Industrial Pretreatment Dinner Wrap-Up
By Sara Arabi, Industrial Pretreatment Chair

A group of 36 water industry professionals attended the annual Industrial Pretreatment Dinner on Feb. 19 at the Maggiano’s in Oak Brook, Illinois. This was a joint event for the Illinois Water Environment Association and the Illinois Industrial Water, Waste & Sewage Group. Mr. Chad Kruse, Manager at the Office of Energy at the Illinois Environmental Protection Agency (IEPA), was the speaker.

The title of his presentation was WWTP Energy Efficiency. Chad’s work with the IEPA includes serving as assistant legal counsel for the Bureau of Water and his current role as manager of the Office of Energy. He provided an overview of the plans and programs at the Office of Energy and IEPA.

The Office of Energy is working to align the State of Illinois’ energy programs with environmental protection. He discussed the efforts taken by the IEPA to focus on energy efficiency at publicly-owned wastewater treatment plants with the objective of creating energy savings for municipalities and improving water quality. The goal of the program is to get all sections of the state on an equal footing. IEPA, Smart Energy

Continued on Page 3...
President’s Corner
By Frederick Wu, IWEA President

I feel honored and humbled to serve as Illinois Water Environment Association (IWEA) President for the 2020-2021 year. I would like to take the time to thank all of those who have served as part of IWEA this past year and to those that will continue to serve this upcoming year.

I would also like to thank our outgoing president, Cheryl Kunz, for her wonderful guidance and leadership over the past year. IWEA is in a much better position because of her.

I would also like to give a special thank you to Laurie Frieders, the IWEA Executive Manager, who continues to be a foundational piece of the organization.

I was going to write about the successful 2020 IWPC conference that was scheduled in Springfield on April 20-22, but due to the COVID-19 pandemic, IWEA and Illinois Association of Wastewater Pollution Control Operators (IAWPCO) took the proactive approach to postpone the annual conference until April 19-21 of 2021. I still wanted to take a moment to thank all of the people who dedicated countless hours of time into planning this conference. These include Lee Melcher, Mike Lutz, Peter Lynch, Paul Hurley, Kelly Lockerbie, Lou Storino, Ed Jankun, Monica Gunderson, Anne Schroll, Lynn Kohlhaas and the executive board of IAWPCO.

Looking forward to next year and beyond, IWEA is planning how to better serve and support our members. IWEA is taking the data collected from the 2020 Membership Survey to develop a SMART (specific, measurable, attainable, relevant and time bound) plan to improve the services that IWEA provides its members. IWEA is also in the process of developing a series of educational webinars for our members at no additional charge, and will explore other options to provide avenues for members to share knowledge with each other.

Once the “shelter in place” order is lifted, IWEA will review our calendar and provide an updated schedule of planned events that will occur for the remainder of this year.

During this unprecedented time, the IWEA understands the challenges that many of our members are facing and will continue to face into the future. Even through the economic struggle, it is good to hear that some of our members are considered essential and are rallying together with others in our industry to offer and provide critical support to communities throughout Illinois.

I understand that the greatest strength IWEA has is its members. I would implore all of us to engage with colleagues, whether at work or in our personal lives, to further the IWEA mission: to enhance and protect the Illinois Water Environment through education and collaboration. By doing so, we will be able to create a stronger organization.

Are You a Leader?
IWEA Needs You!

Would you like to get more involved with IWEA but don’t know where to start? Apply for one of our open leadership positions!

IWEA Secretary
This executive board position becomes available July 1, 2020. WEF membership required. The Secretary operates under the general direction of the IWEA President and Executive Board and serves in the absence of the association’s Executive Manager. Duties include preparing agendas and attending all meetings of the executive board, recording and distributing proceedings, and maintaining records of the association. For more information please contact current IWEA Secretary Mary Johnson at mjohnson@rrwrd.illinois.gov.

IWEA Local Arrangements Chairperson
The Local Arrangements Chair facilitates communications with local venues for planning the IWEA annual banquet, coordinating room layout and set-up, ordering food, confirming and coordinating banquet entertainment, table decorations, A/V needs for presentations and supporting the conference planning committee as needed. This position is ideal for someone who resides in the Springfield, Illinois area. For more information, contact Laurie Frieders, IWEA Executive Manager at ExecMgr@iweasite.org.

Public Education and Outreach
IWEA is looking to revitalize this long-standing committee with a person or group of people who can identify opportunities and pathways to help IWEA inform the public about the value of water. For more information, please contact the Executive Manager at ExecMgr@iweasite.org.
Design Assistance Center, and the Illinois Sustainable Technology Center are working together with wastewater treatment plants to reduce municipal wastewater treatment costs in Illinois.

The program involves two steps: 1) a no-cost energy efficiency assessment and 2) competitive funding opportunities. These opportunities are currently available but may shift focus soon. The three, top energy saving recommendations identified by the program are aeration, blowers and electric motor control. For further information please see the PowerPoint presentation available at www.iwwsg.org.

Golf is Off, but the Fundraising is On!

By Dan Collins, IWEA Golf Committee Chair

Based on public health recommendations to limit large gatherings, and the uncertainty from the golf course on when they will reopen for play, we have decided to cancel the 17th Annual Golf Outing & After Party which was to be held at the Links at Carillon on June 5. This was a difficult decision, but we believe it is the best way to protect the health and safety of our attendees. Given the speculative nature of when this crisis may be over, and the domino effect on everyone’s schedules, the 17th Annual Golf Outing & After Party will not be rescheduled.

The Annual Golf Outing is the major fundraiser for the IWEA Scholarship and Charitable Giving Fund, supporting the following scholarships and awards programs:

- Clean Water Scholarship - for college students planning careers in the water environment field
- Environmental Career Scholarship - for high school seniors in sciences or engineering
- Sylvanus Jackson Scholarship - for SIUE’s Environmental Resources Training Center
- Clean Water Awards - for junior high/high school science fair winners in the State Science Fair
- Stockholm Junior Water Prize – for high school water research projects selected by IWEA to compete in national competition

IWEA would like to continue awarding scholarships in the upcoming year. Therefore, the Golf Committee is requesting support from all past, appreciated corporate sponsors and welcome any new sponsors, including individuals, to donate to the scholarship fund.

There is not a set sponsorship amount this year and any amount would be appreciated. All corporate and individual sponsors will be listed on the IWEA website, the IWEA newsletter, and IWEA eblasts.

Donations to the scholarship and award programs can be made at: https://iweasite.org/2020_iwea_scholarship_fundrais.php

If you have any questions on sponsorship opportunities, contact Dan Collins, IWEA Golf Committee Chair, at (312) 315-7416 or email dancollins1224@gmail.com

Thank you and we look forward to seeing everyone in 2021!
The Science of Handwashing

By Keith Richard, IWEA Laboratory Committee Chair

We are all going through an unprecedented time with the COVID-19 global pandemic. The simplest way to protect yourself from the disease is frequent handwashing. But why is handwashing so effective? To understand the answer, we must first understand the science of soap and viruses.

Soap is a cleaning agent that is made by the chemical reaction of a fatty acid with an alkali metal such as sodium hydroxide in a process called saponification. The soap molecule is comprised of a long, hydrocarbon chain (like a tail) with a carboxylate group on the end (like a head). The hydrocarbon chain is hydrophobic (water-repelling) while the carboxylate group is hydrophilic (water-attracting). This combination allows the soap molecule to act as a "bridge" between oil and water. The hydrocarbon chain attaches to oil and grime while the carboxylate group attaches to water molecules, allowing the oil and grime to be washed away.

Viruses technically are not living things; they are merely little packages of genetic material surrounded by a coating of protein, and sometimes fat. Viruses can only replicate by attaching to a host cell and "tricking" that cell into replicating the genetic material contained in the virus. They are so small that several hundred virus particles placed side by side would only be about as wide as a human hair. The fact that viruses are so small makes it nearly impossible to know when they are on a surface or dispersed into the air. Many common illnesses like colds and the flu are caused by viruses, as is COVID-19.

Proper handwashing can wash away viruses before they have a chance to enter your body and do their damage. Soap alone does not destroy viruses on your hands; it just facilitates their removal by water. Soap also breaks down the outer coating of the virus particle, removing its ability to attach to a host cell. You can think of a virus kind of like a candy-coated chocolate. The soap dissolves the candy coating then the water melts away the chocolate center.

Some people may argue that hand sanitizer is better than hand washing at eliminating viruses on your hands, but that is really not true. Hand sanitizer only breaks down the virus particles; it does not wash them away like soap and water does. Often, hand sanitizer is not applied in sufficient quantities to thoroughly sanitize your hands. Also, viruses can be hidden in dirt and grime which shields them from the action of the hand sanitizer. Soap breaks down that dirt and grime, allowing the viruses to be washed away.

Proper handwashing technique is important to ensure clean hands. Soap should be liberally applied to your hands and rubbed around for at least twenty seconds. Every surface of the hand, even under the fingernails, should be thoroughly scrubbed to allow the soap to do its job. Your hands should then be rinsed off under running water to wash off the soap along with all the dirt and grime attached to the soap molecules. This process should be repeated frequently throughout the day, especially after leaving public spaces. Hand sanitizer can also be used but should only after handwashing with soap and water or if you are unable to wash your hands.

As wastewater professionals, we are potentially exposed to numerous disease-causing agents on a daily basis. I sincerely hope that nobody reading this article becomes infected with COVID-19. I implore you to wash your hands thoroughly and frequently every day to minimize your chance of becoming infected with COVID-19 or any other disease. The simple act of handwashing could protect your health.

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Treasurer's Report

By Lou Storino, IWEA Treasurer

At the IWEA Annual Business Meeting held on April 20, 2020, the treasurer reported that the Illinois Water Environment Association, a not-for-profit corporation, remains in good standing with the State of Illinois. IWEA's financial position remains secure.

The Illinois Water Professionals Conference represents the largest source of income in IWEA's budget. IWEA's reserves are adequate to cover any anticipated shortfall due to the cancellation of the 2020 conference. The treasurer is working with the executive manager to draft the fiscal year 2021 budget. Fiscal year 2021 runs July 1, 2020 - June 30, 2021.

Thank you to all the committee chairs for submitting their committee budgets for the next fiscal year. The Fiscal Year 2021 budget will be voted on at the next IWEA Board Meeting in June.
Increased Funds to Improve the Health of Great Lakes Ecosystem

On April 9, 2020, the United States Environmental Protection Agency (USEPA) announced Congress appropriation of an additional $20 million of funding for the Great Lakes Restoration Initiative (GLRI). The increase in funds will go towards addressing issues related to areas of concern (AOC), excess nutrients, invasive species controls, and habitat restoration. The breakdown of the additional funds for GLRI initiatives is as follows:

1. Accelerate the cleanup and restoration of Great Lakes AOCs ($7.5 million)
2. Fund research and development of ballast water treatment systems ($5 million)
3. Support the Great Lakes Trash-Free Waters Grant Program ($2 million)
4. Support Great Lakes states activities to reduce excess nutrient loads, restore habitat, and control and prevent invasive species ($5 million)
5. Support Great Lakes National Program Office operations ($500,000)


Zooming Watershed Management Engagement

Continuing stakeholder engagement during COVID-19 pandemic has been a learning experience for many watershed groups. Instead of face-to-face watershed committee meetings, public stakeholder workshops, and on-site demonstration projects, watershed groups are using videoconferencing to support their endeavors and educate, enhance decision making process, build relationships, and support watershed group’s objectives. Video conference platforms such as Zoom, WebEx, Microsoft Teams, Facebook Live, and Skype are now being used more than ever before to engage with stakeholders. As watershed groups consider using video conference platforms and other social media tools, consider the following recommendations:

- Know your meeting objectives, speaker needs, and audience before choosing a video-conferencing platform.
- Structure the panel workshops with a moderator and utilize online voting tools to survey the audience and improve interaction between the speakers and the audience.
- Consider the accessibility of the audience. Not everyone has the same technical capabilities. Alternative options are telephone conference calls, surveys, or record the event to be posted on the group’s website for later viewing.
- Always test video-conferencing platforms prior to the event to ensure technology is working properly.

For more information, check out the International Association of Public Participation’s “Adaptive Engagement Tools Ideas” available at: https://iap2content.s3-ap-southeast-2.amazonaws.com/marketing/Resources/COVID-19/Adaptive+Engagement+Tools+Ideas+(IAP2A).pdf
Located on Irving Park Road in Wood Dale, Illinois at Salt Creek, the North Plant first went into operation in 1957. The original plant was designed to treat 500,000 gallons of wastewater per day. However, the City of Wood Dale experienced extensive population growth during the 1960’s and the 1970’s, when development was needed. The first major expansion occurred in 1967 and another major expansion, including a $30 million investment, was completed in 2014.

**Preliminary Treatment**
Wastewater is delivered to the headworks building by gravity through the city’s sanitary sewer system. The city has approximately 4,440 residential and industrial customers. Sanitary sewers range in size from six to 33 inches in diameter, with the depth ranging from five to 35 feet. The deepest sewers are in the industrial park. The city maintains 13 pump and lift stations. Many of the sewers are aging and will be needing repairs, such as initiating a lining project and repairing manholes.

**Primary Treatment**
The wastewater is piped from four (3 MGD capacity) submersible pumps straight to the aeration batteries. Due to influent flow characteristics, not having primary tanks seems to help maintain a favorable food to mass ratio.

**Secondary Treatment, Conventional Activated Sludge**
The aeration system is designed to provide oxygen to the liquid in the aeration basin to suspend the solids and stimulate the growth of the microbes utilized in the secondary treatment system. The aeration basin is a single tank, five-pass system which really helps with nitrification. Air is supplied to the basin by three high-speed (20,000 rpm), turbo-type blowers. Air pressure is kept at approximately 6.7 psi. Typically, around 1100 to 1300 SCFM is provided to the aeration battery under dry flow conditions. During the first flush of storm conditions, more air may be required for proper nitrification.
Secondary Clarifiers
The plant utilizes three final clarifiers after the aeration process. A third clarifier was added during the last construction and was installed with covers to minimize sunlight and algae growth.

Tertiary Treatment & Disinfection
Tertiary treatment follows secondary treatment at the North Plant and includes three disk filters, which treat secondary effluent and excess flows during significant precipitation events. Once filtered, the water is treated seasonally (May thru October) by an ultraviolet disinfection system. The plant expects to maximize flow through the secondary process during excess flow events to minimize the amount of back washes required due to the fats, oils, and greases in the excess flow that have a negative impact on filter efficiency. Alum conditioning is utilized in the excess flow tank for solids removal.

Solids Processing
Two gravity belt thickeners (GBTs) are housed in the Thickening Building. The GBTs are used to thicken the waste-activated sludge generated by the secondary clarifiers. The polymer-thickened biosolids from the GBT’s is sent by a conveyor belt to the storage facility. With the use of polymer, typical cake production is approximately 14 percent solids. Biosolids are then transported by a contractor for land application to fertilize crop fields.

Digesters
The plant utilizes aerobic digestion to destroy organic solids in the sludge. Plant operators decant frequently to maximize the solids retention time. For regulatory purposes, the plant tests the fecal coliform geometric mean of seven samples to make sure they are in compliance.

Delegates’ Corner
By Becky Rose, Delegate 2021

Usually, writing the article for the spring Clarifier is easy. The annual conference would have just passed, along with a couple of WEFMAX conferences, and several more events would be scheduled in the planning. I would have to decide which event to write about. My first plan for this article was to write about the success of the showings of Brave Blue World.

This, however, is now not the case. I find myself writing this article from my dining room table, which has now become my home office. I find that all my ideas have been put on hold. So much about this year is not turning out as expected. I am working from home, sending in a minimal crew as essential staff. These are people who go in everyday and keep the treatment plants working, our industries in check, and our waterways safe. It is hard for me to stay at home while my dedicated staff continues to work in these uncertain times. I would like to thank all those wastewater treatment workers who go in and continue to do their jobs.

This is my final year as a delegate, and these are the last few weeks of my career at work. I will be retiring at the end of April. This is not the way I planned to spend my final days of work. There will be no last day at the office, saying my final goodbyes. There will not be a party or a cake. I will sit in my dining room and sign off my computer one last time, pop open a bottle of champagne that I have been saving for a special occasion, and say “cheers” to 34 years.

I am confident that this virus will run its course and the world will return to normal. In the meantime, stay safe and healthy.
Congratulations to the 2020 IWEA Scholarship Winners!

By Paul Hurley, Scholarship and Charitable Giving Committee

The Scholarship and Charitable Giving Committee convened to pick the winners of the annual 2020 scholarship contests. The committee gives out four scholarships for the three contests: the Environmental Career Scholarship, the Clean Water Scholarship, and the Public Service Scholarship.

The Clean Water Scholarship is valued at $1,000 and was awarded to two college students pursuing careers in the water environment. Our two winners this year are:

Capria Nordquist, University of Notre Dame
Capria Nordquist is a current sophomore at the University of Notre Dame and is from Lake County, Illinois. She is majoring in environmental engineering with a minor in Latin. Capria has a deep passion for the environment and a strong desire to help make important changes that could benefit various ecological regions upon graduation.

Nora Hardy, Yale University
Nora is a lifelong Chicagoan who is passionate about environmental issues, with a particular interest in urban wetland restoration. She received her bachelor’s degree in environmental studies from the University of Chicago in 2017. She is currently pursuing a master’s degree in environmental science at Yale University, where she is studying the response of wetland plant communities to dam removal projects.

The Environmental Career Scholarship is awarded to a college-bound high school senior who is interested in studying the water environment. The scholarship is $500 and this year’s winner was:

Maliha Amir from Hoffman Estates High School
Maliha Amir plans to attend the University of Illinois Urbana Champaign, study engineering, and become the first female engineer in her family.

The Public Service Scholarship is awarded to a public works professional who will be attending an upcoming Illinois Public Service Institute program in the next year. The scholarship covers the cost of admission. This year’s winner is:

Joseph Perri, Village of Wilmette
Joseph is currently working for the Village of Wilmette Water and Sewer Department and pursuing a bachelor’s degree in construction management from Indiana State University online. He has an associate’s degree from the College of DuPage in construction management. His current work involves televising sewer systems, emergency response for utilities, water main repairs, replacement of valves and hydrants, and restoration of manholes and sewer systems. He is also a project liaison for the Neighborhood Storm Project that is an ongoing project for the Village of Wilmette.

It is amazing how quickly daily life can change. With the information from public health officials being updated regularly, many of us are experiencing information overload for all things COVID-19. However, we should continue monitoring developments to ensure that our protocols best reflect current guidance and recommendations. There are many challenges resulting from social distancing protocols, rapid integration of virtual meetings, materials, and PPE shortages. We must ensure we are doing everything possible to reduce exposures. For many of us who work in wastewater systems, frequent hand washing should already be a well-established protocol. In many cases, we must just do the best we can with what we have.

It is important that we all do our part to help prevent the transmission of this highly communicable virus. It is also important that we continue to focus on the many physical hazards that we face on a daily basis. We don’t want to get “tunnel vision” and begin focusing on social distancing and disease prevention, losing sight of the many other potential sources of injury. Situational awareness is likely one of the most effective tools we have right now. It helps us know we have not touched any potentially contaminated surfaces before touching our face (or mask, food etc.). It also makes us conscious of any physical hazards around us.

I wish everyone well during these challenging times. We will persevere, emerging more resilient as a nation.

Be Aware, Be Safe!

By Tim DeLathouwer, Safety Committee Chair
Congratulations to the 2020 WEF and IWEA Award Winners

By Kelly Lockerbie, Awards Committee Chair

Congratulations to this year’s WEF and IWEA award winners! All awardees will be honored at the IWPC 2021 Award Banquet.

WEF AWARDS

Kam Law received the Arthur Sidney Bedell Award, acknowledging her extraordinary service to the Member Association. Kam served as president of IWEA from 2018 to 2019, chair of the Nutrient Removal and Recovery Committee, and has been active in a variety of IWEA and WEF initiatives through the years.

Keith Richard received the Laboratory Analyst Excellence Award, recognizing him for outstanding performance, professionalism, and contribution to the water quality analysis profession. Keith has been the Laboratory Supervisory of the Sanitary District of Decatur since 2015 and currently serves as chair of the Laboratory Committee.

The Streator Wastewater Treatment Facility received the George W. Burke Safety Award, recognizing the facility for maintaining an effective safety program.

Debra Ness was recognized for her service as WEF Delegate from 2016 to 2019. Debra served as the IWEA treasurer from 2007 to 2015 and has been active in a variety of committees since becoming an IWEA member in 1997.

Ricky Lee Lallahish and Patrick Connolly were recognized for becoming Quarter Century Operator Club Members, for their service and dedication in a difficult and dangerous profession.

IWEA AWARDS

Lou Storino received the IWEA Paul Clinebell Award, in recognition of his service to the Illinois Water Environment Association for more than 20 years. Lou served as president of IWEA from 2015 to 2016, assumed the position as treasurer in 2017, and has served in several leadership roles throughout his involvement in IWEA.

Governor J.B. Pritzker received the IWEA Public Official Award for exhibiting a strong commitment to improving the water environment, including signing into law the Coal Ash Pollution Prevention Act, the Clean Water Workforce Pipeline Program, as well as a package of bills to finance water infrastructure.

Ryan Siegel received the Best Technical Presentation Award, for his presentation entitled “Energy and Cost Saving Opportunities for Wastewater Processes.” Ryan is a senior energy engineer at the Smart Energy Design Assistance Center at the University of Illinois.

Dylan Cooney received the IWEA Outstanding Young Professional Award, for her contribution as a young water environment professional. Dylan currently serves as chair of the IWEA Social Networking Committee and is an active member of the Students and Young Professionals Committee.

Joe Sullivan received the Golden Manhole Award from the Collection Systems Committee. Joe is an active member of the IWEA Collection Facilities Committee and has more than 23 years of experience in the sewer industry.

Priyanka Patel received the Stockholm Junior Water Prize Representative for her project entitled Designing a Water Purification Device by Nanucurcumin and Dissolvable Paper.

We look forward to honoring these award winners next year.
Welcome New Members!
By Anthony Giovannone, Membership Committee Chair

SEPTEMBER 2019
Melanie Gosset, Kankakee River Metropolitan Agency

JANUARY 2020
Erik Andersson, University of Illinois At Chicago
Joe Anderson, PIC
Dan Deeter, Hinsdale
Lissa Domoracki, Metro Strategies Inc.
Lloyd Ivy, Veolia
William Kohl, Evoqua Water Technologies
Nicholas Kollias, Metropolitan Water Reclamation District of Greater Chicago
David Montes, Teklab, Inc.
Kevin Schaumburg, Metropolitan Water Reclamation District of Greater Chicago
Ethan Steinacher, Illinois American Water

FEBRUARY
Mel Butcher, Carollo Engineers
Richard Fisher, Metropolitan Water Reclamation District of Greater Chicago
Alaina Harkness, Current
Brooke Henry, AECOM
Cesar Jara Trujillo, University of Chicago
Chris Kokat, Flagg Creek Water Reclamation District
Ali Oskouie, Metropolitan Water Reclamation District of Greater Chicago
Dave Peklo, Flagg Creek Water Reclamation District
Trey Ragusa, Veolia Streator Wastewater
Audrey Sferra

MARCH
Chelsea Bullen, McMahon Associates, Inc.
Heath Harwood, Thorn Creek Basin
Brooke Lepore, Loyola University Chicago
Eric Ostermeier, Apex Engineering Products Corporation
Neel Patel, Metropolitan Water Reclamation District of Greater Chicago
Eddie Paulino, Metropolitan Water Reclamation District of Greater Chicago
Jack Segal, Loyola University Chicago
John Urbanski, Village of Tinley Park

APRIL
Haotian Cai, Northwestern University
Anisha Kapoor, Loyola University Chicagon
Yechan Won, Northwestern University

Shovelers News: Where are the New Members?
By Greg Garbs, Operations Challenge Committee Chair

The Illinois Select Society of Sanitary Sludge Shovelers(I5S) award was designed to honor those hearty individuals who strive tirelessly for the betterment of our beloved Illinois Water Environmental Association. A top secret conclave of the Shovelers was convened Monday afternoon, April 20 during the Illinois Wastewater Professionals Conference in Springfield. Wait, What?!? Oh that’s right, the conference was delayed until next year. Drat that Covid-19 stuff!

Anyway, there will be individuals recognized, not by the board members or executive committee, but by fellow members. These individuals work quietly and diligently on one or more committees and give freely of their time. They do not seek fame or fortune or have lofty aspirations of becoming a chair or a board member. They expect no congratulations or acknowledgement, but revel in the feeling of a job well done. Shovelers, it is of vital importance that we, as practiced Shovelers, recognize and seek out these shy, meek individuals. These hard working members deserve the honor of elevation to the lofty pinnacles of Mount Biosolids.

The IWEA Board and I, your humble pH 7, are working assiduously to contrive a manner of noble announcement in these dark days. We will be recognizing these intrepid individuals and bestow upon them the honor, air, and distinction of Shoveler status at the 2021 Annual Conference. Let us wonder and look to the peak of Mount BioSolids for the revelation of these newest members who will soon join our hallowed ranks.
New Member Spotlight: Mel Butcher
Submitted by Lou Storino, IWEA Treasurer

Mel Butcher, Carollo Engineers, Inc.

How many years have you been working in the Water Sector?
Six years.

How did you start/choose to work in the Water Sector?
After completing my degrees in civil engineering, I went directly into the consulting world. I was lucky to have the opportunity to split my time between public (municipal) and private sector work (water/wastewater needs in places like manufacturing facilities). At the time, folks I worked with on the private side had a lot of interesting and forward-thinking work going on, particularly around sustainability and water risk, so I leaned into the opportunity to do more with them. There’s so much opportunity to use the problem-solving skills of engineering toward good in the water space; I think it makes a lot of sense to join and continue working in the water sector.

What excites you about the water sector?
What excites me most about the water sector is the ever-growing landscape of opportunity in sustainability and resource recovery. So, for example, right now we are seeing unprecedented opportunities with biogas. Between tax credits and the ability to trade carbon credits on the international market, there is an excellent opportunity on the table to generate, capture, and sell biogas as renewable energy from industrial wastewater streams. As economics and technology move forward, we will encounter new opportunities in the future that we may not be able to imagine today.

Fun fact about you?
In my spare time, I host a podcast where I interview women leaders working in male-dominated spaces. It’s been an incredibly rewarding activity that’s helped expand my network, and allowed me to connect women to resources for their career ambitions. I also run a career support group for women in male-dominated fields called CollabSuite.

Favorite quote?
“Begin by responding to other people- not because you’re an expert, not because you’re smarter than them, but because they would like to be seen. The same way you would like to be seen.”  
–Seth Godin

Strangest job you have ever worked?
I once worked as a scuba diver at Sea World, cleaning and maintaining a large aquarium tank with small fish and stingrays. It was an oddly relaxing job, but ultimately I could not reconcile my conviction – no entity should be allowed to keep large mammals in small containment for profit/entertainment.

Advice for someone who may want to pursue a job/career in the water sector?
No matter what you’re trying to get into, spend concerted effort to know yourself first – your interests and the types of work situations where you can thrive. Then pursue your vision with tenacity. Your best advocate to get what you want in life and career is yourself.

Anything else you may want to add?
I am open to connect – for teaming opportunities, discussions on diversity and inclusion, and to help women and underrepresented minorities in the engineering/water space. If you would like to get in touch, please feel welcome to reach out on LinkedIn.

TRIVIA ANSWER!
First recorded between 1795–1805.
Source: https://www.dictionary.com/browse/watershed
Safer Together: Collaborating to Protect Workers and the Public During the COVID-19 Crisis

By Jane Schipma, LIFT Committee Chair and Svetlana Taylor, LIFT Committee Member

Water professionals perform critical services in the best of times. Now the current public health crisis due to COVID-19 is demonstrating how their work is not only absolutely important, but also heroic. Frontline field workers who ensure uninterrupted treatment and flow of our most critical resource are putting their lives on the line. In times of crisis, our water and wastewater operators and the public need to be armed with the most accurate information and sound plans of action to stay safe and ensure that existing water treatment processes remain effective. While this pandemic is challenging us all, the good news is that strong planning efforts over the past two decades have helped us prepare. It is now time to put these plans into action so we can successfully deal with the challenges of COVID-19 and work through this crisis together.

Water Industry Response

One tremendously encouraging sign is how quickly national professional organizations, such as Water Environment Federation (WEF) and American Water Works Association (AWWA), have mobilized to provide water and wastewater professionals with the most up-to-date information on COVID-19. In their guidance, they draw on the recommendations from CDC, the Occupational Safety and Health Administration (OSHA), and the World Health Organization (WHO), as well as the latest, most relevant research from the worldwide scientific community. It would be impossible to summarize it all within the space of one article, but some important points are as follows:

1. SARS-CoV-2 is more susceptible than E. Coli and other types of microorganisms to conventional disinfection methods (chlorination and ozonation); therefore, treated drinking water and wastewater (after disinfection is applied) are expected to be safe. Experts strongly believe and have some evidence that more novel disinfection methods, such as UV and peracetic acid, should also be effective, although more studies are needed to get a better understanding of how they work against this novel virus.

2. There is no evidence of viable SARS-CoV-2 being present in wastewater systems and no epidemiological evidence of wastewater being the route of transmission. However, it is important to remember that contact with wastewater is inherently dangerous because it may contain a number of other infective pathogenic viruses and microorganisms. To ensure worker safety, appropriate measures should be taken to identify and mitigate potential pathogen-related hazards. Personal protective equipment (PPE) should be worn as part of standard safety procedures (see Key Resources) and workers should wash or disinfect their hands immediately after removing PPE. No additional precautions beyond standard safety measures are considered necessary to protect against SARS-CoV-2.

3. The most effective way of transmitting COVID-19 is person to person via respiratory droplets. In the case of person-to-person transmission, it can happen through infected individuals who are not showing any symptoms; therefore, it is important for all to keep appropriate distance (at least six feet) and wear masks. For transmission via surfaces, it is important to regularly disinfect commonly touched surfaces, wash hands frequently with soap and water, and avoid touching mucous membranes. Appropriate disinfectants should be used against coronavirus and applied appropriately. (For more information see Key Resources).

4. To ensure continuity of operations and worker safety, facilities are advised to examine administrative controls (safe work plans, hazard and risk assessment plans, etc.), identify areas of high concern, identify critical staff and their backups, and review engineering controls. It is also important to stay in touch with public health organizations, other government agencies, and suppliers for timely coordination of emergency assistance.

Future Challenges

Some of the greatest challenges faced by utilities during an unusual event like a pandemic are labor management, shortage of protective equipment, and availability of process chemicals and equipment supplies. However, continuity of operations must also address the equally important challenge of the emotional stress related to worker concerns about economic security, childcare arrangements, sick family members and
loss of loved ones. (Key Resources) Providing an emotionally supportive environment for workers is now more important than ever. Utilities must also be prepared to communicate clearly with the public they serve about the facts of current situation and risks, both known and unknown.

Perhaps the hardest part of a pandemic emergency is its long duration and the possibility of recurrence many months after the first wave has passed. Also, there are currently no proven medications to prevent and treat COVID-19 and its high mortality rate has necessitated worldwide lockdown measures, undermining established supply chains. The widespread lack of testing may hamper plans to reopen economies. As difficult as the COVID-19 situation is, we can better deal with this threat today than in years past. Remote communication technologies have enabled most people to continue working effectively from home, and some plant operations can now be run autonomously with advanced process monitoring and control technologies. While people all over the world work hard to fight COVID-19 and develop a cure, we are also given an opportunity to learn from this crisis and be better prepared for future pandemics and other threats. We can do this together.

Key Resources:
Disinfectants Against SARS-CoV-2 (EPA) https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2
Key Considerations in Responding to COVID-19 for Utilities (WEF) https://www.youtube.com/watch?v=Dj4rgKFDfjY
PPE Guidelines for Wastewater Workers (WEF) https://onlinelibrary.wiley.com/doi/pdf/10.1002/wer.1249?casa_token=uSet5B_TZCoAAAATAA:ooodOv3H85gJALx08KGNUlrgBPm8ZqEpXh1VXup87LYRruQFdnZ0arE5QtFpe1fO96geQRXL3TxcpDQ
This year’s Government Affairs Seminar was successfully held on January 31 at the Burr Ridge Marriott. The event was well attended with 152 participants providing many great opportunities to network and catch up with fellow IWEA members. The Seminar included five great presentations which are now available for viewing on the IWEA website.

The day began with a keynote presentation from Russ Rasmussen, Senior Water Policy Advisor for United States Environmental Protection Agency (USEPA) Region Five. Russ highlighted several current issues facing our industry and discussed some of the USEPA current regulatory hot topics including the Lead and Copper Rule, PFAS, and The Waters of the U.S. Rule.

Russ was followed by Cindy Skrukrud with the Illinois Sierra Club. Cindy presented on the Nutrient Assessment and Reduction plans (NARP) for Illinois Watersheds. Her presentation gave an overview of the nutrient challenges facing our state and how the current NARP National Pollutant Discharge Elimination System (NPDES) permit language was developed. She discussed current NARP planning efforts and the various stakeholders participating. She then covered tools and tips for starting a planning effort.

Amy Dragovich, Manager of the Illinois Environmental Protection Agency (IEPA) Permit Section in the Division of Water Pollution Control, was the next speaker. Amy gave an update on current state NPDES permitting topics. Her presentation tied into Cindy’s presentation, with a further discussion on the nutrient-related special conditions being included in permits for major dischargers and the triggers for NARP requirements. She also discussed the draft permit ILG62, covering individual sewage treatment systems (mostly home septic systems). Amy concluded with a discussion of the IEPA’s expedited permit system.

The afternoon session was kicked off with Government Affairs Manager Ally Fields from Crawford, Murphy, & Tilly. Ally provided a unique perspective on the Illinois Capital Bill/Rebuild Illinois program. Ally covered the development of the largest capital bill in state history and the political factors that created a bipartisan opportunity. She discussed the funding levels for different classifications of projects, and opportunities for funding water-related projects. She then concluded with a review of implementation, moving forward, and lessons learned for the future.

The day concluded with a presentation from Senior Chemist John Scott from the Illinois Sustainable Technology Center (ISTC). John gave an engaging presentation on PFAS (Perfluoroalkylated Substances). John started by giving a background on PFAS chemicals, their use, and problems associated with them. He then discussed efforts both on the federal and state level to study and regulate them. John then discussed the current PFAS research at the ISTC, including the analysis of PFAS and cost-effective surrogates, the relationship between PFAS and microplastics, the fate and transport of PFAS, and the development and use of sorbents.

A special thank you to all our speakers, the Government Affairs Committee members, and to Laurie Frieders for making this event possible. The Government Affairs Committee is currently looking to add additional members. Anyone who is interested is encouraged to download and submit the committee membership application form found on the IWEA website.
State News
The Illinois Department of Commerce and Economic Opportunity published notices of funding opportunity for the first round of competitive infrastructure grants through the Rebuild Illinois program on March 9. Three programs were announced with $50 million allocated for competitive public infrastructure, $16.5 million for regional economic development, and $13 million for the “Shovel Ready Sites” program aimed at transforming underutilized properties into developable sites. Information on the program, handbooks, and application forms can be obtained at:
https://www2.illinois.gov/dceo/CommunityServices/CommunityInfrastructure/Pages/RebuildIllinois_Programs.aspx

Federal News
Our state and country are currently faced with a challenge from COVID 19 unlike anything we have seen in our lifetime. There is new information, guidelines, and programs being announced daily in response to the pandemic. An attempt to cover this information here would be futile as anything written will be outdated by publication. Instead, here are some resources for water professionals to receive the most up-to-date information.

The United States Environmental Protection Agency (USEPA) has released a guidance memo on how to deal with clean water compliance issues. This guidance, along with other USEPA resources on the virus, are available at: https://www.epa.gov/coronavirus

The State of Illinois has created a website with the latest executive orders, information on current statistics, press releases, and other resources: https://coronavirus.illinois.gov/

WEF has put together a website with resources and information for the water industry at: https://wef.org/news-hub/current-priorities/coronavirus/

WEF’s Government Affairs Committee is also monitoring discussions on possible economic recovery legislation and advocating for funding clean water infrastructure. WEF has posted information on how members can participate and reach out to their congressional representatives on the water advocates website: https://wef.org/advocacy/water-advocates2

IWEA Calendar of Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Meeting/Activity</th>
<th>Location</th>
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<tbody>
<tr>
<td>June 5, 2020</td>
<td>17th Annual Golf Outing</td>
<td>CANCELLED</td>
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<tr>
<td>June 26, 2020</td>
<td>Board &amp; Chairperson Meeting</td>
<td>Starved Rock Lodge, Oglesby, IL</td>
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<tr>
<td>July 16, 2020</td>
<td>LIFT Tour at Yorkville Bristol Sanitary District</td>
<td>Yorkville, Illinois</td>
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<tr>
<td>August 26, 2020</td>
<td>Nutrient Removal and Recovery Seminar</td>
<td>Medinah Shriners, Addison, IL</td>
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<tr>
<td>September 11, 2020</td>
<td>Board &amp; Chairperson Meeting</td>
<td>Starved Rock Lodge, Oglesby, IL</td>
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<tr>
<td>October 3-7, 2020</td>
<td>WEFTEC - 93rd Annual Technical Exhibition &amp; Conference</td>
<td>New Orleans Morial Convention Center</td>
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<td><a href="https://www.weftec.org/">https://www.weftec.org/</a></td>
<td>New Orleans, Louisiana</td>
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<tr>
<td>November 4, 2020</td>
<td>Collections Seminar</td>
<td>Embassy Suites, Lisle, IL</td>
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<tr>
<td>December 4, 2020</td>
<td>Board &amp; Chairperson Meeting</td>
<td>Starved Rock Lodge, Oglesby, IL</td>
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<tr>
<td>April 19, 2021</td>
<td>Annual Business Meeting</td>
<td>Springfield Crowne Plaza</td>
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Please see [www.iweasite.org](http://www.iweasite.org) to register for events.
<table>
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