

Buckeye Bulletin



CITY OF PIQUA

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The Buckeye Bulletin (BB) is the official publication of the Ohio Water Environment Association, Inc., a not-for-profit corporation founded in 1926, dedicated to the improvement of water quality in Ohio and the continuing education of water professionals. It is one of the top five member associations of the Water Environment Federation.

The ideas, opinions, concepts, and procedures expressed in this publication are those of the individual authors and not necessarily those of the Ohio Water Environment Association, its officers, general membership, or staff.

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Get Involved - Join a Committee Today

Contact OWEA at info@ohiowea.org or the chair of a committee that interests you for more information.

SAVE THE DATE

AUGUST 27-30, 2018 ONE WATER TECHNICAL CONFERENCE
GREATER COLUMBUS CONVENTION CENTER

OCTOBER 11-12, 2018 PLANT OPERATIONS & LAB
NATIONWIDE HOTEL & CONFERENCE CENTER

OCTOBER 30, 2018 WATERSHED
THE FAWCETT CENTER

NOVEMBER 13, 2018 NEW! NUTRIENTS
NATIONWIDE HOTEL & CONFERENCE CENTER

DECEMBER 6, 2018 BIOSOLIDS
NATIONWIDE HOTEL & CONFERENCE CENTER

Career Opportunities

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\$170 for a Professional Membership
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Are you a social media guru? Find out how you can become part of OWEA's social media team.
Email us at info@ohiowea.org

Welcome New Members

April 2018-June 2018

Wael Abdelraheem	Brittany Dalton	Craig Juday	Corinne Sackett
Claire Abele	Jason Davis	Andrea Kilbane	Nakouma Sako
Bukola Adesanmi	Sarah Disario	Daniel Kloos	Ray Schommer
Sheela Agrawal	Jason Dulaney	Frank Lombardi	Julie Schroeder
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Josh Allen	Geoff Edwards	Maximino Mendoza Padilla	Milos Simovic
Blake Ashbrook	Anny Gao	Nicholas Merchant-Wells	Thad Spencer
Robert Bailey	Ed Gebauer	Stephen Nickels	Roger Stamper
Chad Bay	David Givens	Craig Nikrant	Blake Strumbel
Sarah Blair	Robert Greene	Amy O'Connell	Ashwini Tambe
Robert Bolanger	Bassem Haddad	Jerry Overton	Chaitanya Vegesna
Josh Brooks	Taryn Hanna	Michael Pancoe	Giorgio Vennitti
Michael Bush	Madeleine Harris	Aaron Pennington	Jason Watts
Harvey Christian	Paul Harrison	Sanjar Pirnazarov	Allen Wilson
Julie Cindia	Doug Hastings	Anthony Pissini	Gabriel Wise
David Cline	Eric Helldoerfer	Keri Plevniak	Brianna Wooten
Madeline Conover	Colman Hickey	Ashley Reddick	William Worsham
Nickolas Dailey	Baylor Johnson	Anne Roberto	Joe Wright

Thank you for joining the Ohio Water Environment Association and the Water Environment Federation.
We welcome your contribution to preserving and enhancing Ohio's water quality environment.
www.ohiowea.org
Visit <http://www.ohiowea.org/memberships.php> for OWEA membership information

2017-2018 Section Presidents

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Hello OWEA members. I am honored and excited to serve as the OWEA President for the next 365 days. A little less than that now. I first want to thank Jamie Gellner for the leadership he provided to OWEA this past year as President. Jamie steered the ship through a time of great transition for OWEA. When we learned of our potential contact hour problem from the Ohio EPA last August, Jamie had a plan within a week of how to recover. We were able to get all OWEA classes approved by the Ohio EPA prior to the deadline to renew your operator's license. Jamie also lead us through the hiring process for our new Executive Administrator. While working through this process, Jamie helped the Executive Committee forge a bold new vision of how OWEA will push forward into the future. I am hopeful that I can continue to develop this vision and provide this type of leadership for OWEA in the next year.

I want to thank Jane Winkler and Tom Fishbaugh for their service to OWEA. Jane is the current Secretary/Treasurer for OWEA. She has served on the OWEA Executive Committee for 17 years, and this is her last year to serve. Tom is the current Senior WEF Delegate for OWEA. This is the second time Tom has served the Executive Committee as a WEF Delegate. He also served



Fred Smith
OWEA President

through all the seats on the Executive Committee and was OWEA President in 1999 to 2000. Tom's term as WEF Delegate ends on September 30. Thank you both to your years of service to OWEA.

I want to welcome Mary Ann Driscoll and Kathy Richards to the Executive Committee. Mary Ann joins us as the Northeast Section Delegate. She joined the EC on June 20 at the Business Meeting. Kathy joins us as the new WEF Delegate, joining the EC when Tom Fishbaugh's term expires. Welcome ladies, I know you both will do great things for OWEA.

WEF launched the #MyWaterLegacy campaign in 2016. The campaign is to bring attention to the value of mentorship and membership, the tradition of working in the water sector, and the important contributions that water professionals make every day to build a legacy of clean water for future generations. #MyWaterLegacy began in 1975 at the Kent Water Plant open house, or at least around that time. My Dad, Francis Smith, was an engineer at Burgess and Niple at the time. He was the Project Manager for this project, and so at 8 years old, I visited my first water plant. Through my Dad, I was continually exposed to our business through high school, even playing in golf outings with Dave Williams from Canton and Bill Thompson from Salem. One weekend, my Dad took me to a project in Twinsburg to repair a waterline. We even stayed overnight in a small hotel so that the project could be completed. What I learned in these years was the importance of clean water, how hard water professionals work to provide clean water, and how nice the people were who worked in the water business. That is the reason I decided to attend The Ohio State University and major in Civil Engineering. I have never regretted my decision to choose a career in providing clean water solutions. This career has not only provided for my family, but I have enjoyed every day.

It has been such a pleasure serving with so many wonderful volunteers and staff members throughout OWEA. I want to make special mention of just a few of those members who have really helped me grow as a person and in my leadership skills. Doug Clark served as OWEA President 2011 to 2012. Doug provided great leadership during his term and really focused the EC creating a collaborative environment to work together as a team. Dale Kocarek served as OWEA President from 2010 to 2011. I have always enjoyed the times I have talked with Dale one on one. He provides a great history of the organization, and he always provides me with at least one nugget of knowledge. He is a great conversationalist, and

Fred is a Senior Project Manager with CDM Smith in Columbus. He has a Bachelor of Science Degree in Civil Engineering from The Ohio State University and is a third-generation engineering graduate from Ohio State. Fred resides in Dublin Ohio with wife Susie. Fred and Susie have two daughters Emily (23) and Lucy (21). Emily graduated from Ohio State in May, and Lucy is attending Ohio State. Fred enjoys running marathons and drags Susie around the country to watch him race. Fred started taking ballet lessons three years ago and performed as Mr. Banks in last year's Artisan Ballet Company's production of Mary Poppins.

I a good listener, so we make a good pair. Most recently, I have had the privilege to learn from Ted Baker, Jamie Gellner, Kim Riddell, and Jason Tincu. Ted is never afraid to quietly challenge my thinking, Jamie provides a calm, firm hand on the wheel, Kim provides a great knowledge and depth of the WEF/OWEA organization and provides an operator's perspective, and Jason always reminds me to think bigger than today. Thank you all so much. These are just a few of the people I have enjoyed serving with and who have taught me a lot. I wish I had enough print space to share more names.

As I stated previously, I am honored to serve the OWEA membership. My goal as President is to continue to improve member satisfaction. As a Board, we are excited to announce a few new initiatives moving forward. We created a Nutrient Committee this year to help address Ohio's nutrient puzzle. The Nutrient Committee is chaired by Jason Tincu. Jason is working with Dale Kocarek to create our first Nutrient Workshop in November. Jason is also working on a Nutrient Roundtable for the One Water Conference. The Roundtable will help us determine our memberships view of the nutrient legislation being proposed. The EC will begin our next round of strategic planning this year. Our last strategic plan was developed under the leadership of Mike Frommer and Elizabeth Wick. The goal for the development of that plan was to use membership feedback to identify strategic initiatives to increase membership value and strength from 2014 through 2019. The EC was able to achieve most every goal set forth in this plan. The next strategic plan with take OWEA from 2020-2025. Be on the lookout for opportunities to participate in the strategic planning process. The final initiative, is the EC is going to evaluate the possibility of creating a Foundation. The Foundation may be used to fund OWEA scholarships, educational programs, charitable outreach, and membership outreach. The Foundation will give our members a chance to give



Fred with his wife and father.

back to the water industry in more than just volunteer hours. I know the water industry has provided so much to me in my life, I am excited for the chance to give back on another level.

Be sure to attend the One Water Technical Conference and Expo in August. The conference promises to be the highlight of the summer. OWEA and the Ohio Section of the American Water Works Association are excited to come together again in offering this conference.

I want to close my first President's Message with some additional thank yous. First to all our volunteers. You do a great job! We have volunteers on the Executive Committee, serving as Committee Chairs and on committees, serving our Sections, and volunteers serving on the One Water Conference Committee. I am stunned at how many volunteer hours are given each year by our members. You guys never stop ceasing to amaze me. I want to thank all our sponsors. We could not provide as many membership benefits without the support of our sponsors. Not only the monetary support of OWEA, but also the support you provide to our volunteers. I want to thank the OWEA staff. Dawn, Megan, and Chelsea, you guys do a great job. I want to thank CDM Smith. They made a commitment to me, and OWEA to allow me to serve on the EC, and now as President. They afford me the opportunity to give back to the water industry, and I could not serve without their support. Finally, I want to thank my Dad and my Wife. My Dad for giving me #MyWaterLegacy. You are the reason that I am in this business. And Susie, what can I say. You have always supported me, you have raised two wonderful daughters, and you make me a better man. Thank you and I love you.

Thanks again for this opportunity. Don't hesitate to contact me if you have any thoughts, questions, or comments at smithff@cdmsmith.com.

2018-2019 Executive Committee Meeting Dates

August 26, 2018	Hilton Columbus Downtown
October 16, 2018	OWEA Office
December 12, 2018	OWEA Office
February 10, 2019	OWEA Office
April 10, 2019	OWEA Office
June 23, 2019	Sawmill Creek

One Water

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Schedule of Events

	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM
MONDAY AUGUST 27	Attendee Registration 7 AM - 5 PM											Welcome Mixer 6 PM - 9 PM			
	Ops Challenge 8 AM - 5 PM														
TUESDAY AUGUST 28	Attendee Registration 7 AM - 5 PM														
	Exhibitor Registration 7 AM - 9 AM														
	Exhibitor Set-Up 7 AM - 9 AM														
	Kick-Off Breakfast 7:30 AM - 9 AM														
WEDNESDAY AUGUST 29	Attendee Registration 7 AM - 5 PM														
	Breakfast 7 AM - 8:30 AM														
	Concurrent Technical Sessions 8 AM - 5:10 PM														
	Exhibit Hall Open 9 AM - 2 PM														
THURSDAY AUGUST 30	Attendee Registration 7 AM - 12 PM														
	Breakfast 7 AM - 8:30 AM														
	OWEA 5S Breakfast 7 AM - 8:30 AM														
	OWEA Crystal Crucible Breakfast 7 AM - 8:30 AM														

Hilton Downtown Columbus

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Go to www.onewaterohio.org/hotel.php for a booking link.

*schedule subject to change

One Water Exhibitors

Registered as of 7/17/18

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- ◆ 360water, Inc.
- ◆ A. Y. McDonald Mfg. Co.
- ◆ ABB
- ◆ Accelerated Technology Laboratories
- ◆ ADR & Associates Ltd.
- ◆ ADS Environmental Services
- ◆ Advanced Drainage Systems
- ◆ Advanced Rehabilitation Technology
- ◆ Aeration Industries
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- ◆ Aquam Pipe Diagnostics
- ◆ Aquarius Technologies, LLC
- ◆ ARCOS
- ◆ Asahi/America, Inc
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Charitable Outreach

Please help these great charities with your Silent Auction Donation!

This year during the One Water Conference in Columbus, the Charitable Outreach Committee will be raising funds through a silent auction to support the Water Equation Campaign, Water For People, and Design Outreach.

We are reaching out to everyone for support! Our committees are putting together silent auction items to be used at the fundraiser event at the One Water Conference – held at the Hilton Downtown and Columbus Convention Center on August 27-30, 2018 in Columbus, Ohio. Some suggested donation ideas include: event tickets, gift certificates, golf, fishing, handyman tools, camping gear, gardening, entertainment items, movies, etc.

In order to create signage for the event, please provide an itemized list of your donated items to Afaf Musa by August 19th.

If you are unable to donate, you can still stop by and bid on items!

Please come by our booth near the registration table during the One Water Conference. We will have items for operations personnel, silent bidders, and sponsors. The winning bidder of each item will be announced on Wednesday, August 29, 2018.

Find out more about our great charities at the links below:

Water for People: <https://www.waterforpeople.org/>

Water Equation: <http://www.awwa.org/donate.aspx>

Design Outreach: <https://doutreach.org/>



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Pre Conference	
Pre Conference Member	\$95
Pre Conference Nonmember	\$125
Full Conference	
Full Conference Member	\$375
Full Conference Nonmember	\$500
Retired	\$235
Student	\$75
Partial Conference	
One Day Member	\$220
One Day Nonmember	\$270
Budget Option One Day	\$125
Budget Option Half Day	\$100
Golf	
Golf - Team	\$320
Golf - individual	\$80
Exhibitor	
Exhibitor	\$1,075
Booth Attendant	\$100
Limited Booth Attendant (no meals)	\$30
Add Ons	
Plant Tour	\$120
Guest Package <i>Evening Socials and Food Only</i>	\$160
Extra Tuesday Reception Ticket	\$60
Extra Wednesday Reception Ticket	\$65
Extra Kick Off Breakfast Ticket	\$35

OPERATIONS CHALLENGE INVITATIONAL

AUGUST 27-28, 2018

One Water Ohio is proud to announce they will be hosting an Operations Challenge Competition and National Invitational as part of our August 2018 Technical Conference and Exhibition.

- ◆ 12 teams total
- ◆ 6 spots held for invitational teams

\$50 Team Registration (up to 5 people) includes:

- ◆ Breakfast on Monday
- ◆ Lunch on Monday
- ◆ Welcome Event Monday evening
- ◆ Conference Kick-off Breakfast on Tuesday
- ◆ Lunch on Tuesday in the Exhibit Hall
- ◆ Meet and Greet Event Tuesday evening (Adults Only)

Registration and details at www.onewaterohio.org



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info@onewaterohio.org

MAINTENANCE EVENT

Wipes, Ragging, FATBERGS... Oh My! A lift station trouble alarm was received via the SCADA system at the Operations Control Center. A crew has been dispatched to troubleshoot the alarm. The teams will need to troubleshoot the electrical control panel, perform routine maintenance on the submersible pump and wet well, and then ultimately restore the pump station back to normal operating condition. While troubleshooting the alarm, it has been decided to replace the impellor of the pump to prevent continued calls do to clogging – all because of wipes. In a first for this event, we will be using a “live” pump and wet well. In the last step of the event the teams will be testing the pump to be sure their work was successful.

PROCESS CONTROL EVENT

This event consists of a written test and computerized process simulator meant to evaluate an operator's knowledge of WRRF process control. The written test is made up of four main sections: short math, multiple choice, extended multiple choice and longer process scenario questions. Point values range from 10 for multiple choice to 200 for the process control scenarios in the written portion. The process simulator will be run by each team on a laptop that will be provided. The process simulation software is provided by Hydromantis and will be the same for each team. Each scenario lists a set of goals and points are awarded for the number of goals achieved.

COLLECTION SYSTEMS EVENT

How long do you think it would take you to cut through an 8" SDR-35 pipe with a hand saw? No battery powered Sawzall® here. 30 seconds . . . how about 45 seconds? Unless you can be around 20, don't even try. The object of the Collections Event is to cut out a 1' – 2' section of broken sewer line from a six foot long pipe, replace it with another unbroken section using two Ferncos®, and install a new saddle connection on the fresh pipe. You have four team members: who cuts what, and when? Choreographed chaos is the best way to describe the event. Complete the whole thing in less than two minutes and you might just be fast enough to be the winners.

SAFETY EVENT

While your WRRF facility crew is working, one of the workers collapses in the bottom of a confined space lift station. It is suspected that he/she has been overcome with an unknown gas or lack of oxygen due to a worn 4" check valve gasket in the station. The in-plant rescue / repair team is immediately called to the scene. Two members of the team will enter the confined space, rescue the downed worker and repair the check valve. Two gate valves will be closed and locked out/ tagged out by the entrants, the check valve flapper and gasket will be replaced and the line put back into service. Tools and equipment will be lowered to them by the attendants and all proper confined space entry protocols will be followed during the rescue and repair completing just another day in the life of a WRRF operator!

**AWARDS WILL BE
PRESENTED ON
TUESDAY AT THE
EXHIBITOR RECEPTION.**

LABORATORY EVENT

All week long your ammonia levels have been creeping up at the plant effluent... the laboratory tech is on vacation and you have to get to the bottom of this before the boss gets involved. The purpose of this event is to familiarize teams with the definition and concept of alkalinity and how it impacts plant operations. Team members will be required to run straight and diluted samples of influent ammonia and alkalinity to determine basic alkalinity needs of the treatment plant based on these values. Calculations will be performed to determine if there is adequate alkalinity to complete nitrification or if supplemental alkalinity would be needed. Bench sheets will need to be completed properly in addition to proper performance of such techniques as measuring with graduated cylinders, pipetting and analysis of pH, alkalinity and ammonia using instruments provided.

Golf

Monday, August 27, 2018
Foxfire Golf Club

Foursome \$320
Individual \$80
Hole Sponsor \$250

Register at www.onewaterohio.org

Networking

**Don't miss the Wednesday
Reception / Gala at the Hilton!**

This isn't your "normal" Gala! This is an
interactive networking experience!

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- **Great Food & Beverages**
- **Unlimited Arcade Games**

**We're going back
to Brothers!**

**Join us Tuesday night
at Brothers for a great
time!**

2018 YP Winners

Lindsey Hassenauer, Hazen and Sawyer, Chair - lhassenauer@hazenandsawyer.com

Every year the Young Professionals Award is given to one young professional from each section with an outstanding abstract to be presented at the annual conference. To be eligible, the person must be 35 years of age or less or have less than 5 years of experience in the wastewater industry.

The winners receive full conference registration from OWEA, an award (usually covering their hotel stay) from their section, and gets to present their topic at the annual conference. This year, there were many excellent abstract submissions, which made the selections extremely difficult! I would like to thank all the YPs who submitted abstracts. Keep up the good work! It's never too early to start planning for next year – start thinking about an abstract you can submit for the 2019 conference!

This year's winners are presented below. Be sure to sit in on their presentations at the One Water Conference!



Northwest Section – Justin Batt, Stantec **Presentation: Integrative Planning for The City of Napoleon, Ohio**

Justin is a graduate of the University of Toledo with a Master's Degree in Civil Engineering and has been in the Water Resources group at Stantec since 2013. He has been involved in a variety of design projects for wet weather facilities, sanitary and stormwater conveyance, and pump stations during my time at Stantec. Justin's primary focus the past four years has been supporting the City of Napoleon with various tasks related to their NPDES Permit and Long-Term Control Plan. He has been involved in multiple field studies, developed reports and performed hydraulic modelling related to their collection system, and most recently

worked on the development of an Integrative Plan for their WWTP to provide options to the City for the long-term maintenance of the facility in conjunction with the LTCP.

PRESENTATION ABSTRACT:

Stantec developed and has assisted in the implementation of the City of Napoleon's Long-Term Control Plan (LTCP) since it was approved in 2005. The City expended \$20 million in the first 7-years of the plan and realized they were at a crossroads financially due to climbing sewer rates and tight budgets. An extension was requested and Stantec was tasked with developing a plan to restructure the program that would provide the City with a sustainable path.

The plan included field investigations, modeling updates, and an evaluation of the remaining schedule to recommend a modified LTCP. The analysis showed the collection system captures 97% of wet weather flows, well above the 85% level established for CSO Control. An integrative approach was taken to recommend a more practical methodology in selecting projects and the proposed plan freed up \$14 million for the City to invest in their aging WWTP. Currently, with Stantec's assistance, the City is in the process of negotiating the final requirements for the modified LTCP to provide the City the flexibility needed to maintain and improve their infrastructure, while preserving the primary goal to protect the waters of the Maumee River.



Northeast Section - Georgia Fuerst, CT Consultants **Presentation: Design Challenges of A High Rate Treatment Facility**

Georgia Fuerst is an EIT at CT Consultants, Inc. Georgia joined CT's water/wastewater division in November 2016, shortly after completing her Bachelor and Master's degree in Chemical Engineering at Miami University. She has had opportunities to work on projects including the Euclid WWTP MBR upgrade, the Lakewood High Rate Treatment Facility, and the Mosquito Creek WWTP upgrade. While at Miami, she worked as a co-op with the Metropolitan Sewer District of Greater Cincinnati. Georgia is thankful for this co-op, as it gave her direction for her career, and is thankful for the mentors/friends/family she has found at CT.

PRESENTATION ABSTRACT:

The purpose of this presentation will be to discuss the project challenges for a High Rate Treatment (HRT) facility in Lakewood, Ohio. This facility will be used for treating combined sewer overflows (CSOs). The HRT system will be constructed adjacent to the existing WWTP and utilize physical/chemical treatment. The facility will have screening, grit removal, two high rate treatment trains (chemical coagulation, ballasted flocculation, and plate settling), flow metering, and UV disinfection. Additionally, the plant will have the capacity to incorporate biological treatment in the future if necessary as well as the capacity to add a third high rate treatment train. The major challenges to be discussed include geotechnical challenges, environmental permitting, and process capability. This topic is of importance as many municipalities are being faced with the requirement to address CSOs.

2018 YP Winners



Southeast Section – Elizabeth Buening, Delaware County Regional Sewer District
Presentation: Comprehensive Collection System Study for Odor and Corrosion Mitigation

Elizabeth holds an Ohio Class II wastewater treatment license and Ohio Class A water supply license. After graduating from the Ohio State University in engineering, Elizabeth worked a couple of years as a water and wastewater treatment plant operator at small package plants. Then she worked at the Ohio EPA for several years where her responsibilities included surface water discharge permit writing and wastewater treatment compliance assistance. Elizabeth is currently employed with the Delaware County Regional Sewer District as a staff engineer. Elizabeth is also currently a graduate student at Ohio University in the online Master’s program in Civil Engineering with an environmental specialization.

PRESENTATION ABSTRACT:

The Delaware County Regional Sewer District (DCRSD) operates 11 wastewater pump stations in the Olentangy Environmental Control Center (OECC) sewershed, and doses calcium nitrate (Bioxide®) for odor reduction and corrosion control at 7 of those pump stations. This approach has proven problematic for the District due to high chemical costs, high labor costs to operate and maintain dosing equipment, and wastewater quality impacts to OECC. Given the numerous challenges associated with DCRSD’s current OECC Odor and Corrosion control program, a study was commissioned through Black & Veatch to identify alternative approaches to meet collection system odor reduction and corrosion prevention objectives while reducing costs and WWTP impacts. An overview of the project’s background, discussion of how the study was structured in a systematic approach to qualify and quantify odor generation potential, and the study’s findings to optimize DCRSD’s OECC odor and corrosion control program will be presented.



Southwest Section – Brianna Wooten, Montgomery County Environmental Services
Presentation: How to Pass a (Mostly) Painless Rate Increase

Brianna Wooten is the Communications Coordinator for Montgomery County Environmental Services, where she provides internal and external communications services to 300 employees and 80,000 water and sewer customers in Dayton, Ohio. Her specialties include creating and executing strategic plans, managing media relations and public image, implementing internal communications to support employee engagement and organizational change, managing web content and social media campaigns, coaching executives to interact with media and stakeholders, organizing special events (e.g., grand openings), designing promotional materials, writing crisis communications plans and responding to crisis situations.

PRESENTATION ABSTRACT:

Montgomery County Environmental Services has seen a perfect storm of financial and operational challenges – aging infrastructure, lower rate increases, decreased water consumption, and increased maintenance costs. The utility adopted a multiphase approach to address the situation:

- evaluate asset replacement and maintenance needs;
- examine rate strategies and establish a new rate structure to fund long-term financial needs;
- solicit input and support from community leaders for a long-term infrastructure reinvestment strategy;
- engage stakeholders to explain the necessity for infrastructure reinvestment and garner support for a multi-year rate plan.

Drawing on best practices for community engagement, the utility established a multiple-step outreach process to engage local municipalities, businesses, and citizens in the infrastructure reinvestment and rate setting process. These efforts resulted in unanimous approval of a five-year rate plan by the Board of County Commissioners, and garnered support from members of the business community and local jurisdictions.

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A Chat with Carnell Felton

by Megan Borrer, OWEA Staff

THIS OWEA MEMBER IS A VETERAN AND ASSISTANT MANAGER AT JACKSON PIKE

STAFF: How long have you been in the industry?

FELTON: I've been in the industry since 1972. I started off in Lorain, Ohio at the Water Control Plant, is what they called it then. Which I felt the whole industry should have went that way. It sounds so much better than wastewater treatment plant. I worked in Lorain in 1972, I worked there for seven years and then I left and went to US Steel and became a pipefitter.



I ended up down here in Columbus when my wife was taking her state exam and I had just got laid off from US Steel. I was driving her down here and I brought my briefcase with my resume in it. I'm a Veteran so I went to talk to a VA counselor about getting employment and stuff like that.

The counselor asked me what kind of experience I had and I told him, and he said, "Well, wait a minute! I think I have something for you now!" and he made a call to Schuler. What they built was big down presses for the auto industry and robotic arms and things like that. Since my background was a pipefitter background hydraulics, I worked on the robotic arms putting them together. I worked there for a minute, less than a year, and then I got a job out at Rockwell working on the B-1B bomber. [LAUGH] Yeah, I done been around, right?

I was working out there and we were supposed to replace the B-52 bomber fleet, and we order 100. We got to about aircraft 95 and they told us we're not building more than 100 because the stealth bomber just came in and the found Douglas and we all got laid off.

As I'm laid off, I just had a kid, my youngest son and I'm thinking, "Now, wait a minute. I know what I need to do." I have my Class III. I was able to get an interview at Civil Service with City of Columbus and then a supervisor job came open here in 1989 and they hired me as a supervisor here. That started my odyssey back into wastewater.

I was here for a while on third shift where I was hired in, which is a rough shift. Tuesday and Wednesday off. I'm like, really? Those are fantastic days. After about a year and a half there was a second shift opening at Southerly. I was out of there. I was going to second shift.

The plant manager at the time didn't want me to go. To make a long story short my wife told me she was tired of sleeping alone at night and getting her a surrogate was out of the question so I went to Southerly.

It was a whole other world compared to Jackson Pike. Jackson Pike is an older plant and actually had the older staff too, because Southerly was the new plant with new people and nobody wanted to go down there

I go down there on second shift, and it's good. I was working down there for about two years, and then the Supervisor II slot opened

up on third shift and I took it but luckily I was only on there for about three months before I was transferred back to second shift. I was a Supervisor II on second shift for about 14 years then I moved to first shift. I was on that shift about three years then I got the job here at Jackson Pike.

Now, here is the interesting thing about me. The City doesn't have training for first-time manager. The person in this position before me had died in a tragic accident. I got here and they hadn't cleaned the office up. The office looked just like his last day when he walked out that door. First day was kind of traumatic.

The icing on the cake was the Superintendent was on vacation so I was the Plant Manager. Now, you're going to like this. The Supervisor II classification runs the plant on the off shifts and weekends. So this is what I do, this is the section I go to in virtual reality because we were getting ready to go to the disinfection season because I came in near the end of April. I'm looking around, I go to the bisulfide tanks then the hypo tanks and they're empty. This was the last week of April.

These chemicals have to be in here or else we're going to get fined every day we're not disinfecting come May 1st. I called over my Supervisor II and I said, "You have the chemicals on order? I noticed the tanks are empty."

"We're waiting on a purchase order." Now the difference with Southerly is we are already on chemicals, getting the dosage right, so when May 1st comes, there are no guesses. I come in the next day, no chemicals still. What's going on with these chemicals? I end up calling downtown to find out the contract lapsed.

I said, "Well what are you all doing? We have to get these chemicals in for the treatment." She said, "We took care of that, Carnel, and you're going to get your chemicals, everything's taken care of. You should get them about the middle of May."

I said, "Stop right there! [LAUGH] That's totally unacceptable. I need you to do a UTC..." A Universal Term Contract where the funds aren't allocated to anything. "...And I need at least a temporary contract for at least a month's worth of chemicals." She told me she would send it in and I told her this was a walk and sign thing. I don't have time for it to hit someone's desk and die. She did it for me and we went on chemicals May 1st.

My first few days here, I had to deal with that kind of situation, which was wild. [LAUGH] Welcome to the world of management!

In my first six months, I had to deal with completely shutting the plant down, bringing it back up, and moving a First Shift Supervisor to the run-around shift. I was thinking, "Is this what it's going to be like from here on out? But I I got my legs underneath me. I think those kind of incidents kind of helped me out."

Then in 2002 they came to me to be Vice President of the union and I ran against the President for the Presidency, so they wanted to know if I would be interested in being Vice President. I told them yes, and I had to interview in front of the board and everything. I mean, as you see, I'm a talker, so that wasn't a problem. After the Vice Presidency, I got the Presidency.

That was interesting in understanding the politics of civil service work. I had to understand how to form a good relationship with the mayor, who's on negotiating contracts again. I had to form good relationship with city council, who ratifies our contracts and everything. I bought plenty breakfasts, lunches, and dinners, and got to learn how to do this, how to maneuver through. Basically, what I found out is, when you're dealing with the upper echelons, let's say, you've got to come to the table with something, you can't come to the table empty handed because they'll act like they're listening to you and everything, but as soon as you walk out the door that's the end of whatever idea you had. So I learned data is the way to convince people to do the right thing. If you've got the numbers on your side, usually you can win the argument. Not all the

"When you are passionate about your work, it is much easier to become a good leader."

time, but most of the time.

...but I have to say wastewater has treated me very well. How did I get in it in the first place? That's a good story, I should've started off with this. I was college, playing basketball. The season was over with and I'm staying with my mother because I had just gotten out of the service. She was at church one Sunday

and we had a city council member that belonged to our church. He said the City of Lorain was hiring in the utilities department but they want people who can pass the civil service exam. My mother stands up in church and said, "My son can pass any test you give him, just let me know when to have him down there and what he needs." She comes home, "Boy, you've got to take a civil service test on this date and time. I will take you down there." Boom, boom, boom. Of course, I go down there, I do pass the test and that started me in this field. I told my friends, "Yeah, I'm going to work for the City's Utilities Department." They said, "I hope it ain't that stinky place behind the Coast Guard."

I don't know nothing about wastewater. I drive down into the plant and I'm like, whoa, what's that smell? Back in the 70s we didn't have this odor kicked yet. I was okay with it, it's money.

That was a hoot there, working in Lorain. For whatever reason, back in the day, anyone who had a misdemeanor or a DWI or something like that, they stick them in the plant to work off their fines or whatever.



We had this one guy—I have a million stories—we had this one guy, right? His wife would drop him off in the morning. When she would pick him up that afternoon, he would be drunk as a skunk. She was complaining to the mayor, everybody, so the plant superintendent said, “Y’all gotta figure out what’s going on here.” We pretty much figured he hid liquor somewhere around the plant. We hadn’t figured out where it was hidden yet. Could not find it. Operations was looking, maintenance was looking, everybody could not find it. Here’s how he got busted. He brought a Mason jar of milk in everyday and they’re in there eating lunch. One of the guys needed milk for his coffee, he just grabs it. The guy tried to get it but too late, he poured it in. [LAUGH] That’s where it is. When we found that out, no more milk for you. But boy he had it, every break, “Yeah, I gotta drink this milk.” Man, it was hilarious.



At a plant like Lorain, I’m in the maintenance department, I’m the lab. I’m doing all these steps. I got into the large system like Columbus where you have a maintenance department, a lab, and all of this other stuff. You basically stay in your lane. I’m operations, even though I’m a pipefitter, I don’t tell maintenance what to do, right? It was kind of strange getting used to that. Maintenance doesn’t like operations telling them what to do, and operations doesn’t like maintenance telling them how to operate, so everybody just stays in their lane. We have a very good maintenance crew out here. We have an excellent operations crew that actually like each other and that makes things run very smoothly. That’s the only way you will get all these gold awards, silver awards, stuff like that. You need to work together as a team and those are the concepts that I have always used. Coming up through athletics, you are taught team sports. I was on the ultimate team, the United States Marine Corps, for two years. Yes, that was the ultimate teamwork because you have someone else’s life in your hands, not cooperate in the spirit of team.

So when I get here, my survival instincts are teamwork. I believe in collective thought, you can solve any problem, and put everybody’s mind focusing on a single entity. Be surprised what one can accomplish. And like I said, just look at the wall out there full of awards, that tells it all.

But am I ready to go? Yeah, I am.

I’ve have been doing this, well I got my Class III in 1975 and my oldest son, Carnell, Jr., he’s 40 and I had it three years before he was born. It was crazy that I kept it up. See, that was the best move I made in all of this to be perfectly honest with you was that I kept my license up when I left and went to US Steel. So when I went talking to the civil service, damn, I was lucky to get back in and finish my career out.

Yeah, so now, what questions you got? No, I’m just messing with you.

PART TWO OF CARNEL'S CHAT WILL BE IN THE NOVEMBER ISSUE

FiresideChats-LookingforRecommendations!



The Fireside Chats is a series for the Buckeye Bulletin focusing on leaders in the industry. The Question and Answer Feature will dig into their leadership role and how it has had an impact on the industry. We will be focusing on leaders from OWEA to Plant Superintendents and every leader in between. Please nominate your boss, coworker, or someone you admire for a future article by emailing Megan Borrer at: meganborrer@ohiowea.org.

Ohio Corn & Wheat and Ohio Soybean Council

Farmers are known to be curators of the land. In Ohio, over the past several years, we also have been working to become diligent stewards of the water.

The spike in harmful algae blooms that have impacted Lake Erie has inspired Ohio grain farmers to learn more about the causes of the problem and rally around potential solutions. While our primary mission remains growing healthy food that feeds people around the world, we have embraced the responsibility to ensure that we do so in a way that protects our water.

That means doing all we can to keep nutrients on our fields so it does not spill out into nearby watersheds. For example, Lane Osswald, a fifth-generation farmer in Eldorado, has been planting cover crops for two decades, in order to keep residue from washing away. He also does soil testing throughout his fields to ensure that he doesn’t apply any more nutrients than is needed to grow his crops.

“Utilizing just a cover rate that covers every acre the same wouldn’t be the best practice,” Osswald says. “I’ve learned that we can farm acres more efficiently. I’ve learned that I can utilize less nutrients.”

While we know it takes time for the effects of reduced phosphorus to show results, Ohio farmers are in this for the long haul. We will continue to invest our time and resources for the benefit of healthy soil and clean water.

All told, Ohio’s leading corn, soybean and wheat checkoff organizations have invested more than \$3.5 million dollars in research and education to address the water quality challenges faced by farmers and all Ohioans.

We have promoted statewide the 4R Nutrient Stewardship Certification program, which educates growers about the importance of using the right fertilizer source at the right rate, at the right time and at the right place. We’ve successfully encouraged our fellow farmers to use other best management practices such as conservation tillage, filter strips, soil tests and banding and injecting, and we worked with The Ohio State University Extension to host water quality education sessions for thousands of farmers.

We have persistently and successfully lobbied for public funding for impactful programs such as the Great Lakes Restoration Initiative, Heidelberg University’s National Center of Water Quality Research and The Ohio State University’s Sea Grant. In 2012, we funded On-Field Ohio, an unprecedented edge-of-field monitoring tool created by Dr. Elizabeth Dayton of The Ohio State University. On-

Field Ohio, which measures what nutrients are leaving fields and which practices will keep them from doing so, will be available for farmers this year.

In 2014, Ohio grain farmers, along with other agricultural groups, supported Senate Bill 150, which requires at least one farmer per farm to be certified to apply fertilizer. The law also punishes bad actors who recklessly spread nutrients. In 2015, we funded the revision of the Tri-State Fertilizer Recommendations, which farmers use to determine nutrient application amounts. The recommendations have not been updated since originally developed in 1995, but Dr. Steve Culman of The Ohio State University will introduce the new standards this year.

In 2017, we partnered with The Ohio State University on the Best Practices Verification pilot program to track and annually report the adoption of best management practices by Ohio farmers. Similarly, to keep farmers informed about changing technology and agricultural research, we developed Soybean Rewards, a regularly updated online portal devoted to helping farmers make the best decisions for their farms. We also launched the comprehensive “For My Farm, For My Business” advertising campaign, which drove audiences to formymfarm.com, an educational website promoting the financial and business benefits of adopting best management practices.

Thanks to science-based research and implementation of best management practices, we have taken important steps that will lead to improved water quality over the long term. But we also know there is more that must be done. This is a big issue that will require a lot of work by many sectors. Farmers are eager to do our part, have been doing so for years, and will continue to make the protection of Ohio’s waterways a priority for years to come.

J. DWIGHT THOMPSON COMPANY
Water & Wastewater Manufacturer's Representative

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Operator Quandaries

FDS Raw Sewage Level Indicator

by Brandon Fox, City of Columbus

Ever have a power failure during a high flow event that knocks out your SCADA, or have an electronic level sensor fail just when you needed it most? Probably not, because we all know in the wastewater industry, everything always goes as planned.....Right! Well, for the staff at the City of Columbus Jackson Pike Wastewater Treatment Plant (JPWWTP), we had just that kind of failure.

JPWWTP has a Flow Diversion Structure (FDS) at the headworks of the plant which allows plant staff to direct raw sewage from the collection system to Jackson Pike’s Raw Sewage Pumps or, under high flow conditions, south to the Southerly WWTP, the larger of the two Columbus plants. Based on the raw sewage flow and FDS levels, plant Operations staff make real-time decisions to ensure proper treatment levels are maintained. Knowing the FDS level is one of the most critical measurements required to treat high flows because of the complexity of the collection system and the possibility of very rapid changes in FDS level. Additionally, if the FDS level reaches 17.5 feet, the plant will automatically enter into gravity bypass, which is not allowed per the NPDES Permit. Currently there are two electronic level sensors located in the FDS that report to the SCADA system so staff can remotely monitor levels and make operational decisions. However, during

a recent power outage, both levels sensors failed and staff had no way of determining the FDS level other than a visual, manual inspection, which is not a safe, reliable, or accurate way to operate.

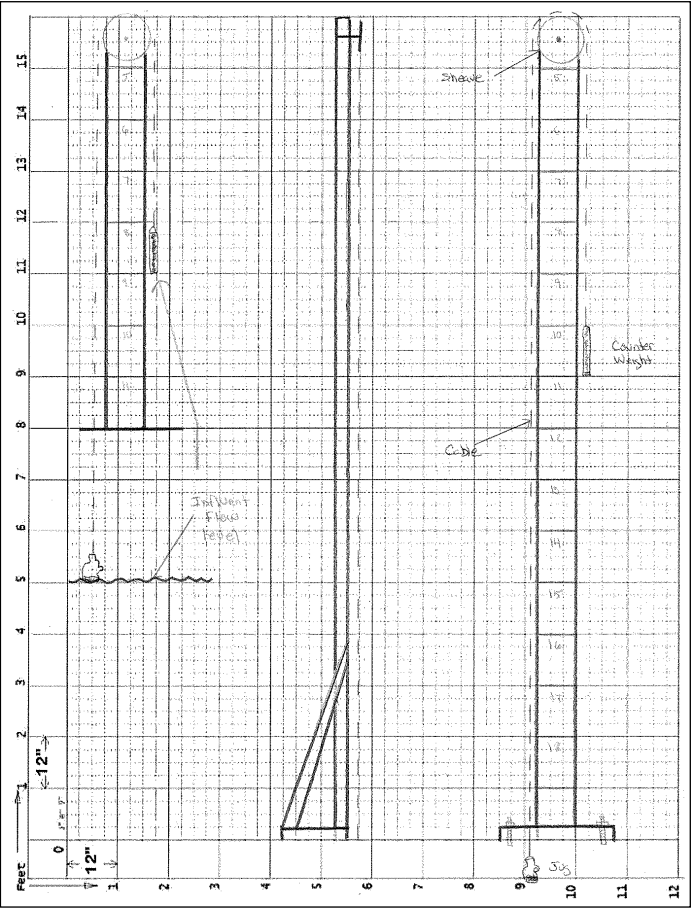
To resolve this issue, JP Maintenance staff designed and installed a mechanical float level indicator that can be used during loss of power and/or level sensor failure. The level indicator is made of a 2”x 4”x 20’ square tubing mounted to the concrete on top of the FDS, with a cable and float pulley system with level markings at every 6 inches. The floating mechanism is made from a gallon jug that floats on the raw sewage level. The jug is attached to a 1/4” cable that extends up a 20’ measuring stick to a top pulley, and then attaches to a weighted level indicator. As the raw sewage level rises, the float goes up, which pushes the weighted level indicator down. As the raw sewage level lowers, the float goes down, which causes the weighted level indicator to go up. Pretty scientific, huh! But it works reliably with no power needed.

The float raises and lowers with the changing conditions of the FDS and can be used by Operations staff to dictate when to make operational changes without electronic level sensors. This device can also be used during normal operation to quickly reference against the electronic level

sensor for calibration checks.

This system could be used at any WWTP that has open channel flows and the need to have a backup level sensor. Even with the most sophisticated electronic equipment, sometimes it is necessary to have a reliable mechanical backup device that can give the same information.

Materials for this project came from the plant’s budgeted inventory. Materials cost approximately \$400, and plant Maintenance staff had approximately 98 hours for fabrication and installation. With a little cooperation from Operations and Maintenance staff, some fine metal working, welding, painting and some great Maintenance ingenuity, this project will help Operations see what is happening, even during the poorest conditions.



Sketch of FDS Raw Sewage Level Indicator



FDS Level Indicator Float Bottle



FDS Raw Sewage Level indicator



FDS Weighted Level Indicator



FDS Raw Sewage Level Indicator side view

OPERATOR QUANDARIES –IMPLEMENTING SOLUTIONS FOR DAILY OPERATOR CHALLENGES

Attention Operators, Lab Technicians, and Maintenance Mechanics! OWEA invites you to share a challenge that you faced at your facility and the ingenious solution you found!

Each wastewater treatment plant is unique. The basic treatment method might be the same, some of the challenges might be the same, but each facility may approach the challenge differently. These challenges must be overcome to ensure proper facility operation. The solutions to these challenges are not always found in a WEF manual. An offspring of necessity is invention. Treatment facility operators, laboratory technicians, and maintenance mechanics are the most valuable resources in this great field. The unsung heroes of the daily mission of clean water are made possible through fantastic skills sharpened by every day experiences. At every facility there is an enormous amount of experience and expertise that keeps the water flowing.

What quandary have you faced and what have you implemented to create a success story? What projects or procedures of ingenuity have you implemented to attack a specific issue? Did your efforts result in plant optimization, a simplified procedure, eliminate a safety hazard, or the coveted reduction in operational expense? Operator quandaries are not limited to a plant, collection system, day of the week, or even the weather. No matter how large or small your solution, let’s get your experience out to our readers of the Buckeye Bulletin. Let’s take time to brag about your efforts behind the scenes. Your shared solutions may benefit other facilities. Consider sharing any details and pictures to create an article to share in the Buckeye Bulletin.

If you have a quandary turned solution, please reach out to Nathan Coey via email at ncoey@ci.pataskala.oh.us

Is this normal or should we check the temperature?

Normalizing the Workplace

by Jason Tincu, OWEA SW Delegate

If you have not thought about the concept of normalizing, you may want to do some research and thinking on the concept. To normalize is to accept or make normal a current state, practice, standard or habit; good or bad, positive or negative, healthy or not. Normalizing, at the individual and organizational levels, can cause detrimental effects to things like performance standards, work culture, employee performance and habits, and organizational growth. We, as humans, have the innate ability to normalize things without even realizing or knowing. Below are just a few examples of normalizing the workplace and the effects of such phenomena.

What is NORMAL?

Normalizing the Bad Actor: We've all experienced a few – the individuals who abuse resources, cut the throat of the organization by gossip, game-playing, bullying or others, cross lines morally or ethically, and turn your stomach when they are around. It's usually

known throughout the organization, but over time gets normalized due to any number of factors or protections. The longer we allow these Bad Actors to exist in our work environments; the more they get normalized and it increases the chances that this behavior and attitude get passed on to other vulnerable employees. Managers, supervisors and decision makers: Do us a favor and deal with your Bad Actors. Front line employees: Make sure to distance yourself from Bad Actors and express your concern about their behavior to your direct supervisor.

Normalizing poor organizational performance or bad business practices: By no means do I think that any organization is perfect. However there are organizations that have just thrown their hands up and basically admitted "it is what it is" and given up on performance standards and streamlined, effective business practices. By normalizing these factors, we are basically signing our own death warrant. There are always ways to improve, regardless of the red tape and challenges. Sometimes, we default to (and normalize) excuse-making instead of solution finding. Adopting a 'continuous improvement' mindset allows for awareness and admittance of "we know we aren't perfect—but we are committed and invested in solving our challenges over time." Initiatives such as performance and business practice audits with cross-functional teams can guide organizations out of this rat hole and into the clear.

Normalizing how good things already are: Yes, this is a thing, both at the individual and organizational

levels. Many times, employees don't realize how good they actually have it from the compensation, flexibility, security, benefits, growth potential, or other perspectives. The mind, ego, and psyche can play games with us in telling us that the current isn't enough. That the grass is greener elsewhere. That we must move on to find more. Sometimes, that is not necessarily the case and we just need a reality check. Likewise, organizations can underestimate or take for granted that you've hit your stride with effective standards and exceptional performance. When this happens, organizations can go on a wild goose chase to solve issues that aren't there or aren't primary to their mission. Lastly from the organizational perspective, **NEVER NORMALIZE** or **TAKE YOUR EMPLOYEES FOR GRANTED**. As stated by the late, great Woody Hayes, "You win with people!" Both individuals and organizations should take their temperature when sentiments like this surface.

At the end of the day, all individuals have to normalize our surroundings to some capacity in order settle in, find a groove and determine our level of joy, satisfaction and happiness. But in doing so, we need to make sure that we fully and regularly evaluate the circumstances surrounding us. Normalizing negative things can cause us to become tainted, frustrated, and unhappy. Conversely, normalizing positive things (and taking them for granted) has the potential to unnecessarily drive us away from a good situation. At the individual level, it's good to take your temperature on a regular basis, maybe with a loved one or trusted friend.

For organizations, it is recommended to deal with your Bad Actors, regularly evaluate performance and business practices, and constantly stay connected to the pulse of your work culture and individuals within it. Normalizing from the organizational perspective can compromise the mission and future of the organization.

So if we can go unattended, why don't more facilities consider doing it? The primary reasons include risk of non-compliance, poor reliability of equipment, and protecting an expensive asset.

In short, it boils down to risk. Just because we can do something doesn't necessarily mean that we should do it. The level of reliability and automation required to go unattended is an important consideration.

Not only is an unattended operation adding some measure of risk (particularly if it's not maintained), it also adds costs in installing and maintaining the automation necessary to make it work. You don't get to go unattended for free. The care and feeding of automation cannot be ignored.

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Target AEMLS, Aerobic Solids

Figure 1 details the seasonal target AEMLS. Alternatively, Figure 2 provides the target total solids and solids under aeration.

	Minimum	Target	Maximum
Water Temp. °C	14	20	24
Average Aerator Effluent MLSS mg/L	2,400	1,700	1,700
24	2,400	1,700	1,700
21	2,600	1,800	1,800
18	2,800	2,000	2,000
14	2,800	2,000	2,000

2 Solids Inventory in thousands of pounds

	390	390	350	330
Total Solids	320	315	260	195
Total Aerobic Solids				

Flow Splits and Anoxic Fraction

Figures 4, 5 and 6 detail the initial flow splits and anoxic fraction for all main plant aerators during winter and summer BNR operation.

	Pass	Flow	Summer	Winter
A	20%	33/62/5	17/78/5	
B	40%	33/62/5	17/78/5	
C	30%	33/62/5	17/78/5	
D	10%	60/60	60/60	

5 SUMMER

PE (20%) RAS

PE (30%) RAS

PE (40%) RAS

PE (10%) RAS

6 WINTER

PE (20%) RAS

PE (30%) RAS

PE (40%) RAS

PE (10%) RAS

Target Dissolved Oxygen Profile

	Operating DO Target mg/L
Ammonia	2.0
Pass	2.0
A	2.0
B	2.0
C	2.0
D	2.0
0.5-3.0	2.0
3.0-4.0	3.0
4.0+	4.0
6.0+	6.0

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The People Place

This Buckeye Bulletin series focuses on the people side of our industry, hence the title: The People Place. Traditionally, the Buckeye Bulletin comes loaded with mountains of technical pieces: plant profiles, industry trends, regulatory insight, project overviews, etc., which, without proper 'people-care' would not be possible! After all, your organization can only be as successful as the health, wellness, and productivity of your people and culture. Focus areas of this series are topics such as leadership, management, health and wellness, succession planning, work/life balance, recruiting/retaining, change management, knowledge transfer, career ladder/branding, etc. We hope you enjoy this series as much as we are excited to bring it to you! If you are interested in submitting an article or specific focus area, please contact Jason Tincu. (jtincu20@gmail.com) Thank you!

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Ohio EPA Update

Construction Storm Water General Permit Renewal

by Jason Fyffe, Ohio EPA, Central Office, Division of Surface Water



On April 23, 2018, Ohio EPA issued the latest version of the National Pollutant Discharge Elimination System (NPDES) Construction Storm Water General Permit (Permit No. OHC000005). The permit authorizes storm water discharges from construction activity disturbing one or more acres and is applicable statewide. The permit also authorizes some discharges that are not entirely considered construction storm water (such as trench dewatering), as well as storm water discharges associated with on-site concrete and asphalt batch plants.

Previously, Ohio EPA had three individual construction storm water general permits:

- ◆ Statewide;
- ◆ Big Darby Creek watershed; and
- ◆ Portions of Olentangy River watershed.



OHC000005 combines all three general permits into one while maintaining the special conditions that apply to the Big Darby Creek watershed and portions of the Olentangy River watershed. The existing Portions of Olentangy River Watershed CGP (OHC000002) expires on May 31, 2019. Projects can continue to obtain coverage under OHC000002 until May 31, 2019. After this date, such projects would apply for coverage under OHC000005.

Existing permittees covered under previous versions

of this general permit and Big Darby Creek Watershed general permit must renew their coverage by Oct. 20, 2018 if the project will not be permanently stabilized by this date. Existing permit coverages will be terminated

if Ohio EPA does not receive a renewal application by this date.

In comparison to the previous NPDES statewide construction storm water general permit (OHC000004), OHC000005 contains the following noteworthy changes:

- 1. Permit Area (Part I.A).** Incorporates the Big Darby Creek watershed CGP and portions of the Olentangy River watershed CGP requirements as appendices. Previous conditions under these permits that exceed the statewide CGP have been included as appendices.
- 2. Electronic Submittal of Applications and SWP3 (Part I.E.1 and Part I.F).** OHC000005 requires Notice of Intent (NOI), Notice of Termination (NOT), Individual Lot NOI/NOT and Co-Permittee NOI/NOT applications to be submitted electronically using Ohio EPA's electronic application forms which are available through Ohio EPA's eBusiness Center at ebiz.epa.ohio.gov.
- 3. Sediment Basin and Sediment Barriers (Part III.G.2.d).** Language has been revised to clarify that sediment basins are appropriate for sites less than 10 acres and that all sediment basins have a minimum drain time of 48 hours. The term sediment barrier has replaced the terms silt fence in some instances. And it is specified that a standard silt fence may be substituted with a 12-inch diameter sediment barrier.
- 4. Post-Construction Requirements (Part III.G.2.e).** Evaluation of previous post-construction requirements found that the application of the previous methodology is not expected to capture average annual runoff and 80 percent total suspended solids (TSS), the following changes to post-construction requirements have been made to improve expected performance to this level:
 - ◆ Increase precipitation depth from 0.75 to 0.90 inches.
 - ◆ Alter the volumetric runoff coefficient (weighted calculation) method
 - ◆ From $C = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$ to $R_v = 0.05 + 0.9i$
 - ◆ Require the capture of the water quality volume (WQv) with a standard post-construction practice approved for general use on all sites disturbing more

- than two acres.
- ◆ Revise and increase the post-construction practices approved for general use. Extended detention practices have been separated from infiltrating practices and each provided appropriate drain times and notes critical to design and performance.
 - ◆ Clarify that use of regional storm water best management practices is acceptable if it meets permit design requirements and a legal agreement is provided for this service.
 - ◆ A list is provided of runoff reducing practices (green infrastructure) that may be utilized to reduce the required WQv.
 - ◆ Alternative post-construction practices must be tested using a defined particle size distribution and protocol comparable to the New Jersey DEP or Washington State TAPE Programs.
 - ◆ A water quality flow (comparable to the water quality volume) is provided to facilitate the design of flow-through type BMPs.
- 5. Inspections (Part III.G.2.i).** Allows the next inspection after a rainfall to occur on the next work day and requires that reduced inspection frequency be documented in the SWP3.
 - 6. Big Darby Creek Watershed Appendix (Appendix A).** Adds the watershed-specific conditions that exceed the statewide CGP for the Big Darby Creek watershed including: sediment basin sizing and monitoring requirements; riparian setback/mitigation requirements; and ground water recharge/mitigation requirements. Pertaining to ground water recharge, an option has been added to calculate a recharge value for utilizing infiltrating green infrastructure practices on-site.
 - 7. Portions of the Olentangy River Watershed Appendix (Appendix B).** Adds the watershed-specific conditions that exceed the statewide CGP for portions of this watershed, specifically pertaining to riparian setback and mitigation requirements.
 - 8. Definitions (Part VII).** The definition of Operator has been clarified and definitions have been added for General Contractor and Subcontractor.

The general permit and associated guidance can be viewed at epa.ohio.gov/dsw/permits/GP_ConstructionSiteStormWater.



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WEF Utility Partnership Program Member Utilities

The WEF Utility Partnership Program (UPP) is designed to allow Ohio utilities to join WEF and OWEA while creating a comprehensive membership package for designated employees. Utilities can consolidate all members within their organization on to one account and have the flexibility to tailor the appropriate value packages based on the designated employees’ needs. Key benefits include:

- ◆ UPP is fully customizable, based on the needs of each utility, and a WEF team member will be on-hand to walk each utility through the enrollment process.
- ◆ ALL members at the utility will be enrolled, with synchronized begin and end dates, on ONE invoice, for an easy one-time per year payment.
- ◆ All members, who were already WEF members, retain original membership number, credit for all years of membership, and remain a full-voting WEF member.
- ◆ ALL employees at the UPP utility will be eligible for membership registration rates at WEFTEC, as well as the early-bird rate for Premium and Standard WEFTEC registration at anytime throughout the registration period.
- ◆ ALL employees at the UPP utility will also be eligible for member rates for the OWEA Technical Conference and Exposition, OWEA Workshops, and events.

- ◆ All employees at the utility will be eligible to register for a WEFTEC Exhibition-only pass at NO-Charge.
- ◆ WEFTEC registrations can be included in the UPP Membership transaction, at the time of enrollment or can be grouped and submitted closer to WEFTEC.
- ◆ UPP also includes a special, NO-Charge membership for Public Officials designated by the Utility, at their discretion.
- ◆ Up to five new WEF/OWEA members can be added by the utility each year, at no charge for the first year of membership.
- ◆ UPP utility will be eligible for distributor pricing on all WEF products and services – that’s 40% off list pricing. In addition to traditional items this discount also extends to online learning in the new WEF Knowledge Center.
- ◆ UPP members will be eligible for special discounted registration for other WEF Conferences and events.



OWEA currently has 29 municipalities signed up for the Utility Partnership Program.

To learn about the benefits for your utility visit <http://www.wef.org/UtilityPartnership/>

Or contact OWEA, info@ohiowea.org, 614.488.5800

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City of Canton WRF
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City of Harrison
City of London Ohio
City of Mansfield
City of Marietta WWTP

City of Mason
City of Newark WWTP
City of Oberlin, OH
City of Painesville
City of Solon
City of Steubenville
City of Toledo Div of Water Reclamation
City of Troy Ohio
City of Twinsburg
City of Warren WWTP

Clermont County Sewer District
Delaware County Regional Sewer District
Fairfield County
Lake County Dept. of Utilities
Metropolitan Sewer District of Greater Cincinnati
Northeast Ohio Regional Sewer District
Sanitation District No 1

Piqua Wastewater Treatment Plant SSO prompts 2017-2020 Construction Expansion & Upgrade Project including 0% interest BNR installation

by Chris Melvin, City of Piqua Wastewater Superintendent)

The City of Piqua is located 30 miles north of Dayton along Interstate 75. Piqua has remained at a stable population for the past 30 years of nearly 20,000 residents. Piqua enjoyed a grand opening of its brand new lime stabilization/GAC Water Treatment Plant in June of 2017, replacing the 1925 facility.

The WWTP discharges into The Great Miami River at River Mile 114.3 and flows south toward the Ohio River. The Treatment Plant is located at 121 Bridge Street and sits on 20 acres of jagged boundaries. The Great Miami River sets on the west side of the property with woodlands to the south and an abandoned limestone quarry on the east. At the north of the property sits an old Atomic dome owned by the U. S. Dept. of Energy, which our Power System & Underground Utilities had used as their complexes, at one time.

The original return activated sludge plant built in 1957 was 4.0 MGD design flow with peak of 7 MGD. In 1988-91, construction brought a 4.5 MGD design flow and 8.3 MGD hourly peak with ammonia denitrification capabilities, along with waste sludge thickening. Average daily flow from 2016-2017 was 3.74 MGD with 79.5” precipitation in the period. Current plant processing consists of influent pumping from internal lift screw-type pumps. After grit/grease removal, there are three primary settling tanks along with four fine bubble aeration basins (two passes each tank), and four final settling tanks. Disinfection occurs with gaseous chlorine and then neutralized by sulfur dioxide. Solids processing happens with anaerobic digestion, contractor operated belt filter press dewatering and their hauling of class B biosolids for land application.

Late June 2018 drone flyover shot facing toward the south @ 9 months of construction



2002 The EPA gave recommendations for the evaluation of the Sanitary Sewer Overflows (SSO) from the constructed structure (bypass gate) behind our Power Plant.

2004 The EPA was requiring a model of the collection system.

2005 The City revised the schedule of a draft SSO elimination plan to be included into the NPDES starting 2006.

2007 The modified plan of action was accepted, and a 3.0 MG EQ basin with jet mixing (1 MG gravity feed) including an entire plant backup generator system was designed.

2008 That EQ & GenSet PTI was submitted

2009 EQ & GenSet contract was awarded

2010 EQ & GenSet construction was completed. In addition, there was the lining of a 36” interceptor sewer project along the riverbank. The plan of action was submitted upon completion of those projects in late 2010, with an additional action for a flow metering/modeling study.

2011 We performed a flow study using 16 flow meters during the wettest 2-month period (April-May) of that historical record precipitation year (62.5”). This study gave us worst-case scenario situations and real data without many assumptions. By June 2011, the EPA mandated language with specific dates to the compliance schedule, which were included into the new NPDES.

2012 The final version of the sewer Master Plan was completed and submitted.

2013 The NPDES schedule was modified again, to allow for a pilot study of a high flow high-rate treatment system. After completion and review of this pilot study, it did not meet long-term high flow duration treatment at Piqua (we normally have weak influent loading, by nature) and an amended Facility Plan was adopted.

2014 We began a Preliminary Engineering Report arriving at a decision to expand and upgrade the WWTP.

2015 We started detail design work on a new liquid stream extended aeration system, BNR treatment, UV disinfection and biosolids processing train. Also in 2015, we installed an additional 24” siphon sewer line under the river and along beside our two 15” existing lines to bring more flow across.

2016 We submitted a PTI for WWTP expansion and upgrade construction.

2017 We applied and received DEFA funding. In spring 2017, we advertised for construction contractor bidding.

This process to eliminate our SSO took many years of negotiations with the EPA, along with various amendments to our compliance schedules. The EPA was patient with our progress, as we made numerous approved improvements along the way. We started the process aiming for a solution to eliminate SSO(s) and arrived at a system that will also be ready for any upcoming nutrient limit changes. Funding for the project through Water Pollution Control Loan Fund was approved in early 2017. We were quite fortunate to acquire “0%” interest for most of the project, because of the Biological Nutrient Removal discount offered by the EPA DEFA. The overall loan was secured with 0.8% blended interest rate, saving the City of Piqua nearly \$21 million over the 25-year loan payback compared to open market rates. Piqua also was given \$50,000 principal forgiveness on a backup generator system.

In September 2017, Peterson Construction (building contractor), CDM Smith (construction engineer/manager with RPR services), and Bowser Morner (materials testing

and QA/QC) all began work on the Piqua WWTP project. The build shall continue until substantial completion and compliance mandate of February 2020. The final completion date is set for late summer of 2020. By February 2020, the expansion/upgrade brings the requirement for a Class IV facility, based on the higher flow design criteria and lower ammonia limits, due to best available technology. In addition, the capability for increased loads utilizes Antidegradation rules in turn, lower limits.

The new design is 8.7 MGD and a new peak hourly flow of 22.5 MGD. Design flow is nearly twice that of existing and new peak flow is nearly triple the current peak flow.

A new 42” gravity feed line will attach to our existing wet well and run to the new wet well and head works structure. The new wet well will consist of two 11 MGD and two 5.5 MGD submersible pumps, along with well level indication. All the pumps will have PLC capabilities along with VFD(s) allowing automatic adjustments for necessary flow conditions. Redundant channels feed the automatic ¼” mechanical screens and compactor/washing systems. Flow will continue to stacked grit conical vortex trays, slurry and dewatering equipment. Along with this building, will be an electrical room, switchgear for the new 1500KW standalone generator, MCC control room and heated dumpster area.

Final clarifier floor with 2 heavy rebar mats and 2 feet thick of concrete to be poured



This site will be in backfill upon completion (area was mined quarry with 15’ dropoff/not much digging)



Plant Profile

From the head works building, flow will proceed to both of the new extended aeration oxidation ditches. These ditches have a serpentine flow pattern with dual VFD mixers per basin. The system has modulation zones for Biological Nutrient Removal with an anaerobic zone first and then an anoxic zone with submersible mixers. Overflow weirs and return gates are to be automated for desired set point of system flow and detention rate needs. Flow will continue into three 120’ diameter by 16’ sidewall depth final settling clarifier tanks. These tanks will have launder covers to help reduce the growth of algae on the weirs and troughs. The depth of these tanks is a vast improvement over the wintertime settleability issues during high flows that the current plant sometimes experiences, due to swallow tanks (10’ & 12’). Between these final tanks will be a new secondary control building (RAS/WAS). The basement will consist of four Return Activated Sludge pumps and two Waste Activated Sludge pumps. The return pumps have the functionality to either pump directly from an individual tank or draw from all the tanks at once. WAS flows are going to be pumped to a repurposed sludge storage tank, where a new aerated grid and new blowers are being placed.

The head works structure, oxidation ditches, final clarifiers, and secondary control building are all being constructed on abandoned quarry land that was donated to the City of Piqua by Piqua Materials Inc.

Effluent flow from the finals will travel to a modified chlorine contact and post aeration system. These tanks are being converted to a new UV disinfection station. A new 24” “mag” meter will be installed, also. Walls of the existing contact tank will be raised with new channels and flow patterns being poured. The post aeration tank will be expanded-on and a new diffusing grid will be placed. Three new vertical turbine pumps will installed for effluent pumping, when flooding conditions warrant. A new electrical building will be built for the UV, effluent pump station and blower equipment.

Initial biosolids processing will be in a repurposed solids thickening building. A new rotatory drum thickener with polymer feeding system will be installed. Three of the current aeration basins will be converted to aerobic digesters, along with demolition of interior zone walls and the addition of twelve mixers. Three new positive displacement blowers (located in repurposed operations building) for air supply to the aerobic digesters will be replacing the blowers that serviced the old aeration basins. Solids feed and processing pumps are being located to accommodate a centrifuge unit. This centrifuge will be located in a new biosolids processing building with cold weather enclosed finished storage on one end. This

building will include an electrical room, polymer chemical room, restroom, working lab, and storage room.

Other construction expansion and upgrade features include: relocating main power feed lines (special thank you to Piqua Power system) and relocating/repurposing an existing low-hour use backup generator along with installing a new switchgear. Construct a new main electrical building. Additionally, construct a building for a non-potable water system and chlorine tablet feeder. Two new drainage and scum systems (east & west) are being added, with the west one being a repurposed structure. A new robust SCADA system will be installed to handle the PLC(s) and automation in a small-repurposed building that is conveniently located above our tunnels.

Currently, we are a three-shift operation 24/7/365. With pending retirements and attrition, we will be scaling down to one shift and on-call status, due this project’s newer technologies.

This project will lead to an overall higher hydraulic flow profile. We currently only have approx. 13’ of fall through the processes from influent to effluent and the discharge into the river. The new construction gives us 19’, which will be much more accommodating during high flow events, let alone having nearly 3x flow capacity.

Overall bid costs for the project construction was \$40.3 million. Costs for detail design (planning) was at nearly \$4 million. Overall costs for Construction Engineering/Management, startup with O & M training, computer preventative maintenance, RPR services and material testing is at nearly \$5.5 million. The costs are significant for a small community that just finished a major project in building a new water plant. This community now faces substantial infrastructure costs on its second major project, here at the Wastewater facility.

This project will meet the compliance schedule set forth for the elimination of the SSO by the February 2020 mandate. This project will also meet the lower nutrient limits, when they are phased into a future NPDES cycle.

Wastewater Superintendent & City Project Manager - Chris Melvin | CDM Smith Principal & Project Manager - Mark George | Peterson Construction Project Manager - Greg Kemper | Special thanks to Bret Reid - City of Piqua
Power for drone aerial pictures



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Facing the 800-pound Gorilla Creatively

Conduit Financing Program Addresses Private Property I&I

by Todd Danielson, Avon Lake Regional Water and
Jerry Rouch, Ohio EPA, Division of Environmental and Financial Assistance



The 800-pound gorilla

“Public money can’t be spent on private property.”

How often have you heard that sentence or something similar to that?

However, when looking holistically at the sanitary sewer (collection) system, about half of the total length of pipe may be found on private property; and that pipe can be contributing up to about 40% of the overall infiltration and inflow (I&I) to the system (see <https://www3.epa.gov/region1/sso/pdfs/PrivateSewerLaterals.pdf>).

So, wouldn’t it make sense to try to address private property I&I?

Unfortunately, many utilities usually do not attempt to address these issues due to any number of reasons—the most important of which is often that public entities often have (or perceive to have) legal constraints regarding paying for work on private property or that unduly

benefits private entities. And that’s where it ends: utilities are dealing with inordinate amounts of clean water sources originating from private property and designing and constructing mega-projects to address these issues.

Reframing the Question

However, self-help gurus suggest that the quality of life and the likelihood of success is dependent on the types of questions one asks and the ability to look at things from other angles (Figure 1. That belief has equal applicability in a utility setting.

For Avon Lake Regional Water (a mid-sized water and wastewater utility serving Avon Lake, Ohio and some surrounding areas and governed by an independently-elected board), 2011 helped reframe the problem in order to come up with new solutions. That year was the wettest year on record and included five different events that led to basement backups. As one could imagine, customers were demanding results.

As staff was trying to reassess what might have changed (aside from the weather), data showed that approximately 20 minutes after the heavy rains started, flows in the major lift station rapidly increased. Obviously, it seemed like an inflow issue. So, crews started popping manhole covers and could not find any smoking gun.

It was around that time that a storm water expert suggested that the inflow could be coming from private property and convinced staff to undertake a pilot project on one street where the consultant’s company would simulate rain events and Avon Lake Regional Water would have video cameras in the sanitary sewer. The area was a formerly combined sewer area. In Avon Lake, when sewers were separated in the past, though customers were required to prevent downspouts, yard drains, and driveway drains from entering the sanitary sewer, they were not required to prevent foundation drains from discharging into their laterals that used to be connected to the combined sewer and would then be connected to the sanitary sewer upon separation.

Pilot testing showed that the foundation drains were an immediate inflow source and contributed to sewer surcharging and basement flooding. This led Avon Lake Regional Water and its governing board, the Board of Municipal Utilities to change its regulations and require customers to prevent all clean water sources from entering sanitary laterals, including foundation drains. To complement this, the City Council passed a

Quality of life
+ likelihood of success
 $f(\text{types of Qs, } \angle\angle\angle)$

Figure 1
36

Resolution of Necessity, which put the force of law behind the requirement to prevent clean water from entering the sanitary sewer. Additionally, as sewer separations progressed, no houses were allowed to connect to new sanitary sewers until it was proven that all clean water sources were not connected to the sanitary lateral. The houses remained connected to the combined sewers and were required to remove all sanitary wastes from those combined sewers by a certain date when those sewers were to become storm sewers.

With the memory of basement backups, there were few whom complained about the new requirement. Additionally, the Board of Municipal Utilities, made it easier for customers by providing them \$1,000 in wastewater bill credits over a 10-year period if customers separated their clean and dirty water sources, ending up with storm and sanitary laterals connected to the respective sewers. (The \$1,000 was originally determined by estimating the amount of water that could enter foundation drains and need to be pumped through the collection system and treatment process.) This led to a number of customers undertaking the work. However, as time progressed, Avon Lake Regional Water realized that the rate of customer inspections and separations was not quick enough to meet the deadlines imposed.

A Win-Win-Win

Avon Lake Regional Water had about 3,000 customers in either currently or formerly combined sewer neighborhoods that had the possibility of having clean water sources entering the sanitary sewer. In addition to the bill credits, Avon Lake Regional Water also gave customers five to six years to confirm no clean water sources were entering sanitary laterals. Initially, after implementation of the program, progress was good

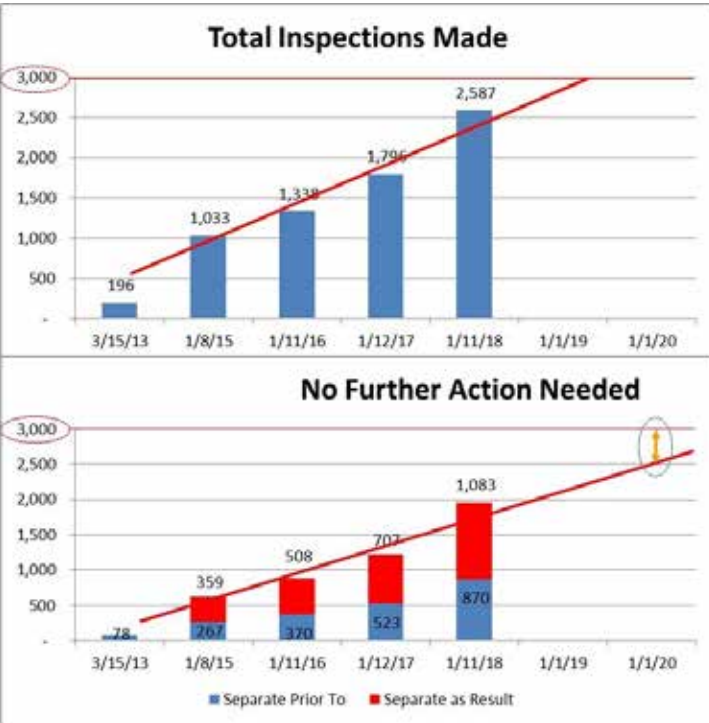


Figure 2
www.ohiowea.org

regarding inspections of customers’ homes to determine if clean water needed to be removed from laterals; and a number of customers undertook lateral separations. However, the data also showed that not enough people would undertake the work necessary within the required deadlines (see Figure 2).

Avon Lake Regional Water had been hearing from some customers that even with the \$1,000 credit, they could not afford to pay the \$3,000 to \$4,000 out-of-pocket to separate their laterals (below). Wanting to help make it easier for customers to help end sanitary sewer surcharges, Avon Lake Regional Water investigated options for helping customers get the money. Unfortunately, very little grant money was available (CDBG funds); and that was very quickly used for the neediest of residents. Luckily, with the support of the Board of Municipal Utilities, staff approached Ohio EPA; and Ohio EPA was very interested



in piloting a new type of revolving loan.

For frame of reference, the Toledo algae incident had only happened about six months earlier, and Ohio EPA was looking for new ways to help speed the reduction of nutrients entering Lake Erie. In addition, Ohio EPA understood the wisdom of eliminating inflow sources from private property but had never had a utility that was interested in borrowing funds to address the issue. This was a marvelous opportunity to use Clean Water State Revolving Funds (CWSRF) to loan to a utility to establish its own revolving loan funds that it loaned to customers to address issues contributing to wet weather issues and sewer overflows. In many ways, this worked out very well. Ohio EPA’s loan program is not set up to loan to individuals, and utilities have a direct relationship with these individuals. Therefore, providing money to the utility, which in-turn provides that money to the individuals/customers (Figure 3) achieves is a win-win-win.

Ohio EPA offered Avon Lake Regional Water a 0%-interest loan in order to help address the issue and allowed Avon Lake Regional Water to charge an appropriate



Figure 3

interest rate. In order to make it attractive to customers, while also helping build the fund for future use, Avon Lake Regional Water established a 2% interest rate for customers to borrow the money with a ten-year loan to pay their contractors for the work. Customers select a contractor and arrive at an approved price. The customers then apply for a loan from Avon Lake Regional Water. Once the contractors do the work and both customers and Avon Lake Regional Water approve the work, Avon Lake Regional Water pays the contractors. Monthly, Avon Lake Regional Water submits to Ohio EPA for repayment all invoices it paid during the month. Customers repay their loans through their quarterly water and wastewater bills, and Avon Lake Regional Water uses this money to repay its loan from Ohio EPA. By charging an interest rate, Avon Lake Regional Water built a mechanism to provide a certain level of perpetuity. The 2%-interest rate

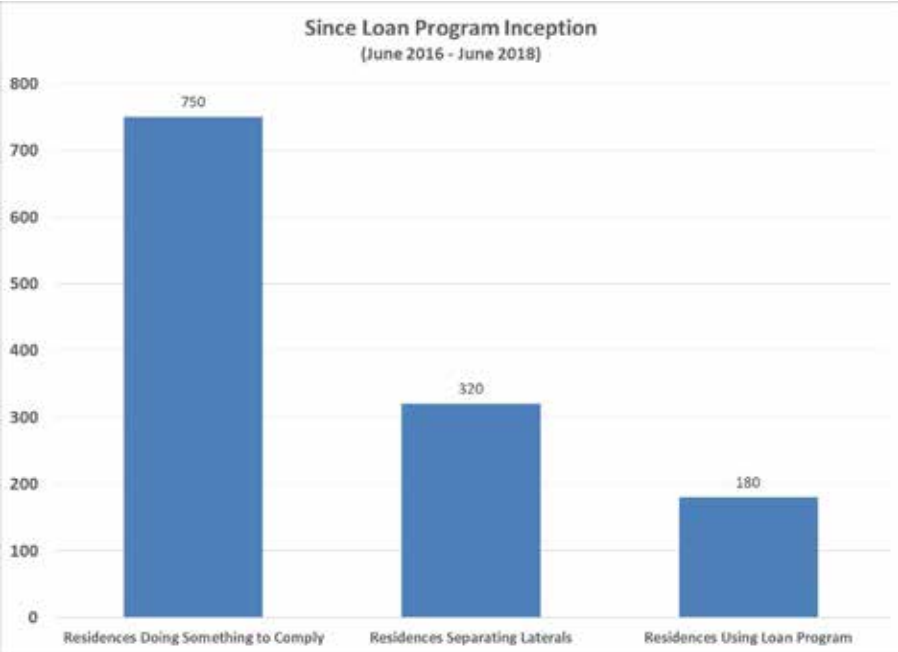


Figure 4

means that for every \$1 million loaned to customers, Avon Lake Regional Water will receive over \$100,000 in interest charges that will build the fund for future use.

It is clear how Avon Lake Regional Water and Ohio EPA win with this program. The third win is for the customer. Homes that were built in combined sewer areas were typically built between the 1940s and 1972. These houses often have vitrified clay pipe laterals. A number of these customers are experiencing root intrusion and other failures. This program helps to provide an affordable method to address a maintenance issue for which customers do not typically budget. In support of this, as of the writing of this piece, the program has been in existence for two years. During that time, more than 300 customers have executed loan agreements, and Avon Lake Regional Water has committed more than \$1 million for the loans to these customers. The accompanying chart shows that during these two years, 750 customers have done something to prevent clean water from entering their sanitary laterals. (Figure 4) Of those 750, 320 have installed an additional lateral and received the \$1,000 bill credit. Of those 320, 180 have used the loan program. In other words, 56% of those installing a second lateral are using the program to accomplish the separation.

Size May Not Matter, but it Helps

Every few years in any given industry, a new buzzword starts being used. In the utility sector, the new buzzword is “innovation.” Thought leaders state we must innovate to survive. Innovation does not need to only come in technological forms.

As a midsized utility, Avon Lake Regional Water is blessed without much bureaucracy and a Board that is interested in keeping it that way. Therefore, the organization has been able to both change requirements regarding what customers must do to assure clean water

is not entering the sanitary sewer and implement the lateral loan program. Staff intends to look at many other issues with the same nimbleness and believe others must also keep an open mindset toward “innovation” in all areas.

The Future is Larger and Brighter

The Lateral Loan Program established by Avon Lake Regional Water and its Board of Municipal Utilities, with the help of Ohio EPA, has met the needs of the utility, the regulatory authority, and the customers in a way that does not affect rates. Wet weather testing and sewer modeling has shown that wet weather peak flow reduction during sewer separations has improved by 10% (from an 85% reduction in peak flow to a 95% reduction in peak flow) during the sewer separation process due to the requirement of foundation drain disconnection from sanitary laterals. In

Avon Lake, that means an additional 640,000 gallons are prevented from entering the sanitary sewers during a 10-year storm event. This reduces chances for basement backups and/or overflows into Lake Erie and keeps capacity available for future growth.

Due to the initial successes of the program, as Avon Lake Regional Water’s revolving loan program becomes more established, the utility looks forward to expanding the program to meet other customer needs such as renewing/repairing laterals and undertaking other projects that remove private property clean water from sanitary sewers. As a service organization with a guiding principle to lead by influencing change that will leave a legacy for future generations, the Board and staff believe this program is a great benefit for our customers, our community, and the environment.

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Safety Saved My Life

by Ed Nutter, Safety/Training Coordinator
City of Newark, Division of Water & Wastewater

As summer turns into fall I sit here and reflect on the waning days of my career. Thirty years has come and gone faster than one could ever have imagined. Looking back at my time with the City of Newark, OWEA, and WEF I marvel at the accomplishments and the places my career has taken me.

Most people don't know that 3 weeks into my career I was involved in an accident that changed my life in a way that made me passionate about safety and thankful that we had some safety procedures in place to follow. Starting out at as an operator in training, my job was to help with whatever needed to be done. On this fateful day we were changing the chains on our bar rakes. We were using a spud bar to act as a brake on a sprocket. The job was finished and as the lockouts were removed the equipment was returned to service. WAIT! You guessed it! The spud bar that was used was overlooked and not removed. The spud bar flew thru the air striking me along the right side of my head, knocking me unconscious. I was sent head first towards the lower level of the bar screen building. Employees say that it sounded like a shotgun blast as the spud bar escaped its confines.

I tell you this story from the accounts of my fellow employees who pinned me against an I-beam to prevent my head first fall towards that lower level. I remember very little from that day. Luckily after getting to meet the Newark Fire emergency squad personnel and the staff at the emergency room, I was sent home with a mild concussion and 6 stiches to the back of my ear.

Thank goodness for that \$8.00 piece of plastic that I was still wearing because I was following our work rules. That \$8.00 hard hat saved my life that day. I am a firm believer in that. To this day I am a fanatic about wearing hard hats in our workplace. You can ask my fellow employees about my hard hat obsession. Oh, I have heard my fellow workers say, "Wearing hard hats are uncomfortable." or "They are hot!", but I just simply smile because I am here to listen to them complain and keep them safe.

Safety has changed in the workplace over my 30 year career. We had some rules and some safety equipment when I started. We didn't wear safety glasses, or wear disposable gloves. Procedures that we take for granted today, are things we never thought of then. We had heard of OSHA but didn't follow all of their regulations. In 1992, Ohio House Bill 308 passed creating PERRP (Public Employee Risk Reduction Plan). PERRP adopted the OSHA regulations and our jobs as public employers changed. Safety rules and regulations now were a part of our everyday activities. Things such as Confined Space Entry, Lockout/Tagout, Safety Data Sheets, and Bloodborne Pathogens to name just a few are now common items in the workplace. Equipment has also changed and our clothes have gotten brighter; safety equipment is more comfortable, lighter, and stronger! That \$8 plastic

hard hat now costs \$16 and is made from HDPE (high density polyethylene) but is still the first thing that you get out of your locker or grab when you pull up on a job site. If it isn't – IT BETTER BE!

Thirty years, man that's a long time. When asked what I do for a living my response is "I help protect the environment and help the employees of the City of Newark go home from work the way they came to work." Accidents will happen, we can't stop that. We can and must as employers provide the equipment and training to ensure the safest work environment possible for our employees. The City of Newark and OWEA has allowed me to make a lot of good friends along the way and I am grateful for that. But just a friendly reminder, if I see you in a situation where you should be wearing that \$16 piece of HDPE, better be prepared...

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LIFT program expands with Water Technology Innovation Clusters

by Morgan Brown



The Water Environment Federation (WEF) is an avid supporter of innovation in the water sector. In fact, one of WEF's critical objectives is to "establish the conditions that promote accelerated development and implementation of innovative technologies and approaches."

As part of this initiative, WEF and The Water Research Foundation (WRF) jointly created the Leaders Innovation Forum for Technology (LIFT) program more than 5 years ago to help facilitate the adoption of water technologies and move innovation into practice.

For the newest addition to LIFT, WEF is coordinating a nationwide network of Water Technology Innovation Clusters, which were originally developed by the U.S. Environmental Protection Agency (EPA). The clusters program will be run as a LIFT focus group led by Bryan Stubbs, executive director of the Cleveland Water Alliance, and Aayushi Jain, market transformation associate for the Los Angeles Cleantech Incubator.

WHAT ARE WATER CLUSTERS?

Water Technology Innovation Clusters are regional groupings of businesses, government, research institutions, and other organizations focused on innovative technologies to provide clean and reliable water. WEF will facilitate cluster communications, advise cluster organizations, enable collaboration among clusters, and identify water programs that support cluster activities.

Clusters have a key role to play in addressing the nation's pressing water issues.

- **SPUR INNOVATION.** Clusters create a situation where companies and organizations can easily share ideas and solutions.
- **ACCELERATE THE DEVELOPMENT OF NEW TECHNOLOGIES.** Connections within clusters lead to partnerships between businesses and researchers, facilitating the transfer of new technologies to the market.
- **STREAMLINE THE ADOPTION OF NEW TECHNOLOGIES.**

Clusters provide companies with easier access to test beds and partners for pilot studies and encourage communication among companies and regulators.

BUILDING ON PAST EFFORTS

While the program is a new addition to LIFT, the clusters have been involved in WEF's Technical Exhibition and Conference (WEFTEC). For the last several years, the Water Technology Innovation Clusters, under the auspices of EPA, had a formal meeting at WEFTEC and have been showcased in several sessions within the WEFTEC Innovation Pavilion.

In 2017, cluster leaders from the New England Water Innovation Network (NEWIN), Current, The Water Council, and the Los Angeles Cleantech Incubator participated in a lively panel discussion titled "How can I benefit from a water innovation cluster?" Panelists talked about how clusters support pilot projects, foster collaboration among utilities and universities, and link entrepreneurs with advisors and customers.

Also at WEFTEC 2017, an Innovation Pavilion session, titled "The Water Council's BREW (Business – Research – Entrepreneurship – in Wisconsin) Accelerator," held a business-pitching session modeled after the successful show "Shark Tank." BREW participant companies pitched for 3 to 5 minutes, after which a panel grilled them about their business model, technology, intellectual property, marketing strategy, and more. Nothing was off limits in these lightning fast pitches.

In a third session, the Cleveland Water Alliance discussed the Erie Hack, which is Lake Erie's first water innovation competition. The Cleveland Water Alliance partnered with DigitalC, a civic tech collaboration organization to hold this competition. The Erie Hack brought together more than 100 partner organizations and 200 participants — coders, developers, engineers, data experts, and water professionals — from nearly every major city around the lake to work on its greatest challenges, especially harmful algal blooms.

As a follow-up to the Erie Hack, the Cleveland Water Alliance branched out into another water innovation competition, the Internet of H2O Challenge. This competition seeks to leverage next-generation networking and sensor technology to monitoring and managing nutrients in Lake Erie and beyond. The goal was to

generate robust and resilient nutrient monitoring pilots with the potential to scale across the Great Lakes. The alliance partnered with DigitalC as well as US Ignite, which spurs the creation of next-generation applications and smart cities, and the National Science Foundation. Other participants include the Great Lakes Observing System, IBM, City of Sandusky, Bowling Green State University, Heidelberg University, AT&T, U.S. EPA, Great Lakes Commission, NOAA, Limnotech, and others to focus the Erie Hack's energy on developing a resilient monitoring system for nutrients.

MOVING INNOVATION FORWARD

Water Technology Innovation Clusters are uniquely making a difference at a local and regional level. Even though each cluster is a separate entity located in various regions, this overall program brings together the cluster leaders so that they can work on a larger national scale.

For example, the cluster leaders previously have worked together to produce such reports as Overcoming Barriers to Water Innovation in the U.S. and Building a Successful Technology Cluster. These resources are beneficial not only to existing clusters, but also to those seeking to create a cluster in their region.

WEF is excited to take on this program set up by EPA and to continue to build valuable innovative programs for our members through LIFT and the WEFTEC Innovation Pavilion. For more information on the Water Technology Innovation Clusters program visit www.wef.org/techclusters.



Morgan Brown is Water Innovation Cluster manager at the Water Environment Federation (Alexandria, Va.). She can be reached at mbrown@wef.org.

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OWEA Student Design Competition Winners

Congratulations to Aaron Mann, Madeleine Harris, Nicholas Merchant-Wells and William Worsham from Case Western Reserve University for winning the Ohio Water Environment Association 2018 Student Design Competition. This year's competition was held at Cleveland State University on Friday, April 27, 2018, where seven teams presented their innovative ideas to a panel of judges from OWEA. Thanks to Keith Riley, Jamie Gellner, Kathy Richards and Jim Cooper for volunteering their time as judges for the competition. In addition, we would like to thank Fred Smith, Bill Zawaski, Mike Welke and Paul Solanics for attending the competition and interacting with students and faculty.

The winning team is the first team to represent Ohio at WEF Student Design Competition. The team will present their project titled "Please Do Not Feed Medicate the Fish: Pharmaceuticals in WRRF Effluent" on Sunday, September 30, 2018, 12:40 pm (Room 275/276) at WEFTEC. The team will also present their project at One Water on Tuesday, August 28, 2018 at 4:00 pm. Many thanks to NESOWEA and OWEA for sponsoring the student's travel and stay. Please support the Ohio

team by attending their presentations at One Water and WEFTEC. The Student Design Competition committee is looking for volunteers for the 2019 competition. If you're interested, contact Krishna Chelupati at Muralikrishna.Chelupati@stantec.com.



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Nutrients

November 13th, 2018

OWEA is excited to announce the inaugural Nutrient Management Workshop which will be held on November 13th, 2018 at Nationwide Hotel and Conference Center. Aimed at building momentum from the One Water Conference's Nutrient Forum, OWEA plans to highlight various nutrient management considerations up to and including:

- *Nutrient generation and environmental dispersion
- *Nutrient management approaches
- *Innovative source controls for point and non-point
- *Nutrient capture and recovery techniques

Please mark your calendars and look for a call for abstracts very soon.

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- Flow Splitting & Mixing
- DO Profiling
- Process Measurements: ORP, alkalinity, pH, ammonia, nitrate, MLSS meter, Centrifuge spins, Settleometer test
- Microbiology: floc, protozoa, metazoa, filaments

Trip 3- Clarifiers

- Flow splitting
- Baffling
- Short circuiting & currents
- RAS/WAS solids concentrations
- Sludge Blankets

Class Participation

- As the course proceeds, the entire class is encouraged by the instructors to provide findings and information discovered during the field trip. These findings are discussed in the classroom after each field trip.
- The amount of data accumulated in the short period of the course allows for class recommendations for operational improvement at the facility that the attendee can then "take home" and apply to their facility
- Often the findings during this course allows the student to better control the activated sludge process at his/her own facility which often results in a substantial operational cost savings

PLEASE NOTE: Attendance at all three days is mandatory to obtain contact hours

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By joining WEF, you also become a member of a local Member Association (MA). Please enter your membership category (Box 1) and the Local MA you wish to join from the list on the next page. **Note:** District of Columbia, Illinois, Maryland, and Virginia residents have two MA choices. Please indicate your primary choice in box 2 below. If you join both, please add your secondary selection as a Dual MA with the corresponding Dual MA dues in box 3 below.

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<input type="checkbox"/> Academic	\$140	\$	
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<input type="checkbox"/> Young Professional (YP)	\$49	Local MA Name:	
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		Dual MA Name:	
		\$	
		TOTAL	\$

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Referring member's name:

Referring member's email address:

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<input type="checkbox"/> High School	<input type="checkbox"/> Other
	<input type="checkbox"/> American Indian or Alaskan Native
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Dependent upon your membership level, \$55, \$47 or \$20 of your membership dues is allocated towards a subscription of Water Environment & Technology (WE&T) magazine that is non-deductible from the membership dues.

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Customer service. Often you hear it doesn't exist anymore and there is no service left in customer service. The term is thrown around loosely and we have all probably had our fair share of both good and bad customer service.

I would like to share a recent experience that I had, which really focused the customer service discussion for me. My daughter is on daily asthma medication, which we get through a large national pharmacy chain.

I went to pick up the medication, the pharmacist told me the total and then asked if that was what I was used to paying. I replied that while it seemed slightly high, I honestly couldn't remember what it was last time.

The pharmacist offered that the pharmaceutical company had a rebate program going on and that I could save more than half of the cost of the copay. He asked if I had a smart phone and walked me through the sign up right there in the drive through, after checking to

make sure no one was waiting behind me. In less than five minutes he dropped my out of pocket cost by sixty-two percent. He didn't have to suggest this savings or take the time to walk me through the process. I wasn't upset about the initial cost or seeking a discount. He simply took a few minutes and the impression he made has earned the store a customer for life, in addition to a very complimentary social media shout out.

I am sharing this story not to brag about my great deal on asthma medication, but to illustrate the importance of putting the service back in customer service and the personal back in our interactions. What is really a very small interaction and takes little effort can have tremendous impact.

At the OWEA office, we strive for excellent and personal customer service. We are here to serve our members. We might not always be able to do everything they want, but we will be kind and courteous and do everything in our power to make sure we are treating you as we want to be treated.

This is equally important for our members to practice. Whether you are an operator or an engineer, a consultant or municipal employee, you have customers and how you interact with them matters. Those same people you are interacting with will be helping to make the next decision concerning a contract or rate adjustment.

We also have our internal customers in the form of our co-workers. How we treat them is just as important and impactful as how we behave towards our external customers. If you are in a leadership position how you value customer service and talk to your team about it also carries a great amount of weight.



The next time an opportunity arises to provide excellent customer service, pause for a minute and think about how you could go the extra mile or do just a little more. Five minutes or a smile can make someone's day and earn a customer for life.

In conclusion, I can't wait to see you all in person at the One Water Conference, slated for August 27-30 in Columbus. I PROMISE an amazing time and even better customer service.

DAWN SINK KENNEDY, CAE, EXECUTIVE ADMINISTRATOR

A Great Day for Celebration

by Dale E. Kocarek, P.E., BCEE, Past President 2010-2011

FOURTH OF JULY

The Fourth of July is one of two holidays that is uniquely American. The other is Thanksgiving. July 4th is special for many reasons. The weather is warm and the days long. Picnics, barbecues, fireworks, ballgames, and parades help celebrate the day. It is also a time when families, friends, neighbors and friends meet to share memories and create new ones.

"1776"

I do not consider my July 4th complete unless I see the movie musical "1776" on television. This movie was based on a Broadway Play of the same name that ran from 1969-1972. The movie, featuring much of the same cast (William Daniels, Ken Howard, and Howard DaSilva) was made in 1972. While regarded poorly by critics as a dated production, I find it nonetheless entertaining. One of amusing segment was the daily decision by President John Hancock to keep the chamber's windows open and let enormous number of flies into the room to keep the windows closed and have the delegates should sit in a stifling hot chamber, made even hotter by passionate debate. On balance, however, I believe that the movie provides a reasonable depiction the events and decisions faced by the 2nd Continental Congress when contemplating a break from England.

The began on June 29, 1776 when a formal proclamation and resolution for independence from Great Britain was proposed by Massachusetts Delegate John Adams (1735-1826). The Declaration of Independence served as a position statement by the 2nd Continental Congress to discuss and vote upon. While the movie is generally light in tone, it has tense moments when issues of State Rights, Slavery and "long odds of success" in the War with England were discussed. Few in the room were certain of ultimate success, and they openly discussed being hung by the Crown if this effort was not successful. Most others felt that the position statement cited in the Declaration of Independence was imperfect, but the prospect of getting a perfect document was going to be impossible.

Despite its failing as a movie masterpiece, it portrays a good picture of the governance process with several important "take away" messages for OWEA and WEF:

The effectiveness of a governing body to made decisions and get things done is the same complaint that we hear today. One of the open scenes of the movie features actor (William Daniels) as John Adams expressing frustration on how little congress accomplishes.

Attempts to answer an age-old question about whether or now delegates represent themselves or represent their constituents is the same one that we hear today. Often this is a concern articulated by our Section Delegates.

Do they represent their Section in philosophical lock step, the State, or somehow do they find a reasonable middle ground? Characters in the movie concluded that they were selected by their constituents to exercise their best judgment when not offered specific instructions on voting.

Attempts to persuade others with diverse backgrounds will always be a challenge of government. While we have our share of internal disagreements on the OWEA Board, they are usually associated with cost or logistics rather than fundamental differences of opinion.

Compromises are often necessary to get things done. While compromise is considered a "dirty word" in the culture of political discussions, the reality is that government has, by design, many "cooks in the kitchen." It is intended to proceed slowly with deliberation. It is better to deliberate things openly and craft a good document, position statement, or rule, than rush and have it turn out to be fatally flawed.

Our Page Turns

The last two weeks in June is when our own board transitions occur. This is when we get a new President and many on our board either advance a chair or go off. OWEA held an annual retreat and business meeting at the OSU Fawcett Center on June 19 and 20, 2018. On June 20, 2018, Jamie Gellner became a Past President and Fred Smith became our President. Mary Ann Driscoll is our new Section Delegate, and Kathy Richards, is our WEF Delegate Elect.

As a Past President, I can attest that our terms of office are defined as much by our circumstances as much as our plans and agendas. I can state with certainty that a year ago, Jamie had no idea of what was in store for him this past year with our Contact Hour Crisis and staffing changes. He met the challenge well and helped our organization difficult through a difficult period. The time required from Jamie and others on the Board was much greater than expected.

Past President's Committee

Text BoxSeveral years ago, a Past President's Committee was formed and OWEA Past President Doug Clark was named the chair. By last count, OWEA has 92 Presidents. While many are deceased, retired and out of touch, others have expressed interest in joining. While the mission statement needs to be developed, it holds promise as an ad hoc advisory group to participate in many things.

I am honored to be a member of the Past President's Club. I look forward to hearing occasionally from Keith Riley, Dianne Sumego, Jim Greener, Mark Livengood,

Kocarek Korner

and Stuart Bruny and others on occasion, usually at conferences or feedback to my column.

One of the best examples of a US President in the role as Past President was in 1946 when President Truman (1884-1972) appointed Herbert Hoover (1874-1964) to lead the Hunger Relief Effort in Europe after World War II. While of different political parties, the men became friends. Truman recognized Hoover's skill of administration and organizing large efforts. Hoover appreciated Truman reaching out to him to help him and continue his long role of public service.

While our accomplishments may not be as grand as this, I look forward to continuing my work with my fellow Past Presidents on noble pursuits. The work that could be accomplished will continue the upward profile of OWEA. The possibilities are endless.

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WEF Delegates' Report



Tom Fishbaugh



Dale Kocarek



Ted Baker

As of my writing of this spring report, we have had two awesome WEFMAX's and I would like to thank the Indiana and Arkansas staff and volunteers for putting on such great programs and for being wonderful hosts. WEFMAX's are truly the best opportunity for learning, sharing and networking with other MAs.

As one of my goals for this year is to keep everyone posted on what the House of Delegates (HOD) is up to, below is a brief update on the workgroup and committee progress.

COMMITTEES

The **Steering Committee** continues to fill every minute of their hour-long conference calls each month. The updates to the Policies and Procedures have been drafted and presented to the Board, so all that's left is to approve the changes at WEFTEC this fall.

The **Nominating Committee** members have been busy at each WEFMAX drumming up committee volunteers for the upcoming year. We need volunteers not only for HOD Committees, but several Board Committees that require HOD representation. And don't forget about the Delegate-at-Large positions as well as Speaker Elect. If you know someone in your MA that is a super volunteer and has the energy to offer to the HOD, please encourage them to apply. Watch out for Nominating Committee members at the WEFMAX socials, they like to get you to commit and sign up after a few drinks.

The **Outreach Committee** continues www.ohiowea.org

to play a crucial role in HOD communications. They are currently working on a template delegate job description for MAs to utilize in recruiting for the delegate position and will soon begin pulling together the information for our WEFTEC orientation video.

The **Budget Committee** had a great session at the Mid-Year Meeting with WEF staff, WEF Treasurer Jamie Eichenberger, and CLC Leadership, where they reviewed the WEF budget and Business Plan.

WORKGROUPS

The **Membership Relations Workgroup** along with WEF Staff and the WEF Membership Committee have been busy preparing and refining the WEFMAX presentation and materials on the Membership Recruitment Initiative Reciprocal Program.

The **Student Chapter Workgroup** with input from the Students and Young Professionals Committee (SYPC) has tweaked its charter for the year and has taken a step back to see if they can help understand and potentially clear up some of the real or perceived road blocks to active student chapter participation in WEF. The workgroup has reached out to each MA and has prepared a short survey that is being answered at the HOD meeting at each WEFMAX to help the group get a better understanding of the impediments and successes to student chapters in each MA.

A subset of this group is also reviewing the relevant WEF policies and procedures related to student

chapters to determine if any changes could be made to make active success easily attainable.

The **Board Strategic Advisory Committee** recently conducted a survey of WEF leadership on the WEF Strategic Goals. Feedback from these WEF leaders (including myself) will be utilized to determine if the strategic goals, and therefore WEF, are continuing to align with the direction our leaders are focused, or if any refinement and re-evaluation is needed. Be on the lookout for an update later this year. The Board continues to have generative, forward-thinking discussions on the WEF of the future; and recently spent dedicated time evaluating the various partnerships WEF has with other organizations and entities, focusing on where new or expanded partnerships may benefit the water environment in the future.

Keith, Kelsey and I sincerely thank each of you for all the time and effort you spend expanding the reach and impact of the HOD. You truly make our jobs significantly easier.

And don't forget the #mywaterlegacy challenge is in its second phase! For the next three months, I am challenging each member to show us your water leadership skills on social media! So go check out your fellow members and see how they are leading us all to a cleaner water environment for all of us to enjoy!

HOD Speaker - Aimee R. Killeen



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Minutes of the 2018 OWEA Annual Business meeting

The 92st Annual Meeting was held at The Fawcett Center,
Columbus, Ohio on June 20, 2018

Submitted by Jane Winkler, Secretary-Treasurer

- President Jamie Gellner called the meeting to order at 1:15 pm. A quorum was established.
- President Gellner welcomed the group.
- Items for approval were the 2017 annual business meeting minutes. President Gellner reported that the minutes were published in the Fall 2017 issue of the Buckeye Bulletin. Copies of the minutes and Treasurer's report were distributed on the tables. Ted Baker made a motion to approve the minutes, with a second by Mike Welke. Motion passed. Jane Winkler, Secretary-Treasurer, gave the Treasurer's report. A motion to approve the report was made by Mike Welke and seconded by Ted Baker. The motion passed.
- A moment of silence was held for deceased members- Carl Gatton, Dan Van Dam, Mike Steinhelfer and Larry Moon.
- The WEF delegate report was given by delegate Tom Fishbaugh. Tom announced that Kathy Richards will be the new WEF delegate beginning in October, replacing Tom.
- Section reports were given. Kathy Richards gave the Northeast section report; Walter Ariss reported for the Northwest section, Chris Ruggles represented the Southeast section and Jason Tincu, representing Stephen Reese presented the Southwest section report. Each outgoing section President was presented a certificate of appreciation for their service by President Gellner.
- Standing/Ad hoc committee reports- Committee chairs were permitted to give brief updates on their committee's activities.
- Dawn Kennedy, Executive Administrator introduced the staff and made a few comments.
- Items for Voting: Nominations and elections- Mike Frommer presented the 2018-2019 slate of nominations as President-Fred Smith, President Elect -Kim Riddell, Vice President- Mike Welke and Secretary-Treasurer- Jane Winkler. The motion was made by Ted Baker to accept the slate as presented. Second by Tom Fishbaugh. Motion passed. Jamie Gellner will serve as Past President. Maryann Driscoll will serve as the new NE delegate.
- Jamie Gellner passed the gavel to Fred Smith. Both gentlemen made remarks.
- There were no other announcements from those present. A motion to adjourn was made by Ted Baker, second by Mike Welke. Motion carried.
- President Smith adjourned the meeting at 2:15 pm



NWOWEA

Gary Bauer, President

Greetings to all from the Northwest Section! As we begin another year here at OWEA, I start my tenure as Section President. I am truly honored to be serving this organization and hope that I can provide the enthusiasm and leadership that our members deserve and have grown accustomed to. I want to specifically thank Walter Ariss for all the hard work he put in last year in guiding the northwest executive committee and providing many opportunities for continuing education and networking. I am looking forward to another great year working with a talented and knowledgeable group of professionals here in northwest Ohio. Our executive committee this year is made up of; Mark Lehnert – 1st Vice President, Todd Saums – 2nd Vice President, and our newest member, Tony Hintze who will serve as Secretary this year. Tony has done a tremendous job during the past two years as a co-chair of our Laboratory Committee along with Terri Brenner. Special recognition also goes out to Dave Sprague who will continue as our section Treasurer. Although he is retired from the City of St. Mary's WWTP, Dave continues to serve the northwest section in one of our most important roles on the executive committee. Thanks to all those who serve in various roles in the northwest section and make all our events and meetings of benefit to our OWEA members.

This year we plan to have our regular schedule of

section meetings in October, March, and May. Dates and locations will be announced as soon as they are confirmed. On August 3rd we will start the year with our annual Friends and Spouses Day, which will be at Cedar Point. Specific details concerning that event should be emailed to our members and on the OWEA website by the time this article is published. We will work to continue to provide diverse training and meeting opportunities, including our section meetings, in various locations around northwest Ohio. We want to continue to offer quality low-cost training options to all our members. Look for additional training options as we follow up on the success of last year's lagoon workshop with continued support toward those operating small systems.

I would like to take a moment to introduce myself. I graduated from Tri-State University (now Trine) in Angola, Indiana with a B.S. in Chemical Engineering. The initial start of my career was spent working in the electroplating industry, becoming involved with quality and environmental control, as well as pretreatment operations and permitting. A short time later, I found myself with Jones & Henry Engineers, and have spent the last 20 years, getting the opportunity to serve others in a consulting position. Former northwest section President Brad Lowery introduced me to OWEA about five years ago. I appreciate the support that Jones & Henry has given me, allowing me to serve in the northwest section as the pretreatment chair before being elected to the section Secretary position. Over the past five years I have been given the opportunity to work with lots of dedicated water professionals, learning about the many benefits of this great organization. I look forward to meeting more of you this year throughout our section and the entire state of Ohio. My email is always open, feel free to contact me with any questions, comments or concerns.

Gary Bauer, gbauer@jheng.com



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Brenda VanCleave, President

Hello from the Southeast Section EC! My name is Brenda VanCleave and I am very proud to address you as the Southeast Section president for the first time. I will be serving as the Section president for the 2018-2019 OWEA year. It seems surreal to finally write this article after serving on the EC for 8 years - working up the ranks of the Southeast Section Executive Committee. I want to thank our past section president Kris Ruggles for his dedication to the Section. I also want to thank the rest of the EC Committee for all the time they have dedicated to this organization. The 2018-2019 Executive Committee is Kris Ruggles – Past President; Chris Tarr – 1st Vice President; Melodi Clark – 2nd Vice President; Tiffany Maag – Secretary; Josh Holton – Treasurer; Nathan Coey – 3rd Year Director; Amy Eberhardt – 2nd Year Director; and Aaron Pennington – 1st Year Director. A special thank you to our 2017-2018 Past President John Owen, who now leaves the SE Section EC to focus his time with OWEA’s Governing Affairs Committee. I also want to welcome Aaron Pennington to the Committee.

Our last section meeting was held May 31st and was hosted by the City of Columbus. The attendees went on tours of the OSIS Augmentation Relief Sewer (OARS) Shafts 1, 2, and 6 and the Southerly WWTP Biosolids Land Application Facility. Following the tours, we met for our Annual Awards and Past President’s luncheon at the American Legion in Columbus. We recognized professionals for great service to the industry. A list of award winners is as follows:

- Dean Stuart Award – Jason Watts, Delaware County Regional Sewer District
- J.W. Ellms – Gary Hickman, City of Columbus
- F.H. Waring – Jason Westfall, City of Columbus
- W.D. Sheets – Marshall Yarnell, Delaware
- L.T. “Tom” Hagerty – Paul Vandermeer
- Engineering Excellence – Columbus Southerly WWTP, Biosolids Land Application Facility (BLAF), Black and Veatch
- Lifetime Engineering – Vui Chung, Burgess and Niple
- Laboratory Analyst – Dan Stofan
- Professional Wastewater Operations – Cameron

- Kanney, City of Columbus
- Public Service Award – Tim Hickin, City of Pataskala
 - Collection Systems Award – Hazem Gheith, Arcadis
 - Facility Image Award – Ashville WWTP

This year’s section meeting calendar will include September – Watershed; February – Industrial/ Pretreatment; March Biosolids/Regulatory; and May Awards/Past President Meeting. We plan to have date-certain events posted to the OWEA website by the end of August.

I am very much looking forward to serving as your Section President this coming year, and meeting more members. With my new role as the Water Resources Engineer for THE Ohio State University, I have the opportunity to mentor students and use student interns to assist me on my water utility and sustainability projects. My heart is truly with these students and helping them to succeed. One of the things I try and teach is the importance of membership and networking. I would not be where I am today in my career if it was not for my network and colleagues. Given this, I recently brought two students with me to the May Section meeting and intend to bring more to future meetings. They loved every aspect of the meeting. As Section President, I encourage each of you to bring a young professional to these meetings and try to engage them with committees. Our YP Chair is Jamie Mills from Strand Associates, Inc. Take the time to introduce them to Jamie, or have them reach out to him. Let’s see if we can grow our membership from the energy of the YP’s.

I sincerely appreciate any feedback or suggestions our members may have on past or future events and training topics. Please feel free to contact me at any time. vancleave.13@osu.edu



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Jim Cooper, President

Hello fellow water professionals! I am humbled to serve this thriving organization as the Northeast Section President throughout the next year. The opportunities I’ve experienced through the Executive Committee, and more importantly, the relationships that have developed along the way allow to me confidently state that the current Executive Committee serving this Section not only continues to serve the membership as in the past, but also continues to innovate and bring fresh ideas for your benefit. I’m quite excited for this organization and its future.

Who Is This Guy?

My career in the water sector began nearly 15 years ago as an Operator for a small water system and wastewater system. I continued that role while obtaining my education at The University of Akron, achieving degrees of BS and MS in Civil Engineering as well as my Professional Engineer licensure. Since then, I’ve had the opportunity at Arcadis to experience many facets of the projects which we interface with daily from modeling and planning, to design and construction administration. Lately, my focus area is assisting utilities with understanding the value of making a digital transformation, why technology is a key to their success, and what tools such as machine learning and intelligent networks really are, other than



YP Event at Lake County Gary L. Kron Water Reclamation Facility

utility management buzzwords.

The Focus is On Each of You

I continue to be amazed by the quality of people within our organization. Regardless of the color of anyone’s shirt or their skin, their passion for clean water and environment bleeds through – and that is something to be proud of! It is each of you as committee chairs, committee members and countless other volunteer roles that have stepped up to grow many of our committees recently. Our Operations Committee is one shining example of this – the energy from you is contagious! It is through the efforts of each one of these professionals, that I’m pleased to summarize recent and upcoming events.

Water Professionals Gather Here

Our annual business meeting hosted by the City of North Olmsted occurred on May 24. Brian Blum and his team were wonderful hosts and provided great insight on their conveyance and treatment facilities. Special congratulations are due to our scholarship and award winners announced at this event as well!

Our Young Professionals met for a great event at Lake County utilities on June 25, thanks to Ashley Williston for coordinating this educational event. Thanks to Mike Cook as well for leading an exceptional BioMasster’s Golf Outing Fundraiser on July 13. In addition to networking and camaraderie, we successfully raised funds for Water for People at this event. Also, thanks to Ben Hoffman and Tom Zocolo for leading the Lab Analysts Training Session at Lake County Utilities on July 27.

Mark Your Calendar

I hope to see many of you at One Water in Columbus! The NE Section leaders will be meeting at the conference, so I welcome anyone interested in getting involved within



BioMass-ter’s Golf Outing

our section to reach out and connect with us at the conference.

Our annual family and friends event has been a Clambake for a number years. If you haven't attended this in the past, the food quality and quantity is remarkable (not to mention a great time with cornhole and many laughs). We are refreshing this event to occur on a Friday afternoon in more of a happy hour style. If you have not attended in the past, it is with great emphasis that I encourage you to attend this year and bring your fellow water professionals! This is scheduled for Friday October 19.

One of our popular fall events is the free, half-day Supervisors Seminar. We are excited to announce a refreshing of this event to encourage a broader audience to attend. This will now be called the Supervisor and Ethics Seminar, scheduled for October 25. We hope to increase attendance from YPs as future industry leaders. Also – we have regularly included a session on ethics at this event, and our hope is to continue identifying this event as an opportunity to provide free ethics education to engineers aligning with the new Ohio licensure requirements.

But Wait, There's More

I have the pleasure to announce two new additions to the NE Section. Steve Baytos has joined the Executive Committee as a first year member. Mary Ann Driscoll returns to the NE Section Executive Committee as the State Delegate. Mary Ann succeeds Mike Welke in this role following his term completion and as Mike advances as a leader with OWEA!

Appreciation is owed to all the volunteers, however I must specifically mention those employers who support our leaders on the Executive Committee. These individuals attend many behind-the-scenes meetings throughout the year. These individual and organizations

include the Kathy Richards - City of Akron, Doug Harris - City of Canton, Todd Taylor - ms Consultants, Mike Cook - Advanced Drainage Systems, Bill Zawiski - Ohio EPA, Jennie Celik - HDR, Mary Ann Driscoll – Burgess and Niple, and Steve Baytos - Avon Lake Regional Water. Finally, I want to publicly thank the leaders at Arcadis who guided me toward organization involvement early in my career and continue to support my volunteer efforts today.

It is because of you, our members and water professionals, that we have so many volunteers passionate about supporting you and passionate about our water environment. Thank you for what you do, and for why you do what you do.

James P. Cooper, jim.cooper@arcadis.com

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Dave Wilson, President

There are approximately 500 active members in Southwest Water Environment Association (SWOWEA) and approximately 100 members are active on committees or the executive board. I would like to thank each member and person serving to make our Southwest Section Ohio Water Environment Association a success! I would also like to thank the employers who allow employees to volunteer for SWOWEA activities! Together, we will illuminate the pathway to carry out the mission of educating the public and the professionals in our industry!

Why do we “do” this? Why volunteer? For executive committee members, why commit to eight years of meetings, seminar organization and preparation, meeting minutes, financial recordkeeping, applying for contact hours etc.? Are the donuts really that good? Is this just an easy way of getting out of work? When I joined the SWOWEA plant operations committee in 2003, I joined for the networking opportunities. I have discovered many other advantages to serving; friendships, educating myself and others, and experiences that have benefited me personally and occupationally. Most importantly, it has been an honor to serve with people who give back to help others in the industry, or as one former SWOWEA president told me, “I give my time and efforts because someone gave their times and efforts to help me.”

We (OWEA and SWOWEA) have recently had our annual “changing of the guard.” We say goodbye to Jason Tincu,

who moves from irrelevancy of past president to “other duties as assigned.” We welcome our newest executive committee member, Justin Bahar of Cincinnati MSD who has begun his eight-year journey as 3rd year director. The other SWOWEA executive committee players (Steven Reese, Erik Torgersen, Keith Heffner, Kelly Kuhbander, Dave Reinker, Brandon Leeth) all remain active on SWOWEA executive committee, just in slightly different roles. SWOWEA has a typically busy year planned. Below is a list of events we typically host each year:

- (4) Lab Analyst Committee meetings/seminars (free admission)
- (3) section meetings with plant tours and technical sessions
- Industrial Waste Seminar and section meeting
- Plant Operations Committee seminar and section meeting
- (2) operator education days’

Numerous Young Professionals and Watershed committee events (generally with networking opportunities afterwards!)

- Past SWOWEA presidents luncheon
- Collection System Committee event(s)
- June “nearly free” plant operations committee seminar
- Stay tuned for some possible additional events!

We also welcome Fred Smith, the new OWEA executive committee president, the new OWEA executive committee, OWEA staff (Chelsea, Dawn and Megan) and look forward to exciting things from OWEA in the coming year!

“You will come to know that what appears today to be a sacrifice will prove instead to be the greatest investment you will ever make.” Gordon B. Hinckley

Work Hard and Have Fun!!
Dave Wilson, dwilson@blanderson.com



Plant Operations Update

by Joe Tillison and Walter Ariss, Co-Chairs

The Plant Ops Committee is looking forward to an exciting Operation Challenge competition at this year’s One Water conference held in Columbus. We are expecting our largest competition to date with four teams expected to compete from within Ohio and five teams from across the country and Canada competing in our invitational. Our Ohio teams will be competing to see who will represent Ohio WEA at WEFTEC in New Orleans in October. The invitational teams are competing for bragging rights and as a chance to hone their skills prior to the nationals at WEFTEC.

Through generous support of the executive committee, we are able to provide our competitors with the same equipment that is used during the competition at WEFTEC. And through continued volunteer efforts of our members in Ohio, we have numerous judges and event coordinators at our competition that also are involved in the national competition. We think this makes our competition unique compared to some of the others across the country. A big thank you to all that make this event possible.

I wanted to also take a moment and thank all of our event coordinators because without them, we could not pull together such a great competition each and every year! So thank you to:

Laboratory – Melodi Clark, City of Columbus and Laura

St. Pierre, YSI/Xylem

Safety – Ed Nutter, City of Newark

Process – Jim Borton, Jacobs

Maintenance – Doug Sayre, Allied Technical Services

Collections – Kevin Givins, City of Wooster

We regret that do to timing of the competition we cannot yet recognize our winning teams, but stay tuned to the November issue with results from the One Water Invitational and WEFTEC.

We would also like to thank OWEA, with the help of our sponsors (Quasar, Smith Environmental, AllMax and TNT Engineering) who cover the expenses for the winning teams travel to WEFTEC each year! THANK YOU on behalf of the Plant Ops Committee and the Ohio WEA teams!

We are extremely excited to announce that our 2018 workshop will be held once again at the Nationwide Conference Center on Thursday, October 11th and Friday, October 12th. PLEASE NOTE THE DAY OF THE WEEK CHANGE FOR THIS WORKSHOP! It’s going to be a very nice workshop with lots of great speakers lined up! Please be sure to plan to attend!

Joe Tillison, JTillison@bgohio.org

Walter Ariss, walter.ariss@epa.ohio.gov

Test Your Knowledge – Take the Operations Quiz

1. BOD bottles are kept in the dark to avoid this potential problem?
- A. Accidental breakage
 - B. Temperature increase due to sunlight
 - C. Algae growth
 - D. Stimulation of nitrifiers

2. Tube settlers are utilized to _____?
- A. Aid coagulation
 - B. Remove COD
 - C. Remove odors
 - D. Improve suspended solids removal

3. A manometer measures _____?
- A. Pressure
 - B. Liquid depth
 - C. Gas volume
 - D. Turbidity

4. _____ solids will settle from the liquid portion under quiescent conditions.
- A. Suspended
 - B. Settleable
 - C. Colloidal
 - D. Dissolved

5. How much alkalinity is regained for every mg/L of nitrate detrified to nitrogen gas?
- A. Alkalinity is not regained in this reaction
 - B. 7.14 mg/L
 - C. 3.57 mg/L
 - D. 2.57 mg/

Answers noted below.
Have questions, comments, or want to submit a suggested question? Email OWEA at info@ohiowea.org.

Answers: 1-C; 2-D; 3-A; 4-B; 5-C

Plant Operations Committee

Co-Chair

Joe Tillison

Co-Chair

Walter Ariss

Past Co-Chair

Kim Riddell

Jim Borton

Maintenance Event Coordinator

Doug Sayre

Laboratory Event Coordinator

Melodi Clark

Collections Event Coordinator

Kevin Givins

Safety Event Coordinator

Ed Nutter

Committee Members

Denise Seman

Alyssa Mayer

Kristi Babcock

Dave Reinker

Bill Hill

Nathan Coey

Bryan McNutt

Mark Chandler

Jason Tincu

Matt Boone

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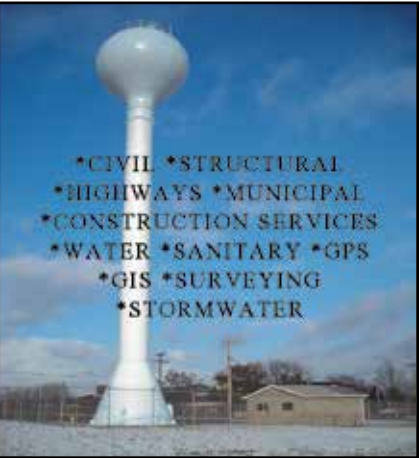
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Young Professionals Committee Update

by Lindsey Hassenauer, OWEA YP Committee Chair

Are you 35 years of age or younger, or do you have less than 5 years of experience in the industry? If so, you're a Young Professional! Contact your Section YP Chair to see how you can get involved or to learn about upcoming events!

NORTHEAST UPDATE



SOUTHEAST UPDATE

The SEOWEA Young Professionals and Jackson Pike WWTP Staff hosted a tour of the Jackson Pike Wastewater Treatment Plant – one of the largest treatment plants in the state – on June 28. Following the tour, there was an after-hour social at Land Grant Brewing. This was also a great opportunity to network and meet local working professionals.

SOUTHWEST UPDATE

Thanks to everyone who attended the tour of the Dayton WRF and social hour on May 24. We had a nice day to walk the plant and got to see its unique treatment processes including the Trickling Filters, Digester Gas Cogenerators, Odor Control Biofilters, and multiple styles of Clarifiers. I'd also really like to mention some of the shenanigans that happened at Flanagan's, but you'll just have to make it out to the next YP event to see all the fun that we have. Thank you to Phil Bennington, Nick Dailey, and Jerry Wright with the City of Dayton for leading the tour and to Arcadis for sponsoring the networking event!

One June 16, a group of Southwesterners braved the heat to participate in the annual ORSANCO Ohio River Sweep. River Sweep is a one-day cleanup project for the Ohio River that covers the entire length of the river, more than 3,000 miles of shoreline in six states. Thousands of volunteers participate in the events, collecting more than 7,500 tons of trash and debris.

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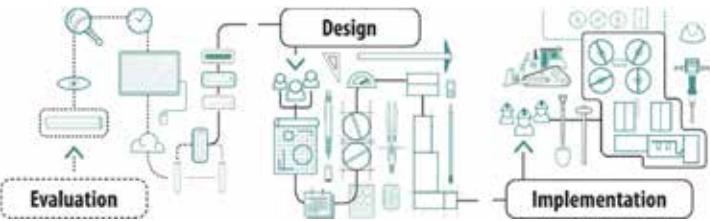
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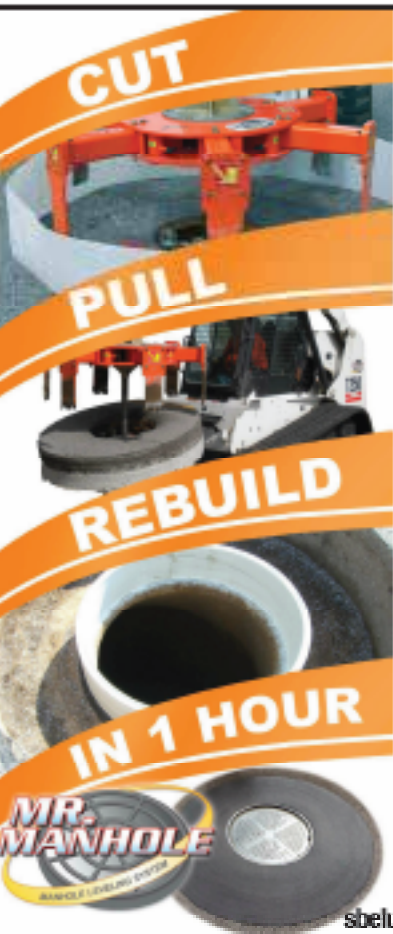


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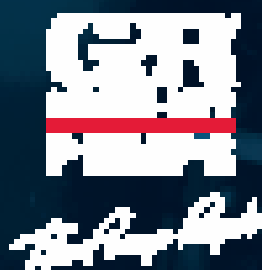
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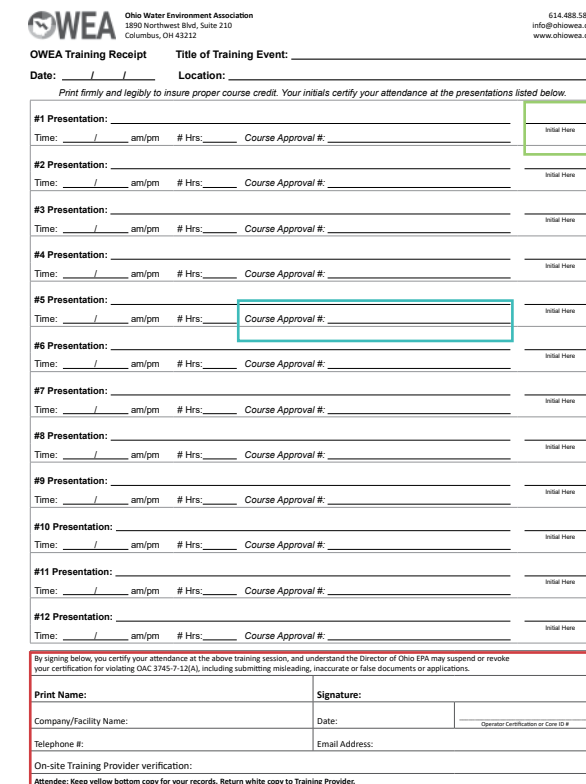
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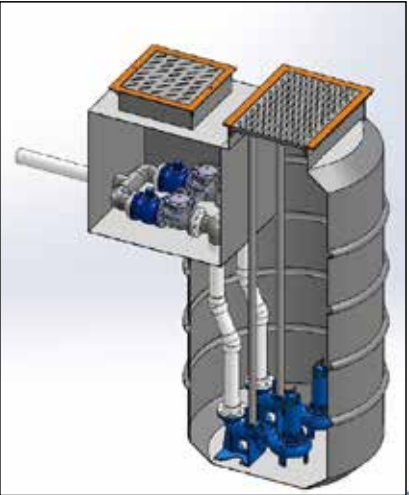


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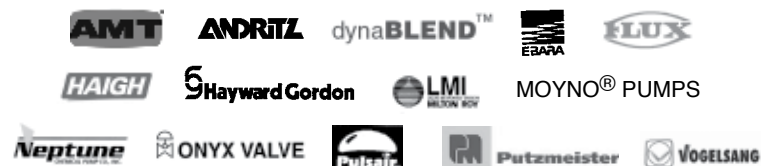
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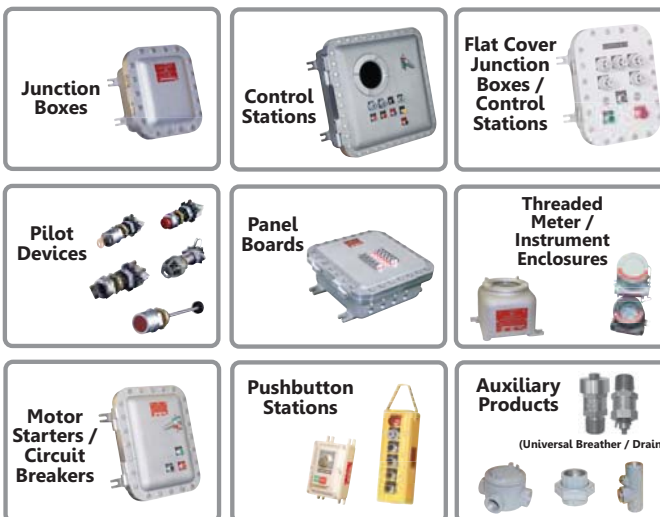
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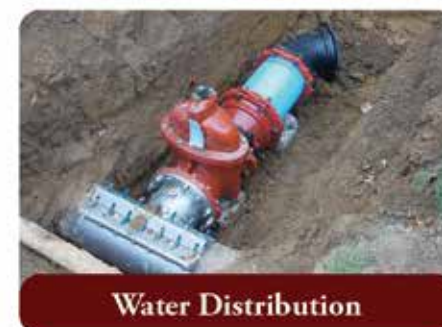
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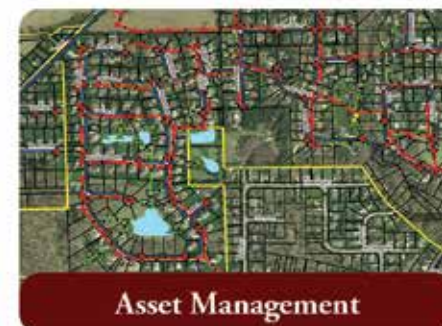
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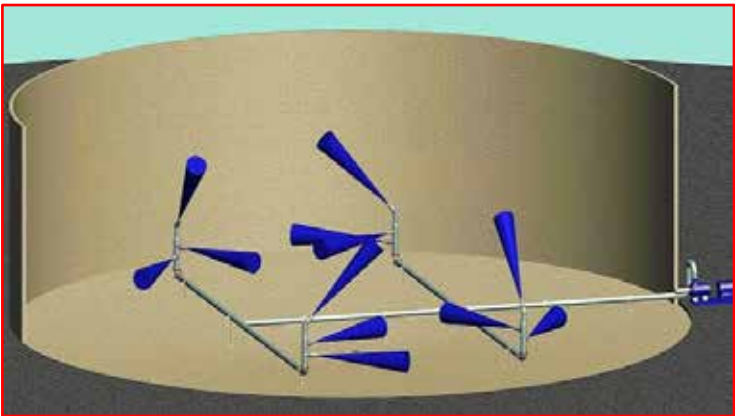
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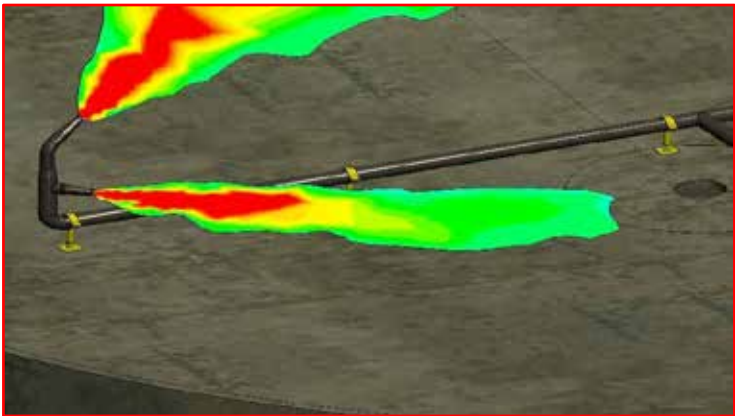
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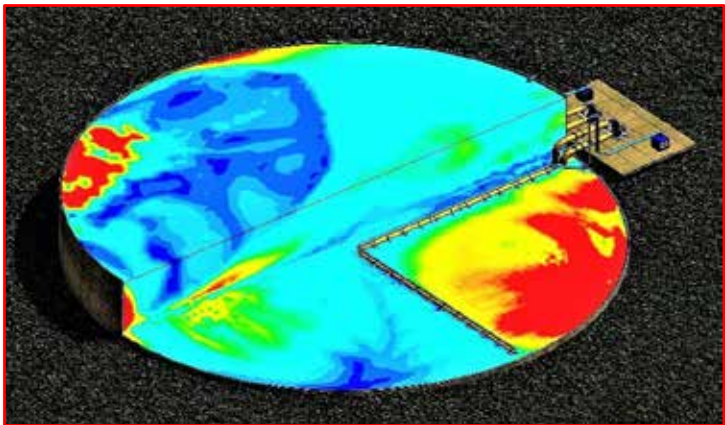
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