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The Value of the Water Profession

‘I’m just an Operator.’
I can’t tell you how many times I’ve heard this when talking with someone at a plant or overheard it at a conference. Honestly, it makes me flinch a little. Just an Operator? Operators are the first responders of the water environment. People who work at our treatment facilities are literally the front line in protecting our environment, water resources, and public health.

‘I work at a sh*t plant.’
I’ve heard that one too, almost as many times. We all may be guilty of the occasional poop plant joke, but we also know the reality of the intricacies, technology, and science that goes into treatment.

Our industry may not be Hollywood glamorous, but there are few career fields that are more valuable. So, for my fourth and final article as President of the MWEA, I decided that we all need a pep talk. We show up every day, work hard, and make a difference in the world. It may not be in the fancy careers that you see on popular TV, but water industry jobs are still important. Arguably, top-of-the-list important!

Why does this matter?
You could start at the core and review the benefits of positive self-talk (there are many! Google it!), but I am going to focus more on the external benefits, namely, outside perception and understanding of our work.

Public perception is becoming increasingly important. If we can better convey the importance and specialized nature of our work, that has a domino effect in the public sphere. This translates to a better understanding of the complexity of water, wastewater, and stormwater systems and issues. It helps position us as credible resources for our local media, regulators, legislature, and councils. We get a say because we are better known as having earned one (yes, we should have one regardless, but it does help when we are seen as being credible).

Furthermore, better communication and education of our roles, our systems, and our issues help us also to get support at the public and council levels. An educated council is much more apt to understand the need for a critical purchase. The community members of the area are also more likely to support, despite potential costs, when they truly understand the ‘why’ of a rate increase or expenditure. With time and trust, they are also more likely to be on board for innovation and new ideas – because we’ve established ourselves as the experts in our field and have taken the time to explain the importance.

There is also a value in highlighting the importance of the water industry in terms
of talent recruitment. Providing a better picture of what we do, the value, the technicality, and the personal benefits, translates to more interest of students and career seekers.

Take nursing as an example (please know that I love and respect many nurses and revere this as a fantastic career, so I mean no negative inference) – nursing really isn’t glamorous. Arguably, it is a ‘dirty job’ and I’ve heard some pretty cringeworthy stories from my friends regarding their daily encounters in nursing. However, at some point in time, someone starting pitching nursing differently: focusing on the positive and the value of their work. They are caregivers, lifesavers. They are advocates and healers. The public focus is not on the ‘dirty work,’ but on the positives of that career. A random Google search of most popular careers shows nursing among the top responses...

I don’t know the exact recipe to get water careers out of the ‘dirty jobs’ category, and I certainly do not know the exact path to help us become as popular of an industry as nursing or others. However, I can say, without a doubt, that starting at how we present ourselves will do nothing but help. If each one of us focuses on presenting our roles in this field with positivity and with emphasis of the real value, it will catch on.

This is a highly skilled profession. There is no walking into any of our careers and doing them well, especially without experience. Each of us has had hours devoted to learning our ‘craft.’ On-the-job training, mentoring, and many times ‘trial by fire’ have helped us grow and gain competency. There is no book that can tell any of us exactly how to do our job. Every facility has its nuances and challenges. Every role is just a little different. It’s applied knowledge and practical application, based on very specific job conditions.

This is a highly-educated profession. Not all jobs in our field require advanced formal education or degrees, but you still must learn a lot! Whether you are in operations, engineering, or sales, you are constantly problem solving, thinking on your feet, and learning. Every day is different. Treatment is dynamic, and changing just as quickly as regulations are. We learn at our workplace and then seek out additional opportunities through organizations like the MWEA. We network and share knowledge to help each other and improve ourselves. We do this just like the popular careers like teaching, medical, law, etc.

This work is vital. You are invaluable. To your workplace, to your community, to the environment. Your knowledge has so much worth. Your work has value well beyond the simple pride you take in doing it. It is easy to clock in, do your job, and clock out – all the while forgetting that every button pushed, every lab number noted, every piece of equipment maintained, is part of a bigger picture. Please know that. Exude that!

I feel like I started this term as President with a lot of passion and respect for our profession, and I am leaving having gained even more. While in this position, I have been afforded the opportunity to meet and learn from so many. I was brought into roles well beyond what I would ever see in my ‘normal’ job and I could not be more thankful. I just would like to be the mirror, for a moment, for everyone else to see what I see. I am dang proud to be a professional in the water environment industry. I also respect and admire what all of you do, every day. Be proud, too.

We must value our own professions first for others to see the value in them, too. Sometimes we need to shed the humility, know our worth, and share that knowledge. Let’s start painting a more accurate picture of what it really means/takes to be a PROFESSIONAL in the water environment field. ☝️
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MWEA-WEF Delegate Report

The House of Delegates is key to the governance of WEF, and it is important to note that any Member Association can have an impact by bringing ideas to the yearly initiatives. Your voice counts.

WORKFORCE CHALLENGE
Recruitment and retention are issues as well as skills, education, and training. Need to consider how to change to meet the needs of members. WEF is working with other partners.

WORKFORCE DIVERSITY
WEF is leading the way in this area, making more progress than other organizations. Considering what areas are best for WEF to focus on. Team has met a few times.

GLOBAL IMPACT/TRANSLATIONS
The Operator Training Manual is being translated into several languages, with Spanish (the first) for completion Spring 2020.

Biosolids Convening – Alexandria, VA, November 2020
Approximately 50 attendees met to discuss the state of biosolids, which are the core of resource recovery efforts. PFAs and other emerging contaminants are complicating efforts. A synthesis paper, including action items, was prepared. WEF needs to work harder to be a strong leader in this area and consider other actions and activities to undertake.

Sustainable Development Goals (SDGs)
WEF prepared a position statement last fall. WEF has produced lapel pins indicating WEF support for SDGs. SDGs are for all, not just international efforts. All our efforts – meetings, etc. – should incorporate sustainability. There are significant global efforts underway, and we should beware of those efforts and share information.

Brave Blue World Documentary Movie
Two webinar screenings were shown over the past month. The purpose of the documentary is to provide the general public with information regarding promising technological solutions to challenges facing the water sector. Member Associations will have a chance to host individual screenings at their events.
**Access Water**
New subscription program to allow access to WEF’s data archives. Benefits include the ability to download data, and accessible, searchable information that can be bundled.

**Access Water Subscription Costs**
$299: WEF members  
$499: Non-members

**ADVOCACY AND POSITION PAPERS**

**Advocacy**
The BOT approved a new Advocacy Policy (posted on the WEF Website) describing parameters for engaging in advocacy, roles and responsibilities of stakeholders, prohibited areas of engagement, and supporting documents, ie. testimony.

If members provide testimony to the federal government, it must be clear that it is the individual’s position and not that of WEF.

**Position Papers**
The BOT approved a new Position Statement Development Policy, which states that the authority for creating or revising a position statement lies with the BOT.

The policy provides direction and procedures, including development, review, approval, and formatting.  

WEF is drafting a position paper on PFAS.

**GUIDELINES DEVELOPED FOR WEF AWARDS**
Encourage members to submit award nominations.

Open Water is the digital platform used for nominating members.

The goal is to confer every award every year. There have not been enough nominations.

**Naming Awards:**
Long-term member (> 20 years), deceased at least five years, highest character and ethics, eminent in WEF and field of work. Need to uphold criteria.

**Process for Naming Awards:**
Recommendation to AR Committee, five Member Evaluation Committee, AR Steering Committee, CoP Director, and CLC approval. WEF BOT for approval.

**New Awards Process:**
Proposal to AR Committee, appoint evaluation from Steering Committee, approval from AR Steering Committee, CoP Director, and CLC. WEF BOT approval. The Mentorship Award is a newly-created award.

For non-approved awards, use the term recognition. This helps to maintain the WEF Awards’ prestige and avoids the confusion of using term WEF Award for other recognitions that have not followed the guidelines for naming.

**HOD UPDATE: ACTIVITIES**

**Public Education/ Brave Blue World Workgroup**
Identified a delegate for each MA to be a liaison between the workgroup and the MA.

The workgroup is using a WEF developed toolkit to assist MAs in hosting screening of Brave Blue World.

**Stormwater/NGICP/IGICP Workgroup**
Developing a survey of MA needs in geographical areas, expect to send to MAs in 30 days.

Working with staff to determine marketing plan for the Certification program.

Designating delegate to act as a liaison between the HOD Workgroup and the WEF Stormwater Committee.

Conduct monthly calls.

**Workforce Development Workgroup**
Two Project Teams have been established within workgroup to address:  
- HOD/water workforce career value. Determine initiatives/programs related to workforce.  
- Identify champions, programs for operator training, community colleges, and apprenticeship.

**Member Association and Operators Association Workforce Programs**
Identify treatment/collection managers that are champions.

Interview champions to determine entry/midlevel aptitudes, technical skills, and career growth patterns.

**Budget Committee**
Implementing the MA grant program, 13 applications have been received.

**Outreach Committee**
Exploring ways to conduct more efficient meetings, Skype, etc.

**WEF Delegates**
Link between WEF and the MAs.

Encourage committees to reach out to delegate.

**MEMBER ASSOCIATION RELATED ACTIVITIES**

**Diversity Survey**
Last year, the WEF Board of Trustees established a Workforce Diversity and Inclusion Task Force to recommend D&I initiatives that WEF, as an organization, should undertake to help the water workforce. As part of this Task Force we would like to know what you, the Member Associations, are doing in the areas of diversity and inclusion.

Pete and Todd coordinated with Allison to respond to this with answers specific to MWEA.

All MAs will be receiving a stormwater survey from the HOD.

The WEF HOD sent a survey to its members on refining the duties and responsibilities of a WEF Delegate.

**MA Grant Program**
In total, 13 applications for the WEF Member Association Seed Grant were received. Michigan was allocated $10,000 to develop 10 additional training classes.

WEF Committees have been encouraged to explore their relationship with the MA(s) version of their committee charge. What is the communication tool? What can each offer? How can each benefit?

**WEFTEC Program**
Abstracts and session proposals were reviewed in December and January. On February 7, each symposia met to develop themed technical sessions and workshops with presentations related to their specific topics for the 2020 WEFTEC in New Orleans.

The HOD is key to the governance of WEF, and it is important to note that any MA can have an impact by bringing ideas to the yearly initiatives. Your voice counts, so if you have ideas for what WEF could do to better serve Michigan, get in touch with Todd or Pete.

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Many accessories are available. See our website or catalog for details.
Explore Michigan by water, meet new friends, and help raise money for a great cause! This year’s Annual Conference Paddle with Purpose Trip will take place on Sunday, June 21, 2020. Canoe rentals will be provided by Indian Valley Campground and Canoe Livery in Middleville. We will paddle the Thornapple River from Sesquicentennial Park in Middleville back to the Indian Valley Campground, a trip of about three hours. Bring your own canoe or kayak or rent one. Cost ranges from $25 to $95, depending on whether you bring your own boat and your number of paddlers. We plan to return to the Amway Grand Plaza Hotel by 5:00 pm in time for the 6:00 pm Welcome Reception.

To register for the trip, visit www.mi-wea.org/mwea2020ac.

Also at Annual Conference will be the ever-popular silent auction. Each year there are fun, beautiful, and interesting objects with which to fill your personal space, eat, drink, gift, or whatever you choose! We are always looking for donations of such items. If you would like to make a donation, please email Leila Saber (saberlei@gmail.com).

Now last, but certainly not least. Have you ever been crossing the Mackinac Bridge, looked down, and imagined swimming down there? Committee member Christine Kosmowski will be doing just that! For the cause, Chris will be a part of the Mighty Mac Swim, an annual open water swimming event in the Straits of Mackinac between Mackinaw City and St. Ignace, MI. It began in 2007 in celebration of the 50th anniversary of the Mackinac Bridge, with 50 swimmers completing the crossing. The event has grown to 400 participants, and Chris will be one of the them on August 9, 2020. The goal of the swim is to raise $5,000 for Water For People (WFP). Let’s do it!

Pledges to the Mighty Mac Water For People Swim can be paid directly to MWEA-MMWFPS, PO Box 397, Bath, MI 48808, or online through the MWEA. Please contact Christine Kosmowski at kosmowski@gmail.com for sponsorship opportunities and questions.
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You are likely aware of the high Great Lakes and inland water levels that have been causing significant erosion along coastal areas in Michigan. These high-water levels have been reported in the media and from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) as primarily causing erosion, but infrastructure issues are also a concern. These high-water elevations can affect and have affected discharges from municipal wastewater treatment plants (WWTP) and industrial discharges, and could also affect sewer lines and stormwater best management practices (BMP). There have been National Pollutant Discharge Elimination System (NPDES) permit violations caused by existing water levels. Based on information obtained from the US Army Corps of Engineers, it is EGLE’s understanding that Great Lakes water levels may increase in many places by roughly one foot in 2020.

To prepare for the predicted increasing water levels in 2020, we are asking all permittees to complete a vulnerability analysis to minimize potential impacts. Impacts may include WWTP bypasses from inability to discharge flow due to a changed hydraulic profile, increased infiltration and inflow into municipal collection systems that increase flow to WWTPs, potentially causing bypasses, and backflow into collection systems that can impact WWTPs. Discharges from stormwater BMPs may also be affected. This article cannot describe all items to review, but it offers some key items that may be appropriate to consider in your situation.

For wastewater treatment plants and collections systems, determine if you can discharge peak flow from your facility at higher water levels at the discharge point. You may need to pump or choose alternative discharge points to surface waters to ensure that your facility will not bypass, and facilities are protected, or that tributary collection systems do not have unacceptable risk of overflows or basement backups. Higher water levels can cause increased infiltration/inflow into collection systems that may cause WWTP bypasses. Additionally, sewers near or adjacent to surface water may be vulnerable to impacts caused by erosion.

Combined Sewer Overflow Retention Treatment Basins, or other weirs and dams on collection systems, may be affected by higher elevations that allow backflow into the system. Additional weir or dam height may be appropriate. Ability to limit flood flows into collection systems might also be needed. Backflow gates should be checked to ensure they have reliable seals to prevent inflow into the collection system. Any increased heights should be checked to ensure adequate discharge from the system. Lift stations might also be affected. Higher water levels can also affect stormwater BMPs. These BMPs may not function properly given discharge to high water levels. These BMPs should be inspected and maintained to ensure they function in an appropriate manner. Removal of accumulated sediment may be needed to increase storage capacity within the BMP. The importance of inspection and maintenance of BMPs to minimize impacts should be messaged to owners of privately-owned BMPs within the municipality. Higher water levels can also affect septic systems, industrial discharges and other dischargers.

Please note that information on Great Lake water levels can be found at www.lre.usace.army.mil. High water levels may also affect nearby rivers as well. EGLE believes that this vulnerability analysis can be useful to minimize environmental impact from higher water levels. EGLE expects you to complete this vulnerability analysis as soon as possible and keep it onsite, though based on your review, the vulnerability analysis may not be applicable.

If there are any NPDES permit violations due to high water levels, then this analysis and mitigating action you take, may help regarding any potential compliance activity. If you have any questions, please contact Water Resources Division’s (WRD) District Office compliance or engineering staff or Mr. Phil Argiroff, Assistant Director, WRD, at 517-284-6668 or argiroffp@michigan.gov.
2021 Awards Nominations

Does your friend or coworker go above and beyond and deserve to be recognized? How about nominating a municipal or industrial facility? MWEA members are doing exceptional things to protect our water environment each and every day. There are approximately 30 different WEF and MWEA awards that we seek nominations every year. Typically these awards are presented at the Annual Conference Awards Luncheon and at the Awards Dinner. The nominations are closed for the 2020 Awards, but the 2021 Awards will be opening earlier than ever. You will have a chance to nominate deserving individuals or facilities beginning at this year’s Annual Conference in Grand Rapids by filling out a simple online nomination form at www.mi-wea.org/awards_scholarships. Take a moment and let us know who is deserving of being recognized!

Member Update
Welcome new members
Thank you to all our current members and welcome to our newest members:

- Rob Anderson
- Dave Balogh
- Nicholas Baran
- Marcus Beal
- Kevin Best
- Dan Cabage
- William Cain
- Gregory Caldwell
- Kevin Carter
- James Ciaramitaro
- Dean Coats
- Taylor Cook
- Chris Courier
- Clayton Covell
- Brandon Damon
- Bob Ellisor
- Clinton Farley
- Xavier Fonoll Almansa
- Paul Gould
- Jeff Graham
- Jerry Harrison
- Colton Hilyard
- Matthew Holtz
- Matt Hulst
- Robin Jackson
- Bindu-Elizabeth Kallumkal
- Shannon Keller
- Lauren Kirkconnell
- Greg Knauf
- Michael Kniebbe
- Patrick Koeper
- Cheri Laverty
- Antonio Lemus
- Julie Lewis-Farrelly
- Mark Lipovsky
- Ryan Longstreet
- Tyler Loveday
- Ryan Lynch
- Anastasia Matta
- David McCord
- Andrew McDaniel
- Mike McPharlin
- James Messineo
- Gary Mundy
- Ronney Neely
- Brenda Nemeth
- Johnny Phelps
- Frank Rendali
- Jacob rhodes
- Nick Richards
- Chris Richards
- Zane Rickstad
- Eric Shotwell
- Melissa Simmering
- William Smith
- Ryan Stein
- Derek Thiel
- Justin Thorton
- Robert Tomasik
- Neil Wager
- Melissa Walker
- Keith Wanttaja
- Jordan Ware
- Ken Wegener
- Jacob Wentworth
- Tyler Wittmann
- Jack Wolgast
- Chad Young

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LEGISLATIVE UPDATE

An Introduction and FY21 Budget Update

The Michigan Section of the American Water Works Association and the Michigan Water Environment Association have retained Midwest Strategy Group, a Lansing based multi-client lobbying firm, to advocate for both organizations on water-related issues. This cooperative sharing of lobbying resources allows both organizations to be involved with legislation and the regulatory process in Lansing. You will routinely see Mike Compagnoni and Dave Hodgkins from Midwest Strategy Group providing legislative updates and advocacy services on both organizations’ behalf.

The team at Midwest Strategy Group has engaged in lobbying for changes to bills moving through the legislative process on drinking water, pushed forward bills on stormwater utilities and liabilities, and worked directly on securing funds for water infrastructure in the state budget.

Recently, Governor Whitmer unveiled the Executive Budget Recommendation, which functions as a road map for the creation of the annual state budget. Michigan legislators and the Governor must collaborate to pass a budget by September 30. This process is kickstarted by the Governor’s recommendation, allowing the legislature a starting point to begin developing competing budget proposals. Later in the budget process, as we move through spring and into summer, the legislature and Governor will negotiate and reconcile their budget differences, generating a final consensus budget to be signed into law.

As additional background on the budget, the finalized FY2019-20 budget contained $120 million in new funding for water-related areas, including Lead and Copper Rule Implementation, drinking water loan forgiveness, and dollars to manage emerging contaminants. This year’s budget recommendation contains $40 million in new proposed spending on infrastructure to help combat higher water levels, erosion, and heavier rainfalls. As you know, this is a major issue across the state and Midwest Strategy Group will be advocating for the interests of both organizations on this subject through the budget process.

Should you ever have questions about ongoing legislation, please feel free to reach out to Mike Compagnoni or Dave Hodgkins at 517-853-0537 or via email at compagnoni@midweststrategy.com or hodgkins@midweststrategy.com.

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Kennedy Valve Rotating Disc gate valves clean themselves with every operation. Deposits are removed in travel, so nothing builds up on the seating surfaces that could cause leakage. Discs are free of pockets that could collect solids. The rotating action of the discs creates a different seating position each time the valve is closed. Uneven or excessive wear is prevented, so the sealing components remain smooth and operational years longer without maintenance or replacement.

These advantages, along with the RDGV's uncompromising quality control, ensure that Kennedy Valve rotating disc gate valves will be ideal for water and wastewater applications. Kennedy Valve's unique design features make these valves fully capable of taking on services no other metal-seated gate valve can handle.

SELECT FEATURES

- **Applications**: clean water, raw water, and waste water
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- Full body ductile iron ASTM A536
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Background
A wide variety of construction projects involving construction below the water table or zone of saturation require dewatering for the construction to proceed safely ‘in the dry.’ Examples include wastewater treatment plants, transportation projects, water lines, sewer lines, building foundations, and basements. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) may have multiple statutes that have regulatory jurisdiction over such projects, for example Part 41, Sewerage Systems; and Part 327, Great Lakes Preservation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. This document answers questions about the regulation of construction dewatering under Part 327. The intent is to make property owners and other authorizing agencies, consultants, contractors, and subcontractors aware of the requirements of Part 327 so that they can begin the Part 327 authorization process early in the planning of the construction project in order to avoid or minimize project delays.

Why is Construction Dewatering Regulated?
Part 327 is Michigan’s statute to administer the Great Lakes-St. Lawrence River Basin Water Resources Compact (Great Lakes Compact). The Great Lakes Compact prohibits diversions of water outside the Great Lakes Basin and requires the member states and provinces (through a parallel international agreement with the Provinces of Ontario and Quebec) to manage their own groundwater and surface water.

CONSTRUCTION DEWATERING AND PART 327:
WHAT EGLE NEEDS YOU TO KNOW BEFORE YOU TURN ON THE PUMPS
resources as interconnected parts of a single hydrologic system. Part 327 requires that any new or increased large quantity withdrawal (LQW) be authorized before being put into operation.

**What is an LQW?**
Any new or increased withdrawal of groundwater or surface water >100,000 gallons per day (gpd), averaged over any consecutive 30-day period, that equates to a pump capacity of 70 gallons per minute (gpm).

**How Do I Determine the Total Pump Withdrawal Rate?**
Whether your pumps are regulated by Part 327 is determined by the total rated pump capacities of all the dewatering pumps.

**How Do I Get my Withdrawal Authorized by Part 327?**
New or increased withdrawals >100,000 gpd up to 2,000,000 gpd (equivalent pump capacity of 70 gpm up to 1,388 gpm) apply for authorization through the on-line Water Withdrawal Assessment Tool (WWAT – www.eagle.state.mi.us/wwat). The WWAT may allow instantaneous authorization, or may require a site-specific review by EGLE or an alternative analysis in order to get the withdrawal authorized.

Withdrawals of more than 2,000,000 gpd may require a water withdrawal permit issued under Part 327. See www.michigan.gov/wateruse for a permit application, and contact the Water Use Program staff for more information.

**What Information Do I Need to Run the WWAT?**
The WWAT prompts the user for basic information about the withdrawal, including the location as identified on an interactive map; the source (surface water or groundwater, and if groundwater whether from a glacial or bedrock aquifer); the pump capacity in gpm; the well casing depth in feet below ground surface; and the pumping schedule.

**What Happens if I Pass the WWAT?**
You can print a registration receipt authorizing you to put the LQW into operation by installing the pump. The authorization is valid for 18 months. If your registration expires before your LQW is put into operation, you must rerun the WWAT.

**What Happens if I Don’t Pass the WWAT?**
You can’t put the LQW into operation unless you are authorized by either a site-specific review (SSR) by EGLE or EGLE authorizes an alternative analysis submitted on your behalf by a qualified hydrologist or hydrogeologist. There is a link on the WWAT’s results page to request an SSR by EGLE.

**When is a Part 327 Permit Required?**
A Part 327 permit is required for any new or increased withdrawal > 2 million gallons per day (MGD), any new or increased withdrawal >1 MGD in a Zone C watershed (approaching, but not at the point where an adverse resource impact is likely), or for an intrabasin transfer >100,000 gpd between Great Lakes Basins (e.g., Lake Superior to Lakes Michigan and Huron). Seasonal withdrawals averaging ≤2 MGD over any 90-day consecutive period (total withdrawal volume...
<180,000,000 gallons) are exempt from the permit requirement but must be authorized by the WWAT, an SSR, or an alternative analysis under MCL 324.32706c before being put into operation.

**Where Do I Find the Part 327 Permit Application?**
There is a link to the Part 327 permit application on EGLE’s Water Use web page, www.michigan.gov/wateruse.

**Is There a Permit Application Fee?**
There is a $2,000 permit application fee payable to the State of Michigan. There is no fee to use the WWAT, to request an SSR, or to submit an alternative analysis under MCL 324.32706c.

**How Does the Part 327 Permit Application Process Work?**
When EGLE receives your permit application, we have 30 business days to conduct an administrative completeness review to make sure that the permit application fee is paid and all the necessary information was submitted with the permit application. If the fee or any information is missing, EGLE will notify you in writing and the 30-day clock is paused until we receive an administratively complete response. Once EGLE has an administratively complete application, we place it on public notice for 45 calendar days. EGLE has a maximum of 120 business days from the date we receive an administratively complete application to make its permit decision. EGLE begins its technical review of the permit application while the application is on public notice. The earliest EGLE can make its decision is after the 45-day public notice period has expired, if no substantive comments were received during the public notice period.

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How Do I Indicate the Withdrawal and Discharge Location(s) on the Permit Application?
You have several options: the latitude/longitude coordinates (decimal degrees) of the dewatering wells or discharge points, the latitude/longitude coordinates of the corner points or centroid points for polygonal project areas, major intersections for the end points of linear road right-of-way projects, or the latitude/longitude coordinates for the end points of other linear projects like pipelines. The project locations also need to include any outlots or easements outside the construction zone where withdrawal wells and/or discharge points are located.

What if the Scope of the Construction Project Changes?
To expedite the permit application review process, EGLE recommends that the permit application list the worst-case assumptions for the total pumping rate, total withdrawal volume, the extent of the capture zone(s) of the dewatering wells, and the project's duration. That way EGLE can assess the maximum potential impacts of the construction project and the permit, if the project is authorized as proposed, will authorize the maximum likely impact. If the final project details differ from the permit application, there is no need to resubmit the project for public notice unless the project will have a greater impact (or impact areas that weren't previously assessed) than what was originally public noticed.

Why Does My Permit Have an Expiration Date?
Most Part 327 permits are for ongoing, long-term water withdrawals. Construction dewatering projects have definite end dates when the dewatering will cease. The Part 327 permit will have an expiration date based on the project end date in the permit application. EGLE requests that the permit holder or agent contact EGLE if the dewatering will end earlier than the expiration date so that EGLE can update the stream flow depletion status(es) of the affected watershed(s) and free up the withdrawal volume for use by other water users.

Why Does My Permit Application Need to Include a Contingency Plan for Private Property or Private Well Impacts?
Part 327 and the Great Lakes Compact require an evaluation of whether the proposed withdrawal will unreasonably impact private wells or have other adverse impacts on private properties (e.g., drying up private ponds). If the capture zone for the dewatering well(s) includes areas served by private wells or private ponds, and the wells and/or ponds are at depths that are likely to be impacted by the dewatering wells’ capture zone, then the permit application must include a contingency plan for addressing those impacts. Examples of response actions include, but are not limited to, temporarily providing bottled water, hauling water to temporary tanks that will be pumped into buildings for use, lowering submersible pumps in wells, drilling new wells, new connections to public water supply lines, and deepening private ponds. If a contingency plan is not necessary, the permit application should explain why it is not necessary.

How Can I Find Additional Information About the Water Use Program?
Additional information about the Water Use Program, including links to the WWAT, the permit application, the Great Lakes Compact, and Part 327, are on the Water Use web page www.michigan.gov/wateruse.
Share Facts About COVID-19

Know the facts about coronavirus disease 2019 (COVID-19) and help stop the spread of rumors.

**FACT 1**
Diseases can make anyone sick regardless of their race or ethnicity.

Fear and anxiety about COVID-19 can cause people to avoid or reject others even though they are not at risk for spreading the virus.

**FACT 2**
For most people, the immediate risk of becoming seriously ill from the virus that causes COVID-19 is thought to be low.

Older adults and people of any age with underlying health conditions, such as diabetes, lung disease, or heart disease, are at greater risk of severe illness from COVID-19.

**FACT 3**
Someone who has completed quarantine or has been released from isolation does not pose a risk of infection to other people.

For up-to-date information, visit CDC’s coronavirus disease 2019 web page.

**FACT 4**
There are simple things you can do to help keep yourself and others healthy.

- Wash your hands often with soap and water for at least 20 seconds. Especially after blowing your nose, coughing, or sneezing; going to the bathroom; and before eating or preparing food.
- Avoid touching your eyes, nose, and mouth with unwashed hands.
- Stay home when you are sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.

**FACT 5**
You can help stop COVID-19 by knowing the signs and symptoms:

- Fever
- Cough
- Shortness of breath

Seek medical advice if you develop symptoms and

- Have been in close contact with a person known to have COVID-19 or if you live in or have recently been in an area with ongoing spread of COVID-19.

For more information: [www.cdc.gov/COVID19](http://www.cdc.gov/COVID19)
Thank you for your understanding during this challenging time and for your continued support of MWEA. We understand that our members are concerned about the Novel Coronavirus (COVID-19) and its potential impacts on MWEA functions. Our staff are meeting daily and closely monitoring news from the Centers for Disease Control and Prevention (CDC); World Health Organization (WHO); and the State of Michigan.

FOR THE LATEST UPDATES ON COVID-19, PLEASE VISIT www.mi-wea.org/covid
Mazars USA, a financial consultancy active in the water sector, kicked off 2020 by hosting its inaugural Women of Water Summit in Arlington, VA, on January 9.

The daylong summit featured industry leaders speaking in nine segments that celebrated outstanding achievements of female water professionals and offered tips to upcoming history-makers. Additionally, the summit provided the opportunity to help others develop in-roads to the sector, said David Gaddis, CEO of DC Water.

“We have to look like the communities we serve, and therefore, we need more women in the industry,” Gaddis said.

Here are some of the day’s most memorable remarks.

**Practice CPR**

Carla Reid, General Manager and CEO of Washington Suburban Sanitation Commission Water, began the event with a keynote address. Reid is the first woman to serve in her position at WSSC, one of the largest utilities in the US with a more-than-100-year history.

Reid set an empowering tone for the day by dancing on stage to ‘Water Me’ by Lizzo. The song, Reid explained, carries a vital message for leaders – especially women who lead. “I don’t get dehydrated. I moisturize it daily,” the song says, relating to Reid’s three points of self-care that helped her in her journey from civil engineer to industry leading executive. The secret is CPR, Reid said: confidence, persistence, and resilience.
Reid gave examples from her career where her confidence in her abilities, her persistence in achieving her goals, and her resilience to setbacks kept her on the path to becoming the CEO she is today.

Reid explained that when she identified an area of weakness in her skillset, she worked to build strength in that area. For example, as a civil engineer who aspired to be CEO, Reid said, she knew she would need human resources experience. She obtained her master’s degree in human resource management from the University of Maryland University College. The degree, she said, helped her greatly as a leader.

Today, Reid said, she practices self-care and goal setting by creating vision boards with empowering thoughts, words, and images on them. Her 2020 vision board is in the shape of a peace symbol. She also keeps a vision journal to record her goals, milestones, successes, and setbacks.

She encouraged aspiring leaders to invest in themselves.

“Learn as much as you can,” Reid advised. “Make sure you are prepared for every opportunity.”

**Focus on Cybersecurity**

Georgia Simpson, vice president of information technology at Middlesex Water Co. (Iselin, N.J.) encouraged water sector professionals to ensure they understand the value of cybersecurity. In her remarks, Simpson said the water sector has only recently started recognizing the necessity of cybersecurity.

“Cybersecurity touches every facet of the organization,” she said. “Cybersecurity is a business continuity issue. Cybersecurity impacts how an organization survives in business.”

Middlesex Water implemented cybersecurity risk and opportunity management strategies in 2014. In the event of a breach, Simpson said, it’s imperative for a utility to have protocols in place to handle it.

**Follow the River of Opportunities**

Brenda Burman, commissioner of the US Bureau of Reclamation, spent her early career learning about the complex system of laws surrounding the Colorado River and the tribes and communities that depend on it. That experience earned her a call from Sen. Jon Kyl, R-Ariz., who hired her as his legislative counsel for water and energy before she joined the US Department of the Interior. Burman is the first woman sworn-in to lead the Bureau of Reclamation.

“As we talk about women in water, I think it’s so important to think about those chances for experience,” Burman said. “Can you take them? Can you make that jump?”

Burman said she has benefitted from mentorships, but she’s also found tremendous value in daily networking.

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**Build Awareness of Cultural Differences to Retain Diverse Talent**

Sally Gutierrez is the acting director of the US Environmental Protection Agency (EPA) Water Permits Division, and is the first Hispanic female career-appointment to the Senior Executive Service.

The EPA workforce is more than 50% women, she said. However, room for cultural and ethnic growth still remains. While hiring decisions are important, Gutierrez said, retention needs to be more of a focus area for environmental and water-sector groups.

She relayed an example about an effort to attract more Hispanic representation to an organization’s workforce. After robust efforts to hire well-qualified Hispanic employees, cultural barriers led to low retention rates for the hiring organization.

“There were some cultural parts to it,” Gutierrez said. “The supervisors started not understanding why [the Hispanic employees] wouldn’t look them in the eye. In the Hispanic culture, when you connect and draw your eyes down a little bit, it’s a sign of respect. But the supervisors were not prepared for what was coming at them. So, most of those wonderful recruitments … didn’t stay. To me, that was a profound lesson.”

Focusing on retention can make employees feel more valued in their organization and, ultimately, lead to better results for the water environment, Gutierrez said.

“Contributing thoughts on successful efforts regarding diversity and inclusion may help the water sector in leveraging diversity for more successful organizations and bringing about improved water quality.”
Mazars USA presented its Top 10 Most Influential Women in Water Awards to:

1. Eleanor Allen, CEO, Water For People
2. Christine Boyle, CEO & Founder, Valor Water Analytics
3. Debra Coy, Partner, XPV Water Partners
4. Adrienne Esposito, Executive Director, Citizens Campaign for the Environment
5. Nadine Leslie, CEO, SUEZ North America
6. Karen Pallansch, CEO, Alexandria Renew Enterprises
7. Karen Sands, Manager of Planning, Research and Sustainability, Milwaukee Metropolitan Sewerage District
8. Bernadette Solher, Vice President, Corporate Affairs, Middlesex Water
9. Sarah Stevenson, Deputy Commissioner, Policy & Strategy, Philadelphia Water Department
10. Diane VanDe Hei, CEO, Association of Metropolitan Water Agencies

She encouraged attendees to provide young professionals room to grow within their organizations and communities. As summit panelists discussed mentorship and workforce issues, Jenn stressed that it is the responsibility of more experienced water professionals to pass their knowledge onto the next generation.

“If you want us to change the world, help us pull those tools out of the toolbox,” she said.

Communities Need to Recognize One Water

As the executive director of the WaterReuse Association (Alexandria, VA), Pat Sinicropisaid she is fascinated by projects incorporating the One Water perspective – the idea that all water is connected and reused over time.

“It’s all wasted water if it isn’t being reused,” she said.

“We have to look like the communities we serve, and therefore, we need more women in the industry.”

Sinicropi cited several city projects around the US that have successfully incorporated recycled water.

“…Communities are looking at their water resources as really one water resource,” she said.

There are cities, however, that are struggling with sustainability, Sinicropi noted.

“New York City, as many of you know, has a huge CSO [combined sewer overflow] problem,” she said. “They are facing about a $6 billion long-term control plan to reduce their CSOs.”

Sinicropi lauded the Solaire residential high-rise project in New York, which claims the title of the first LEED-Certified building of its kind in the US, for its ability to reduce the amount of water heading to the city’s centralized collection points.

Karen Pallansch, CEO of Alexandria Renew Enterprises (Va.) said that the future of water recycling depends on “fit-for-use water.”

“Let’s focus on what we drink,” she said. “And the rest of it: How can we better utilize our water to get those resources where they need to be?”

Innovation Can Have A Big Impact Without Being A Big Invention

The summit’s panel session on Innovation and Strategy opened with a video emphasizing that innovation creates new wealth, but it doesn’t always have to be a big invention. Lichter-Vincent reinforced that message.

“A Post-It note seems so simple,” Jackie Lichter-Vincent, the chief strategy and innovation officer at WSSC Water, said. However, it can be an effective tool.

Co-panelist Michelle Jung, chief of staff at SUEZ North America (Paramus, NJ), said innovation is a vital driver for the water sector.

“If we don’t apply innovation to everything we do,” said Jung, “we honestly have no choice for our future.”

Lichter-Vincent advised the sector to work strategically across geographic and organizational boundaries on innovation. For example, she said, varying demands and policies between states around water supply and conservation can provide opportunities for innovators to carefully select the best place to perform pilot testing.

Not All Women Start in Water – And That’s Another Strength

Debra Coy, a partner at XPV Water Partners (Toronto, ON, Canada), addressed the “cross-pollination” of sector leaders. Coy, herself, was an English and journalism major in college. She entered the water sector via finance.

“No one gets out of college and says ‘I’m going to be a utility manager,’” agreed Heike Doerr, principal analyst at S&P Global Market Intelligence. Doerr said there’s often not a linear path to success in or outside the water sector. The key is searching for where you can add value.

Barbara Littlefield, chief financial officer at Poseidon Water (Boston, MA), noted that water is a last frontier – the final sector where women are making in-roads.

That’s something the panelists discussing Finance in the Water Sector hope will change as women take on more leadership roles. Panelists highlighted the positive traits women bring to the workforce.

“Women are more collaborative and willing to accept it’s not a zero-sum game,” said Usha Rao-Monari, senior adviser at Blackstone Infrastructure Group.

Mentorship Means Teamwork

Tifphani White-King, US National Tax Practice Leader for Mazars USA, moderator of a summit panel on mentorship and workforce issues, described how successful knowledge transfer is all about teamwork. White-King in 2014 became the first black woman to become a tax partner at Mazars USA.

Part of my team was not just having a mentor but having a coach, having a mentor, and having a sponsor,” she said. “A coach will talk at you. A mentor will talk with you. And, a sponsor will talk for you when you are not able to be in the room and use your own voice. And those three roles were critical for my profession and acceleration.”

Pam Kenel, director of water resources at Loudon Water (Ashburn, VA), said she that while she had no formal mentor, she did have several people who filled similar roles. One early influencer encouraged her to join a professional association, and she agreed to present at the summit because the American Water Works Association (AWWA; Denver) extended an invitation.

“There are a couple of great water organizations around here, the Water Environment Federation as well [as AWWA],” Kenel said. “Both of these organizations are focused on young professional programs … I think these young professionals programs are critical to our industry.”

Jeanne Jensen, a project supervisor with the Town of Gilbert, AZ, agreed that young professionals have valuable voices and contributions.

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## CONFERENCE AT A GLANCE

### SUNDAY, JUNE 21

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<th>Event</th>
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<tr>
<td>9:00am</td>
<td><strong>Golf Scramble</strong> (must pre-register)</td>
<td>Quail Ridge Golf Club</td>
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<tr>
<td>11:00am – 5:00pm</td>
<td><strong>Water For People Event: Paddle With Purpose</strong></td>
<td>Thornapple River</td>
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<tr>
<td>2:00pm – 7:00pm</td>
<td><strong>Conference Registration</strong></td>
<td>Amway Conference Registration Area</td>
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<tr>
<td>6:00pm – 7:00pm</td>
<td><strong>Cocktail Reception</strong></td>
<td>Grand Rapids Art Museum</td>
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<tr>
<td>7:00pm – 8:30pm</td>
<td><strong>Dinner and Sustainability Tours</strong></td>
<td>Grand Rapids Art Museum, Suitable for the whole family!</td>
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<tr>
<td>8:00pm – 8:30pm</td>
<td><strong>5S Meeting and Introduction of Inductees</strong></td>
<td>Grand Rapids Art Museum</td>
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### MONDAY, JUNE 22

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<td><strong>Breakfast Buffet</strong></td>
<td>Ambassador East Ballroom</td>
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<td>7:00am</td>
<td><strong>5K Walk/Run</strong></td>
<td>Meet in Amway Lobby</td>
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<tr>
<td>7:30am – 3:00pm</td>
<td><strong>Conference Registration</strong></td>
<td>Amway Conference Registration Area</td>
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<td>8:30am – 9:00am</td>
<td><strong>Business Meeting and Election of Officers</strong></td>
<td>Ambassador East Ballroom</td>
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<td>9:00am – 12:00pm</td>
<td><strong>Opening Session</strong></td>
<td>Ambassador East Ballroom</td>
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<td>1:00pm – 3:00pm</td>
<td><strong>Session 1A: Operations and Maintenance</strong></td>
<td>Governor’s Room</td>
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<td>1:00pm – 3:00pm</td>
<td><strong>Session 1B: Watershed</strong></td>
<td>Senator Vandenberg Room</td>
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<tr>
<td>1:00pm – 3:00pm</td>
<td><strong>Bus Tours</strong></td>
<td>Meet in Amway Lobby</td>
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<tr>
<td>4:30pm – 7:30pm</td>
<td><strong>Exhibits Open</strong></td>
<td>DeVos Place Ballrooms A&amp;B</td>
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<tr>
<td>5:00pm – 7:00pm</td>
<td><strong>Dinner</strong></td>
<td>DeVos Place Ballrooms A&amp;B</td>
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<tr>
<td>7:30pm</td>
<td><strong>Networking Social</strong></td>
<td>Atwater Brewery in Grand Rapids</td>
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### TUESDAY, JUNE 23

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<tr>
<th>Time</th>
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<tr>
<td>6:30am – 8:30am</td>
<td><strong>Breakfast Buffet</strong></td>
<td>Ambassador East Ballroom</td>
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<tr>
<td>7:30am – 3:00pm</td>
<td><strong>Conference Registration</strong></td>
<td>Amway Conference Registration Area</td>
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<tr>
<td>8:30am – 11:45am</td>
<td><strong>Session 2A: Collections</strong></td>
<td>Governor’s Room</td>
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<td>8:30am – 11:45am</td>
<td><strong>Session 2B: Utility Management</strong></td>
<td>Senator Vandenberg Room</td>
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<td>8:30am – 11:45am</td>
<td><strong>Session 2C: Hot Topics</strong></td>
<td>Imperial Ballroom</td>
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<td>12:00pm – 1:15pm</td>
<td><strong>Awards Luncheon</strong></td>
<td>Ambassador East Ballroom</td>
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<td>1:30pm – 4:15pm</td>
<td><strong>Session 3A: Stormwater</strong></td>
<td>Governor’s Room</td>
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<td>1:30pm – 4:15pm</td>
<td><strong>Session 3B: Process and Design</strong></td>
<td>Senator Vandenberg Room</td>
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<tr>
<td>1:30pm – 4:15pm</td>
<td><strong>Session 3C: New Professionals Track</strong></td>
<td>Imperial Ballroom</td>
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<td>4:15pm – 5:30pm</td>
<td><strong>New Professionals Reception and Tour Opportunity</strong></td>
<td>Meet in Amway Lobby</td>
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<td>6:00pm – 7:00pm</td>
<td><strong>Cocktail Reception</strong></td>
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<td>6:30pm</td>
<td><strong>5-S Induction Ceremony</strong></td>
<td>Pantlind Ballroom</td>
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<tr>
<td>7:00pm – 9:00pm</td>
<td><strong>Leadership Celebration Dinner</strong></td>
<td>Pantlind Ballroom</td>
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### WEDNESDAY, JUNE 24

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<td><strong>Breakfast Buffet</strong></td>
<td>Pantlind Ballroom</td>
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<td>8:30am – 12:00pm</td>
<td><strong>Closing Session</strong></td>
<td>Pantlind Ballroom</td>
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<tr>
<td>12:00pm</td>
<td><strong>Lunch at the restaurant of your choice or pre-ordered to go box lunches</strong></td>
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<td>12:00pm – 2:00pm</td>
<td><strong>Board Meeting</strong></td>
<td>Robinson Room</td>
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## EXHIBIT NIGHT THEME

**Christmas in June!**

June 22 | 4:30pm – 7:30pm | DeVos Place
For the past two years, the Association of Clean Water Administrators (ACWA; Washington, DC) and the Water Environment Federation (WEF; Alexandria, VA) have been working closely with the US Environmental Protection Agency (EPA) to meet and discuss a broad range of nutrients permitting issues. Beginning in December 2017, a diverse group of representatives from state clean water programs involved in managing nutrient pollution and EPA headquarters and regional staff have been tackling this topic. These meetings will continue through 2021 as part of a cooperative agreement with EPA.

To date, ACWA, with support from WEF and EPA, have hosted four workshops with an additional three set for 2020 and 2021. The workshops' purpose are to help achieve several environmental outcomes by bringing together state, tribal, territorial, federal, and other stakeholders to identify challenges and barriers to nutrient permitting program implementation, highlight opportunities for program improvement and enhancement, showcase innovations and achievements, and identify and attempt to solve the most intractable issues.

Workshop Topics
The first workshop, held in Boise, ID, in December 2017, was a broad overview of topics regarding nutrients permitting. More than 50 individuals from the states and EPA participated, with presentations given on technologies, permitting flexibilities and innovations, the interrelation of permitting for nutrients and other pollutants, and other issues. A group of attendees also visited the Dixie Drain project in Parma, ID.

The second workshop, held in Columbus, OH, in June 2018, focused on the relationship between wastewater technologies and nutrient permitting. More than 40 individuals from the states and EPA participated, with presentations given on specific types of technology, optimization and alternative approaches to nutrients removal, costs analyses, operator training, small systems, and more. Also, attendees visited two facilities in the greater Columbus area to learn about treatment processes and technologies.

The third workshop, held in Gulfport, MI, in November 2018, focused on the connection between nutrient permitting and total maximum daily loads (TMDLs). More than 60 individuals from the states and EPA participated, with presentations and discussions focusing on breaking down barriers between TMDL and permitting programs, confined animal feeding operations (CAFOs) and municipal separate storm sewer systems (MS4s), reassessing and reevaluating TMDLs, politics and public perceptions of TMDLs and permits, small systems, variances and compliance schedules, and water quality trading.

The fourth and most recent workshop, held in Alexandria, VA, in November 2019, focused on identifying challenges and building solutions regarding water quality standards and permitting for nutrients. More than 70 individuals from the states and EPA participated, with presentations and discussions focusing on numeric and narrative nutrient criteria, the interaction between technology limits and water quality standards when permitting for nutrients, small systems, and staff coordination.

A group of attendees also toured the Alexandria Renew Enterprises facility to learn about innovative treatment processes and technologies.

Each of the four meetings was live-streamed for individuals who could not attend in person.

“ACWA and WEF hope to continue to work towards solutions to one of the nation’s greatest environmental challenges.”

Workshop Themes
Through the four workshops some themes have emerged, such as the need for permitting flexibilities, improving communication, working with nutrients criteria, and dealing with small systems criteria.

Regarding permitting flexibilities, state representatives have shared their experiences using watershed-based permits (such as North Carolina and Virginia), water quality trading (Connecticut), and integrated planning (Ohio). States see permitting flexibilities as a suite of tools to help reduce nutrient pollution state waters in a more efficient and cost-effective manner.

Communication between state programs and between states and the federal government has been a constant theme. Attendees have expressed that to be successful state permit writers need to have open communication with modelers, TMDL writers, standards and criteria.
developers, EPA headquarters and regional staff, and outside stakeholders. Breakdowns in communication are one of the main impediments to progress on nutrient pollution reduction. States such as Missouri and Montana have developed and implemented numeric nutrient criteria. Other states, like Iowa and Kansas, have narrative nutrient criteria. Both forms of criteria create challenges and opportunities when writing permits for nutrients. State representatives have discussed these challenges in each workshop, working toward solutions to challenges and sharing expertise.

Lastly, the issue of small systems management has been discussed in each workshop. Representatives from EPA Region 7, Kansas, and Indiana have presented together in each workshop on the challenges faced by small systems in communities smaller than 3,000 residents. Challenges include dwindling resources and populations, lack of operator expertise, need for system upgrades, and potential tightening of permit limits. Potential solutions included long-term nutrient reduction plans, regionalization, general permitting, variances, and more.

These four themes are just a few examples of the themes covered in the workshop series.

**Future Meetings**
ACWA and WEF plan to continue offering interesting and important topics and discussions at the next three nutrients permitting workshops. These workshops provide states and EPA, as co-regulators, the opportunity to identify and seek solutions for the diverse challenges associated with nutrient pollution. In 2020, there will be two workshops, in summer and autumn, with the final workshop of the cooperative agreement to be held in 2021. ACWA and WEF hope to continue to work toward solutions to one of the nation’s greatest environmental challenges.

*Both authors are from the Association of Clean Water Administrators (Washington, D.C.), the independent, nonpartisan, national organization of state, interstate, and territorial water program managers, who on a daily basis implement the water quality programs of the Clean Water Act. Mark Patrick McGuire is an Environmental Program Manager and Katie Foreman is an Environmental Program Associate at ACWA.*

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Seven Entries Earn Awards in the 2019 Operator Ingenuity Contest

Every year at WEFTEC, the Operator Ingenuity Contest awards operators who find simple, applicable solutions to everyday problems. WEFTEC 2019 hosted the eighth annual Operator Ingenuity Contest awards ceremony on September 25. In 2019, seven new winners joined the ranks of the nearly 50 other fixes that made people’s jobs easier and safer.

The Muckraker Award
This award went to Mike Wenner of the City of Napoleon (OH) for creating a tool to help solids dry more quickly. Wenner fabricated a large rake from a piece of steel angle and welded to it several portions of cut pipe. The rake gets attached to a front-end loader. The loader can now be used to rake the solids in the drying bed, increasing its surface area and drying it much faster than was previously possible.

The Goody Bag Award
William Paddock of the South Orange County Wastewater Authority (Dana Point, CA) received this award for his invention of a fisheye filtration system. After discovering fisheyes (globules of polymer) were blocking his facility’s polymer flow switch and ball checks and triggering multiple “low polymer flow” alarms daily, Paddock knew something had to be done. Paddock and his staff decided to create a filter using an old chemical tote. They cut a hole in the tote and fashioned a filter from screen door material. It worked, but the process was labor intensive because they had to frequently clean the filter to maintain flow. After a few iterations, they landed on using a replaceable 600-micron bag filter that it could be replaced easily when full. They also installed a removable filtration platform that could be placed on top of any tote, and a pneumatic double diaphragm pump, which enables them to place the filtration system above the tank. Paddock credits his success to communication with staff: “I went to every single operator and asked ‘what would make this better?’ We got some really good ideas.”

The Tight Squeegee Award
This award went to Charlotte Water’s (Charlotte, NC) Johanna McHone for inventing a device to peel polymer slime off the polymer age tanks at her facility. Before her invention, she had to use a heated pressure washer to clean the tank sides. This had the risk of splashing scalding hot water or chemicals on the operator. It also consumed a lot of diesel, electricity, and water. Her fix was incredibly simple: She fixed a squeegee to a flexible broom handle. The tool just peels the slime off the tank wall.

The Sewer Sailor Award
This award went to James E. Segrest Jr. from the City of Auburn Water Resource Management Sewer Department (Auburn, AL). Segrest had a wide diameter sewer main that had to be inspected. The flow in the main was...
too great for the facility’s crawler camera to be feasible. So, instead of sending a human in, Segrest attached a GoPro camera and flashlights to a cooler lid and floated it through the main. He attached the float to a reel of kite string to control its progress. The facility has used the sewer sailor several times.

The Bottle Bump Award
Perhaps the simplest and cleverest of all, this award went to James Petalio of the Rodeo Sanitary District (Rodeo, CA), who was dealing with constant chlorine dosing alarms after hours. The alarms triggered the facility’s sodium bisulfite metering pump to run at 100% automatically to prevent a chlorine violation. The problem was solved by simply raising reagent bottles (acetate and potassium iodide buffer solution) from below the analyzer unit to above it. Removing the need for the reagent dosing pump to overcome the head of lifting it up to the analyzer stabilized the process and eliminated the alarms. This straightforward fix saved the district $1,200 in overtime costs and more than $12,800 per year in sodium bisulfite costs.

The Smooth Move Award
This award went to John Presta and George Pelzowski of the Corbett Creek Water Pollution Control Plant (Whitby, ON, Canada) who were dealing with jammed, manual, aluminum, channel sluice gates. The aluminum gates had fused to the aluminum channels. Staff often were resorting to cutting out the gate to resolve the problem.

To address this issue, the Corbett Creek team ordered new gates from various suppliers. Their clever twist came in how to install them: They welded side slide tabs to the new gates that let them fit in the original channels perfectly. They also added a rubber stop at the bottom of the gate to help the seal.

The Rag Spear Award
Matt Haggler from the City of Meridian (ID) received this award for skewering an irritating problem. The city’s 3-million-L (800,000-gal) anaerobic digesters hadn’t been cleaned in several years and the influent screens weren’t working well. This meant wipes, rags, and hair had built up in the tank. The bound-up material had created massive rag flotillas, which soon began to affect digester performance.

Haggler’s solution was a 7.6-m-long (25-ft-long) long, 50-mm-thick (2-in.-thick) solid steel spear head with collapsible tines. The spear can be attached to a crane and forced into the rag balls. Once stabbed in, the crane pulls the spear back out and the tines unfold. The tines hook into the rag ball like barbs, and the mass of material can be pulled out. The spear has removed rag balls weighing nearly 450 kg (1,000 lb). The spear cost less than a few hundred dollars and has saved the city significant money in down time, and enabled the digesters to work properly.

Apply now for Operator Ingenuity 2020
Next year’s contestants will certainly have big shoes to fill, but if past years are any indication, the idea will only get more creative and ingenious. If you have a simple fix that has made your job safer, easier, or more efficient, submit it for the 2020 contest.

The application period is open now and closes June 5. The contest is open to all. (The entry form includes a field for WEF Member ID number; this field is optional.) Find full submission details online at www.weftec.org/ingenuity.
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