

MICHIGAN water works

FALL 2019

NEWS



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FALLING INTO FALL

KELLY GLEASON, EDITOR

Hello Michigan! I hope everyone had an amazing summer. The season has changed and we are into the cooler days of fall: changing leaves, bonfires, and football!

This time last year, I was working hard toward achieving my S1 license through the State of Michigan. I was approved to write the test back in May and... I passed! I now hold both the S1 and F1 Drinking Water Licenses. I truly appreciate all the help I received along the way. Thank you to my mentors and teachers! There are many training opportunities available: see page 47 for the calendar of events.

The Section's annual conference MI-ACE19 was held in Traverse City this year. Two fundraising events were offered: the annual golf outing and a No Water No Wine tasting room tour. In the last year, my love for golf has grown, so I played in the outing held on the Spruce Run course with some great people. I even scored the winning spot for the Women's Longest Drive on the Fairway – approximately 198 yards! The two events help raise money for operator scholarships and Safe Water in Ecuador. The conference was, as always, amazing! Two and a half days of water information, networking, familiar faces, and plenty of new faces, too. Anyone who didn't attend should make plans for next year – it's always a wonderful event. There is a recap on page 23.

I like to hear from you, our readers. Is there content you'd like to see covered in *Water Works News*? Send me a quick note at kelly.gleason@lbwl.com – I would love to hear from you. The deadline for submission of content for the Winter issue is November. I hope to see your article soon! 💧



Spruce Run View.



Golf Outing Team: (top to bottom): Richie Garcia, Adam Gerstbauer, Kyle Tryan, Kelly Gleason.



Longest Drive: Landed just shy of the 200-yard marker on a 398-yard tee, shooting from the yellows. Longest shot ever for me!



ARE YOU COMING OR GOING?

PAUL D. REINSCH, CHAIR

We are in the midst of huge change in our industry. When I stop and think about all of the challenges and change we are experiencing, I believe we all feel overwhelmed. Examples are numerous: retirements of highly skilled professionals, fast paced state level regulatory implementation never before seen, evolving public opinion, and an aggressive media ready to place blame on the industry.

At MI-AWWA Section, we are doing what we can to help all of our members and the water industry in Michigan not only meet these extreme challenges, but also do so with the best possible outcomes. At the State Capital, we are engaged with our legislative leaders and the Michigan Department of Environment Great Lakes and Energy (EGLE). We are forming and fostering strong relationships that are earning respect for the MI Section AWWA. We are also working to provide education opportunities for new persons in the industry through AWWA and EGLE continuing education courses and supporting MI College programs intended to provide degrees in the water field.

Because of the need for more highly educated, capable professionals in the industry, we need to reach out to people and help them to understand what a rewarding and good career this is. Persons outside of the industry truly do not understand what we do – this is why they normally do not think about the water service sector as a career choice. I know of no-one who set out to be a water professional. Most everyone I ask say they fell into the industry: we are the persons that really have the understanding to be a voice and encourage people to consider this career. Qualified, passionate, gifted people are required to continue to provide

“QUALIFIED, PASSIONATE, GIFTED PEOPLE ARE REQUIRED TO CONTINUE TO PROVIDE HIGH-QUALITY WATER. HIGH-QUALITY WATER IS ESSENTIAL TO A PROSPERING, GROWING, AND SAFE COMMUNITY.”

high-quality water. High-quality water is essential to a prospering, growing, and safe community. Whether a person is interested in being an engineer, scientist, operator, regulator, administrator, attorney, or public relations person – there is a place for you in the water industry.

Industry professionals are on the front lines and are the people who work tirelessly every day to provide consistent, safe, and plentiful water to our customers. We are also the people that need to find ways to correct the legacy issues we face, such as the new MI Lead and Copper Rule service line replacement requirements, and emerging contaminants such as PFAS.

I recently saw a sign that read, “Are you coming or going?” Contemplating this, I believe we are always both coming and going. We are coming from our prior experience and our prior experience helps us understand where we need to go moving forward. To me this is actually our challenge: we must always be mindful of what we have learned so that we are always moving toward improvement. 💧

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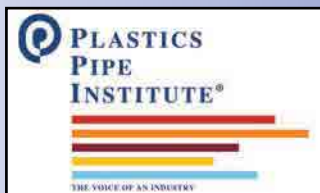
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INVESTING IN WORKFORCE EDUCATION

PAT STASKIEWICZ, DIRECTOR

The AWWA Board of Directors held their Summer Board meeting in Denver at ACE 2019. Some of the highlights from the meeting include the following:

Changes in Leadership

At the conclusion of ACE 2019, President David Rager from the Ohio Section passed the gavel to Jim Williams from the Indiana Section. This also marked the last meeting for Vice President Mark Coleman. Mark did so much for AWWA that it will take two people to replace him! Well, sort of. I will be representing Michigan, but we also have the honor of having a second board member from Michigan. Cheryl Porter is starting her term as Director-at-Large.

Strategic Planning

Immediate Past President David Rager didn't have to wait long before finding a new assignment. David will be leading AWWA on a review of the Strategic Plan. The updated Strategic Plan will be released at ACE 2020. The Michigan Section will also be updating the Strategic Plan and we hope to release that plan at Michigan ACE 2020 in Port Huron. I will provide additional updates as both plans progress.


Washington, DC, Updates

Kevin Morley reminded us of the changes to security planning as a result of *America's Water Infrastructure Act of 2018*. The Act requires water supplies serving populations over 100,000 to complete a Risk and Resilience Assessment by March 31, 2020, and submit a certification to the USEPA. These plans need to be reviewed and updated every five years. You will also need to update your Emergency Response Plan. Don't wait too long to get started on these requirements! Check out EPA's Water Resilience page on its website at www.epa.gov/waterresilience for more details.

Tracy Mehan had both good news and bad news to share with us. With the passage of the *Farm Bill*, there are \$4 billion in funds available over 10 years for source water protection projects. Christine Spitzley will be leading the effort for the Michigan Section. Having a delineated source water protection area will be key to unlocking this money. In Michigan, these are in the form of a Wellhead Protection Plan or Source Water Intake Protection Plan. If you don't have either of these plans, now would be a good time to complete one. The AWWA G300-14 Source Water Protection standard is a great tool to help you get started.

Now for the bad news: as you may have been noticing with the Water Services/Utility Insider updates and the Utility Alerts, there is a lot of movement in Washington to pass PFAS legislation. There may in fact be new legislation by the time this issue is published. Please pay attention to what is being proposed and be sure to write your Representative or Senator when needed.

Water Equation

The last item that I would like to highlight is the Water Equation. The Water Equation, formed in 2015, was created to help with workforce development, as well as protecting our communities through safe water. The One AWWA Operator Scholarship and Water Industry Scholarships are very direct ways in which AWWA is investing in workforce education. The Water Equation is also helping to support mentoring and networking programs for university students and Young Professionals. The last piece of the Water Equation is to support the Community Engineering Corps (CEC). The CEC is a partnership of AWWA, Engineers without Borders-USA, and American Society of Civil Engineers, and they recruit volunteers to help disadvantaged communities in the USA. Please consider giving some of your time, talent, or treasure to the Water Equation. You can learn more about the Water Equation by clicking Give on the AWWA website (www.awwa.org/water-equation). 

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GOING BEYOND

BONNIFER BALLARD, EXECUTIVE DIRECTOR

With all that's happened over the last several years with the implementation of new rules, increased attention on emerging contaminants, and continued mistrust by the public, what it means to provide clean, safe water has been top of mind for me – particularly lately.

We all know we must comply with the *Safe Drinking Water Act*. Further, the state requires certain licenses (depending on your role) and has a plethora of rules and regulations to follow. These are necessary criteria to ensure quality water reaches Michiganders. Providing education and training to help Michigan's water professionals reach their licensing goals and remain compliant with laws, rules, and regulations are core tenants to the Section's mission.

I have celebrated with many of you as you reached for and achieved your next license level. Whether an F3, a D2, or an S1, you should be proud of achieving this level of expertise. The Section will continue to help you as you reach for these goals.

But is there more?

One of my favorite water stories is of a manager who had to decide what to do when she discovered that a well was becoming contaminated. The detected level of the contaminant at the plant was within compliance. She discussed the options with her team and chose to shut down the well to perform maintenance.

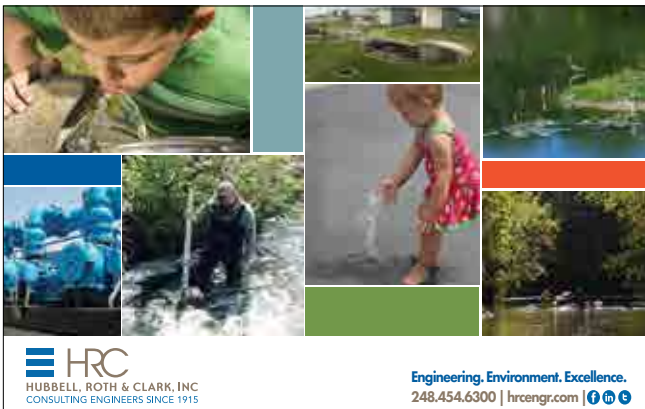


Now you may read this and say, that's obvious. I say she went beyond compliance and did the right thing. That's what so many of you do so often that it seems obvious to you. Perhaps without even thinking about it, you go beyond. It is why it is one of my favorite water stories – it illustrates the dedication with which so many of you perform your work every day.

As I have come to know the water community in Michigan, I am constantly amazed at this 'going beyond' that I see. Whether you are reaching for your next license or faced with a moral dilemma, I have faith that you will reach far and do your utmost to go beyond to protect public health. 💧

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– BOOKER T. WASHINGTON





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THE RIGHT WAY

MI-AWWA Creates Lead Service Line Replacement Task Force



Christine Spitzley, OHM Advisors

At the April 2019 MI-AWWA board meeting, Chair Bill Fritz established a Lead Service Line Replacement (LSLR) Task Force charged with creating a library for collecting and sharing resources to support section members as they work to implement the Michigan Lead and Copper Rule revisions (LCR). The group has begun by defining and capturing information, and lessons learned from the LSLR Pilot Grants and will include successful practices that have been employed in communities throughout Michigan.

The following are the initial resource categories the Task Force identified as key to supporting membership in LCR implementation:

- Consent Documents
- Customer Notification and Compliance Methods
- Press Releases

- Customer/Public Outreach
 - LSLR
 - Sampling
 - Case Studies
 - Public Education
 - DSML – Distribution System Materials Inventory
 - Aligning with Asset Management Plans
 - Funding Examples
 - Bid and Contract Documents
 - Sample Ordinances
 - Construction Examples
 - Sampling Protocols
 - Water System Advisory Council: Bylaws, Agendas, Formation
 - Tracking Replacement Processes/History/Forms/Document Management
 - FAQs
 - Glossary of Definitions
- For ease of use, the Task Force intends for each category to be limited to a few

reviewed, high-quality examples as opposed to an exhaustive inventory of all the work that has been done in Michigan. If you have a great example you would like to share, please contact Stacey Kukkonen, MI-AWWA Section Coordinator at 517-292-2912, Ext 106 or at skukkonen@mi-water.org.

The LSLR resource library will be made available on the MI-AWWA website as a member benefit and is expected to launch in October 2019.

LSLR Task Force Members

Christine Spitzley, OHM Advisors; Cheryl Porter, Great Lakes Water Authority; Wayne Jernberg, City of Grand Rapids; Pat Staskiewicz, Ottawa County Road Commission; Paul Reinsch, City of Saginaw and Clyde Dugan, East Lansing Meridian Water and Sewer Authority. 💧

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PIECES FROM THE PAST

50 YEARS OF THE WATER INDUSTRY IN MICHIGAN

BY RANDALL ROOST, HISTORICAL PRESERVATION COMMITTEE

50 years ago this past July, many Americans and others around the world watched as Man took his first steps on the lunar surface. Some people say this one event changed forever the way in which we look at our future. To make this event successful took the hard work and dedication of many individuals over a lengthy period of time. Many of the people responsible for the eventual success were the people in the background who were just doing their 'job.' But with everyone focused on an end goal, even the setbacks along the way could not stop us from achieving success.

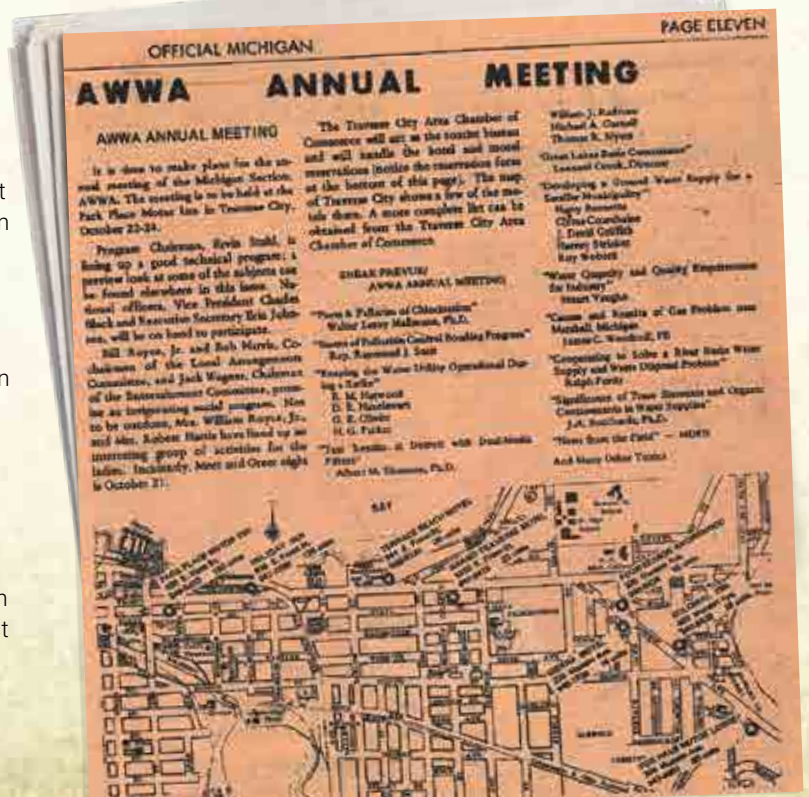
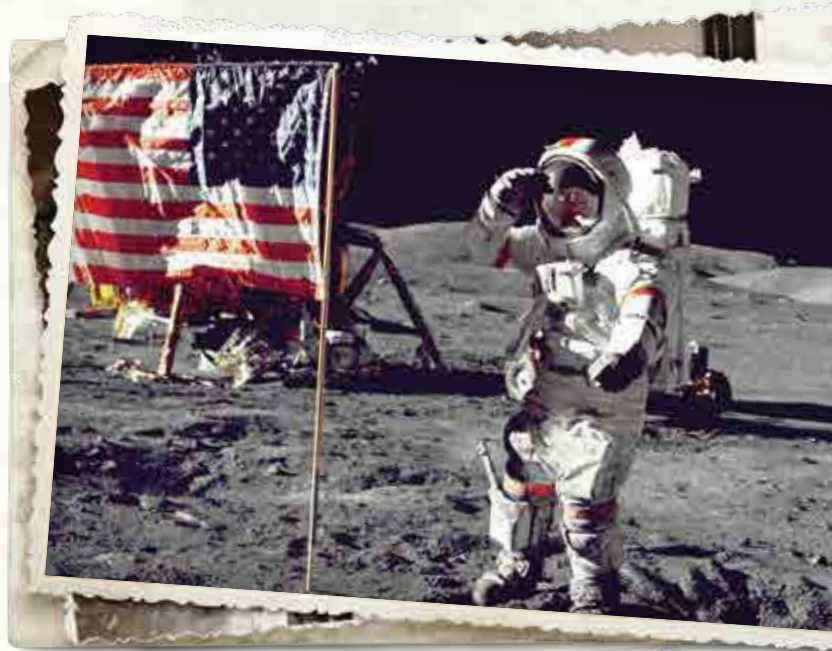
The water industry sometimes works the same way. We have a lot of very dedicated people who are just 'doing their jobs,' working diligently in the background towards a common goal of providing safe drinking water for the public in the communities in which they serve. While we too often have setbacks along the path, we continue to provide quality drinking water and are constantly looking at ways to make it even better. The sharing of information and the networking of water professionals across the state and across the county is an important part of that process.

50 years may seem like a long time, but in some respects, it is just a blink of an eye. So, what were we doing in the Michigan Section AWWA. The meeting is to be held at the Park Place Motor Inn in Traverse City, October 23-24.

Program Chairman, Ervin, held a preview look at some of the subjects to be found elsewhere in this issue. National officers, Vice President Charles Black and Executive Secretary Eric Johnson, will be on hand to participate.

Bill Boyer, Jr. and Bob Morris, Co-chairmen of the Local Arrangements Committee, and Jack Wagers, Chairman of the International Committee, promise an interesting social program. Men to be outgoing, Mrs. William Boyer, Jr. and Mrs. Robert Harris have lined up an interesting group of activities for the ladies. Instantly, Meet and Greet night is October 23.

The South Oakland Water Authority was participating in Willing Water Week (Drinking Water Week) by demonstrating the value of water. In this case, it was trying to show how much water could be purchased from the Authority for the same cost as a bottle of Red Pop.

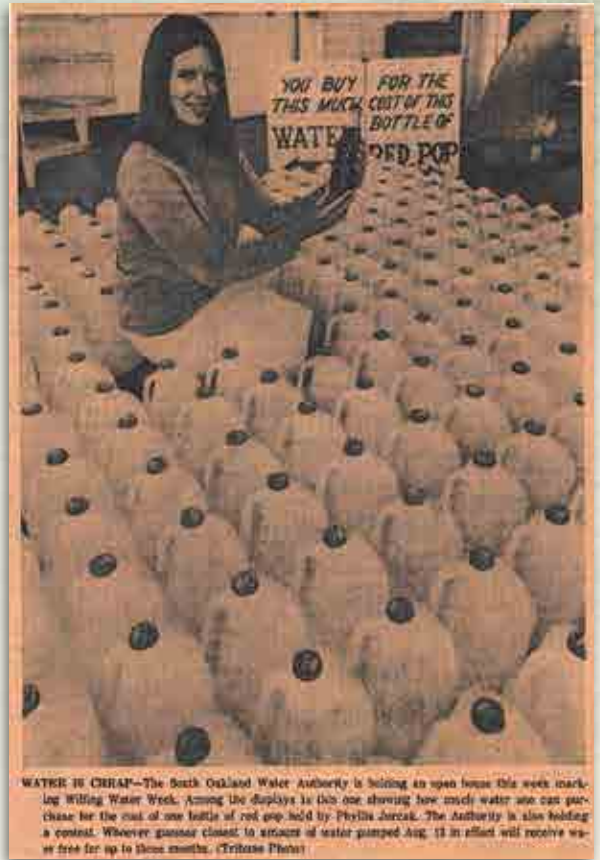


As you can see from just these two examples, the water utilities from 50 years ago faced some of the same issues that are facing utilities today. The chemicals or contaminants involved may have changed, but we are still dealing with old and new issues such as lead, copper, PFAS, dioxane, and many other potential contaminants in the water sources and supplies. We are also still struggling with trying to convince our customers of the value of the products and services that we provide. With all the challenges of delivering safe drinking water, aging infrastructure, and changing regulations, we now need to add into the mix making sure we address the issues of water affordability.

While the thought of sending a man to the moon may have seemed a daunting challenge to the space industry 50 years ago, we as a country rose to the task and were successful. In the same way we are confident with the successes each water utility achieves – and with the sharing of information and knowledge – we, too, can rise to the challenges that confront us. In the end, we will be successful. The important thing is that we are all in this together and that a failure by one can be detrimental to the industry. Our strength is in the sharing of our successes and failures to reach our end goal. 💧



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TUE, FEB 4, 2020

- 8:00 am Operators Day Training
- 8:30 am Infrastructure Funding Seminar
- 9:30 am Exhibit Hall Opens
- 4:00 pm Exhibit Hall Closes

WED, FEB 5, 2020

- 8:00 am Operators Day Training
- 8:30 am Exhibit Hall Opens
- 9:00 am Media Training
- 10:00 am Advocacy Seminar
- 2:00 pm Exhibit Hall Closes

Look for additional training information later this fall!
Booth space on sale beginning Oct 15, 2019.
Exhibitors from the past five years should have already received their points statement.

Please contact MI-AWWA staff with questions.

Registration for trainings opens Dec 1, 2019.

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PFAS: THE MAKING OF A RULE IN MICHIGAN

Early this year, the Governor’s office asked the Department of Environment, Great Lakes, and Energy (EGLE) to undergo the rule-making process to regulate per- and polyfluoroalkyl substances (aka PFAS) in Michigan. As part of the process, Michigan PFAS Action Response Team (MPART), the cross-agency task force that led the testing effort, initiated a science working group to review literature, various health models, and other states’ work to provide health-based values with which to inform future maximum contaminant levels (MCLs).

Proposed MCLs for Seven PFAS Chemicals

Contaminant	Max. Cont. Level in ng/l	Effective Date
Perfluorononanoic acid (PFNA)	6	Effective Date of Rule
Perfluorooctanoic acid (PFOA)	8	Effective Date of Rule
Perfluorohexanoic acid (PFHxA)	400,000	Effective Date of Rule
Perfluorooctane sulfonic acid (PFOS)	16	Effective Date of Rule
Perfluorohexane sulfonic acid (PFHxS)	51	Effective Date of Rule
Perfluorobutane sulfonic acid (PFBS)	420	Effective Date of Rule
Hexafluoropropylene oxide dimer acid (HFPO-DA or GENx)	370	Effective Date of Rule



Here are some highlights from the proposed rule:

- Annual sampling will be required for most systems after initial monitoring for communities below the detection limit.
- Violations will result in quarterly sampling.
- Labs will be certified after the rule is final.


The rule is in public comment (targeted for October 1 as of this writing) and will also be reviewed by the Joint Committee on Administrative Rules (JCAR) as well as the (ERRC). The rule must also go through a Regulatory Impact Statement & Cost-Benefit Analysis. If the Governor’s timeline is to be honored, all of this will happen and the rule will be finalized by April 1, 2020: an extremely compressed timeline by any standard.

Community water supplies and non-community non-transient water supplies will need to be prepared to incorporate testing for the state PFAS chemicals in the coming year. This will inevitably create financial pressure on utilities and may require some to reallocate resource.

Keep your eyes on AWWA resources like the Journal, OpFlow, future issues of *Michigan Water Works News*, and both the AWWA and MI-AWWA websites for the latest information and upcoming member forums on the issue.

AWWA PFAS Resources on the Web:
<https://www.awwa.org/resources-tools/resource-topics/pfas>

MI-AWWA PFAS Resources on the Web:
<https://mi-water.site-ym.com/page/pfas> 💧



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American Water Works Association
Michigan Section

MI-ACE 2019 Recap

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

The Section held its 81st Annual Conference & Exhibits in Traverse City in September. More than 350 turned out for the three-day conference, including 53 exhibiting companies. Highlights from the conference follow.

Mark your calendar for MI-ACE in Port Huron September 15-18, 2020.

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SESSION HIGHLIGHTS





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SESSION HIGHLIGHTS



AWARD HIGHLIGHTS



Silver Water Drop

L to R: Board Chair Bill Fritz, Silver Water Drop awardees Tom Smith, John Paquin, and Christine Spitzley, and AWWA Vice President Randy Moore.

Not Pictured: James Lahti, Kurt Malzahn, Shawn McBride, Tony McGrath, Rick Miller, Michael Slomski, and James Van Harn.

PROFESSIONAL EXCELLENCE AWARDS



Board Chair Bill Fritz with the team from the City of Battle Creek.



EGLE Edward Dunbar Rich Award

L to R: Board Chair Bill Fritz, awardees Charles Radecki, Jim MacQuarrie, and Robert Koehn, and EGLE Division Director Eric Oswald.



Awardees Donald Petrovich of Plainfield Charter Township and Christopher Steary of Great Lakes Water Authority pictured with Board Chair Bill Fritz.



Operator Meritorious Award

LaShone Bedford of Great Lakes Water Authority accepts her award from colleague and Section Board Chair Bill Fritz.



Young Professional of the Year

Awardee Rachel Barlock with Southeast Michigan Council of Governments pictured with Chair Bill Fritz.

AWARD HIGHLIGHTS



Chuck Van der Kolk Volunteer of the Year Award (MI-AWWA)

Chair Bill Fritz, Kathy Van der Kolk, and awardee Mark Coleman of Wade Trim.



Exemplary Source Water/Wellhead Protection Award

Chair Bill Fritz pictured with the Plainfield Charter Township team.



Michigan Utility Hall of Fame Inductees

Inductee Patsy Clark pictured with Historic Preservation Committee members Greg Alimenti and Randy Roost.



Raymond J Faust Award

Awardee Barbara Marczak pictured with new Chair Paul Reinsch.

WINNERS NOT PICTURED

Life Member Status

Rodney Burkholder, Donald DeGrand, Joseph Goergen, George Haga, Stan Hazan, William Maier, Susan McCormick, Janice Skadsen.

Gold Water Drop

James Cleland



Raymond J Faust Award

Awardee Don Petrovich pictured with new Chair Paul Reinsch.



George Warren Fuller Award

The 2019 Michigan Awardee Richard Benzie pictured with visiting officer AWWA Vice President Randy Moore.

TASTE-OFF WINNERS

On September 12, 2019, in a sleepy, early-morning AWWA Michigan Section business meeting, a champion ascended to greatness. It took two rounds of sudden death, but after all of the back and forth, a fluid situation if there ever was one, a winner became crystal clear. Regional winners including City of Jackson, City of Lowell, Negaunee Township, and Mancelona Area Water and Sewer Authority, brought their finest H₂O. Village of Tekonsha was unable to compete due to a water system emergency on the day of the taste-off. An expert panel of judges including Randy Moore the Vice President of the AWWA, Eric Oswald of the Michigan Department of Environment, Great Lakes, and Energy, and Stacey Kukkonen of the Michigan Section, drifted back and forth in their deliberations over aroma, appearance, color, and taste. The pressure mounted and it was clear all of these systems make ridiculously great water. It took two overtimes and a Pepsi Challenge style run-off to decide 'Best of the Best.' In the end, the judges agreed, and a fresh champion would be crowned. The City of Lowell emerged as the winner their hard work in maintaining a 40-year-old lime softening plant and an unwavering commitment to excellence for their customers. It is their first championship, and it is well-earned. They will represent the Michigan Section well at the AWWA National Conference Taste-Off, to be held in Orlando, FL, in June 2020. So, raise a glass of delicious tap water to our champions... three cheers!



MEET THE LEADERSHIP

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LEADERSHIP FOR 2019-2020

As a volunteer driven organization, the Section holds its business meeting each fall during the annual conference, in part to elect board members. This is also the time when council chairs and vice chairs begin or end their terms. Here are the Section's leaders for the coming year:

COMMUNICATIONS COUNCIL

Michelle Zdrodowski, Great Lakes Water Authority, Chair

CONFERENCE & RECOGNITION COUNCIL

Aaron Davenport, Jones & Henry, Chair
Adam DeYoung, Moore & Bruggink, Inc., Vice Chair

EDUCATION & TRAINING COUNCIL

Joe VanderStel, City of Grand Haven, Chair
Jamie Hockemeyer, City of Mt Pleasant, Vice Chair

GOVERNMENT AFFAIRS COUNCIL

Molly Maciejewski, City of Ann Arbor, Chair
Andrew Reynolds, Holland Board of Public Works, Vice Chair

MEMBERSHIP COUNCIL

Amy Vail, Michigan Dept of Environment, Great Lakes, and Energy, Chair
Carrie Cox, Oakland County Water Resources Commission, Vice Chair

STRATEGIC PARTNERSHIPS COUNCIL

John Willemin, Chair 💧

WHAT'S THE VALUE OF WATER?

There are nearly 400,000 house fires in the U.S. each year, and water that flows from hydrants is our best defense.

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Truth in the Latest Fluoridation Claims: Getting Past the Smoke and Mirrors

Question: How many of you read the headlines recently regarding the dramatic fluoridation study released in the *Journal of the American Medical Association Pediatrics* recently?

The study, entitled *Association Between Maternal Fluoride Exposure During Pregnancy and IQ Scores in Offspring in Canada*, claims that pregnant women ingesting fluoride during their pregnancies was associated with lower IQ in their children. Really? How did they calculate that and how did it only effect boys?

New question: how many of you read the actual study? Honestly, calculations of the p-value data go over my head, but as a rule I always question the methods, the variables and ranges, how something was validated, and the confounding factors. Once this study is truly examined, it falls short of credibility. Let's do a quick breakdown before I get to the point:

The authors of the study acknowledge the intake of fluoride by the mothers was not validated – at this point, the study should have been rejected. How can you build and publish a study when the main variable, fluoridated water, was never validated? Urine levels can vary due to the half-life of fluorine, based on when subjects had their last drink and when the urine samples were taken. It was an item that was self-reported. The authors attempted to make controls for some chemical toxins; however, none was made for socio-economic status, the mothers' IQ scores, marital status, or children born with complications, ie: oxygen deprivation. According to the Wechsler Preschool and Primary Scale of Intelligence IQ test, a score of 70 would be in an 'intellectual disability' range. The authors chose to highlight the lowest IQ grouping, which included two boys with an IQ in the 50s range, which are significant outliers. This brings up an odd finding: how is it that a mineral they state is 'neurotoxic' only influences boys' IQs and not girls'? In the data sets, there are a few girls that scored 130+.

For a study to truly have significance, it needs to be replicable. This study would not stand that simple test. There are over 3,000 tests and studies on fluoridation, and this is how the US Public Health Service created the guidelines and upper limits. These studies showed that fluoridation of

water, within the guidelines of the CDC's optimal range of 0.6-1.2 ppm, reduced dental decay – which improves our overall health.

The bottom line is a child's IQ is not determined before birth and this study is making false assumptions. There's a saying that correlation does not show causation, and this is a perfect example. Here in Michigan, we have over 200 water systems that have naturally fluoridated water, many at the optimal level and systems that supplement fluoride. Naturally, it's been going on since our creation and supplemental since 1945. Community Water Fluoridation's 75th anniversary is right around the corner. Many of us grew up with fluoridation and I'm pretty sure if our IQs were checked, we'd still score fairly high. From a public health standpoint, time lost from school instruction due to dental pain and decay are the issues when it comes to IQ. Since this study appeared, many organizations such as the AWWA, the American Academy of Pediatrics, and the American Dental Association have re-affirmed their support of fluoridation for public health.

To help further your education of what fluoridation is, what it does, and how to properly calculate and administer it, AWWA and EGLE are holding a Water Fluoridation Training for Water Treatment Facility Operators, a full day of training with CEUs provided. It will take place Wednesday, November 13, in Mt. Pleasant. For more information or to register for the class, check your MI-AWWA section events calendar. Hoping to see you there and to answer any questions you may have. 💧





How an Innovative WTP Equipment Manufacturer is Investing in Our Next Generation of Experts

BY JAMIE WRIGHT

My first few minutes waiting in line at Starbucks were enough to prove that times are changing... fast. Local and national news organizations tell us tales of technologic advancement, the rise of artificial intelligence, and changing weather patterns.

As I watch the hive of activity behind the counter, I notice the continuous use of one thing that hasn't changed.

Water.

The most universally required resource on the planet. Some organisms don't need oxygen but one thing that they all need is water.

We need water. When I was a teenager, I remember the media foreshadowing overpopulation and impending water scarcity

that was in 1987. The world had only reached around 5 billion in population and now the United Nations projects a water-hungry population of 8.6 billion by 2030, just 11 years from now!

So, what about water?

An innovative company in Santa Rosa, California has apparently been asking the same question. They've been in the municipal drinking water industry for three decades, manufacturing an elegantly simple secondary containment vessel for chlorine gas designed to process and prevent a chlorine gas release, protecting workers and surrounding communities from a serious health hazard.

TGO Technologies, the maker of the secondary containment vessel called "ChlorTainer," began asking their customers

“If we agree that water is a crucial resource for our modern society, wouldn’t the stewards of our water benefit from the same entrepreneurial passion that currently drives our technological advancement?”

and other industry experts in the waste and water treatment industries one simple question.

“What’s the most important investment we can make to protect the future of water?”

They discovered something interesting and surprising. The overwhelming answer had nothing to do with water... but rather, the stewarding of our water.

AGING WORKFORCE WILL IMPACT PLANT MANAGEMENT

The collective knowledge hidden within our workforce is often viewed as the most valuable asset in the waste and water treatment industry.

But the industry is going to experience a loss of these key knowledge holders, specifically, the plant management who guide the current and future direction. In fact, the “2018 Longer Working Careers Survey” of 143 large U.S. employers revealed that while older employees are crucial for business success, 83% of employers, “have a significant number of employees at or nearing retirement.” (Willis Towers Watson, 2018).

Plant managers look to innovative companies as they adapt to workforce changes. By providing simplified solutions and training, vendors and suppliers like TGO Technologies can become strategic partners to help plant managers shorten the learning curves in plant operations, as less experienced workers replace their retiring colleagues.

“As long as the equipment information is effectively passed on, there shouldn’t be any problems for new people,” noted Alex Mares, the water utilities supervisor for Lake Havasu City, AZ. “Meanwhile, overall, our city is looking at optimizing training programs to get new guys interested in plant operations, including drawing them from our own distribution system crews, toward getting them interested in training for whole-plant operations.”

Another manager noted how the design of the secondary containment vessels, and the manufacturer’s training in their use, can help.

Mike Holloway, the chief operator at Walnut Creek Special Utility District in Lake Bridgeport, TX, believes that equipment design is a crucial component to efficiently operating his water treatment facility.

Reflecting on his organizations use of TGO Technologies’ chlorine gas containment system, Mr. Holloway says that, “Training for this equipment is pretty straightforward; we just need to have somebody with experience on site when we are changing out the chlorine cylinders.”

“It’s not a long process to learn,” he continued. “We don’t need six months to train somebody. It shouldn’t take more than four changeouts to learn it well.”

THE VALUE OF INDUSTRY SCHOLARSHIP COMMITMENTS

The American Water Works Association (AWWA) has recognized the importance of raising student awareness and interest in the water industry.

By encouraging well-educated entrants into the water industry, robust AWWA Scholarships range from \$5,000 to \$10,000 and are awarded to aspiring civil and environmental engineering students.

WHAT’S NEXT: HOW WE CAN HELP

If we agree that water is a crucial resource for our modern society, wouldn’t the stewards of our water benefit from the same entrepreneurial passion that currently drives our technological advancement?

What if water were the next oil? The management of this most crucial resource would command the same entrepreneurial passion that we see driving transformative technological advancements.

The communities and industries that depend on safe water, those that protect our water resources, may call upon us to develop comprehensive investments that combine innovation, creative problem solving, and educational engagement.

How can we engage youth in a meaningful way, igniting their natural curiosity, interest, and energy in this promising field?

As the knowledge holders, we have the ability to create paths leading the brightest minds to a promising, meaningful career in the water industry.

Water has no boundaries. Enriching careers that span government, environmental protection, engineering, science and technology await those who discover the water industry.

Let’s inspire them! Let’s invest in *their* future. 💧

CHUCK VAN DER KOLK AWARD

By Pat Staskiewicz

For those of you that were blessed with knowing Chuck Van Der Kolk, you will remember that AWWA membership and recruiting were very important to him. I would even go so far as to say that Chuck was passionate about recruiting. He served many years on both the Membership and Member Engagement and Development Committees at AWWA and the Membership Committee at the Section, volunteered his time at the Section booth during Joint Expo, attended New Member Lunches and Membership Summits, and recruited many AWWA members. Chuck's recruitment pitches usually started with his own example of how he entered the water industry without much knowledge and how AWWA helped him to succeed and turn his job into a career. Chuck loved AWWA.

In honor of Chuck's devotion to and very positive impact on AWWA, and in order to recognize members who share Chuck's passion for recruiting, the AWWA Board approved the creation of the Chuck Van Der Kolk Award.

Previously, AWWA had established the Zenno Gorder Award to recognize outstanding achievement in member recruitment. Zenno Gorder was a 1963 George Warren Fuller Award winner and an active member of the Wisconsin Section. This award was presented annually to two individuals:



Illinois Section member Carlos Covarrubias receives the Chuck Van Der Kolk Award from (left) David Lafrance, AWWA Executive Director, and (right) David Rager, AWWA Immediate Past President.



- The individual member who has recruited more new members than any other member.
- The Section staff member who has recruited more members than any other Section staff member.

The Zenno Gorder Award will now recognize the top Section staff member recruiter and the Chuck Van Der Kolk Award will recognize the top individual member recruiter. This was a great way to honor two very influential members.

The first Chuck Van Der Kolk Award was presented to Carlos Covarrubias, Illinois Section, at ACE 2019 in Denver. Carlos is a Regional Manager for ME Simpson. Congratulations Carlos! The great thing with these awards is that there is no nomination form to worry about: just recruit, recruit, recruit, and AWWA staff will monitor the results and notify the winner. Let's get to work Michigan Section and bring the Chuck Van Der Kolk Award home to Michigan, along with a lot of new members! 💧



ON THE MOVE...

Kelly S. Hon moved from Michigan Rural Water Association Source Water Protection Specialist and MDEQ Wellhead Protection Grant Program Administrator to Fleis & VandenBrink as the Environmental Services Group Senior Project Manager. 💧

“IN HONOR OF CHUCK’S DEVOTION TO AND VERY POSITIVE IMPACT ON AWWA, THE AWWA BOARD APPROVED THE CREATION OF THE CHUCK VAN DER KOLK AWARD.”

ABOVE THE BRIDGE: A LOOK AT ESCANABA

Escanaba serves around 11,000 people on the Upper Peninsula's southern coast. Jeff Lampi is the Superintendent of Escanaba's Water Department in the Upper Peninsula. He has been with the department for 12 years and recently shared a little about Escanaba's water system. With a team of five at the plant, seven operators (with dual certification), and administrative staff, Jeff and his team keep the clean water flowing. The city was one of the first to require certification in both water and wastewater for its operators.

The water department is responsible for running both water and waste water plants, distribution, and miss digs. Jeff's team has a lot of responsibility. The water plant is fairly traditional. Through its two intakes, the plant draws water from Little Bay de Noc and uses alum for flocculation and sand anthracite filters. They treat with liquid chlorine and the add fluoride as well.

The water makes its way through about 80 miles of mostly cast iron and ductile iron main and the system uses two 500,000-gallon water towers. The system includes around 800 hydrants and uses around 1,000 main line valves.

Like many systems in Michigan, they know they have lead service lines. Escanaba is one of the communities that received grant funds to pilot doing the initial inventory and begin to replace those lines. And like many systems, they had to increase water rates to help address overall infrastructure needs.

Funding for the state mandates is a big concern – but even more important is qualified people. It can be challenging to find good operators who hold (or can earn) dual licenses and have a CDL. Right now, he has a good team. He is hoping that when it comes time to hire more people, he will be able to find qualified people. 💧

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Number of Employees: 12

Source Water: Little Bay de Noc of Lake Michigan



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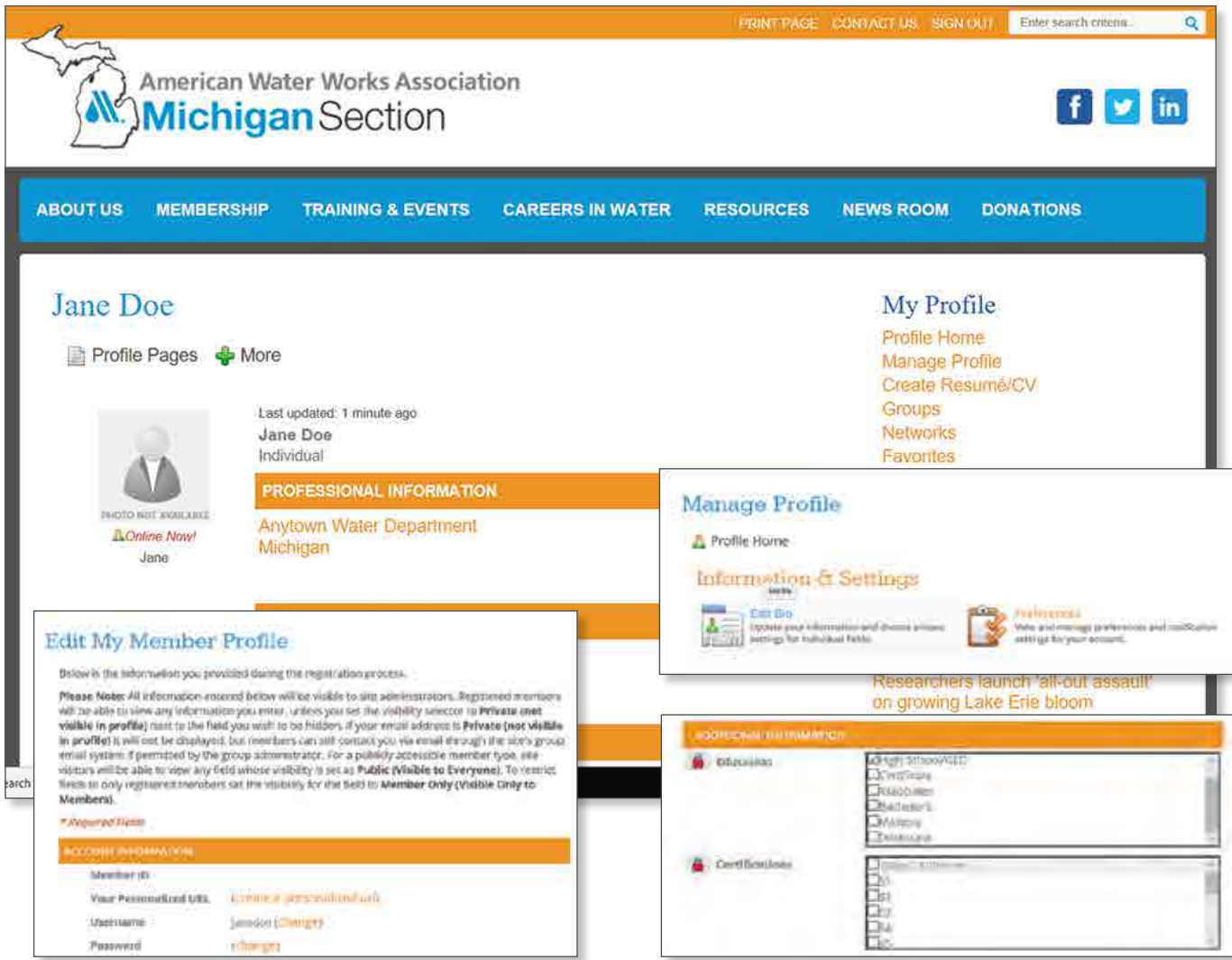
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MI-AWWA ONLINE

If you are a member or have been to an MI-AWWA event, you have a web profile on the Section website. Here is a reminder of how to manage some basic information in your profile. Once you log in, click on Manage Profile to make any changes:



The screenshot shows the website interface for the Michigan Section of the American Water Works Association. At the top, there is a navigation bar with links for 'ABOUT US', 'MEMBERSHIP', 'TRAINING & EVENTS', 'CAREERS IN WATER', 'RESOURCES', 'NEWS ROOM', and 'DONATIONS'. Below this is a user profile for 'Jane Doe', an individual member of the 'Anytown Water Department, Michigan'. The profile includes a 'My Profile' menu with options like 'Profile Home', 'Manage Profile', 'Create Resumé/CV', 'Groups', 'Networks', and 'Favorites'. A 'Manage Profile' pop-up window is shown, containing sections for 'Profile Home', 'Information & Settings', and 'Personal Information'. The 'Personal Information' section includes fields for 'Member ID', 'Your Personalized URL', 'Username', and 'Password', each with a 'Change' link. A 'Researcher' pop-up window is also visible, showing a list of members and a search bar.

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See Farther.

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BUILDING BETTER ORGANIZATIONS WITH DIVERSITY AND INCLUSION

In today's globally competitive economy, diversity, and inclusion (D & I) are vital to the success of public and private sector organizations. Diversity and inclusion inspire creativity, employee engagement, talent acquisition, retention, competitiveness, innovation, and financial and operational success. Researchers suggest that organizations with robust diversity and inclusion policies, programs, and measurable plans outperform organizations without D & I strategies.

The 2018 research report compiled by McKinsey and Company (www.mckinsey.com) shows that "companies with ethnically diverse leadership are 33% more likely to outperform their competitors."

What does D & I look like in organizations? It's where all team members – regardless of position, title, years of service, or personal background – can contribute and have equal access to opportunities and resources in an organization.

How do organizations measure the effectiveness and success of their D & I strategies, policies, and programs? According to the Society of Human Resource Management (www.shrm.org), organizations

use a variety of tools, including annual employee surveys, focus groups, employee resource group (ERG) feedback, blogs, and employee and labor relations data to improve their D & I platforms.

Also, a variety of research further suggests that organizations with D & I driven work cultures have healthier brand images, customer relations, problem-solving solutions, and productivity. A 2019 comprehensive study on inclusion describes the following benefits of including more diverse employees in business decisions at all levels:

- Inclusive teams make better business decisions up to 87% of the time.
- Teams that follow an inclusive process make decisions 2x faster with half the meetings.
- Decisions made and executed by diverse teams deliver 60% better results.
- Compared to individual decision-makers, all-male teams make better business decisions 58% of the time, while gender diverse teams do so 73% of the time.

Millennials look for diversity and inclusion in the workplace. According to a Glassdoor survey, 57% of respondents said they

felt their employer should be more diverse. Other research showed 86% of females and 74% of males consider their employers' policies on diversity, equality, and inclusion when deciding on a company to work for.

So, how can we increase D & I in our organizations? We reviewed eight best practices developed by organizational inclusion experts. Their inclusion best practice platform suggests the following:

- Establish a sense of belonging for all.
- Lead with empathic leadership.
- Leadership should include everyone in building an inclusive organization.
- Focus on people and not just numbers.
- Inclusion is ongoing.
- Maximize joy/connection, minimize fear.
- Focus on defined values and competencies, along with organizational 'fit' to help team members thrive.
- Consider your brand.

Finally, the high level of effectiveness of water sector organizations may be impacted by their D & I strategies. Organizations should actively develop, implement, and measure D & I plans consistently to retain and attract top talent, improve innovation, customer, and community relations, and organizational performance. 💧

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CONGRATULATIONS TO THE MICHIGAN SECTION!

Every year, the Michigan Section participates in a challenge from the American Water Works Association to all individual sections. We have goals to retain first year members and to grow our total membership. This year, a bonus challenge was added to help further engage members. The Michigan Section was recently recognized as **one of only four sections** participating in the bonus challenge, along with the Georgia, Atlantic Canada, and Western Canada Sections.

Encourage your colleagues and coworkers to join. It's easy at <https://www.awwa.org/membership-volunteering/join>. There is also a lot of information about the benefits of membership on the website. 💧

SAFE WATER IN ECUADOR DONATES PUMPS

Another annual conference has come and passed. Hopefully you enjoyed a round of golf or won an item at the chance auction! We thank you for your continued support of Safe Water in Ecuador! Here is a short update on what SWIE has been up to in the past six months, and what's up next.

In May, SWIE donated six pumps to be used for chlorine dosing in new water projects in Ecuador. SWIE members will have an opportunity to install a few of these pumps when they travel to Ecuador this October, while also testing for chlorine residuals in SWIE-funded communities. Fixed speed peristaltic pumps are typically utilized to dose the chlorine. The local engineers monitor the incoming flow rates from the spring and help the communities dose the water appropriately.

Clean Water Institute to monitor chlorine residuals. While the study showed mixed results for chlorine residuals in participating communities, it did highlight the need for continued training for the operators who are dosing the chlorine and monitoring residuals.


SWIE responded by donating funds to provide 10 days of community training, with a focus on chlorine dosing and monitoring.

SWIE also continued its support for the circuit rider program, which provides community visits for SWIE-funded communities from professional engineers. These visits hold communities accountable and encourages them to keep their systems well-maintained.

Again, we thank you for your support! If you'd like to join us in helping provide safe drinking water to rural Ecuadorian



Efrain (blue hat) performs the circuit rider visits that SWIE supports. Here he is leading a community in a discussion about potential water system improvements.

communities, please contact Mark DeHaan at mdehaan@preinnewhof.com, Adam DeYoung at adeyoung@mbce.com, or Jessica Howard at jessica.howard@ohm-advisors.com. 



A typical chlorine dosing set-up in a well house. The peristaltic pumps draw the chlorine solution out of the blue tank and dose it into the reservoir where it achieves proper contact time.

SWIE's partner in Ecuador, Life Giving Water International, completed a study with the help of the Calvin University

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WELCOME NEW AWWA MEMBERS

Members who joined to August 31, 2019

Tom Almonte
City of Wayne Water DPW
Lasonya Collins, Great Lakes Water Authority
Kara Dean, Michigan State University
Jason Deman, City of Auburn Hills W/S Dept
Beth Eldridge, Village of Capac
Tom Fett, City of Grand Haven Dept. of Public Works
Rick Finke, Eagle Harbor Township
Sue Franz, Holland Board of Public Works
Matt Gergen, City of Hastings
Tiana Hall, Detroit Water & Sewerage Department
Zachary Hampton, OHM Advisors
Matthew Hodges, City of Clawson

Tiffany Jones, Detroit Water & Sewerage Department
Ryan Julien, Michigan State University Biosystems Engineering
Bradley Keiser, Village of Bellaire
Paul Lilly, Holland Board of Public Works
Martin Olejnik, Plante Moran
Kaisra Osman, Great Lakes Water Authority
Elizabeth Phillips-Rawls, Great Lakes Water Authority
Chandan Sood, Great Lakes Water Authority
Derek Thiel, Grosse Ile DPW
Alisha Watkins, Plante Moran
Nathan Hunter, Hamlett Environmental
Kevin Marks, Wightman & Associates
Kareem Yaldo, DLZ Corporation 



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MICHIGAN AT AWWA ACE19



At this year's International Tapping Competition, 27 men's teams and seven women's teams represented their sections. Michigan was represented by Lansing Lethal Ladies and the Water Dog Tappers from Lansing Board of Water and Light. The teams came ready to contend for the International Title. During the competition, teams simulate the installation of a new house water service, which includes installing a copper line, adding an on-off valve at the water main, and curb stop.

When the dust or water settled from the tapping madness, the Lethal Ladies were handed a penalty, causing them to fall short of 1st Place, bringing home 2nd Place with a 2:12 tap time.

The Big D Lady Tappers from Dallas won with a 1:58 tap time and 3rd Place went to SAWS from San Antonio with a 2:13 tap time. The Water Dog Tappers men's team completed their preliminary taps; however, the tap times were just shy of advancing to the finals round.

The ladies team members included Marissa Klimkiewicz (Copper), Kelly Gleason (Cranker), Beth Zimpfer (Set-Up), and Remecho Sanders (Coach). The men's team members included Richard (Mo) Garza (Copper), Brad Lundquist (Cranker), Jon Van Dommelen (Set-Up), Blake Kalchik (Coach).

Congratulations to all for representing Michigan. 💧

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MICHIGAN WATER ACADEMY® UPDATE

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

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

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



CALENDAR OF EVENTS

October 2019

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	1 Fall Regional Meeting <i>Livonia</i>	2 Fall Regional Meeting <i>Kalamazoo</i>	3	4
7	8	9	10	11 Plant Tour of Lansing Board of Water & Light <i>Hosted by the YP Committee Lansing</i>
	Limited Treatment Short Course <i>Hickory Corners</i>			
	Water Distribution Short Course <i>Hickory Corners</i>			
14	15	16	17	18
	Water Treatment II <i>Tustin</i>			
		Customer Service III <i>Grand Rapids</i>		
21	22 Fall Regional Meeting <i>Mt. Pleasant</i>	23 Fall Regional Meeting <i>Gaylord</i>	24	25
28	29	30	31	
	EGLE Source Water Protection Conference Sponsored in part by MI-AWWA <i>Mt. Pleasant</i>			

November 2019

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
				1
4	5	6	7	8
11	12	13 Water Fluoridation Training <i>Mt Pleasant</i> USDA Grant Workshop <i>Mt Pleasant</i>	14	15
18	19	20	21	22
25	26	27	28	29



MOST COMMON SANITARY SURVEY VIOLATIONS AT MICHIGAN COMMUNITY WATER SUPPLIES

State drinking water engineers and inspectors from the Drinking Water and Environmental Health Division (DWEHD) of the Department of Environment, Great Lakes, and Energy (EGLE) conduct sanitary survey inspections at Michigan's community water supplies approximately every three years. During these surveys, eight elements are required to be evaluated pursuant to the federal Safe Drinking Water Act. These are: source, treatment, distribution, storage, pumps, monitoring and reporting, management and operation, and operator compliance. In addition, Michigan inspectors also evaluate security, financial capacity and other general topics.

A sanitary survey incorporates a pre-survey records review, an on-site interview, and inspection of relevant equipment and processes. Individual aspects of the survey that do not conform to the regulations are deemed either a significant deficiency or a minor deficiency. Significant deficiencies are those that have the potential to introduce contaminants into the water being delivered to the customers. Inspectors are required to track both minor deficiencies and significant deficiencies in the Safe Drinking Water Information System (SDWIS) database. Federal deficiencies are then reported to the USEPA, and these are available to the public at <https://echo.epa.gov>.

For the purposes of this article, SDWIS was queried to determine the most common deficiencies entered by Michigan inspectors in the last few years. This data does not include all the monitoring and reporting violations, since those are handled separately from the sanitary surveys in most cases. If these had been included, late monitoring and/or reporting would be the most frequent violation cited. Efforts are

underway to address late monitoring and reporting of results, and each water supply can do its part by taking samples early in the monitoring period to ensure there is sufficient time to address any handling or analysis issues that may arise.

Significant Deficiencies

By far the most common significant deficiency cited was a source capacity issue. In most cases, this is related to a lack of sufficient source water from groundwater wells. This could be due to a well or wells that are failing to produce or pumps that are not operating optimally over time. As pump impellers age and well screens clog, production at wells can decline with age. To address this deficiency, the district engineer works with the supply to address the impacted well(s) or identify a new source.

Other frequently cited significant deficiencies include:

Source Construction and Maintenance: Mostly issues with well maintenance, including the presence of potential conduits of contamination into the water supply such as lack of seal, cap or vent screen.

Distribution Pumping Capacity: Inadequate pumping capacity within the distribution system such that pressure may not be maintained.

Monitoring and Reporting Pursuant to the Revised Total Coliform Rule: Either lack of routine monitoring or late reporting, or lack of mandatory monitoring/reporting related to a bacteriological positive event.

Treatment Disinfection Issues: These could involve improper dosing of disinfectant or a lack of adequate chlorine residual within the distribution system due to improper equipment calibration, inadequate controls, or operator error.

Minor Deficiencies

The most common minor deficiency cited was in the area of distribution system cross connection control. An actual cross connection between a potable and non-potable water would be cited as a significant deficiency. In most cases, the use of this citation as a minor deficiency is related to an inadequate cross connection control program. These programs must include cross connection inspections for all customers, including residential, and testing of all testable backflow preventers, among other requirements. Annual program status reports are also required. Lack of an approved plan would be initially cited as a minor deficiency, but may also be cited as a significant deficiency if not promptly addressed.

Other common minor deficiencies cited were:

Reliability Study: Lack of an approved and up-to-date reliability study. Reliability studies are required to be completed and kept current to assure a continuous supply of water for drinking and house-hold purposes based on five- and 20-year water use projections.

Source Construction and Maintenance: As discussed above, this deficiency relates to an improperly constructed well, or a well that needs upkeep. For this to be cited as a minor deficiency, it would not involve any issue that could cause contamination of the water supply.

General Plan: General plans, defining the layout, capacity, and composition of each community water supply with more than 50 service connections or 200 people are required to be in place unless the supply is licensed by the state (eg: manufactured housing communities, health care facilities, etc.). These must also include asset management plans and capital



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improvement plans if the supply serves more than 1,000 people. This deficiency would be cited if the general plan, asset management plan, or capital improvement plan was not approved or up-to-date.

Hydrants and Valves: This deficiency is commonly cited when a water supply is not regularly exercising the hydrants and valves within their distribution system. This activity is important to ensure working hydrants for firefighting, as well as functional valves for isolating main breaks to minimize pressure loss within the system.

Emergency Response Plan: An important component of a water supply’s security is the development of an emergency response plan to guide actions in the event of an emergency. This deficiency is cited when this plan is not available or updated.

Further information about these or other requirements is available from each community water supply’s district engineer or inspector. 💧

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