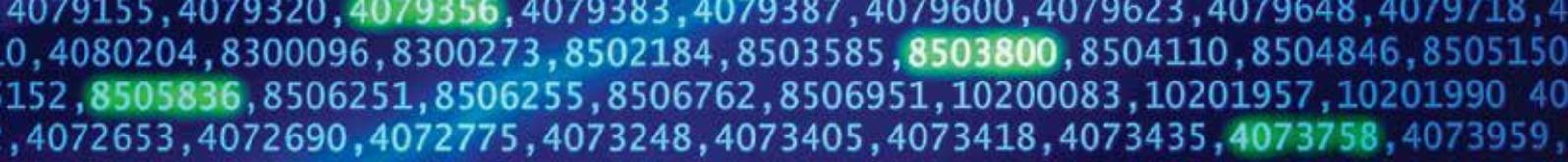
The US Department of Homeland Security considers water systems to be critical infrastructure. It is entirely possible that cyberterrorists could target vulnerabilities in US water and wastewater systems – and not just when they’re connected to the internet. If laptops, USB drives, or other removable media are exposed to malware and then brought inside the firewall, it can put an entire system at risk. So, too, can something as seemingly innocent as using a cellphone to take a reading.

The impact of a water or wastewater system being compromised is significant, often to a much greater degree than compromising a business network. For a company, an attack can cost a lot of money. But with a water utility, if someone takes control of the network, it’s not just money at stake – it’s people’s health, safety, and welfare.

That’s why water utilities large and small must be vigilant in keeping their information systems – specifically the industrial control network or the process network – safe from outside intrusion. They must strive to maintain the integrity of their systems and ensure they remain available to the people who rely on them every day.

But how? Even though basic principles might be understood in most cases, there can be challenges in addressing those principles and placing a priority on cybersecurity, especially with smaller utilities who do not have budget for a full-time Chief Information Security Officer (CISO).

Are We Vulnerable?	Potential Consequences
Examples of vulnerabilities: Disgruntled Employees with Access Shared/ Easy Passwords Remote Access by engineers/vendors USB drives Email Internet Connection Laptop connections Missing Patches Zero-day vulnerability	Examples of consequences: No 1 – Public safety compromised Loss of customer trust Loss of productivity repairing the damage Costs to re-create configurations if backups are bad Equipment could be “bricked” by bad firmware downloads Equipment damage by improper installation Lost suits Loss of data, BOM, theft False/incorrect data



Here's some additional insight, with help from the Great Lakes Water Authority's Director of IT Security and Risk Management David Manor, on why it's so important for utilities of all sizes to increase their understanding of cybersecurity risks and take advantage of existing resources for help.

A Starting Point

A terrific resource to help utilities get a better grasp of the issues and start putting an action plan in place is the American Water Works Association. They offer an online tool¹ to address President Obama's 2013 Executive Order No. 13636 mandating improvements to critical infrastructure cybersecurity, as well as training on how to use the tool.

Of course, the question then becomes, who participates in the training? Inside large utilities like GLWA, which serves a customer base of more than 3.9 million people and puts significant effort into keeping its information systems safe from outside intrusion, there's dedicated staff to do the work.

But in many cases, smaller utilities don't have a full-time CISO for budget reasons, or because they simply have fewer systems and do not have the need or workload for one.

"In that case, even a sharp desktop support person can easily take simple first action steps to protect the system," Manor says. "Eliminating remote access to the system's network and ensuring that baseline security measures are in place is a must."

Next Steps

Manor says utilities can eliminate a major percentage of risk by implementing further basic steps, like making sure all systems are patched at least one a month and there's endpoint protection in place, beyond antivirus, to avoid network breaches that might come from security weak points – including potentially unprotected tablets, smartphones, and other wireless devices. Laptops and other mobile devices need to have protection for when they are outside the network, which is fairly easy to do, as with Cisco's steps for protecting mobile devices.²

For utilities that don't have these capabilities in house, some states – Michigan for example – offer CISO-as-a-service, where utilities can essentially get part-time help from a qualified IT professional. Communities receive a scorecard or assessment they can use to better understand and prioritize their risks. This scorecard leverages the state's free CySAFE³ IT assessment tool.

The Department of Homeland Security also offers services⁴ to help organizations prevent attacks by understanding their IT landscape, identifying their most critical needs, and creating plans to address them.

"One thing that utilities must keep in mind," Manor says, "is that cybersecurity is an ongoing process. They need to continually review their needs and make updates to keep their cybersecurity plans up to date. It's not just a one-and-done type of endeavor."

Overlooked or Misunderstood System Vulnerabilities

The most overlooked are often the most obvious, yet are straightforward to remediate: things like perimeter defense, such as firewalls and intrusion detection, operating system patching and application patching, and endpoint protection including antivirus, firewalls, and intrusion detection on the endpoints. Also, it's vital to segregate the industrial control network so it cannot be accessed via the internet.

Manor says people tend to think these things are too difficult or too expensive to implement, and they're not. They can often be addressed by an in-house IT support person or a CISO-as-a-service resource. Utilities can also sign up for services that alert them to vulnerabilities and patches, and there are several options available online, such as those from the Department of Homeland Security's website.⁵ The danger here, however, is information overload. Utilities will need someone to filter through the information and identify the priority issues – but if each of these items are checked off the list, most utilities will be in fairly good shape.

It's also necessary to watch out for emails that trick employees into clicking a link that gives a hacker has access to a community's system. It's a trickier issue, but preventable with free 'phishing' education for employees available online.⁶

Important Takeaways

Manor says that it's possible to have a good IT security program, regardless of the size of the water utility.

"Perhaps it's just a Word document that outlines what you do every day, every week, and every month. And that's perfectly acceptable for smaller utilities. The key is to stay informed and to take the reasonable measures – patching, endpoint protection, and network segregation – to protect your infrastructure."

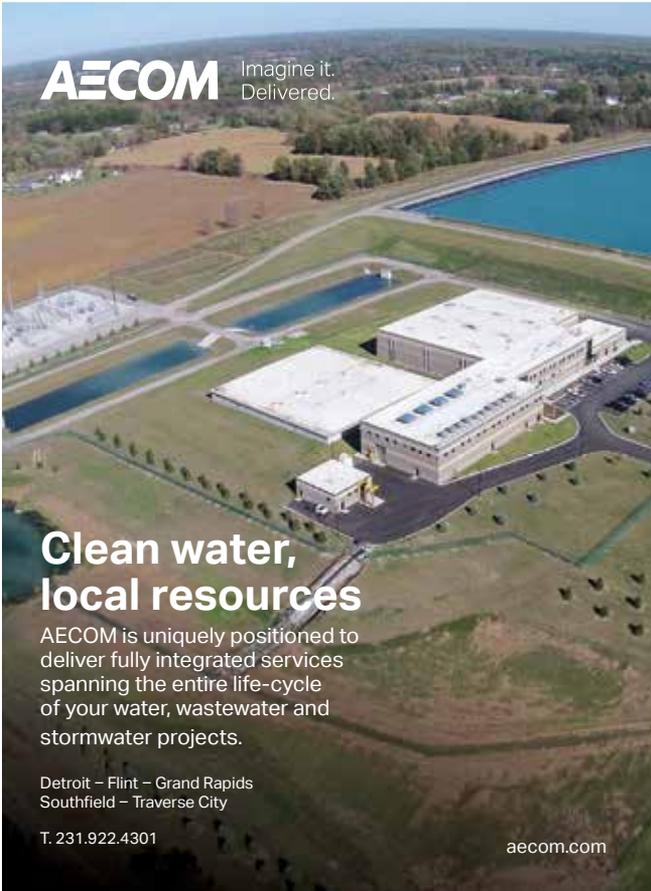
Steps in Order of Implementation	Key Action Steps	Core Question
1	Identify Use Cases that are working with Subject Matter Experts (SMEs)	What do your systems look like today?
2	Run the AWWA Cybersecurity Baseline Test	What is the next step to be in place?
3	Compare recommended controls against those that are already in place	What is missing?
4	Develop a formal Cybersecurity Implementation Plan	How will you address what is missing?
5	Reference the Freedom of Information Act (FOIA)	Who has a right to see the plan?
6	Establish a budget and schedule, assign roles and responsibilities	What about it next and when will it be done? Who does work get?

There's help out there. With the excellent programs available from the Department of Homeland Security, the AWWA's cybersecurity tool and guidance, and the CySAFE program, cybersecurity is in reach for all utilities. 💧

Resource Links:

- ¹ www.awwa.org/resources-tools/resources/cybersecurity-guidance
- ² blogs.cisco.com/smallbusiness/protect-mobile-devices-protect-your-network
- ³ www.michigan.gov/documents/cybersecurity/cysafe_flyer_som3_468548_7.pdf
- ⁴ www.dhs.gov/cisa/critical-infrastructure-vulnerability-assessments
- ⁵ www.us-cert.gov/ncas/alerts
- ⁶ www.getcurricula.com/phishing-training/

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Navigating Michigan's Lead and Copper Rule Revisions: Part 1

18 Pilot Communities Collaborate to Implement New State Directives

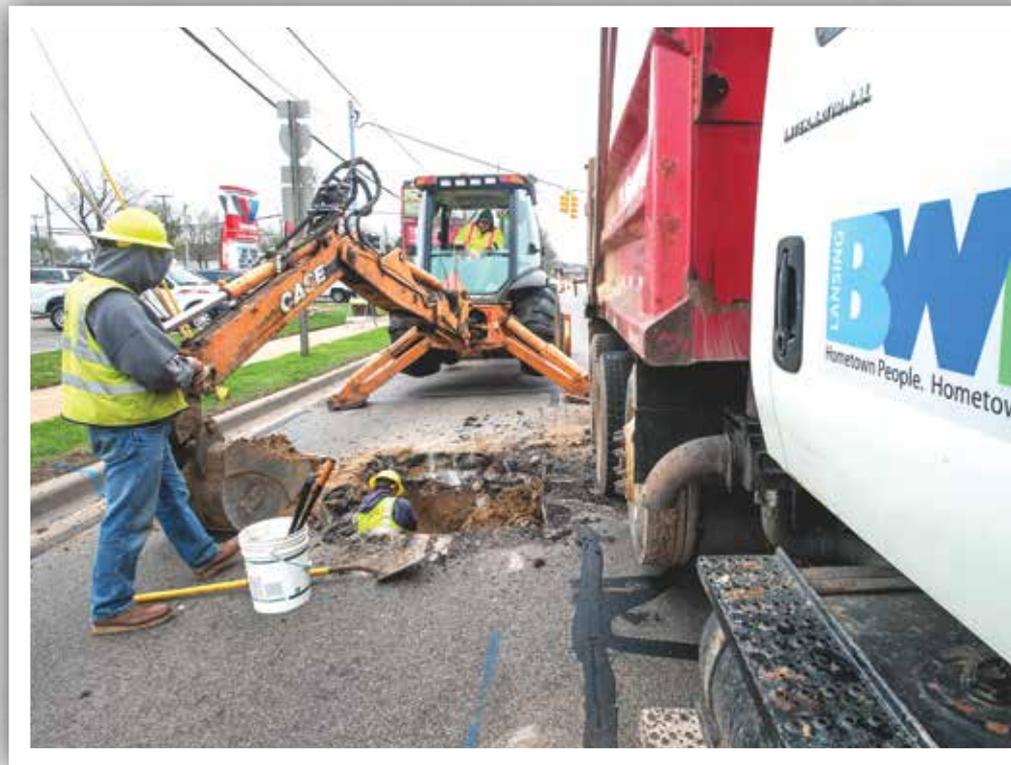
By Christine Spitzley, OHM Advisors, Past Chair of MI-AWWA

Last summer, the State of Michigan passed the strictest requirements in the nation for action on lead and copper in drinking water. These revisions to the Michigan Department of Environment, Great Lakes, and Energy's (EGLE) Lead and Copper Rule (LCR) are intended to make drinking water safer for the State's residents. They are more stringent than the US EPA's 1991 regulations and require full compliance over the next 20 years.

As those affected by the rule changes now know, the LCR poses new and significant challenges for every water utility. It requires extensive efforts in inventorying and replacing water service lines on public and private property, increased sampling, creating and maintaining robust databases, and developing effective communication with affected citizens.

It's a tall order requiring a substantial amount of effort. Guidance on how to implement the rule changes is still under development, and most communities struggle with the lack of funding. Under the revised rule, water supplies are required to pay for lead service line replacements on both public and private property. There is also concern among communities about how to meet the rule's deadlines and whether unresolved legal issues will result in additional changes.

In response to these unprecedented challenges to Michigan's water utilities, the State awarded grant funds to 18 communities for a one-year pilot program to help them address this multi-faceted effort. In support of this program, MI-AWWA has facilitated quarterly meetings with the pilot communities



to share information and provide mutual support, since it was clear from the start that many were experiencing the same issues. During the meetings, the pilot communities have shared their struggles and how they've overcome them, in the hope that other group members might take away useful information and ideas for practical solutions that they can apply in their own communities.

The ultimate pilot project goals are to share ideas and workable practices developed through the pilot program, and to provide real life examples of the challenges, solutions, and true costs associated with implementing the LCR. Ultimately, EGLE plans to use the experiences and data from the pilot

communities to convey the very real need for additional funding to support communities in complying with the LCR.

At its spring meeting, the MI-AWWA Board created a task force dedicated to compiling the knowledge and expertise gained from this pilot program and other experienced Michigan utilities. Its goal is to establish a searchable resource for members to utilize as they work to implement the LCR.

"MI-AWWA exists to lead the advancement of water knowledge and improve the value and quality of water in our lives," said Bonnifer Ballard, MI-AWWA Executive Director. "We believe this resource will be a key source of information for our members for years to come."

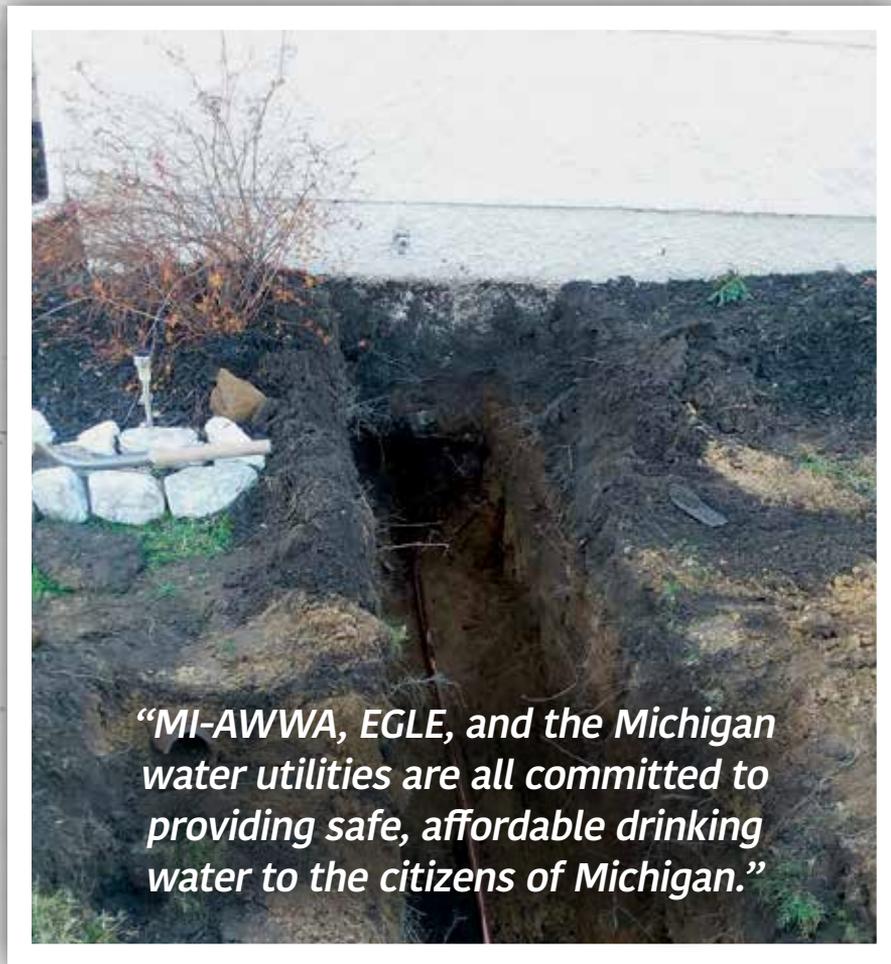
Inventorying Service Lines

The updated LCR requires all Michigan community water supplies to update their distribution system materials inventory to determine where lead or galvanized steel water service lines might exist. They are required to submit preliminary inventories of existing records to the State by January 2020, with final physically verified inventory submissions due in 2025.

Already, the inventory requirements have been a major undertaking for communities due to lack of complete records, and the need to access lines on private property. Communities began working on these inventories as EGLE was simultaneously navigating specifics on the inventory requirements. Both groups are working hard to create efficient, cost-effective approaches to this effort that will result in accurate databases.

"As an older city with an older system, Saginaw moved forward assuming that lead exists throughout the public portion of the system and promptly established a team to strategically address the new LCR," said Jennifer Drinan, Senior Project Manager and Saginaw Client Manager at OHM Advisors. "Due to Saginaw's proactive approach to the new regulations, the City was able to begin replacement of lead service lines upon being awarded pilot grant funding. They've excelled at creating the preliminary inventory requirement through focused efforts, working across multiple departments and strategic use of resources."

Through the pilot group meetings, communities have shared how they have performed desktop inventories using existing information and created databases to identify trends and hot spots to determine what is in the ground and where. They researched as-built plans, tap cards, permit records, and water reliability studies – and some of the larger communities field-surveyed with mobile data collection tools, using tablets and apps to gather pictures and onsite information. Some of them digitized and input that data into GIS databases, creating their own digitally-mapped inventory resources.



Field-inventorying on private property has proven difficult. Even if communities have the right of entry to check meter and piping at the meter as part of normal work practices, contacting homeowners and coordinating the work is time consuming. Preparing and obtaining signatures on consent agreements for construction or inventory activities on private property is challenging and can often cause delays. Some communities allocated staff for door-to-door contact with residents in the evenings when they tend to be home. Other communities were uncertain where to start when it came to creating waivers in the first place.

"A great result from the pilot meetings was that the group fostered understanding and empathy among the communities," Drinan said. "Larger communities with available waiver materials knew they

were a bit ahead, so they shared them with the group to help others move along their processes."

Construction and Field Assessments

Between the inventory and replacement requirements under the LCR changes, communities have faced new construction challenges. The LCR's requirement to notify residents 45 days before beginning planned work on private property can complicate already-busy construction schedules, although it is possible under the rule to reduce this notification period for emergency repair activities.

In terms of who is doing the construction work, only a few of the larger pilot communities are using municipal staff, with most using construction contractors for the physical verification and replacement efforts. In pilot meetings

they have shared different methods to bid out projects, construction waivers for use in the field, and advice on equipment choices and techniques – sharing efforts which are evolving into best practices.

Educating the Public

Public education and outreach are key sections of the LCR, and must be done well to ensure project success. Communities are working to keep consumers apprised of line replacement plans and schedules and to explain the logic behind who goes first and why. They are also having to simultaneously educate consumers about their water system as a whole and how to reduce their potential risks, always keeping health and safety as the critical focus.

This level of detailed communication and interaction is new to many communities. In the pilot community meetings, they have shared ideas for and drafts of communication materials for their residents, including printed materials, door hangers, website content, and FAQs. A few communities needed to address language barriers and they shared translated materials.

Group Goals

MI-AWWA, EGLE, and the Michigan water utilities are all committed to providing safe, affordable drinking water to the citizens of Michigan. Working together, with support from MI-AWWA and EGLE, these pilot communities are leading the way to the LCR implementation.

“The Michigan AWWA has been acting as a facilitator between the pilot grant communities and EGLE and has been a big help to us all,” said Paul Reinsch, City of Saginaw Water Treatment Division Superintendent and Chairperson-Elect for MI-AWWA. “The team effort approach is really important due to the complicated nature of the new rule. Hopefully, this effort will help EGLE give practical guidance that is workable and effective, and will show that community water supplies are committed to the task, and that with more funding, they will get the job done – and done properly – to provide safer drinking water to all Michigan residents.”

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“The Fly-In is an important annual event to increase awareness, encourage support, and seek resources from Capitol Hill to help resolve issues being faced in the water industry.”

By Cheryl Porter, MI-Section Trustee and Liaison to the Government Affairs Council

18th Annual AWWA Water Matters! Fly-In

On March 27 and 28, about 150 AWWA members from 49 states took to Capitol Hill and visited almost 350 congressional offices to discuss drinking water infrastructure issues. Cheryl Porter, Chief Operating Officer for Great Lakes Water Authority, and Jaime Fleming of the City of Wyoming were the Michigan representatives for this event.

Cheryl met with Congressional staffers Alex Huang, who met on behalf of US Representative Brenda Lawrence (MI-14th District); Senior Legislative Assistance Jordan Dickinson, who met on behalf of US Representative Daniel Kildee (MI-5th District); Legislative Director Kevin Rambosk, who met on behalf of US Representative Debbie Dingell (MI-12th District); Military Legislative Assistant Derek Judd, who met on behalf of US Representative Paul Mitchell (MI-10th District); and Jaime met with US Representative Jack Bergman (MI-4th District, Rep. Huizenga (MI-2nd District) and US Senator Debbie Stabenow (MI).

Investment in the nation’s water infrastructure has been at the forefront of discussion for many states in recent years as its issues are documented and understood. In order to provide resources to invest in our water infrastructure, AWWA members encouraged support of fully authorized funding in fiscal year 2020 for the drinking water State Revolving Fund (SRF) program, the Water Infrastructure Finance and Innovation Act (WIFIA), and conservation programs at the US Department of Agriculture, particularly the Regional Conservation Partnership Program (RCP).

The other ask was Congressional support for the US Environmental Protection Agency (EPA) by giving them the tools needed to address the PFAS concerns accurately and effectively.

The Fly-In is an important annual event to increase awareness, encourage support, and seek resources from Capitol Hill to help resolve issues being faced in the water industry. 💧

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Michigan Department of Environment, Great Lakes, and Energy's

Drinking Water Quality Initiative for School and Child Care Facilities

By Holly Gohlke, EGLE



Currently, there is no federal or state of Michigan law requiring the testing of drinking water in schools and child care facilities on community water systems. Some states have established their own laws, regulations, or guidance for testing drinking water lead levels in schools on community water systems, and the trend is for more states to develop either regulatory or voluntary programs, including Michigan. Water quality parameters of concern in premise plumbing are bacteria, lead, copper, and disinfection byproducts with lead being of top concern across the nation.

voluntarily sign up for this service before September 30, 2019. The assessment includes a building walk-through to identify plumbing lead risks, identification of all drinking and food preparation outlets, the flow of cold water through the building, development of a lead sampling plan, and training for school staff on how to collect an investigative lead sample. We believe this lead risk assessment is a crucial step before sampling in order to get meaningful results and prepare for any actions that may be needed if elevated lead is found.

Part of the initiative was to develop a webpage dedicated to school drinking water, www.michigan.gov/schoolwater, which currently has guidance documents, communication templates, infographics for public awareness of lead in school water, training modules, lead testing protocols, and instructional videos. More documents and videos will be added to the site as they become available.

“Older facilities with intermittent water use patterns, such as schools, are more likely to have elevated contaminant concentrations in drinking water – which is detrimental for young children in their developmental stages.”

Many Michigan school buildings have older plumbing materials that may contribute to elevated levels of lead and other contaminants. The potential for contaminant release increases the longer water remains in contact with old plumbing. As a result, older facilities with intermittent water use patterns, such as schools, are more likely to have elevated contaminant concentrations in drinking water – which is detrimental for young children in their developmental stages.

Because of the concern for children’s health and the fact that there is no safe level of lead in drinking water, the Michigan Department of Environment, Great Lakes, and Energy (EGLE) has developed a school water quality program providing technical assistance, guidance materials, and training to Michigan school and child care administrators. The current focus is to get information and tools out to schools on community water supplies to prepare for lead testing, whether it is a voluntary action taken by a school or a future legislative requirement.

With some of the funds available to EGLE, an engineering firm has been hired to conduct on-site plumbing risk assessments free of charge to public and non-public schools who

Although lead sampling is currently not required in schools and child care facilities on community water systems, investigative sampling is encouraged following the US Environmental Protection Agency’s *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities* sampling procedures, published in 2018. EGLE staff provides technical support for sampling plans, test result interpretation, and guidance on action plans for elevated lead results.

EGLE also urges community water suppliers to form a partnership with their school and child care facility customers. Water suppliers can utilize their knowledge and expertise to help with the plumbing risk assessments, collection of lead samples, possibly the analysis of the samples, and public education regarding the risk of lead in drinking water.

For more information on EGLE’s school quality drinking water program, contact Ms. Holly Gohlke, Environmental Quality Specialist, Technical Support Unit, Community Water Supply Section, Drinking Water and Municipal Health Division, at 989-705-3422 or gohlkeh@michigan.gov and visit our website at www.michigan.gov/schoolwater. 💧



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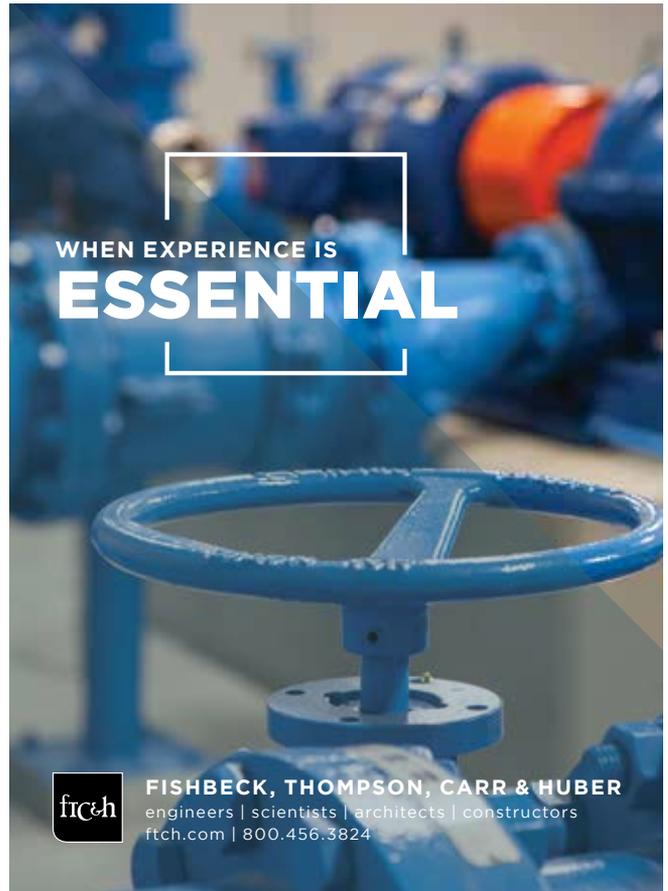
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What's Your DISASTER PLAN?

It is said that if we fail to plan, then we plan to fail. Since we never know what could happen, one of the things we should do is plan for the worst and make a few alternative actions: a 'just in case' plan in case the original emergency plan falls through. Disaster planning is a must-have in a Policy and Procedure Manual. Additional redundancy may need to be included. Nothing serves as a better example of this than in Sandy, UT.

On the evening of February 6, a snowstorm rolled across the western US, causing power outages in Sandy. This included the city water plant. When the power came back on, a fluoride pump in one of the city wells restarted and continued to pump – even though the water supply pumps did not restart. It was found to be improperly hard-wired and working independently of the water supply pump, causing an over-feed.

It was discovered the next day, at 2:00 pm on February 7, and the valves were closed off to isolate the area. Crews flushed the lines, contacted the state and the local health department, and went door-to-door to about 50 homes notifying customers to flush their water systems.

By 4:00 pm, the city's water system was back to normal with its fluoride feed. The city was testing 3,000 homes to make sure it had no issues when it found high lead and copper levels. From the investigation, it was discovered the lead and copper issues were coming from individual homes. Residents in these homes were requested to flush their lines, then additional testing continued. The No Drink Order was able to be lifted on February 17, when all the testing came back to normal levels.

Sandy had a clear plan of what to do. If a spill, over-feed, or other disaster strikes, would your operators know what to do? What if this spill or over-feed happens during a power outage, a storm or tornado – do you have a clear action plan and a redundancy plan? This might be the time for you to review your Policy and Procedure Manuals or your Standard Operations Protocol to make sure your system is up to date. Make sure your engineers and operators know their role and chain of command for emergencies. 💧

“Make sure your engineers and operators know their role and chain of command for emergencies.”

Michigan Night at ACE¹⁹

ACE19 is in the books and Michigan Night was a great way for the Michigan delegation to kick off the conference.

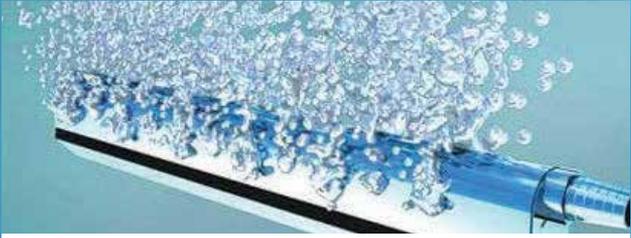


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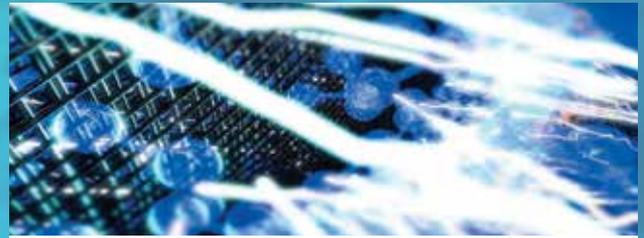
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American Water Works Association
Michigan Section

MI-ACE 2019

September 9–13
Grand Traverse Resort
Traverse City, MI



Join us for the 81st Annual Michigan Section American Water Works Association Annual Conference & Exhibits (MI-ACE) in Traverse City!

More issues, more change, less time, less resources... a common theme today that shows no let-up. It's up to Michigan water professionals to innovate to keep up. New ideas, new technologies, new products, and a whole new mindset are going to be needed to exceed the expectations of customers.

This year's program committee is pleased to share an expanded selection of general sessions, concurrent sessions, and exhibits to facilitate formal and informal conversations. Be ready to share your experiences and ideas as we come together to discuss the issues facing water professionals today and find innovative solutions at MI-ACE 2019.

Who Should Attend?

- Water Department Directors and Managers
- Water Department Team Leads and Shift Supervisors
- Vendors, Engineers, and Consultants in the water sector
- Students planning to enter the water sector
- Anyone interested in enhancing their water knowledge

Attending MI-ACE 2019 will help you:

- Enhance your water knowledge
- Expose you to relevant, current information to assist you in your day-to-day operations
- Provide you with skills and resources to plan for the future
- Build your professional network with other water professionals from around the state

Register today!

Registration discounts available until **August 24, 2019.**



American Water Works Association
Michigan Section

Schedule-at-a-Glance

TUESDAY, SEPTEMBER 10

- 10:00 AM No Water – No Wine Tasting Room Tour
10:30 AM Annual Golf Outing Fundraiser
7:30 PM Opening Dessert Reception in the Exhibit Hall

WEDNESDAY, SEPTEMBER 11

- 7:15 AM First-Time Attendee Orientation with Continental Breakfast
8:00 AM Opening General Session
11:45 AM Lunch with the Exhibitors
1:30 PM Afternoon Concurrent Sessions
 - Water Quality Track
 - Case Studies Track
 - Exhibit Floor Education4:15 PM Afternoon General Session
4:45-6:00 PM Happy Hour in the Exhibit Hall, SWIE Chance Auction, and Best Tasting Water in Michigan Taste-Off
9:00 PM Bonfire *(weather permitting)*

THURSDAY, SEPTEMBER 12

- 7:00 AM Women on Water Networking Breakfast
8:00 AM Section Annual Business Meeting
8:15 AM Section Update and Best Tasting Water in Michigan Reveal
8:30 AM Thursday Morning General Session
10:15 AM Morning Concurrent Sessions
 - System Planning Track
 - System Assessment Track11:45 AM George W. Fuller Awardee Luncheon
1:30 PM Afternoon Concurrent Sessions
 - Management Track
 - Innovation Track3:15 PM Afternoon General Session
6:00 PM Networking Dinner with Entertainment

FRIDAY, SEPTEMBER 13

- 7:00 AM Section Leadership Breakfast *(by invitation only)*
8:00 AM- Closing General Session
12:15 PM

SCHEDULE OF EVENTS

	Tuesday, September 10, 2019		Wednesday, September 11, 2019			
7:00 AM						
7:15 AM						
7:30 AM			First-Time Attendee Orientation with Continental Breakfast*			
7:45 AM						
			1.0 Wednesday Opening Session			
8:00 AM			1.1 Welcome Remarks and Awards AWWA Update			
8:15 AM						
8:30 AM			1.2 A Conversation with EGLE Director Liesl Eicher Clark			
8:45 AM						
9:00 AM			1.3 The Water Research Foundation Annual Research Update for MI AWWA			
9:15 AM						
9:30 AM			1.4 What Every Millennial Should Know...			
9:45 AM						
10:00 AM			1.5 National Regulatory Update			
10:15 AM						
10:30 AM			Break 15 minutes			
10:45 AM			1.6 Michigan Legislative Update			
11:00 AM						
11:15 AM			1.7 America's Water Infrastructure Act of 2018 (AWIA) Update			
11:30 AM						
11:45 AM						
12:00 PM			Lunch with the Exhibitors * (and CEC – other contact time)			
12:15 PM						
12:30 PM						
12:45 PM						
1:00 PM						
1:15 PM						
			Track: Exhibit Floor Education	2.0 Track: Water Quality	3.0 Track: Case Study	
1:30 PM	No Water – No Wine Tasting Tour**	Golf Outing**	Exhibits Open	EX.1 Booth Education	2.1 How Green is My Water – Addressing Harmful Algal Blooms in Our Water Supplies	3.1 Great Lakes Water Authority Springwells Water Treatment Plant Reservoir Fill Line: A Case Study
1:45 PM				EX.2 Booth Education	2.2 Improving Lake Erie From Every Direction	3.2 Southeastern Oakland County Water Authority – 16-inch Transmission Main Rehabilitation Project
2:00 PM				EX.3 Booth Education	2.3 July 4th Fireworks as an Unconventional Source of Groundwater Contamination	3.3 Case Study: PFAS Removal in Retrofitted Rapid Sand Filters – Plainfield Charter Township
2:15 PM				Break		
2:30 PM				EX.4 Booth Education	2.4 Corrosion Control in Drinking Water Systems to Manage Metals Load at Wastewater Treatment Plants	3.4 Development of a Holistic PFAS Management Strategy at the City of Ann Arbor
2:45 PM			EX.5 Booth Education	2.5 The Role of Carbon Dioxide for Lead & Copper Corrosion Control	3.5 Water Well and Pump Operation and Maintenance For Reliable and Efficient Performance	
3:00 PM			Break			
3:15 PM						
3:30 PM						
3:45 PM						
4:00 PM						
4:15 PM						
4:30 PM						
4:45 PM						
5:00 PM			Happy Hour in Exhibit Hall* SWIE Chance Auction and Best Tasting Water in Michigan Taste-Off			
5:15 PM						
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6:30 PM						
6:45 PM						
7:00 PM						
7:15 PM						
7:30 PM			Dinner on your Own			
7:45 PM						
8:00 PM						
8:15 PM						
8:30 PM						
8:45 PM						
9:00 PM			Evening Campfire (weather permitting)			

Thursday, September 12, 2019		Friday, September 13, 2019
Women on Water Breakfast**		Leadership Breakfast (by invitation only)
4.0 Thursday Morning General Session		8.0 Friday Closing Session
4.1 Business Meeting: Section Update and Awards and Best Tasting Water in Michigan		8.1 Nuts and Bolts of Traverse City's Water System
4.2 Nature Conservancy Urban Water Blueprint		8.2 EGLE Update
4.3 Farm Bill Update		8.3 More for Less: The Surprising Way to Save Money on Infrastructure Projects
4.4 Water Asset Management Council Update		8.4 Lessons Learned from Intergovernmental Project Coordination
Break 15 minutes		Break 15 minutes
4.0 Concurrent Sessions	5.0 Concurrent Sessions	8.5 Conquering Drinking Water Concerns – The Past and Present
4.5 Creating a Critical Valve Program for the Great Lakes Water Authority's Transmission System	5.1 Comprehensive Raw Water System Condition Assessment	8.6 The Equity of Water and Sewer Rates: Are We Creating Winners and Losers? (0.5 CEC)
4.6 Meeting EGLE Cross Connection Control Requirements	5.2 CFD vs. Physical Hydraulic Modeling: The Winner is...	8.7 Affordability is not the Elephant in the Room, Approaches from Communities and Affordability Panel Discussion
4.7 PFAS in Drinking Water – Regulatory Drivers and Treatment Technologies	5.3 Applying Water Loss Analysis to Guide Regional Cost Sharing for Great Lakes Water Authority	MI-ACE Closing Remarks and Raffle
Fuller Awards Luncheon – Ticketed Event**		
6.0 Track: Management	7.0 Track: Innovation	
6.1 Great Lakes Water Authority – Utility-Driven Innovation	7.1 Community Based Partnership for Delivery of Stormwater and Lead Line Service Replacement Programs	
6.2 How the Michigan Public Works Academy Can Fill our Workforce Gap	7.2 Using Socially Engaged Design Methodology to Build Bridges Between Water Utility Professionals and Academic Researchers	
6.3 Developing Effective Communication Strategies for a Diverse Workforce in a Digital Age	7.3 Goldilocks Is Not A Fairy Tale – Implementing a CMMS for Linear and Facilities Assets	
Break		
Afternoon General Session: 6.4 Community Based Partnership for Delivery of Stormwater and Lead Line Service Replacement Programs		
Afternoon General Session: 6.5 Lead and Copper Rule - Distribution System Materials Inventory		
Free Time		
Networking Dinner and An Evening of Magic with Jym Elders – Ticketed Event**		Legend
		Color Key:
		Entertainment/networking
		Breaks
		Section/AWWA business
		Recognition
		Exhibit time
		* admission included with registration, RSVP requested
		** ticketed event, extra fees apply and pre-registration is required

TECHNICAL PROGRAM

WEDNESDAY,
SEPTEMBER 11, 2019

Opening General Session

8:00 AM

1.1 Welcome Remarks and Awards Presentation

*Bill Fritz, Great Lakes Water Authority
Rachael Barlock, SEMCOG*

8:10 AM

1.1 AWWA Visitor

Randy Moore, AWWA Visiting Officer
Randy Moore is a Vice President on the AWWA Board. He will provide an overview of the water sector from an international perspective, along with an update on key Association initiatives.

8:30 AM

1.2 A Conversation with EGLE Director Liesl Eichler Clark

Join the conversation with Michigan Department of Environment, Great Lakes, and Energy Director Clark and hear the vision for Michigan's future.

9:00 AM

1.3 The Water Research Foundation Annual Research Update for MI-AWWA

Jennifer Warner, The Water Research Foundation
This presentation will feature the latest WRF initiatives on key topic areas for the Michigan water sector, including PFAS sources and management, distribution system water quality, and communicating risk to the public and local decision makers. In addition, WRF's innovation platform LIFTLink will be featured with a brief administrative update.

9:30 AM

1.4 What Every Millennial Should Know...

*Gary Wozniak, Lansing Board Water & Light
Christine Spitzley, OHM Advisors, Inc.*
Using a Baby Boomer historical perspective, this presentation will describe to millennials the past changes in the environment, technology, and social aspects as it relates to the water field. Emphasis will be made on public health protection, environmental ethics, technological advancements in water supply, AWWA membership, and social changes.

10:00 AM

1.5 National Regulatory Update

Adam Carpenter, AWWA

10:45 AM

1.6 Michigan Legislative Update

Mike Compagnoni, Midwest Strategy Group

11:15 AM

1.7 America's Water Infrastructure Act of 2018 (AWIA) Update

Clyde Dugan, East Lansing – Meridian Water and Sewer Authority
The America's Water Infrastructure Act of 2018 (AWIA) has recently been signed and requires water utilities to develop Risk and Resilience Assessments (RRA) and update their Emergency Response Plans. The deadline for large systems is to have the RRA completed by March 31, 2020. EPA is scheduled to have guidance materials available for utilities by August of this year. AWWA is also preparing training materials for compliance, which should become available 4th quarter 2019. This presentation will assist the utility in preparing for and understanding the importance of this legislation.

Water Quality Track

1:30 PM

2.1 How Green is My Water – Addressing Harmful Algal Blooms in Our Water Supplies

Peter D'Adamo, HDR
Water treatment technologies are an important strategy to reduce taste and odor compounds and cyanotoxins from harmful algal blooms. Data will be presented to evaluate the efficacy of ozone, PAC, and peroxone on the removal of taste and odor compounds.

2:00 PM

2.2 Improving Lake Erie From Every Direction

*Andrea Stay, MDARD
Christine Spitzley, OHM Advisors, Inc.*
The Michigan Cleaner Lake Erie Through Action and Research (MI CLEAR) Partnership is a coalition of environmental and agricultural leaders, conservationists, universities, and other concerned stakeholders with the goal of protecting, preserving, and promoting understanding through 1) open discussion among regional leaders, 2) a coordinated perspective to existing efforts, 3) support for research that builds understanding of science around water quality issues, and 4) actions that bring meaningful change.



2:30 PM

2.3 July 4th Fireworks as an Unconventional Source of Groundwater Contamination

Joel Henry, Golder Associates

Alyssa Olson, Golder Associates

A typical half-hour fireworks show releases 5 to 10 kg of perchlorate residue to the environment – enough to impact municipal water supplies at concentrations above future drinking water criteria. Municipalities that launch fireworks near their water supplies may wish to revisit this practice. Hear how one Michigan community first detected perchlorate in one of its two municipal wellfields as a result of its annual 4th of July celebration.

3:15 PM

2.4 Corrosion Control in Drinking Water Systems to Manage Metals Load at Wastewater Treatment Plants

Pierre Kwan, HDR Engineering

This presentation discusses and provides case studies regarding how wastewater treatment plant discharge limits for metals can influence the internal corrosion control treatment program at drinking water plants.

3:45 PM

2.5 The Role of Carbon Dioxide for Lead and Copper Corrosion Control

Michael Dirth, TOMCO2 Systems

The presentation will be based on EPA Publication 816B16003: *Optimal Corrosion Control Treatment Evaluation Technical Recommendations for Primary Agencies and Public Water Systems* (March 2016). The focus will be on Sections 2.3.1, 3.1.1, and Exhibit 3.1: pH, Alkalinity, and Dissolved Inorganic Carbon (DIC) as they relate to carbon dioxide (CO₂) and the effects to minimize lead corrosion in pipes.

4:15 PM

2.6 Modeling Your Lead Service Line Replacement Program

Megan Glover, 120WaterAudit

With revised federal Lead and Copper Rule (LCR) legislation and pressures to accelerate lead service line replacements, public water systems are under pressure to understand what this means for their utilities. During this presentation, you will learn from models across the country and best practices for data management, resource planning, and process improvement. These capital-intensive infrastructure projects need a solid data management foundation to run effective, transparent programs.

Case Studies Track

1:30 PM

3.1 Great Lakes Water Authority Springwells Water Treatment Plant Reservoir Fill Line: A Case Study

Jacob Mangum, Great Lakes Water Authority

Erich Klun, Great Lakes Water Authority

A case study presenting the use of needle valves to provide flow control and energy dissipation for the reservoir fill line retrofit at the Great Lakes Water Authority's Springwells Water Treatment Plant in Dearborn, MI. Learn why the retrofit was necessary, how the needle valves satisfied a key operational need, and what lessons were learned during construction.

2:00 PM

3.2 Southeastern Oakland County Water Authority – 16-Inch Transmission Main Rehabilitation Project

Bradley Shepler, Hubbell, Roth & Clark, Inc.

The Southeastern Oakland County Water Authority (SOCWA), with assistance from Hubbell, Roth & Clark, Inc. (HRC), rehabilitated an existing 16-inch cast iron transmission main via compression-fit slip lining successfully installing over one mile of 16-inch IPS SDR 13.5 HDPE liner pipe within the existing pipeline through the use of only four access pits. SOCWA and HRC completed a feasibility study of applicable technologies to complete this work and procured the construction contract through a request for proposal resulting in a quality-based selection process to determine the proposal that provided the greatest perceived benefit to SOCWA.

2:30 PM

3.3 Case Study: PFAS Removal in Retrofitted Rapid Sand Filters – Plainfield Charter Township

Kevin Gritters, Prein&Newhof

Rick Solle, PE, Plainfield Charter Township

When Plainfield Charter Township found PFAS in its raw and treated drinking water, public demand for PFAS-free water led the Township to develop a pilot study program, pursue a state grant, and modify five of the twelve existing rapid sand filters at the Water Treatment Plant for PFAS removal. The five filters were modified to utilize granular activated carbon for PFAS removal. The pilot study analyzed three filter media configurations in three phases, each phase building on the previous, with the intent to demonstrate continued particulate removal required by surface water treatment rules, while also achieving the desired PFAS absorption. To date, extensive sampling and ongoing testing indicate both treatment objectives are being met.

TECHNICAL PROGRAM

3:15 PM

3.4 Development of a Holistic PFAS Management Strategy at the City of Ann Arbor

Sarah Page, City of Ann Arbor

The City of Ann Arbor first detected per- and polyfluoroalkyl substances (PFAS) in its drinking water in 2014. Since then, the city has been proactively working to address PFAS holistically, through extensive monitoring, source water investigations, and treatment modifications. While concentrations of PFOS and PFOA in the city's drinking water have never exceeded the US EPA's Health Advisory Level, the city has taken the initiative in optimizing treatment to remove these chemicals from its drinking water. This presentation will focus on holistic management of PFAS from a utility perspective, including source water investigation and protection, performance of the GAC filters for removal of all PFAS compounds under a variety of operating conditions, operational considerations, participation in and development of research to meet utility objectives, and customer communication and outreach.

3:45 PM

3.5 Water Well and Pump Operation and Maintenance For Reliable and Efficient Performance

Robert Masters, Peerless-Midwest, Inc.

All groundwater systems have wells and pumps of various configurations. This presentation will focus on the most common methods of improving well performance and pump efficiencies in the industry today. Some new and innovative methods will also be discussed, including cleaning techniques and control measures such as variable speed drives. Real world examples will be presented to demonstrate how these techniques can be used to improve electrical and mechanical efficiencies that result in the most reliable and cost effective operation of groundwater wells and pumps.

Exhibitor Presentation Track

Education on the Exhibit Hall Floor

Five 30-minute consecutive presentations on the exhibit hall floor will be available on-site.

THURSDAY,
SEPTEMBER 12, 2019

8:00 AM

4.1 MI-AWWA Business Meeting

Bill Fritz, MI-AWWA Board of Trustees Chair

8:15 AM

Section Update, Awards, and Best Tasting Water In Michigan

Bonniifer Ballard, MI-AWWA

MI-AWWA Best Tasting Water Committee

System Planning Track

GENERAL SESSION

8:30 AM

4.2 Nature Conservancy: Urban Water Blueprint

Richard Bowman, The Nature Conservancy

9:00 AM

4.3 Farm Bill Update

Christine Spitzley, OHM Advisors

Water utilities have an unprecedented opportunity to partner with the agricultural community to protect source water supplies, and the US Department of Agriculture is providing \$4 billion in funding over the next 10 years toward the effort. Learn how these dollars can be collaboratively leveraged to protect Michigan's drinking water at the source.

9:30 AM

4.4 WAMC: Growing a Statewide Culture of Asset Management

Carrie Cox, Oakland County Water

Resources Commissioner's Office

The Water Asset Management Council will provide an update on the draft water, sewer, and storm asset management templates, the utilities required to complete these templates, and their draft deadlines. Attendees will also learn the preliminary goals for the WAMC dashboard and tracking tools and discuss what the MIC, WAMC, and TAMC have accomplished this year and where we are looking to go in the future.



10:15 AM

4.5 Creating a Critical Valve Program for the Great Lakes Water Authority's Transmission System

*Cheryl Porter, Great Lakes Water Authority
Wayne Pratt, Wachs Water Services*

Learn to create a critical valve program for your transmission system, with insight into the strategies and benefits related to implementing and managing a critical valve assessment and rehabilitation program. Attendees will learn how to identify the usability of assets and how to determine the feasibility of repairing inoperable critical valves rather than replacing them, as well as to prioritize those repairs and replacements in order to potentially save millions of dollars in replacement costs.

10:45 AM

4.6 Meeting EGLE Cross Connection Control Requirements

*Thomas Mach, CCRA Professional Services
Wyatt Mach, CCRA Professional Services*

Helping Michigan water operators to learn the use of modern-day technology to improve their Cross Connection Control Programs and meet the EGLE requirements of device testing, tracking, and surveying to create a better potable water environment.

11:15 AM

4.7 PFAS in Drinking Water – Regulatory Drivers and Treatment Technologies

Gwen Kubacki, PE, Arcadis

Per- and polyfluoroalkyl substances (PFAS) have been detected in several drinking water supplies throughout Michigan and are facing regulation at the state and national level. This presentation will provide an update on the dynamic regulatory drivers and technology options for PFAS treatment in drinking water and review of the advantages and limitations of each. Several strategies for optimizing treatment to improve reliability and reduce life-cycle costs will be discussed.

System Assessment Track

10:15 AM

5.1 Comprehensive Raw Water System Condition Assessment

*Nick Hoffman, Great Lakes Water Authority
Grant Gartrell, Great Lakes Water Authority*

The Great Lakes Water Authority's (GLWA) raw water supply is sourced from three surface water intakes that feed a large network of deep tunnels that provide raw water to GLWA's five drinking water treatment plants. This presentation will provide an overview of GLWA's complex raw water system and the methods used to assess its condition and identify an innovation approach to its rehabilitation to ensure its long-term integrity and reliability for source water supply.

10:45 AM

5.2 CFD vs. Physical Hydraulic Modeling: The Winner is....

Brian Duane, Arcadis

CFD modeling and Froude-scale hydraulic models are often used to document pump suction conditions. This presentation compares and contrasts the differences of the two approaches on a 160 mgd high service pump station and a 165 MGD raw water pump station.

11:15 AM

5.3 Applying Water Loss Analysis to Guide Regional Cost Sharing for Great Lakes Water Authority

*Andrew Chastain-Howley, Black and Veatch
Chandon Sood, Great Lakes Water Authority*

This presentation will show how AWWA Water Loss principles were applied to improve estimations of water losses and peak demands on three communities without master meters. The presentation will also describe the significant stakeholder and customer engagement needed to make the project successful.

Management Track

1:30 PM

6.1 Great Lakes Water Authority – Utility-Driven Innovation

*John Norton, Jr., Great Lakes Water Authority
Wendy Barrott, Great Lakes Water Authority
Jason Carter, Arcadis*

This presentation describes the development of the innovation program within the Great Lakes Water Authority (GLWA). In a global survey, over 90% of utilities believe that innovation is critical to the future of their organization. In this presentation, we will review the basic business practices of utility-driven innovation based on the WRF Utility Innovation Framework (published in 2017), demonstrate how to benchmark your organization's current innovation environment, and discuss the details and techniques GLWA used to build a meaningful innovation program. As a result, participants will have an understanding of available resources, pathways, and possibilities for utility-driven innovation.

TECHNICAL PROGRAM

2:00 PM

6.2 How the Michigan Public Works Academy Can Fill our Workforce Gap

Dan Sorek, Prein&Newhof

Derek Gajdos, City of Grand Haven

After roughly three years of planning, a dream became a reality in May 2018 with the first class of 10 students in Michigan's first Public Works Academy at Grand Rapids Community College. Working with several West Michigan community agencies and a few private firms, GRCC put together a seven-week entry level training course for future public works employees. The presentation will cover the need for this level of training to meet the needs of numerous public works agencies struggling to find qualified individuals to begin a career in public works. It will also cover the need for outreach to share what a long career in public works can provide.

2:30 PM

6.3 Developing Effective Communication Strategies for a Diverse Workforce in a Digital Age

Stephanie Geiger, Great Lakes Water Authority

Through a blend of best practice methodologies and a responsive approach to team member feedback, GLWA's Public Affairs team has developed a variety of communication strategies that, when used synchronously, can be successful at helping utilities deliver news and information effectively and efficiently to team members. When team members become part of the communication process, they feel empowered, which can lead to an increase in employee engagement, improve morale, and help build a professional community within your organization.

3:15 PM

6.4 Community-Based Partnerships for Delivery of Stormwater and Lead Line Service Replacement Programs

Heather Cheslek, Black & Veatch

Greg Cannito, Corvais

Bruce Allender, infraManagement Group (A wholly owned B&V company)

Community-based partnerships (CBP) have become a hot topic of conversation in the offices of public works directors and water utility managers, civic leaders, and both state and federal regulators across the country. However, much is still misunderstood about this growing trend to deliver programs through a partnership approach. Some basic information about these frameworks can quickly address this gap and illustrate the potential benefits of CBP for communities across the US to implement various linear programs. In the most general terms, a CBP is a partnership between a local government and a private partner that agrees to perform delegated program management services to plan, build, manage, and potentially finance

infrastructure that provides risk transfer, surety of execution, while also creating greater ability for government to deliver on broader desired policy goals and objectives – such as established community-centered metrics, local capacity development, and utilization through a partnership with the private sector.

3:45 PM

6.5 The Lead and Copper Rule – Distribution System Materials Inventory

Kris Philip, EGLE

This panel will include representatives from EGLE, consultants, and water supplies to discuss the Lead and Copper Rule requirement to create a Distribution System Materials Inventory (DSMI).

Innovation Track

1:30 PM

7.1 Integrating Your Water Assets With GIS

Brian McElroy, Hubbell, Roth & Clark, Inc.

This presentation will demonstrate new GIS technology that allows utility managers to better locate utility assets, coordinate field staff, streamline maintenance, and optimize capital planning. It includes examples from several communities in Michigan that have leveraged these tools to more efficiently manage their systems.

2:00 PM

7.2 Using Design Methodology to Build Bridges Between Drinking Water Professionals

Brianna Broderick, University of Michigan

Suzanne Chou, University of Michigan

Anne Verhey-Henke, University of Michigan

Through socially-engaged design methods, a UM Center for Socially Engaged Design team will be engaging with stakeholders from drinking water utilities and other organizations focused on water quality to gather insights, understand needs, and design and test prototypes that allow key players to collaborate toward effective bridging strategies. This process will result in the creation of a roadmap for professionals and researchers to follow to ensure their work positively impacts the health and safety of all Michigan citizens.

2:30 PM

7.3 Goldilocks Is Not A Fairy Tale: Implementing a CMMS for Linear and Facilities Assets

Bryan Dickerson, Black & Veatch

What are the best ways to implement a CMMS solution in support of your asset management program encompassing both linear and facilities-based assets? Distributed assets in GIS, in combination with dense collections of assets in facilities, this presentation will focus on best practices for ease of use and getting the most out of your CMMS.

FRIDAY,
SEPTEMBER 13, 2019

Friday General Session

8:00 AM

8.1 The Nuts and Bolts of Traverse City's Water System

Art Kruger, City of Traverse City

Jackie Johnson, City of Traverse City

8:30 AM

8.2 EGLE Update

Eric Oswald, Michigan Department of Environment, Great Lakes, and Energy

9:00 AM

8.3 More for Less: The Surprising Way to Save Money on Infrastructure Projects

Steve Williams, American Council of Engineering Companies (ACEC) of Michigan

One of the most common procurement practices for selecting design services can actually result in higher project costs – but there is another option learn about a simple, competitive process that matches the right design professional service provider to your project.

9:30 AM

8.4 Lessons Learned from Intergovernmental Project Coordination

Pete Fromm, Great Lakes Water Authority

The Great Lakes Water Authority (GLWA) is a wholesale water provider in southeast Michigan, serving 127-member partner communities. This presentation will discuss effective coordination and communication used on two of GLWA's recent transmission main projects within our member partner communities.

10:15 AM

8.5 Conquering Drinking Water Concerns: The Past and Present

Susan Knepper, OHM Advisors

Rachael Barlock, SEMCOG

Last year it was lead... this year, it's PFAS. As our technologies improve and we discover more contaminants affecting our water supply systems, let's also take a look back at what we've overcome in the past. This presentation will review some of the major concerns for water systems in the past, and what efforts are now in place to protect them.

10:45 AM

8.6 The Equity of Water and Sewer Rates: Are We Creating Winners and Losers?

Adam DeYoung, Moore & Bruggink

Could rate structures provide the means to address issues of affordability and equitability? This presentation argues that by taking a closer look at how rate structures are developed, a range of solutions to these problems begin to emerge.

11:15 AM

8.7 Affordability is Not the Elephant in the Room: Approaches from Communities

Dr. Janice Beecher, Michigan State University

Adam DeYoung, Moore & Bruggink, Panel Moderator

Has your community been questioned about affordability?

Dr. Janice Beecher, Director of MSU's Institute of Public Utilities Policy, Research, and Education (IPU), will provide insight into this difficult topic. Following Dr. Beecher's presentation, a panel discussion joined by operators, engineering consultants, and educators will continue the discussion.

*** Program, timing, and speakers are subject to change.**



Special Events

SEPTEMBER

10

No Water – No Wine Tasting Room Tour

Hop on the trolley and be on your way to Michigan's very own wine country. Your adventure will take you to two wine tasting rooms on the Leelanau Peninsula. Enjoy a light lunch and time in Leland – a quaint, Michigan fishing town mixed with shops, galleries, and scenic views. Your ticket includes guided transportation and lunch.

Tour Sponsor



TICKETED
EVENT

Additional
fees apply

SEPTEMBER

11

Chance Auction

The Chance Auction benefitting the Safe Water in Ecuador (SWIE) program and One AWWA Operator Scholarship will be held in the Exhibit Hall during exhibit hours all day Wednesday. All money raised will support water projects in Ecuador for indigenous communities in need of safe and reliable water, as well as the One AWWA Operator Scholarship. The Scholarship is a partnership between the Association and the Section to help provide support for operators seeking additional education and training.

Visit the SWIE Booth in the Exhibit Hall to browse donated items to be 'auctioned' (raffled) by purchasing tickets 3 for \$5 or 15 for \$20 and placing them in jars associated with donated items. A winning ticket will be drawn from the jar near the end of the Happy Hour on Wednesday evening prior to the close of the Exhibit Hall.

Want to help? You can bring an item valued of at least \$25 and it will be gratefully accepted. Examples of donated items in the past include gift cards, gift baskets, tools, electronics, handmade items, outdoor items, event tickets, and sports memorabilia. For more information, to make a donation, or to volunteer, contact Jessica Howard at 734-547-4576 or jessica.howard@ohm-advisors.com.

Annual Golf Fundraiser

SEPTEMBER
10

The MI-AWWA Golf Outing will be held on Tuesday, September 10, at Grand Traverse Resort and Spa – Spruce Run Course. More forgiving than The Bear, Spruce Run is fun to play while retaining some of the challenging elements for which it was renowned as host to the Michigan Open. The course winds among rolling hills that surround the Hotel and overlook Grand Traverse Bay.

This year, the Annual Golf Outing raises money for Safe Water Ecuador (SWIE) and for the One AWWA Operator Scholarship. SWIE helps bring clean, safe water to communities in Ecuador. The Scholarship is a partnership between the Association and the Section to help provide support for operators seeking additional education and training.

SCHEDULE OF THE DAY

10:30 AM	Check-in at Bag Drop
11:00 AM	Lunch
11:50 AM	Game Rules at your Cart
12:00 PM	Shotgun Start
5:30 PM	Outing Concludes

**TICKETED
EVENT**

*Additional
fees apply*

EVENT FEATURES

(help raise money for the cause)

- **Putting Green:** practice your putt before the scramble starts (complimentary).
- **Driving Range:** Warm up on the driving range (complimentary).
- **The Water Dive:** A fun way to practice your aim and hit a straight shot into the kiddie pool (\$5 for 3 balls).
- **Mulligans:** \$5 for two shots (limit 2 per player).
- Prizes for longest drive, closest to the pin, best overall team, worst overall team, and more!

All are welcome. Space is limited to 144 players.

Recognition

Recognition is an important part of MI-AWWA's culture. This year, awards will be given throughout the conference.

RECOGNITION SCHEDULE:

Wednesday Morning

- Water Drop Awards, Gold and Silver
- Life Member Status
- MDEQ Edward Dunbar Rich Award

Wednesday after the Morning Break

- Young Professional of the Year Award
- Professional Excellence Award

Thursday Morning

- Executive Director's Award
- Richard Husby Public Awareness Award
- Exemplary Wellhead Protection Award/
Ground Water Protection Award
- Chuck Van der Kolk Volunteer of the Year Award

Thursday after the Morning Break

- Landmark Award
- Research and Technical Practices Award
- Wendell R. LaDue Safety Award
- Operator Meritorius Award

Thursday Fuller Luncheon

- Raymond J. Faust Award
- Michigan Water Utility Hall of Fame
- George Warren Fuller Award

George W. Fuller Luncheon

Named for industry titan George W. Fuller, this annual luncheon is the celebration event of the Conference. During this event on Thursday, beginning at 11:30 AM, any new inductees into the Michigan Water Industry Hall of Fame are recognized, and as the Raymond J. Faust awardees are announced. New Board of Trustee members are installed and this year's George W. Fuller Awardee is revealed. Come for lunch, stay for the fun of discovering who this year's Fuller Awardee will be.

SEPTEMBER

11

**TICKETED
EVENT**

*Additional
fees apply*

NETWORKING OPPORTUNITIES

Networking is an important part of the overall benefit of the Conference. It is an opportunity for you to meet new people and to have conversations and ask questions about the issues you find most challenging.

An RSVP is requested for all networking events. Avoid being disappointed and register for ticketed events in advance.

OPENING RECEPTION IN THE EXHIBIT HALL

Tuesday, September 10

Join MI-ACE attendees and exhibitors for cocktails, dessert, and coffee beginning at 7:30 PM. Meet and mingle with colleagues and peers and see what products are available to you through our exhibitors. Remember to stop by the Conference Registration Desk for your name badge. Name badges are required to enter the Exhibit Hall.

FIRST-TIME ATTENDEE ORIENTATION AND CONTINENTAL BREAKFAST

Wednesday, September 11

Help is available to navigate MI-ACE and to maximize your conference experience with tips from Section leaders. If you have never been to a Section Annual Conference and Exhibit, RSVP to attend this instructional continental breakfast and meet others like you.

The continental breakfast begins at 7:15 AM on Wednesday morning before the Opening General Session. Make the most of your conference attendance and RSVP today!

LUNCH WITH THE EXHIBITORS

Wednesday, September 11

Chat and chew luncheon in the Exhibit Hall on Wednesday in the informal luncheon aimed at allowing you to spend more time with the exhibitors. There is no additional charge to attend this luncheon. Name badges are required for entry.

HAPPY HOUR IN THE EXHIBIT HALL

Wednesday, September 11

Join your colleagues on Wednesday after education sessions close. Starting at 4:45 PM in the Exhibit Hall, spend time with the exhibitors and your friends as you recap the day. Beverages and light snacks will be served. A name badge is required to enter the Exhibit Hall.

WOMEN ON WATER CONTINENTAL BREAKFAST

Thursday, September 12

Plan to join your peers on Thursday morning at 7:00 AM for a fun, interactive hour making new connections and reconnecting with friends and colleagues you haven't seen for a while. Designed especially for women in the water sector, you will be glad you attended!

TICKETED EVENT
Additional fees apply

NETWORKING DINNER AND AN EVENING OF MAGIC WITH JYM ELDERS

Thursday, September 12

Come for the networking and dinner, stay for the magic. For over 20 years, Jym's award-winning mentalism has been amazing corporate and college audiences from New York to Los Angeles to Calgary and everywhere in between. Having a life-long fascination with the paranormal and all things mysterious, Jym Elders utilizes his background in psychology, theater, and magic to create a show that is both mesmerizing and memorable. Considered to be one of the more comedic mentalists working today, clients often remark of Jym that it was like having both a mentalist AND a comedian all in one!

TICKETED EVENT
Additional fees apply

THANK YOU TO OUR MI-ACE 2019 SPONSORS! Sponsors as of June 12, 2019.

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NO WATER – NO WINE TOUR SPONSOR

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For information on being a MI-ACE 2019 Sponsor, please contact Eric Johnson at ejohnson@mi-water.org or call 517-292-2912 x 102.

GENERAL INFORMATION

Conference Registration Rates

Full conference attendees will receive access to all general and technical sessions, all refreshment breaks, Tuesday night Opening Dessert Reception in the Exhibit Hall, Exhibit Hall access during exhibit hours, Wednesday Lunch with the Exhibitors, and Wednesday evening Happy Hour in the Exhibit Hall. The earlier you register, the more you save. Register by June 30 and save \$60 off registration rate. Register between July 1 and August 24 and save \$35 off the registration rate. Register after August 24 and the registration is \$465 for members and \$555 for non-members.

One-day conference attendees will receive access to all general and/or technical sessions and refreshment breaks on the day of their choosing. Wednesday attendees will also have access to the Exhibit Hall, Wednesday Lunch with the Exhibitors, and Wednesday evening Happy Hour in the Exhibit Hall. One-day registration rates are \$250 for members and \$340 for non-members. Registration discounts are available if you register before August 24. Don't delay!

Small system operators (serving a population of fewer than 3,300), student members and retired members are eligible for discounted rates. Log-in to your membership account to receive the discounted rate at www.mi-water.org.

Speakers and panelists are also eligible for a discounted registration as a token of our appreciation for contributing their expertise to MI-ACE.

Young Professionals (under 35 years old or have been in the industry for five years or less) who have never attended the Michigan Section's Annual Conference and Exhibits are eligible to have their conference registration fee waived. Please contact MI-AWWA by email at info@mi-water.org.

Spouse/significant other (non-industry) must be registered to enter any function of the conference. Registered guests have access to the Dessert Reception and Happy Hour on the Exhibit Floor. Access to general sessions, technical sessions, and Lunch with the Exhibitors is not allowed. George W. Fuller Luncheon tickets and Thursday evening's entertainment event may be purchased during the registration process.

Exhibitor booth registration includes Exhibit Hall access for two registrants. This includes set-up, exhibit hours, and tear-down. Access also includes social functions held during Exhibit Hall hours, such as the Tuesday night Opening Reception, Wednesday Lunch with the Exhibitors, and Wednesday Happy Hour in the Exhibit Hall.

Exhibitors who wish to receive continuing education credits (CECs) have the option to upgrade the Exhibit Booth registration to include one Full Conference registration. If the second person wishes to receive CECs, they must register as a Full Conference attendee or for the Wednesday one-day only registration. Additional booth personnel must register and pay the appropriate fees.

A complete Exhibitor Prospectus is available online at <http://www.mi-water.org/?page=miace>.

Conference Cancellation

Substitutions: If you are not able to attend, substitutes are encouraged. Please email the substitution request to ejohnson@mi-water.org. Rates are based on membership status, so additional fees may apply.

Cancellations: If a substitute is not available to attend in your place, please notify MI-AWWA in writing by email to ejohnson@mi-water.org or by fax at 517-292-2912, Attn: Eric Johnson. There is no refund for purchased meals or special activities.

1. If cancelled by 4:00 PM on August 10, 2019, you will receive a full refund less a \$35 processing fee.
2. If cancelled after 4:00 PM August 10, 2019, but prior to 4:00 PM August 31, 2019, you will receive 50% of the registration fee paid.
3. If cancelled after 4:00 PM on September 1 or if you are a conference no-show, there will be no refund.

Continuing Education Credits

Individuals holding EGLE drinking water certifications will be eligible for up to 1.3 CECs of approved credit in the categories as indicated in the schedule. An additional 0.1 CEC in the 'other' category may be obtained when attending the exhibits on Wednesday.

CECs for Exhibit Hall Training Sessions are also available. Each Exhibit Hall Training Session has been approved for 0.05 CECs, but remember, CECs round down to the nearest tenth when totaling up all CECs for the Conference.

Licensed Professional Engineers (PEs) will be eligible for up to 13 professional development hours. These credits will be applied to your professional development journal in your Section website.

Instructions for obtaining a transcript of credits earned will be provided.

Day	Technical Category	Managerial Category	Other Category
Wednesday	.45	.15	0.1
Thursday	.70	.15	
Friday	0.10	.25	

The table represents available CECs in each Category. Because some sessions are concurrent, this does not represent the total. An attendee will receive a maximum of 1.3 CECs within the constraints of the schedule. Attendees must be present from the beginning of a session to its conclusion in order to earn the applicable CECs for that session. Total CECs in each category are rounded down to the nearest tenth.

Ticketed Events

Advance registration is required for ticketed events to ensure space availability. There are no refunds for cancelled or unused tickets purchased at the time of registration.

Annual Golf Outing: A fun golf scramble to raise money for Safe Water in Ecuador and the One AWWA Scholarship.

No Water – No Wine Tasting Room Tour: Enjoy your day on the Lelanau Peninsula, Michigan’s Wine Country. Your day includes stops at two wine tasting rooms, lunch, and sightseeing along the way.

Women on Water Breakfast: A networking breakfast that offers women working in the water sector an opportunity to network and share with their female colleagues.

George W. Fuller Luncheon: A time-honored tradition of announcing this year’s Michigan Fuller Awardee, which is secret until revealed at this event. The Raymond J. Faust Award will also be presented during the Luncheon. This is also the transition of Board members.

Networking Dinner and An Evening of Magic with Jym Elders: Come for the networking and dinner, stay for the magic. Cocktails, dinner and an evening of entertainment.

Please secure your tickets when registering for the conference. A limited number of tickets for ticketed events may be available on site. Inquire at the Conference Registration Desk for availability.

Housing Information

MI-AWWA has made arrangements for sleeping rooms at the Grand Traverse Resort and Spa in Acme for the MI-AWWA Annual Conference and Exhibits, September 10-13, 2019.

To Make Reservations:

Call the Hotel Reservations Department directly at 1-800-968-7352 and mention the AWWA conference to receive the discounted rate. You may also make reservations on line at <https://tinyurl.com/miace2019gr>. Discounted rates are available beginning at \$175 and up for single/double per night plus taxes and the daily resort fee. Currently at 6% state tax, convention assessment 5% and a \$15.95 per night resort fee. Reservations must be received by August 13, 2019. Discounted rates are based on availability. Rates are available until the cutoff date, or until the block fills, whichever comes first. Please make your reservations early. If you have any special lodging requirements, please make your request known when making your reservation.

Exhibitor List

Dixon Engineering, Inc.



Cheri Laverty,

616-374-3221, cherilaverty@dixonengineering.net

DIXON is a consulting engineering firm specializing in the evaluation and preparation of specifications and contract documents for the coating and rehabilitation of steel and concrete structures.

- Enthalpy Analytical
- FER-PAL Construction

Fishbeck, Thompson, Carr & Huber, Inc.

John Willemin

616-575-3824, info@ftch.com



FTCH is a full-service professional consulting firm offering comprehensive engineering, architecture, environmental, and construction management services.

- Silversmith Inc.
- Tnemec Company

Utilities Instrumentation Group of Companies

Ken Wesley

734-424-1200, ken.wesley@uiscorp.com



UIS Group of Companies

UIS SCADA, a 40-year-old company, is the one stop shop for Michigan SCADA troubleshooting, systems, calibration, and training, serving over 130 Michigan municipalities.

- Xylem

Exhibitors as of June 12, 2019. For information on being a MI-ACE 2019 Exhibitor, please contact Eric Johnson at ejohnson@mi-water.org or call 517-292-2912 x 102.

ABOVE THE BRIDGE

Training in Michigan's Upper Peninsula is planned and coordinated by the Upper Peninsula Coordinating Committee or UPCC. This committee has been coordinating Section trainings in collaboration with EGLE (formerly DEQ) for decades.

The committee meets three or four times each year to plan the program and other activities related to the UP's regional meetings, the UP Water Works Institute, held in the spring, and the UP Distribution Seminar, held in the fall. These day-and-a-half trainings offer water professionals training specifically of interest to those working in the UP. The UP Distribution Seminar is coming up in September. These trainings also offer a great opportunity for water professionals to network with vendors and hear about the latest products and technologies available.

There is discussion about additional classes being brought to the UP as well to improve skills, reduce violations, and help water professionals prepare for exams.

The UPCC is supported by the Education & Training Council and Section staff and is always looking for members. To learn more or to join the committee, contact UPCC Chair Eric VanLaanen Eric.VanLaanen@coreandmain.com or Membership Coordinator Erika Ballard at eballard@mi-water.org.

UPCC Committee

- Jason Amsler, Hawkins Inc.
- Corey Barr, City of Manistique
- Mike Bolf, EGLE - DWEHD
- Eric Buckman, City of Gladstone
- Donald DeGrand, Mead & Hunt
- Donald DeTemple, Infrastructure Alternatives
- Amy Douville, EGLE - DWEHD
- Troy Gallagher, Mead & Hunt
- Curt Goodman, City Of Marquette
- Bruce Hawkinson, Mead and Hunt, Inc.
- John Holland, Michigan Rural Water Association
- David Holmgren, C2AE
- Jon Kangas, Chocoy Township
- Jeff Lampi, Escanaba Municipal Water Dept.
- Steven Lawry

- Brian Masterson, Kinross Charter Township Water & Sewer Dept
- Paul Patterson, HydroCorp
- Jonelle Specker
- Robert Spreitzer, City of Gladstone
- Peter Staley, EJ Secretary
- Larry Sundling, Bay College
- Chuck Thomas, EGLE - DWEHD
- Eric VanLaanen, Core & Main Chair
- Russell Williams, Negaunee Township Water System 



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- ◆ Odor Control
- ◆ Screening / Conveyors
- ◆ Screw & Belt Presses / Centrifuges
- ◆ Screw Pumps
- ◆ Sedimentation / Clarifiers
- ◆ Sluice & Slide Gates / Valves
- ◆ Thickeners / Dewatering
- ◆ Trickling Filters / Bio-Towers
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AWWA ASSET MANAGEMENT RESOURCES AND ACTIVITIES ON THE NATIONAL LEVEL

Participation in the joint MI-AWWA/MWEA Asset and Infrastructure Management (AIM) committee is an excellent way to stay in touch with the sometimes-overwhelming number of asset management programs and initiatives currently being undertaken in Michigan. Examples of these include the creation of the Michigan Infrastructure Council (MIC) and the Water Asset Management Council (WAM-C); the Stormwater, Asset Management and Wastewater (SAW) grant program; asset management regulations promulgated through the drinking water rules and NPDES permits; and the coordination efforts being made by regional planning agencies.

In addition to meeting every other month to receive updates on these programs, the AIM committee plans the well-attended Asset Management Seminar each January, hosted an asset management roundtable, created a survey of asset management software, and regularly works with MWEA and MI-AWWA to plan occasional networking and training events. Through these combined efforts and programs, utilities in Michigan have access to a network of knowledgeable people and resources for developing, implementing, and sustaining their asset management programs. But of course, the need to sustain infrastructure is not unique to Michigan, and AWWA is also actively involved at the national level.

The AWWA's website has an entire section of resources and tools related to asset management, which is available at www.awwa.org/resources-tools/resources/asset-management.

Guiding AWWA's overall approach to asset management is their policy statement, which was most-recently revised on April 19, 2019. Below are a few highlights from the statement, which may be found in full at the above link:

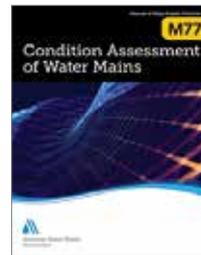
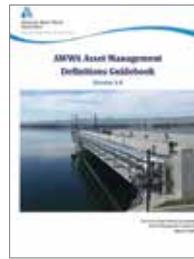
- AWWA believes that utilities should adopt a proactive, sustainable, solution-oriented approach to manage assets in support of the economic, social, and environmental needs of the area served.

- Effective management includes both asset and non-asset focused solutions to meet customer objectives.
- Such principles will promote a culture of collaboration and help develop long-term, continually improving, resilient, integrated water management strategies to achieve defined levels of service that are cost-effective, safe, and reliable at an acceptable level of risk.

There are also two AWWA national committees: the Asset Management Committee and the Water Main Condition Assessment Committee. The

former committee published the *AWWA Asset Management Definitions Guidebook* in January 2018, which is available for free PDF download at the link provided above. The latter committee recently developed a new Standard M77, *Condition Assessment of Water Mains*, which provides technical and practical information about how condition assessment methods can be deployed in water main systems. As part of the ACE 2019 program held in June, an entire track was dedicated to asset management topics, including review of this new standard. Additional publications available as resources include the *Level of Progress in Utility Asset Management*, published in December 2015, and *Leading Business Practices in Asset Management*, May 2017.

A key asset management resource provided by AWWA is their web-based Buried No Longer® tool, which gives individual utilities a 20- to 30-year



economic forecast for pipe repair and replacement. The tool can be used for both water and wastewater system pipes and captures the impact of maintenance backlogs and provides custom-made output using a utility's unique inventory data. The output can be broken out by pipe size or pipe material categories and generated in charts ready for presentations. The newest version updates the drinking water methodology and provides 29 different graphical outputs that can assist a utility with communicating a profile of their unique buried infrastructure needs.

Another related resource is the AWWA's Utility Benchmarking program, which includes an annual publication that allows utility managers to use data to determine how their utility's performance compares to the water or wastewater industry using performance indicators for five areas of operations: Organizational Development, Customer Relations, Business Operations, Water Operations, and Wastewater Operations.



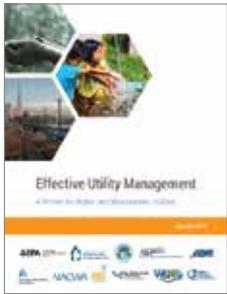
Utilities participating in the survey also receive a free, individualized report that showcases the utility's confidential results relative to the aggregated results of utilities providing the same services.

In addition to materials available directly through AWWA, the organization regularly partners with others to conduct research and produce additional publications. Links to these additional materials are available on AWWA's website. Subscribers to the Water Research Foundation (www.waterrf.org) can access reports and some very useful tools on the following programs:

- *Visual Guidance for Common Pipe Failures*, 2017
- *Managing Infrastructure Risk: The Consequence of Failure for Buried Assets*, 2017
- *Leveraging Data from Non-Destructive Examinations to Help Select Ferrous Water Mains for Renewal*, 2018



- *Retrofit and Management of Metallic Pipe with Cathodic Protection, 2018*



Effective Utility Management, A Primer for Water and Wastewater Utilities from January 2017 includes asset management topics, presented together with

overall utility management concepts and is available for free download. It was developed in partnership with AWWA, EPA, WEF, WRF, APWA, and NACWA and other organizations. The Primer, which is intended to be the starting point for utilities interested in implementing the EUM attributes and connects to other initiatives, such as the Utility of the Future. <https://www.nacwa.org/docs/default-source/resources--public/eum-primer-final-1-24-17.pdf?sfvrsn=6>

We hope these additional tools will be useful in continuing to develop your asset management programs. If you would like more information on the joint MI-AWWA/MWEA AIM Committee, please contact the committee secretary, Maureen Wegener (maureen.wegener@c2ae.com), or Co-Chairs Deann Falkowski (dfalkowski@ftch.com) and Lindsey Kerkez (lindsey.kerkez@ohm-advisors.com). 

NOMINATING COMMITTEE

This year's process for recruiting and selecting new Board members by the Nominating Committee has been completed. The committee had a great group of candidates to consider. The open positions that will be available on the Michigan Section Board of Trustees are as follows: Chair-Elect, Secretary/Treasurer, and two Trustee Positions – each with a three-year term. The Nominating Committee would like to thank all the nominees who submitted their name for consideration. The committee had a difficult time choosing, given the excellent field of candidates that applied. After much deliberation, the committee nominates the following individuals for the four available positions:

Chair-Elect

Jaime Fleming
City of Wyoming

Secretary/Treasurer

Christine Spitzley
OHM Advisors

Trustee 2019 – 2022

Matt Parks
OHM Advisors

Trustee 2019 – 2022

Gary Wozniak
Lansing Board of Water & Light

To learn a little more about Jaime, Christine, Matt and Gary, please read Meet the Nominees in Member Update on Page 58. The election will take place at the annual business meeting on Thursday, September 12, 2019, starting at 8:00 am during our Annual Conference. Your 2019 Nominating

Committee was comprised of Board Members Pat Staskiewicz, Mark Coleman, Paul Reinsch, Aaron Uranga, Cheryl Porter, and Wayne Jernberg, along with At-Large Members Amy Vail, and Jamie Hockemeyer. We hope to see you at the Grand Traverse Resort in Traverse City at MI-ACE 19! 





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<div style="background-color: black; color: white; padding: 5px; margin-bottom: 5px;"> DIXON ENGINEERING, INC. www.dixonengineering.net 1104 Third Ave. Lake Odessa, MI 48849 Office: (616) 374-3221 Fax: (616) 374-7116 </div> 	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> Inspection Services: <ul style="list-style-type: none"> • Tank Maintenance Inspections • Underwater (Dive) Inspections • Warranty Inspections • Underwater (ROV) Inspections • Tank Coating Applications • Bridge Coating Inspections • New Tank Welding and Coatings • Security Maintenance Inspections </td> <td style="width: 50%; vertical-align: top;"> Engineering Services: <ul style="list-style-type: none"> • Tank Repainting Specifications • Cathodic Protection Specifications • Specification Review • Antenna Design and Review • Tank Structural Repair Specifications • Tank Rehabilitation • Coating System Failure Analysis • Treatment Plant Coating Specifications </td> </tr> </table>	Inspection Services: <ul style="list-style-type: none"> • Tank Maintenance Inspections • Underwater (Dive) Inspections • Warranty Inspections • Underwater (ROV) Inspections • Tank Coating Applications • Bridge Coating Inspections • New Tank Welding and Coatings • Security Maintenance Inspections 	Engineering Services: <ul style="list-style-type: none"> • Tank Repainting Specifications • Cathodic Protection Specifications • Specification Review • Antenna Design and Review • Tank Structural Repair Specifications • Tank Rehabilitation • Coating System Failure Analysis • Treatment Plant Coating Specifications
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Our staff is comprised of engineers and NACE, SSPC, AWS, and API certified inspectors.

Visit our website at <http://www.dixonengineering.net> for more information about these and our other services.



MEMBERSHIP SUMMIT IN THE MILE HIGH CITY

By Rachael Barlock, SEMCOG

In February of this year, I had the opportunity to attend the AWWA Membership Summit in Denver on behalf of the Michigan Section. As a new addition to the Membership Council, this was a doubly amazing opportunity. On Day One, I navigated my way through insanely heavy snow – feeling very at home – and arrived to a packed agenda. Matt Hemmendinger offered a great overview of the membership tiers and the benefits of each. Randy Lusk talked about promoting memberships and utilizing relationships with other organizations to have a dual benefit. As a relatively new member of the industry and AWWA, these introductions were really beneficial for me. Nancy Sullivan led a tour of AWWA HQ and introduced us to many of the AWWA staff and their roles. I didn't quite realize how many resources we have available from HQ that we can use to help our members.

Day Two opened with David LaFrance and Jim Williams welcoming us. Jim discussed our industry and organization

using an analogy to a motorcycle. As a new motorcycle rider, this presentation got me really excited. I love the blending of both (all three?) worlds: personal life, the water industry, and AWWA.

Day Two continued with a very detailed overview by a consulting firm that did a value study result of the membership.

Randy Lusk presented in the afternoon on Day Two, and though he is well-known in the organization, he was new to me. He is a very charismatic presenter, and offers a different perspective because he's an operator. He was the only operator at the summit, and he aims to change that. I have a whole list of ideas after Randy's presentation and we're working through them on the council.

A couple of my key takeaways from this 'vendor' session were: 1) Let's work at incorporating more YP involvement in the section other than just networking events. One example mentioned was a specific YP section in *Water Works News*. Right now, we have YP submissions (filling that role with this article!), but I think we could focus



The Denver Botanical Gardens.



Trying one of everything at Voodoo Donuts.

on increasing the involvement of YPs by having regular contributions and a dedicated section. Something to think about. The second takeaway is: 2) I'm focused in Southeast Michigan for my job, but we have so many rural communities in our state. When I spoke with some of the engineers that help with UDSA grant partnerships for rural communities, it reminded me how I grew up in a small community of 500 people. I'm sure they and many of the other small towns could benefit from these grants. Let's promote this!

I'm really enthusiastic about all I learned at the summit and all I'd like to work toward implementing in our section. 💧

RECORD ATTENDANCE AT ANNUAL WEF/AWWA YP SUMMIT

The annual WEF/AWWA Young Professional (YP) Summit was held in Nashville, TN, this year and had record attendance with close to 300 attendees from across the US. With the Michigan Section having five attendees, this brought excellent opportunities for professional development and networking. The energy and excitement brought in by the YPs was contagious, and it was inspiring to meet some of the YPs that will be industry leaders in the coming years.

One of the popular sessions was focused on communication and how individuals respond to tasks and instructions differently. The session opened with placing YPs in smaller groups and giving them a simple and non-specific task. Each individual had a marker, but there was only one 'drawing board' per group. The instructions were: 'Draw.' Most of us stood there confused and looking for further direction until someone in the group took the lead. Almost all of the

groups responded differently and drew different items. Some groups had several individuals that identified as leaders, and other groups had none. As we discussed with everyone how we divvied up the drawing space, and why certain people chose to draw certain things, it was clear that most YPs had reasoning behind how they responded, based on past interactions and experiences. The take-home message from this session was that everyone responds differently and can interpret vague instructions differently.

Another session that was heavily participated in was the round table talks on Section events. This session focused on what worked and what didn't. Topics included brainstorming of ideas for new events, discussing successes/fails, and recruitment tactics. The Michigan Section offered a lot of input at this session, and we also brought ideas back for new

events and new ideas for recognition for members.

The evening networking events were also extremely popular. Live music, local fare, and cowboy hats all made an appearance. This was an excellent opportunity to meet colleagues within the industry and build relationships. The professional relationships and interactions that grow from meeting like-minded colleagues is what is beneficial.

YPs may be young, but they are dedicated, passionate, and eager for knowledge. The summit is a place for YP growth and investment into the future. Thank you to Jenna Karazim (State of Michigan), Frank Williams (Peerless Midwest), Tony Cecchini (Waterworks Systems & Equipment), Alex Fleet (City of Grand Rapids), and Kyle Tryan (D.C. Cook Power) for representing the Michigan section this year. 💧

REGIONAL TASTE-OFF CHAMPS CROWNED

Another season of Spring Regional Meetings has passed and we have crowned the Regional Taste-Off Champs! Participation was outstanding in every Region. We have some well-seasoned repeat Champions and some fresh faces. Just goes to show you that every system can be a Championship system – but you can't win if you don't play. The action for 2019 started in the Livonia Region, where the City of Jackson emerged from a solid field to claim the trophy. The following day, the Village of Tekonsha came out of nowhere to claim top honors. This is the first Regional Championship for the Village. In Mount Pleasant, the City of Lowell brought the Best In Show tap water. The following day in Gaylord, the Mancelona Area Water and Sewer

Authority showed why they are perennial contenders by taking the Region for the 10th time in the past 13 years! Up North, Negaunee Township took home the top prize in the Upper Peninsula. Besides the water, one thing was clear – in 2019, groundwater is king.

A big thank you to all our volunteer judges and to everyone who competed this year. I hope you enjoyed the competition and continue to take pride in the product you make. Each of our Regional Champions will be invited to compete for the State Championship to be contested at the Section's ACE in September. So, who will it be: Jackson, Tekonsha, Lowell, Negaunee Twp., or Mancelona Area Water? That'll be up to the judges! 💧



THE ONE AWWA OPERATOR SCHOLARSHIP

Are you a water operator looking for funding to help start or further your career? Or know someone looking for help paying for waterworks training and education? Then please apply for the One AWWA Operator Scholarship! This \$1,000 scholarship is given out once per year to

the best applicant. A financial boost might be all you need to help make that jump to the next step in your career!

Info and applications can be found on the www.mi-water.org website under the Resources tab in Scholarships. The application deadline is Tuesday, October 1.

Also, the first five applicants will each receive a \$10 gift card. We look forward to reviewing your applications!



MEET THE NOMINEES: 2019-2020 BOARD OF DIRECTORS



JAMIE FLEMING

Jaime is the Laboratory Manager for the City of Wyoming Utilities. After completing her BS in Chemistry at Grand Valley State University, she answered an ad in the newspaper for a laboratory technician with Wyoming drinking water plant. In her 15 years with the City, she has had tremendous opportunity to learn and grow as a water professional. She went on to complete her master's degree in Public Administration (also at GVSU) and holds F-1, S-4 licenses.

Jaime was encouraged to be an active member of the Section by several of her Wyoming colleagues. She started out as a member of the Lab Practices and Youth Education committees and has since served in many roles. She has been a committee chair, Chair of the Annual Conference Program Committee, has served as a Trustee, and is currently Chair of the Conference and Recognition Council. She is also a member of the AWWA Water Quality Laboratory Committee and is the AWWA Veterans Workforce Initiative Liaison for Michigan. She has a passion for workforce development, engagement, and recruitment issues. She believes one of the most valuable benefits of being a member of the Section provides is the opportunity to meet other water professionals and to share ideas and knowledge.

Jaime lives in Hudsonville with her husband, Wil, who is a Master electrician at Wyoming's drinking water plant, along with their two daughters, Megan and Mia, and their German Shepherd, Odin.



MATT PARKS, PE

Matt is a Principal-in-Charge and Project Manager in OHM Advisors' Municipal Engineering group, where he consults with municipal clients on complex, multidisciplinary water main, sanitary sewer, roadway, and general infrastructure management projects. He provides his clients engineering and municipal design services, capital improvement planning and implementation expertise, as well as site development review assistance.

Matt has lived in the State of Michigan his entire life and has always enjoyed spending time on Lake Michigan. Growing up as an environmental contractor's son, Matt learned the basics about hard work and the importance of environmental issues, which drove him towards his career path.

A graduate of Michigan Technological University with a BS in environmental engineering and a master's degree in civil engineering, Matt's strength lies in his long-term commitment to his clients and putting their needs first. His clients look to him for his technical knowledge, attention to detail, financial oversight capabilities, and ability to negotiate with multiple public and private parties to achieve practical and cost-effective solutions.

Throughout his career, Matt has been active in several industry organizations and has served in various leadership positions.

In his 15+ year tenure as a MI-AWWA member, he has served as the Young Professionals Chair and the Technical Networking Council Chair, and currently serves on the Membership Council. Matt especially enjoys connecting with new members and encouraging them to volunteer and become more involved in the section.

In his work, Matt has managed projects with key public involvement components. He has excelled at participating at public meetings and hearings and is adept at communicating and coordinating project efforts with all levels of government.

Matt currently lives in Novi, MI, and is married to his wife, Melissa (also Michigan Tech grad). They have two boys, Tyler (9) and Logan (7). When they are not busy working and watching the kids play soccer, you can find them skiing or beaching it near Frankfort, MI.



CHRISTINE SPITZLEY, AICP

Christine is a Principal at OHM Advisors and serves in a unique role as a liaison between Engineering and Planning. In this role she connects water, environmental, municipal, and planning teams, and is responsible for identifying synergies and plans for the projects performed by these teams. She also serves as a project manager on water resources and planning-related projects.

A graduate of Michigan State University with a BS in Urban and Regional Planning, Christine has spent her career providing her expertise in infrastructure, transportation, economic development, housing, land use, and environmental planning projects and has become a leader in the water resources profession. She is Past Chair of the MI-AWWA and dedicated to its mission of treating, delivering, and protecting clean, safe water for Michigan communities. She is also on the Board of Directors of the Groundwater Foundation.

Although Christine has served in many roles during her tenure with MI-AWWA, one of her favorite accomplishments was the launch of the first Women's Networking Event in 2009. The popular event continues to grow and evolve and has become a key networking event at the MI-AWWA ACE for women in the water industry.

Christine's professional passion is to create and implement strategies for communities that are sustainable and economical. She believes success comes from building strong relationships and viewing projects through the lens of the long-term impact.



GARY WOZNIAK

Gary is a Water Distribution Engineer in the Water & Steam Department for the Lansing Board of Water and Light. He recently started this position after a 27-year tenure with the Michigan Department of Environmental Quality (DEQ) as a District Engineer. He currently lives in Kalamazoo and is looking forward to downsizing and moving to the Lansing area with his wife Charisse. They have five kids between them and all are grown.

Gary grew up in southeast Michigan and obtained his Bachelor of Science in Environmental Engineering from Michigan Tech.

He earned his Professional Engineers License in 1994 and currently holds D2, S3, and F3 operator licenses. His first job was Resident Engineer on sewer construction projects for McNamee, Porter, & Seeley in Lansing. He worked in the Upper Peninsula and Southwest Michigan Districts for the DEQ. His first committee assignment with the Section was with UP Education where he conducted the Regional Taste-Off Contest.

After transferring to Southwest Michigan, he continued providing statewide Taste-Off coordination for the Community Awareness Committee. Currently, Gary is Chair of the Education and Training Council, Co-Chair of the Historical Preservation

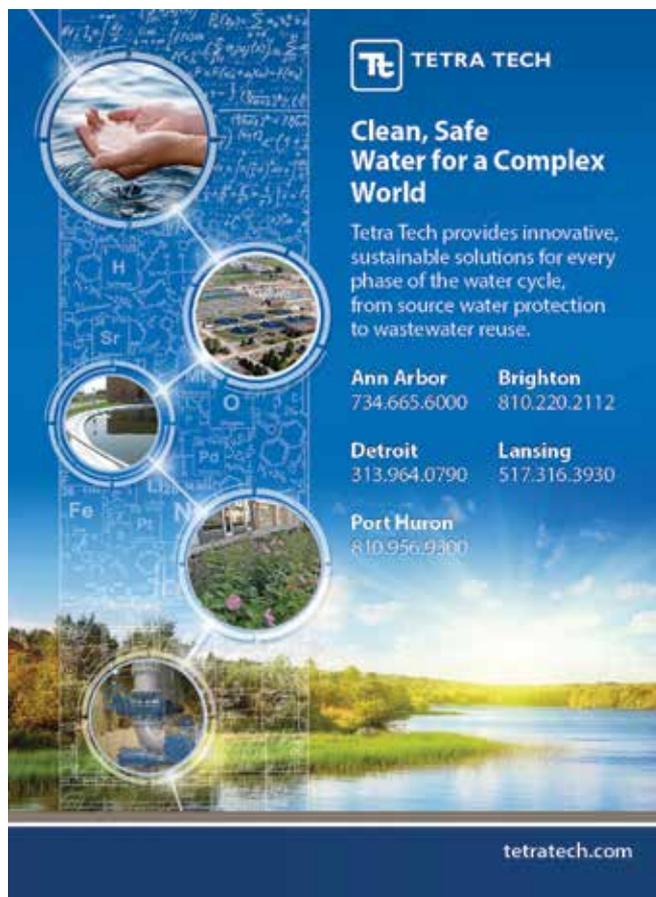
Committee, and an affiliate member of the Ontario Section. He has won the Richard Husby Public Awareness Award in 2010 and the Executive Director's Award in 2017.

Gary believes that well-trained, knowledgeable operators are an important part of asset management, and he shows this by providing training and building relationships. His experience with water systems in both the upper and lower peninsulas give him a broad view of both system strengths and challenges statewide.

In his off-time, Gary enjoys fishing with his wife, fur trapping (he is a lifetime member of National Trappers Association), hiking, paddling a canoe, and playing guitar. 

WELCOME NEW MEMBERS OF AWWA Members who joined March 1–May 31, 2019:

- Mark Bachman, City of Niles Utilities Dept.
- Andrew Boatright
- Tracy Connelly, City of Harrison
- Steven Corrion, Village of Pigeon
- Mark Disselkoe, City of North Muskegon
- Chris Evans
- Dave Evans
- Samariaha Giffel, Grand Rapids Water Department
- City of Grand Ledge
- City of Harrison
- Leanne Hoese, City of Niles Utilities Dept.
- Todd Hogan
- J. Rettenmaier USA
- Jamestown Charter Township
- Stephen Keel, City of Petoskey
- Nicholas Maguire, Village of Akron Dept. of Public Works
- Jack Murphy, City of Linden
- Jennifer Naylor, City of Springport
- Geoff Nelson, Village of Ravenna
- John Norton
- Brad Ohman
- Village of Pigeon
- Kurt Ristow, City of Grand Ledge
- Perry Roberts
- Yogesh Vasant Shejal
- Sims Whitney Utility Authority
- Thomas Silsby, City of Mason
- Todd Smith, J. Rettenmaier USA
- Chad Snyder, Grand Rapids Water Department
- Robert Spreitzer, City of Gladstone
- Dan Sroka
- Steven St. Pierre
- Village of Springport
- Ryan Vedrode
- Mike Vukmirovich, Great Lakes Water Authority
- Darron Williams, Woodland Center Correctional Facility
- Craig Wolf, HydroCorp
- Rob Worden, Hampton Township 



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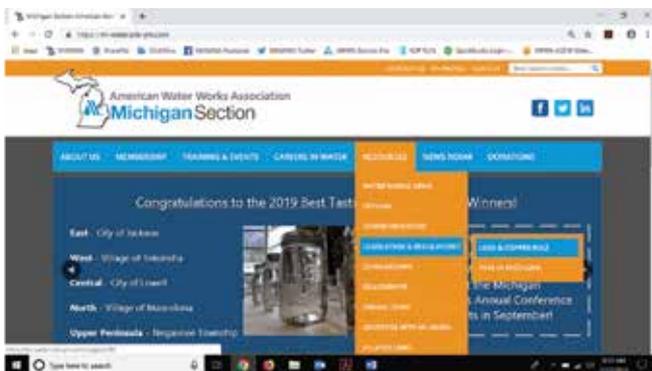


FALL REGIONAL MEETINGS

Even though it's approaching the dog days of summer, registration is open for Fall Regional Meetings. Check out the agendas online for the location nearest you and take a few minutes to register. 💧

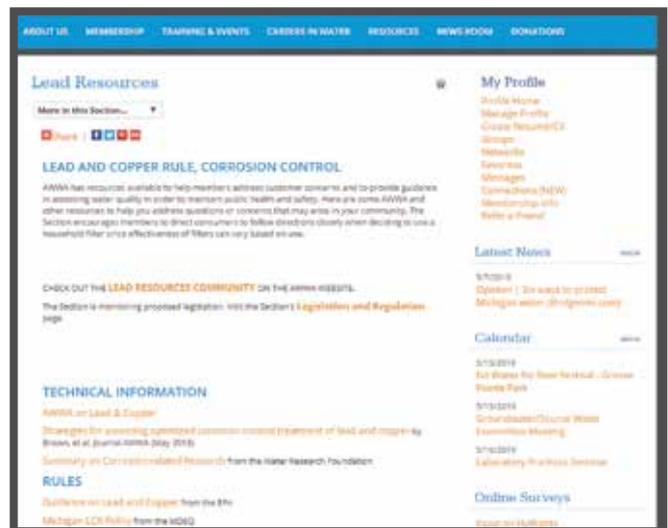


MI-AWWA ONLINE



As Lansing heats up with policies, rules, and regulations that impact water supplies, the Section tries to offer resources to help you navigate the changes.

Remember, each menu options lands on a page. So you can start by clicking on Resources and drill down that way. Or, you can roll over Resources to get the drop down menu and click on any of those options.



Remember to bookmark your favorite pages to help you find what you're looking for quickly on subsequent visits. 💧

August 2019

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
			1	2
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
Basic Math and Hydraulics <i>Tustin</i>				
26	27	28	29	30
Customer Service I <i>Grand Rapids</i>				

September 2019

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
2	3	4	5	6
Cross Connections – Advanced <i>Lansing</i>				
9	10	11	12	13
MI-ACE 2019 <i>Traverse City</i>				
16	17	18	19	20
Customer Service II <i>Grand Rapids</i>				
23	24	25	26	27
UP Distribution Seminar <i>Harris</i>				
30	31			

October 2019

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	1	2	3	4
Fall Regional Meeting <i>Livonia</i>				
Fall Regional Meeting <i>Kalamazoo</i>				
7	8	9	10	11
Limited Treatment <i>Hickory Corners</i>				
Distribution <i>Hickory Corners</i>				
14	15	16	17	18
Water Treatment II <i>Tustin</i>				
Customer Service III <i>Grand Rapids</i>				
21	22	23	24	25
Fall Regional Meeting <i>Mt Pleasant</i>				
Fall Regional Meeting <i>Gaylord</i>				
28	29	30	31	

November 2019

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
				1
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29



MI-AWWA 2019 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)

Please check this box if you would like to receive exhibit or sponsoring company materials via email.

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. 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. Attendance at, or participation in MI-AWWA Trainings, Conferences, Social Events and other Section activities constitutes consent by the registrant to permit American Water Works Association – Michigan Section to use and distribute both now and in the future the attendee's image and/or voice in photographs, videos, and audiotapes in print or electronically of such events and activities for any purpose consistent with the mission of the Section without limit or liability.

PAYMENT* \$ _____ **member** \$ _____ **non-member** **Payment by:** Check Number _____

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** The registration rate current at the time of registration (transmitted or post-marked) will apply.
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Signature _____

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OR REGISTER ONLINE AT WWW.MI-WATER.ORG



MICHIGAN DPT. OF ENVIRONMENT, GREAT LAKES, AND ENERGY



Did you know the Michigan Department of Environmental Quality is now the Michigan Department of Environment, Great Lakes, and Energy? In a February executive order, Governor Whitmer announced a restructuring of Michigan's environmental management agencies as part of her vision to improve Michigan's air, land, and water, protect public health, and encourage sustainability.

The Department of Environment, Great Lakes, and Energy, established April 22, 2019, combines the functions and expertise of the Department of Environmental Quality, Agency for Energy, and Office of the Great Lakes into one team.

EGLE is committed to its work with federal, state, and local partners to protect public health and the environment. Get more details from the official announcement, and feel free to reach out with questions. 💧

PROGRESSING TOWARD A PFAS MCL IN MICHIGAN

By Ian Smith, EGLE Drinking Water and Environmental Health Division

On March 26, 2019, Michigan Governor Gretchen Whitmer announced that Michigan would begin the process of establishing drinking water standards for per- and polyfluoroalkyl substances (PFAS) to protect human health and the environment. A Science Advisory Work Group was established to review existing and proposed drinking water standards from around the nation and provide health-based values for PFAS drinking water standards. These health-based values are due to the Michigan PFAS Action Response Team (MPART) by July 1, 2019.

While the Science Advisory Work Group is determining health-based values, the rulemaking process is well underway, led by Michigan's newly reorganized and renamed Department of Environment, Great Lakes, and Energy (EGLE; formerly the Michigan Department of Environmental Quality) and its Drinking Water and Environmental Health Division. EGLE has filed a formal Request for Rulemaking and is currently reaching out to key stakeholders, arranging what will be a series of discussions, with the goal of drafting Maximum Contaminant Levels (MCLs) for PFAS in Michigan. These stakeholders include groups representing public water supplies, municipalities, engineering firms, environmental entities, public health and safety, industry, and other areas.

The health-based goals provided by the Science Advisory Work Group will serve as a starting point, and through this stakeholder engagement process, EGLE will develop draft MCLs for PFAS no later than October 1, 2019. Once the draft MCLs have been prepared, the formal rulemaking process will move forward, with a goal of adopting final MCLs in April of 2020. This aggressive schedule to promulgate rules for drinking water supplies is consistent with the State of Michigan's priority to public the health of residents and our commitment to protecting the state's valuable drinking water from this group of emerging contaminants.

During the year-long rulemaking process, EGLE and the other six state agencies that comprise MPART will continue to direct statewide efforts to investigate and reduce exposure to PFAS in Michigan's drinking water. In 2018, the first-of-its-kind statewide PFAS sampling survey tested PFAS levels in drinking water for over 75% of Michigan's residents. In 2019, this initiative continues and has expanded, assessing and monitoring PFAS levels for even more of Michigan's public water supplies toward the goal of protecting our state's drinking water resources. 💧

AVOID COMMON ERRORS ON EXAM AND RENEWAL APPLICATIONS

Exam Applications

Have you ever turned in your exam application, only to hear it was denied due to missing information or the postmark deadline?

If so, you are not alone, and the Michigan Department of Environment, Great Lakes, and Energy (EGLE) has the solution. A denial for missing information or an incomplete application is usually because one of the following items is incomplete: failure to select the correct exam level, missing signatures (applicants and supervisors), forgetting to check your job duties, missing a description and percentage in the job duties box, and not having an original signature.

Another unfortunate and common reason for denial is a late application (past the postmark deadline). A common complaint from operators and/or their supervisors is the exam application was not submitted on time because the administrative department did not mail it by the postmark deadline. However, each operator is ultimately responsible for his or her own certification, and therefore it is each operator's job to make sure the application(s) are submitted on time. In order to assist operators in filling out the exam application and avoiding the five most common mistakes, a recent video was produced by the Operator Training and Certification Program. You can watch the video at: www.michigan.gov/deqoperatortraining. Look for New Drinking Water Exam Application Instructional Video. 💧



LEAD AND COPPER RULE UPDATES

Revised Lead and Copper Tap Sample Site Selection Criteria and Sampling Pool Requirements

This is a reminder that recent revisions to Michigan's lead and copper provisions of the administrative rules promulgated under the *Michigan Safe Drinking Water Act*, 1976 PA 399, as amended (Act 399), revised the lead and copper tap sample site selection criteria to further emphasize sites with high risk for lead exposure. Additionally, the rules now require water supplies to submit a pool of properly selected lead and copper sampling sites to the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

Water supplies must review their sampling pools, compare their existing sampling sites to the revised site selection criteria, update sampling sites if necessary, and submit a sampling plan to EGLE by January 1, 2020. Information about the updated site criteria and sampling pool requirements were mailed to all community water supplies in March 2018. These materials are also available on the EGLE website at www.michigan.gov/lcr and include Sample Site Selection Criteria, the Lead and Copper Sampling Plan Form (includes instructions for completing the form), and Steps for Completing the Lead and Copper Sampling Plan.

Updated Lead and Copper Tap Sample Collection Procedures

Don't Forget! Lead and copper tap sampling procedures have changed for sites served by a lead service line. To better estimate potential lead exposure in homes with lead service lines, both a first AND fifth liter sample, following a minimum six hour stagnation, is now required. Sites without lead service lines continue to sample the first liter as was previously required.

The www.michigan.gov/lcr website has updated sample collection information. Sampling instruction forms, infographics, and sample collection videos are available for both the first liter, and first/fifth liter sampling protocols. Please review these materials and ensure proper collection methods are followed.

Preliminary Distribution System Materials Inventory

The recent rule revisions now require more extensive knowledge and documentation of the distribution system materials, including service line materials. A Preliminary Distribution System Materials Inventory (DSMI) is due to EGLE by January 1, 2020. A Preliminary DSMI reporting form, instructions, and supporting memo were sent to all community water supplies and are available on the EGLE website at www.michigan.gov/lcr. 💧

FALL EGLE/MI-AWWA JOINT TRAININGS

Are you prepping for an exam? The joint EGLE/MI-AWWA short courses are a good option for making sure you have a great foundation going into the exam.

Basic Math and Hydraulics Short Course

This course is being offered to allow water utility personnel an opportunity to acquire basic information in the subjects of math and hydraulics. Course topics include: use of a calculator, operational math, calculation of areas and volumes, velocity and rates, basic hydraulics, weight, density, specific volume, pressure calculations, chlorination calculations, etc.

Limited Treatment Short Course

This course is offered to allow water utility personnel an opportunity to acquire basic information in the subjects important to limited treatment systems. This course will cover topics including: basic math, chlorination, fluoridation, safety, iron removal, wells and pumps, and miscellaneous treatment.

Water Treatment II Short Course

This course takes water professionals to the next level in water treatment. Completing Water Treatment I is strongly recommended. Topics include system operation, alternative disinfection, rules, taste/odor, laboratory QA/QC, coagulation and flocculation, management and customer relations, softening, lead service line sampling, corrosion control treatment, Lead and Copper rule, sludge and jar testing.

Water Distribution Short Course

This course is offered to allow water professionals an opportunity to acquire basic information in the subjects important to distribution systems. This course includes topics such as water mains, pipeline appurtenances, safety, regulations and rules, meters, cross connections, maintenance, and other distribution system related topics.

Another great option is the Advanced Cross Connections seminar. This one-day training delves deeper into the critical issues that occur when cross connections exist and how to address them.

Get more details online and take a moment to register, because space is limited. 💧



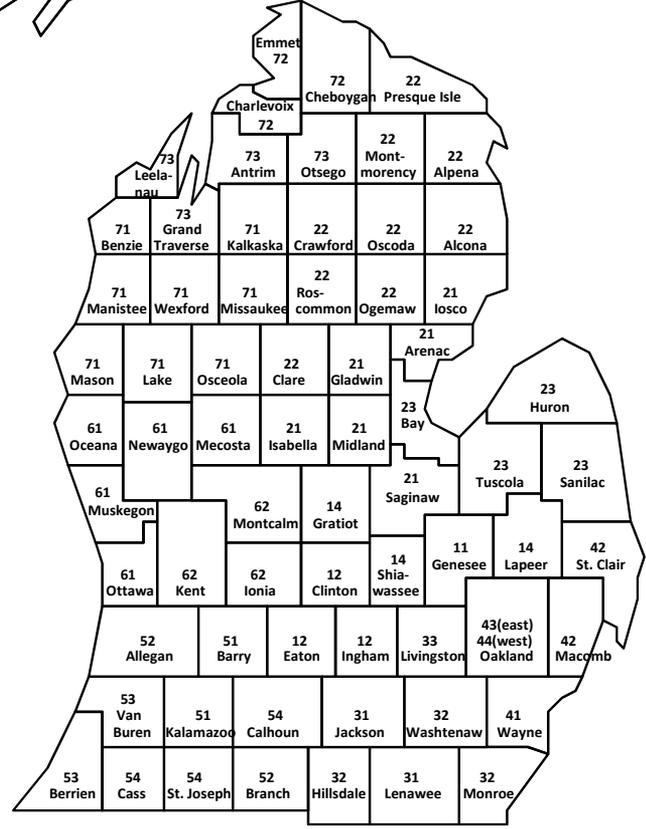
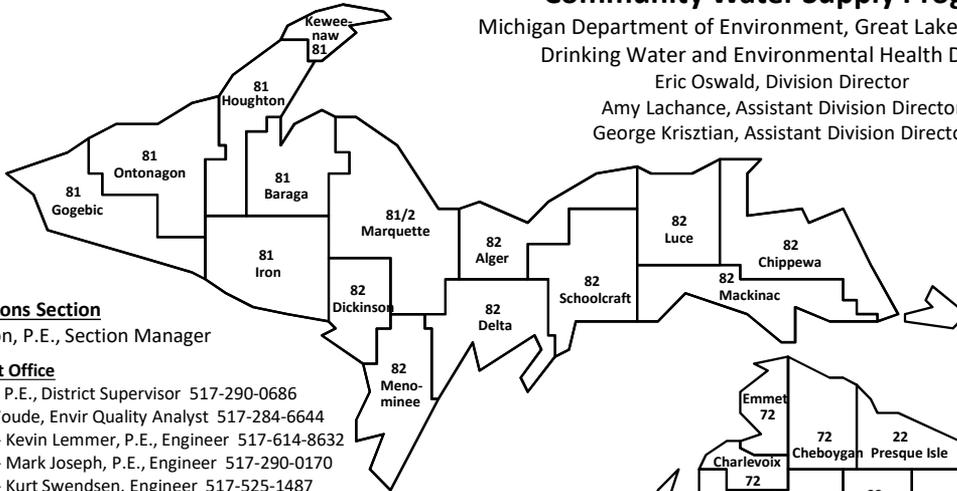
Community Water Supply Program

Michigan Department of Environment, Great Lakes, and Energy
Drinking Water and Environmental Health Division

Eric Oswald, Division Director

Amy Lachance, Assistant Division Director

George Krisztian, Assistant Division Director



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After Hours Emergencies: 1-800-292-4706

Community Water Website: www.michigan.gov/deq

Click on Water > Drinking Water > Community Water Supply

* MHC = Manufactured Housing Communities



COMPANY	PAGE	TELEPHONE	WEBSITE
AECOM	21	248-204-5900	www.aecom.com
AMERICAN Ductile Iron Pipe	12	205-325-7701	www.american-usa.com
ARCADIS	25	248-994-2240	www.arcadis.com
Badger Meter	9	808-876-3837	www.badgermeter.com
Bay College	31	906-217-4002	www.baycollege.edu
Brown & Caldwell	7	248-680-6708	www.browncaldwell.com
Calgon Carbon Corporation	9	800-4CARBON	www.calgoncarbon.com
CDM Smith	10	313-963-1313	www.cdmsmith.com
ChlorTainer	21	800-543-6603	www.chlortainer.com
Core & Main	21	586-323-8800	www.coreandmain.com
Detroit Pump	31	800-686-1662	www.detroitpump.com
Dixon Engineering, Inc.	55	616-374-3221	www.dixonengineering.net
EJ	18	800-626-4653	www.ejco.com
Ferguson Waterworks	11	517-322-0300	www.ferguson.com/waterworks
Fishbeck, Thompson, Carr & Huber, Inc.	31	800-456-3824	www.ftch.com
Fleis & Vandenbrink	13	616-977-1000	www.fveng.com
Force Flow	17	800-893-6723	www.forceflow.com
Granite Inliner	68	734-955-2508	www.inliner.com
Greeley and Hansen, LLC	13	800-837-9779	www.greeley-hansen.com
Haviland	12	616-514-3600	www.havilandusa.com
Hubbell, Roth & Clark, Inc.	27	248-454-6300	www.hrc-engr.com
Induron Coatings, Inc.	17	800-324-9584	www.induron.com
JGM Valve Corporation	2	248-926-6200	www.jgmvalve.com
Jones and Henry Engineers, Ltd.	27	269-353-9650	www.jheng.com
KEI Controls, LLC	31	989-751-7624	
Kennedy Industries	34-35	248-684-1200	www.kennedyind.com
Kerr Pump & Supply	4	248-543-3880	www.kerrpump.com
Kraft Power Corporation	6	866-713-2152	www.kraftpower.com
ME Simpson	25	800-255-1521	www.mesimpson.com
Michigan Pipe & Valve	36	989-817-4331	www.michiganpipe.com
Moore & Bruggink, Inc.	59	616-363-9801	www.mbce.com
Peerless Midwest, Inc.	3	616-527-0050	www.peerlessmidwest.com
Pittsburg Tank & Tower Group, Inc.	22	270-826-9000	www.pttg.com
Plastics Pipe Institute	14	469-499-1044	www.plasticpipe.org
Prein&Newhof	10	616-364-8491	www.preinnewhof.com
SLC Meter, LLC	22	800-433-4332	www.slcmeterllc.com
Taplin Group, LLC	6	313-695-1047	www.taplingroup.com
Tetra Tech	59	734-665-6000	www.tetrattech.com
UIS SCADA	67	734-424-1200	www.uisscada.com
United Systems	21	800-455-3293	www.united-systems.com
USALCO	7	410-918-2230	www.usalco.com
Utility Service Group	26	855-526-4413	www.utilityservice.com
Wade Trim	22	800-482-2864	www.wadetrtrim.com
WaterTap, Inc.	18	248-437-7023	www.watertapinc.com
Waterworks Systems & Equipment, Inc.	53	810-231-1200	www.waterworkssystem.com
West Michigan Instrumentation Systems, Inc.	8	616-837-6148	www.westmichiganinstrumentation.com
Williams & Works	8	800-224-1590	www.williams-works.com



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