

AWWA Webinar Program: Coagulation and Oxidation Innovations: Using Machine Learning and Online Technology to Improve Your Process
Tuesday, December 1, 2020

Webcast Description

Overview:

Join us to learn how Western Berks, PA is using machine learning software for raw water parameters to achieve optimal coagulant dose control combined with new online analyzer technology for Manganese to improve their oxidation processes.

In this webinar we'll cover:

- When and why to consider on-line monitoring of manganese.
- How to use data management and process management software to remotely monitor the oxidation and coagulation process.
- Listeners will hear from Western Berks, PA on why they are using a combination of online monitoring, lab data, and process controls to accomplish their objectives?

Learning Objectives:

1. When and why to consider online monitoring of Manganese to optimize the oxidation process.
2. How to leverage historical sensor and laboratory data with process control to enhance the oxidation and coagulation process.
3. Understand initial results and lessons learned from Water Treatment Professionals if you are looking at data management and process management technology to optimization of your coagulation and oxidation process.

Presenter Biography Information

Carlos Williams — Applications Development Manager

Carlos Williams is an Applications Development Manager at Hach and has 17 years' experience with analytical chemistry in online monitoring and laboratory settings. He built some Hach's first online classes to teach operators and analysis about drinking water, wastewater and industrial analysis and has had the privilege of spending the last 15 years with Hach traveling globally to both lecture on water analysis, and assist treatment facilities in analyzing data, and understanding and improving their processes. He is a certified water professional in the state of Colorado.

Derek Walker —Applications Development Manager

Derek Walker is an Applications Development Manager for Hach Company and is based in Nashville, Tennessee. Derek holds a Bachelor's Degree in Biological Science from Colorado State University and a Master's Degree from University of Colorado. He has worked in several industry laboratories and has been with Hach Company for 20 years with experience in product development, applications management, and field training. Derek has held a Wastewater

Operators license in the state of Colorado and contributes regularly to professional water and wastewater industry chapters and publications.

AWWA Webinar Program: Tools to Build Utility Source Water Protection Programs
Wednesday, December 2, 2020

Webcast Description

Overview:

This webinar is designed to familiarize attendees with AWWA's Source Water Protection Justification Toolkit that was developed in 2018 for drinking water utilities of all sizes. The purpose of the toolkit is to help systems implement or expand source water protection (SWP) activities. The toolkit offers a variety of approaches to communicate the benefits of SWP to key audiences and provide a strong business case for building a program. It also provides additional links to funding sources that can be used to implement or expand an SWP program, as well as a PowerPoint template for making the business case to invest in SWP. Finally, it provides common challenges to implementing a program, along with examples of successful approaches and projects.

AWWA encourages utilities to apply for the Exemplary Source Water Protection Award, which is awarded to utilities in multiple size classes each year. The ANSI/AWWA G300 Standard is a great resource, both for developing an SWP program and also as standard criteria for this award.

Learning Objectives:

1. Understand the benefits of SWP
2. Address common challenges to developing a program
3. Develop a business case for an SWP program
4. Communicate the importance of SWP activities to multiple audiences
5. Earn recognition for their SWP efforts

Presenter Biography Information

Carolyn Gillette — Senior Program Manager Eastern Research Group (ERG)

Carolyn Gillette is a senior program manager with ERG and manager of the firm's drinking water practice. She has over 17 years of experience leading research, policy analysis, outreach and communications, and education efforts around safe drinking water and public health protection for federal, state, local, utility, and nonprofit organizations.

Randy Easley — Water Resource Scientist Central Arkansas Water

Randy Easley is the Water Resource Scientist at Central Arkansas Water. He has over 35 years experience in water resource management focused on policies, management and research in protecting drinking water supplies. He is the current Chair of the AWWA G300 Standard,

Exemplary Source Water Protection Award, and Southwest Section Source Water Protection Committees.

Jennifer Heymann — Senior Project Manager in Environmental and Water Quality American Water

Jennifer Heymann is a Senior Project Manager in Environmental and Water Quality at American Water. She has 15 years of experience in environmental stewardship and protecting drinking water supplies across the US. She is a former Chair of the AWWA Source Water Protection Committee and current Trustee of the Water Resources Sustainability Division

AWWA Webinar Program: 2020 Regulatory Update Wednesday, December 16, 2020

Webcast Description

Overview:

2020 has been a challenging year for water system. COVID-19, wildfires, hurricanes, new state-specific regulatory pressures. AWWA's December Regulatory Update will provide a recap of significant regulatory developments with important fiscal and operational implications for the drinking water systems, and a look ahead to areas of expected regulatory action.

This webinar will help attendees solve the following challenges:

1. Avoiding loss of customer confidence
2. Maintaining regulatory compliance
3. Effective investment of limited resources
4. Identifying priority actions necessary to assure regulatory compliance

Presenter Biography Information

Jeffrey Swertfeger — Superintendent Greater Cincinnati Water Works

Jeff Swertfeger is the Superintendent of the Water Quality and Treatment Division at the Greater Cincinnati Water Works. Jeff has been engaged in water quality and drinking water treatment for more than 30 years. He is a George Warren Fuller Awardee. Currently a member of the AWWA Water Utility Council and Chair of its Regulatory Committee, he is also an active participant in the Lead Service Line Replacement Collaborative, the Water Research Foundation, and AWWA's Water Quality Division

Michael Hotaling — Facilities Manager Newport News Waterworks

Mike Hotaling is the Facilities Manager for Newport News Waterworks where he is responsible for the operation and maintenance of the water system. He has 20+ years of experience in providing quality drinking water to the public. His professional credentials include an MBA, Professional Engineer, and Class I Waterworks Operator in the State of Virginia. Mike is active in both the Virginia AWWA section and AWWA's national policy work. He is Chair of the AWWA

Disinfection and Disinfection Byproducts Technical Advisory Workgroup. In this capacity he participated in both the Stage 1 and Stage 2 Microbial / Disinfection Byproduct Technical Advisory Workgroups supporting the federal advisory committees for these rulemakings.

Steve Via — Director, Federal Relations American Water Works Association

Steve Via is Director of Federal Relations for the American Water Works Association working in AWWA's Washington, D.C., office. Steve's primary responsibilities are two-fold. First, working with the Environmental Protection Agency (EPA) and other federal agencies on the development of policy and regulations that affect the water sector, and second, communicating the basis and substance of federal policy and regulations to the water sector. He has 31 years' professional experience in environmental regulatory compliance assistance.

AWWA Webinar Program: Approaches for Developing a Water Conservation Plan and Climate Action Plan

Wednesday, January 20, 2021

Webcast Description

Overview:

Come and learn the latest from five key AWWA manuals on the topics of water conservation, climate-change water loss, water resources planning, and drought preparedness. This will be a "one-stop-shop" overview to learn the new elements of each manual and where key pieces of information are located.

Staff looking to improve their water conservation and efficiency programs naturally gravitate to AWWA manual M52, Water Conservation Programs—A Planning Manual, which was updated in 2017. However, many may not know that other AWWA manuals have information that can help staff improve their conservation programs or learn more about how conservation can be integrated into other utility activities. And currently, many water utilities don't know how to begin developing a climate-change water action plan.

The goal of this webinar is to provide clear direction on where to find different pieces of water conservation–relevant information in a suite of AWWA manuals. This webinar is the first of its kind in that it provides an overview of multiple AWWA manuals in a single webinar. A highlight is a clearly organized table showing the location of the top data items requested by water professionals. A high-level overview of the newest changes in the most recent manual updates will be provided by each speaker. The webinar will promote the value and most common uses of each manual.

Learning Objectives:

1. Understand the steps of how to create a water conservation plan and climate action plan

2. Evaluate what data you need to create a water conservation and climate action plan
3. Analyze the current suite of AWWA manuals and resources and determine how to find the data you need
4. Apply the information provided, using a table that summarizes where source data are located
5. Create a road map for a water conservation plan and a climate action plan

Presenter Biography Information

Michelle Maddaus — President Maddaus Water Management

Michelle Maddaus is the lead author for the AWWA Manual M52 – Conservation Planning. She is known as a national and international leader in water conservation and demand forecasting. Michelle is currently the AWWA Planning, Research and Evaluation Committee Chair and past Chair of the Climate Change Committee.

Sarah Deslauriers, PE, ENV SP — Climate Change & Resilience Lead / Vice President Carollo

Sarah is past Chair of the AWWA Climate Change Committee and is a contributing author to the AWWA M71 Climate Change Manual. Her 18-year engineering career has focused on assessing the sustainability and vulnerability of, as well as embedding resilience into, water and wastewater systems with respect to climate change/natural hazards, and managing greenhouse gas emissions.

Span Tummuri, Ph.D., PE, ENV SP — Water Market Leader Jacobs

Ms. Tummuri works as a Water Market Leader at Jacobs, in Houston, Texas. She is an experienced Planner with doctorate in water resources and 16 years' experience in completing water supply planning studies, decision support system modeling, hydrologic and hydraulic models, climate adaptation studies, and collection systems studies for state, municipal, and private sectors. She specializes in One Water Initiatives and Integrated Water Management Studies. She is the Ex-Chair of the AWWA Climate Change Committee and has specific technical expertise in climate change adaptation and integrated resource planning. She was the Project Manager for the M71 Manual on Climate Action Plans. Dr. Tummuri is currently working on various regional and long range water supply planning projects and helping major clients in Texas and other states identify potential water supply alternatives. She has an M.S. in Environmental Engineering and Ph.D. specializing in climate change studies from Texas Tech University.

AWWA Webinar Program: Predicting Asset Failure and Process Changes with Self-serve Analytics
Tuesday, January 26, 2021

Webcast Description:

Overview:

Water utilities have no shortage of data – real time and historical, and the promise of analytics to harness this data is well documented and widely promoted. However, how does the hype compare with reality when it comes to non-data scientists using these tools and driving meaningful outcomes? The benefits are clear for analytics, mine your existing data to reap the rewards:

- Drive down cost
- Improve efficiency
- Improve accuracy for water demand planning
- Decrease unplanned downtime
- Improve chemical management

Wrangling data, building models and algorithms are often considered the realm of data scientists, resulting in analytics projects that limit the number of use cases and therefore the wider benefit across a water utility. However, the journey to success doesn't mean that process engineers need to suddenly become data scientists. Proven processes and software technologies make analytics achievable for every industrial organization. Using analytics, engineers can combine data across industrial data sources and rapidly identify problems, discover root causes, predict future performance, and automate actions to continuously improve quality, ease compliance, and decrease chemical and energy consumption.

With analytics, utilities can discover previously missed opportunities to act quickly and proactively to identify process variability, troubleshoot issues in the water network, and ultimately drive more efficient operations.

We'll bring this topic to life by diving deep into a case study involving a mid-sized water utility that partnered with GE Digital to predict pump failure up to 16 days in advance.

Participant takeaways:

Understand how simple analytics can greatly optimize the water network
Learn how to align engineering domain expertise to five analytics capabilities
Discover how other utilities – large and small rural – used analytics
Tips on how to get started

Presenter Biography Information

Brian Radmer — Sr. Staff Solution Architect GE Digital

Accomplished business technologist professional with expertise in delivering transformative digital solutions across industrial market segments. Background includes twenty-seven years of hands-on experience in architecting, implementing, selling and supporting connected industrial solutions. Specializing in development of practical business transformation approaches based on the GE outcome-based methodology, essential in operationalizing GE Digital Factory and Asset Performance Management solutions.

Akos Jancsik — Sr. Staff Solution Architect GE Digital

Akos Jancsik is a technology leader with a strong business acumen. Passionate about building innovative communities and virtual teams that execute with imagination and drive large-scale business change with technology. Forward thinking thought leader with expertise guiding executives and driving digital transformation through the enterprise. Born and raised in Hungary, studied Mechanical Engineering, Electronic Engineering and Computer Science before joined GE in 1998. Spent the last 6 years focusing on IIoT, cloud computing and analytics to support outcome based digital transformation and asset performance manage

AWWA Webinar Program: Staying Ahead of PFAS Using AWWA's Source Water Evaluation Guide Wednesday, January 27, 2021

Webcast Description:

Overview:

PFAS remain a focus of concern from drinking water. As US Environmental Protection Agency and others consider how best to protect public health, water systems must consider proactive strategies, like source water evaluations, to stay ahead and maintain public trust.

The goal of this webinar is to provide the audience with information about the current state of PFAS (per- and polyfluoroalkyl substances) regulations and resources available to help water systems stay ahead. The webinar begins with an update from AWWA on specific regulatory activities for PFAS that will affect drinking water in 2021. Following this introductory presentation, Pete D'Adamo (HDR) provides a detailed walk-through of AWWA's recently published Source Water Evaluation Guide for PFAS, with a focus on how water systems may use this guide to take proactive steps to understand and address PFAS. The webinar concludes with a brief panel discussion between the speakers and utility members regarding their own efforts to assess PFAS in their source water.

Learning Objectives:

1. Describe federal regulatory efforts for PFAS
2. Identify common sources of PFAS to the environment
3. Apply tools (data and analytical) for characterizing PFAS in the environment
4. Understand strategies for implementing a monitoring program for PFAS

5. Recognize the importance of stakeholder communication for PFAS

Presenter Biography Information

Yongtao (Bruce) Li, Ph.D. — Technical Director Eurofins Eaton Analytical, LLC

Dr. Yongtao (Bruce) Li is the Technical Director of Eurofins Eaton Analytical, LLC. He earned a Ph.D. in analytical chemistry from Southern Illinois University at Carbondale and has had over 25 years of experience in water quality research and testing industry and authored/coauthored over 100 analytical methods. He is an active member of the American Water Works Association (AWWA) and American Chemical Society (ACS).

Pete D'Adamo, Ph.D., P.E. — Water Treatment Director HDR, Inc

Dr. Pete D'Adamo is HDR's National Water Treatment Director. He has over 40 years' experience as an environmental engineer and scientist, and has been directly responsible for the planning, evaluation, design, and construction management of numerous water treatment and utility projects. These treatment systems have ranged in size from 0.1 to 318 mgd. Dr. D'Adamo expertise includes master planning, process evaluation and selection, bench scale and pilot testing, operations troubleshooting, training and system start-up, water quality investigations including managing and treating PFAS, HABs, and other Contaminants of Emerging Concern.

Ian Smith, Ph.D. — Emerging Contaminants Unit Manager EGLE Drinking Water and Environmental Health Division

EGLE DWEHD's Emerging Contaminants Unit is concerned with addressing contaminants and issues of emerging concern related to Michigan's public drinking water, and has played a primary role in the administration of MPART and EGLE's statewide public drinking water PFAS survey over the past two and a half years. Utilizing data from this expansive program, Ian has served as a member of the team which successfully promulgated EGLE's PFAS Maximum Contaminant Levels in August 2020, and continues to work on the implementation of these rules. Ian is a graduate of Michigan State University and, prior to his time with EGLE, spent time working as an environmental consultant and as a research scientist.

Jeff Biggs — Administrator, Source Water Division Tucson Water

Jeff has over 40 years of experience in the water profession, including being a certified Water Treatment & Water Distribution Operator. Jeff's experience includes water treatment and quality, water resource management, public outreach, intergovernmental affairs, and research. Jeff also has extensive management experience, is a member of numerous Boards and committees and received the AWWA Missouri Section 1993 Meritorious Operator Award, the Arizona Public Works Association 2016 Outstanding Public Works Employee Award, is an AWWA Life Member and a recipient of the Water for People Kenneth J. Miller Founder's Award. Jeff is an avid golfer and was the Chair of the Southern Arizona Golf Classic for fifteen years, which raised over \$410,000 for Water for People. Water for People is an international 501(c)(3)

nonprofit humanitarian organization that focus on long-lasting, safe drinking water and improved sanitation for developing countries.

AWWA Webinar Program: Final Lead and Copper Rule Revisions – What it Means for Water Systems Thursday, January 28, 2021

Webcast Description:

Overview:

PFAS remain a focus of concern from drinking water. As US Environmental Protection Agency and others consider how best to protect public health, water systems must consider proactive strategies, like source water evaluations, to stay ahead and maintain public trust.

The goal of this webinar is to provide the audience with information about the current state of PFAS (per- and polyfluoroalkyl substances) regulations and resources available to help water systems stay ahead. The webinar begins with an update from AWWA on specific regulatory activities for PFAS that will affect drinking water in 2021. Following this introductory presentation, Pete D'Adamo (HDR) provides a detailed walk-through of AWWA's recently published Source Water Evaluation Guide for PFAS, with a focus on how water systems may use this guide to take proactive steps to understand and address PFAS. The webinar concludes with a brief panel discussion between the speakers and utility members regarding their own efforts to assess PFAS in their source water.

Learning Objectives:

1. Describe federal regulatory efforts for PFAS
2. Identify common sources of PFAS to the environment
3. Apply tools (data and analytical) for characterizing PFAS in the environment
4. Understand strategies for implementing a monitoring program for PFAS
5. Recognize the importance of stakeholder communication for PFAS

Presenter Biography Information

Steve Estes-Smargiassi – Director of Planning and Sustainability Massachusetts Water Resources Authority

Stephen Estes-Smargiassi is a planner and an engineer. In his 31 years at the Massachusetts Water Resources Authority, he has lead or participated in all MWRA drinking water quality initiatives, including treatment decisions for corrosion, microbial and disinfection byproducts control; and outreach and coordination with local and state health officials. He is active with the Water Research Foundation, chair of AWWA's Lead and Copper Rule Technical Advisory Workgroup, and served as AWWA representative on the NDWAC Working Groups for the LCR. He has a Bachelor's of Civil Engineering from MIT and a Masters in City and Regional Planning from Harvard.

David Cornwell – President Cornwell Engineering Group

Dr. David Cornwell is CEO of Cornwell Engineering Group, a consulting engineering firm specializing in water. He received his doctoral degree from the University of Florida where he is currently an Adjunct Professor. He is working closely with many utilities, the Water Research Foundation and AWWA on reducing lead levels in water. Dr. Cornwell has over 50 publications, has served on many AWWA committees and is recipient of the A. P. Black Research Award and AWWA Honorary Member Award

Rebecca Slabaugh – Drinking Water Practice Lead Arcadis

Ms. Slabaugh is an Associate Vice-President and Drinking Water Practice Lead with Arcadis, specializing in the evaluation, planning and preliminary design of drinking water treatment and distribution systems. Her experience includes corrosion control treatment and pipe loop studies, regulatory compliance, contamination warning systems, and drinking water treatment process selection and optimization studies. She is a member of the AWWA Lead and Copper Rule Technical Advisory Workgroup, and contributing author to multiple chapters in AWWA Manuals of Water Supply and Practice as well as AWWA's standard for lead service line replacement and flushing. Education - MS Environmental Engineering Virginia Polytechnic Institute and State University 2007, BS Civil Engineering Purdue University.

AWWA Webinar Program:

What's New with Cyanobacteria and Cyanotoxins? Research Webinar

Wednesday, February 3, 2021

Webcast Description:

Overview:

Harmful algal blooms (HABs) are occurring more frequently and more extensively in drinking water sources across the globe. Cyanobacteria can produce toxins—including microcystins, nodularins, anatoxins, and/or cylindrospermopsin—as secondary metabolites, which have deleterious health effects. This webinar features three leading researchers in the industry discussing the occurrence, detection, analysis, treatment, and control of cyanobacteria and their toxins in drinking water sources.

Presenter Biography Information

Dan Malz – Water Filtration Plant Operator Avon Lake Regional Water

Dan Malz is the Chair of the Water Quality Laboratory Committee for American Water Works Association. He is also a member of the Emerging Water Quality Issues Committee. He has been a Chemist with Cleveland Water Department for 14 years and has recently transitioned into operations at Avon Lake Regional Water.

Husein Almuhtaram, PhD – Candidate University of Toronto

Husein is a PhD candidate at the University of Toronto in the Department of Civil and Mineral Engineering. His research focuses on cyanobacteria monitoring strategies and cyanotoxin treatment in drinking water treatment plants.

Arash Zamyadi, PhD – Research Manager Water Research Australia Limited

Dr Arash Zamyadi has over 10 years of experience working with academics, government agencies, utilities and industry partners in Australia, Canada and the United States to tackle water treatment challenges. Currently, he is a Research Manager at Water Research Australia based in Melbourne. He also holds two adjunct academic positions at The University of New South Wales and The University of Melbourne. He brings to the water industry his research expertise in how climate change and harmful algal blooms affect water treatment, removal of combined microbial and chemical contaminants, and reuse opportunities. Dr Zamyadi has been leading and managing projects funded by Australian Research Council, Natural Sciences and Engineering Research Council of Canada, and the Water Research Foundation. He has a strong publication record with 2 book chapters, 47 refereed articles in top-tier journals and several conference presentations worldwide. He has frequently been invited to make key note speeches across the globe from Australia, Canada, United States, South Africa and China. He actively volunteers in the water community and contributes as a member of Australian Water Association (AWA), American Water Works Association (AWWA), an International Water Association (IWA) Fellow, Co-Chief Editor of Water Quality Research Journal, and Guest Editor of a MDPI Toxins Special Issue. He is also chairing the renewal of AWWA “Algae: Source to Treatment M57” book.

**AWWA Webinar Program: Using Inclusive Language in the Workplace
Friday, February 5, 2021**

Webcast Description:

Overview:

As we strive to increase diversity in the water industry, it is in our best interest to accept and appreciate people for who they are and to strive to ensure that the ways in which we communicate with each other are appropriate and respectful. Language is one tool that can be used to ensure that. Aiming to build inclusive cultures, this webinar will define what inclusive language is and how to use it. This webinar will also provide guidance on behavioral lessons and communication techniques used to have conversations with colleagues on such topics while minimizing discomfort.

Studies have shown that organizations that are diverse, equitable, and inclusive are more productive. Learning how to use inclusive language will help reduce workplace conflict and create harmony within teams. The only way to retain the diversity that the water industry seeks is by becoming more inclusive organizations. Part of being an inclusive organization is celebrating the individuality and uniqueness that each person brings, which involves using the right terms and phrases that make them feel seen and heard.

Learning Objectives:

1. Understand the importance and value of inclusive language
2. Know how and when to use inclusive language
3. Check biases through using inclusive language

Presenter Biography Information

Brianna Huber – Executive Director Her2O International

Brianna Huber is both the Founder/Executive Director of Her2O™, and the Director of Water Filtration at a municipal drinking water utility. She achieves her primary goal of #buildingthefutureofwater by focusing on four important facets of the water industry: women in water, internships & mentoring, smart water & analytics, and emergency management. Her2O™ is an international 501c3 nonprofit with the vision of women equitably involved in water management in every corner of the globe. Learn more at www.her2o.org and follow Her2O™ on Facebook @her2ointernational.

Sapna Mulki – Principal Water Savvy Solutions

Sapna Mulki is the founder and principal of Water Savvy Solutions an independent consulting practice that works with the water institutions to create more diverse, inclusive and equitable workplaces and community outreach and engagement strategies. She is also the host of Breaking Green Ceilings, a podcast that amplifies the voices of environmentalists from historically underrepresented communities. Sapna has over 10 years of experience working on a diversity of issues in the water sector including education, policy, private financing, and communications. Sapna holds a B.A. in environmental studies and international relations from Eckerd College in Florida and a M.A. in sustainable international development from Brandeis University in Massachusetts.

AWWA Webinar Program: Wildfire Effects on Source Water Quality and Treatment

Wednesday, February 10, 2021

Presenter Biography Information

Amanda Hohner – Assistant Professor, Department Civil and Environmental Engineering, Washington State University

Amanda is an assistant professor in the Department of Civil and Environmental Engineering. She completed her M.S. and Ph.D. degrees in Environmental Engineering at the University of Colorado-Boulder and received a B.S. from WSU. Dr. Hohner's primary area of expertise focuses on the characterization of source water quality and physicochemical drinking water processes. Within this area, she evaluates the effects of extreme events and climatic disturbances on watersheds and drinking water system resiliency.

**AWWA Webinar Program: Responding to Water Stagnation in Buildings: What are the Risks?
Wednesday, March 3rd, 2021**

Webcast Description:

Overview:

With the COVID-19 pandemic, many buildings have seen reduced occupancy that results in a period of building water stagnation. Building water management plans are needed to help provide a framework for managing water quality in buildings following periods of increased stagnation.

While “avoiding stagnation” has been the mantra of many building water quality experts for decades, the foundational support for how this terminology is used in peer-reviewed publications and building water management guidelines is not overly convincing. This webinar highlights some of the nuances surrounding stagnation, presents data from ongoing stagnation case studies, and discusses approaches for addressing stagnation associated with “safer-at-home” efforts to reduce spread of COVID-19.

This webinar provides a proactive, data-driven framework for managing water quality within buildings. Because many buildings lack water management plans, water professionals need to be prepared to assist building managers in locations where there is not the luxury of a preplanned response.

Learning Objectives:

1. Evaluate the consequences of reduced building occupancy on building water quality
2. Analyze different approaches to addressing stagnation associated with efforts to reduce the spread of COVID-19
3. Understand the importance of having a building water management plan

Presenter Biography Information

William Rhoads, PhD – Researcher Scientist EAWAG

Dr. William Rhoads conducts research that explores applied environmental microbiology and chemistry in building drinking water systems. William earned his BS in Civil Engineering from Purdue University and his PhD in Civil and Environmental Engineering at Virginia Tech where he was the recipient of the international 2017 CH2M/AEESP Outstanding Doctoral Dissertation Award. William is now a researcher Eawag Aquatic Research Institute, in Switzerland, where he is continuing his work on growth and control of opportunistic pathogens in building plumbing systems.

Caitlin Proctor, PhD – Assistant Professor Purdue University

Dr. Proctor is just starting as an assistant professor at Purdue University. She worked on COVID-19 stagnation issues during her post-doc, also at Purude, and before that completed her PhD at

Eawag in Switzerland. Her primary research focus is microbial ecology in drinking water.

Andrew Whelton, PhD – Associate Professor Purdue University

Professor Whelton is an environmental engineer with 20 years of experience helping utilities, government agencies, and building owners understand chemical and microbiological safety risks. Through the Purdue University Center for Plumbing Safety his teams have helped communities and utilities find and address water contamination and infrastructure decontamination challenges.

**AWWA Webinar Program: International Women’s Day Webinar
Monday, March 8rd, 2021**

Webcast Description:

Overview:

The American Water Works Association (AWWA) has a long history of recognizing women leaders. AWWA and its Diversity & Member Inclusion Committee (DMIC) and International Council (IC) have developed joint efforts to encourage and engage all types of members to join and participate gender’s initiatives. In continuing the tradition of promoting women in water, AWWA is planning a series of events in 2021 themed as Informed. Influence. Impact. This includes 1) a virtual event for International Women’s Day, 2) an in-person event at the 2021 AWWA Annual Conference & Exposition (ACE21), and 3) a Fall Women’s virtual event. These events will welcome women professionals, from students to professionals, and their advocates.

The first event is devoted to Inform. Influence. Impact. It will be hosted on March 8 to celebrate International Women’s Day. This webinar will provide the latest research on women in the engineering, STEM and water fields, challenges in gender disparities, and search for solutions to close the gender gap.

Attendees will learn the latest findings from the renowned global organizations: World Bank’s Equal Aqua (EA), Society of Women Engineers (SWE) and discuss with global leaders on the causes of the gender disparity in order to close the gap.

Presenter Biography Information

Dr. Roberta Rincon – Associate Director of Research Society of Women Engineers

As SWE’s Senior Manager of Research, Roberta Rincon oversees the organization’s research activities on gender equity issues affecting girls and women in engineering, from school to career. Before joining SWE, Roberta was a Senior Research and Policy Analyst at The University of Texas System. She has over 15 years of experience in education research and policy analysis. In her current role, she shares SWE’s research on gender equity in engineering and technology with academic, industry, and policy researchers and practitioners to inform their STEM diversity efforts. Roberta holds a B.S. in Civil Engineering from The University of Texas at Austin, an MBA

and an M.S. in Information Management from Arizona State University, and a Ph.D. in Educational Policy and Planning from UT Austin.

Ms. Jennifer Sara – Global Director, Water Global Practice World Bank

Jennifer Sara is the Global Director for the World Bank Group's Water Global Practice. Prior to taking on this position, Ms. Sara served for four years as Director, overseeing operational delivery in the Water Global Practice at the World Bank. She has over 30 years of experience working on global water issues, including overseas assignments for the World Bank as Sector Manager for Sustainable Development based in Hanoi, Vietnam (2010 – 2014); Sector Leader in Brazil (2006 – 2010); and Water and Sanitation Specialist in Bolivia (1990 – 1995). Ms. Sara leads the Practice's senior management team, which drives policy direction, oversees a portfolio of \$30 billion in water-related investments, conducts analytical work, and manages multi-donor trust funds and global partnerships. Under her leadership, the Water Global Practice supports an integrated approach to water security with a focus on sustaining water resources, delivering services and building resilience. The Water Global Practice team works across sectors to solve global water challenges and provides tailored operational support and policy advice to countries in response to specific needs and arising challenges. Ms. Sara holds an MSc in Environmental Management from the University of London, Wye College, and a BSc in Environmental Engineering from Brown University. She is Governor of the World Water Council and serves on the International Council of the American Water Works Association as well as the International Advisory Committee of the World Wildlife Fund's Healthy Rivers for All Initiative.

Ms. Kamila Galeza – Development Specialist, Water Global Practice World Bank's Equal Aqua (EA)

Kamila Galeza is a Social Development Specialist with the Water Global Practice (GP) at the World Bank, where she supports deepening social inclusion in global programs and lending operations through capacity building, operational support, research and knowledge management. Kamila led the preparation of the Women in Water Utilities: Breaking Barriers report and is currently task team leader for Equal Aqua platform for promoting gender diversity and inclusion in water institutions. She has supported inclusion efforts in projects in Africa, Middle East and North Africa, Europe, Latin America and Asia. Kamila also works on a Water GP initiative to promote hand hygiene interventions in World Bank-supported projects

Ms. Becky Hachenburg – Vice President, Regional Water Sector Leader; Member of Stantec US Inclusion and Diversity Council Stantec

Becky Hachenburg has wanted to work in the water profession since she was a young teenager. She is now a Vice President with Stantec, a global firm of approximately 22,000 experts including engineers, architects, and construction professionals specializing in complex infrastructure and environmental challenges related to water, buildings, transportation, and community development. In her 25- year career, she has served in many roles including design engineer, project manager, office manager, business development lead, and her current role as Regional Water Sector Leader. Ms. Hachenburg previously led the global gender diversity initiative at MWH (acquired by Stantec) and is currently a member of Stantec's US Inclusion and Diversity Council and Women's Leadership Development Committee. She is also is a trained facilitator for

Stantec's Unconscious Bias training. Ms. Hachenburg is a graduate of the University of Florida with a BS in Environmental Engineering, an MS in Industrial Engineering, and serves on the External Advisory Board for the University's Engineering School of Sustainable Infrastructure and Environment. She is a licensed professional engineer in three states and a certified Project Management Professional. When not working her free time is spent on the water in a kayak or hiking with her dogs.

**AWWA Webinar Program: Communication is Key for Effectively Managing Water Stagnation
Wednesday, March 17th, 2021**

Webcast Description:

Overview:

How do you take a technical water quality message and deliver it to a diverse audience? Using the real-life example of the COVID-19 pandemic and the mass closures and reopenings of commercial businesses, hear how experienced communication professionals at water utilities delivered a strategic message that protected public health and highlighted the value of water. Learn step-by-step practical advice on and strategies for building your own rapid-response communication campaign. This presentation includes key messages, strategic communication models, and campaign tactics that can be tailored to small, medium, and large utilities.

Learning Objectives:

1. Learn step-by-step practical advice on and strategies for building your utility's own rapid-response communication campaign
2. Understand the importance of communication when handling water quality concerns
3. Create strategic communication models and communication tactics

Presenter Biography Information

Kelley Dearing Smith – Vice President, Communications & Marketing Louisville Water
Kelley is Louisville Water Company's Vice President of Communications and Marketing. In her 20-year career at Louisville Water, Kelley has developed strategic partnerships and communication plans that build Louisville Water's brand. Kelley is a member of the company's Executive Leadership Team and directs internal and external communications and marketing, brand development, education and outreach, government relations and economic development. Kelley has authored a book highlighting Louisville Water's history and oversaw the development of the "WaterWorks Museum" at the company's 1860 original pumping station. Prior to Louisville Water, Kelley worked in television news. Kelley is vice-chair of AWWA's Public Affairs Council and frequently speaks to utilities and organizations on best-practices for branding and communication. She holds a Bachelor of Arts in Broadcast Journalism from Eastern Kentucky University.

Mandy Cawby – Director of Customer Relations WaterOne

As Director of Customer Relations, Mandy oversees Customer Service, Meter Services, and Communication. This includes WaterOne's customer call center, billing, collections, field operations for meter reading and repair, corporate communications, public outreach, community and media relations. Her role is to champion customer service and the customer experience in every aspect of WaterOne's business.

Katherine Robb – Senior Program Manager, Environmental Health American Public Health Association

Kate Robb is the Senior Program Manager of the environmental health program within the Center for Public Health Policy at the American Public Health Association. In this role, she works to advance equitable and just policies, programs and decisions. Kate has worked to advance health equity and environmental justice in at both the national and local level and in variety of settings, including rural Appalachia and Columbus, Ohio.

Logan Bourdon – Environmental Specialist Portland Water Bureau

Logan Bourdon is an Environmental Specialist at the Portland Water Bureau, in Portland, Oregon. Logan has worked in the Water Quality group at the bureau for over a decade. For the past five years, he has managed the bureau's Facilities Water Quality Program, which focuses on water quality in larger buildings (non-single family residence) and childcares.

AWWA Webinar Program: Revised LCR: How to Prioritize Compliance & Build Your Plan Thursday, March 25th, 2021

Webcast Description:

Overview:

While the Lead and Copper Rule revisions are a major step toward removing lead from our communities, complying with the revised LCR will create significant operational challenges. In addressing this change, the industry message is clear: start planning now.

Join this webinar to hear from Hach's Application Development Manager, Carlos Williams, and 120Water's Co-founder & CEO, Megan Glover, as they walk through the major changes of the rule and what you need to do about it. Drawing on their experience, Carlos and Megan will share a timeline of prioritized actions for your utility and best practices to comply with minimal operational disruption.

In an effort to help the industry take proper and swift action, every registrant will gain access to 120Water's interactive LCRR assessment as well as a guide to the LCRR compliance timeline.

Attendees will learn:

1. The 6 major areas of operational change under the revised LCRR
2. Areas of the rule to begin addressing now

3. How to embrace associated best practices and fold them into your strategic plans

Presenter Biography Information

AWWA Webinar Program: Staying Ahead of PFAS Using AWWA's Drinking Water Treatment for PFAS Selection Guide

Wednesday, March 31st, 2021

Webcast Description:

Overview:

The goal of this webinar is to provide the audience with information about the current state of PFAS (per- and polyfluoroalkyl substances) regulations and resources available to help water systems stay ahead. This webinar begins with an update from AWWA on specific regulatory activities for PFAS that will affect drinking water providers in 2021. Following this introductory presentation, Samantha Black (HDR) provides a detailed walk-through of AWWA's recently published Drinking Water Treatment for PFAS Selection Guide, with a focus on how water systems may use this guide to be proactive in addressing PFAS. The webinar will conclude with a brief panel discussion between the speakers and 1–2 utility members regarding their own efforts to investigate PFAS occurrence.

PFAS continue to represent a challenge for utilities as the US Environmental Protection Agency and others continue to conduct research, develop regulations, and express concerns about public health. This webinar seeks to provide guidance for water systems to proactively address these challenges through the use of the Drinking Water Treatment for PFAS Selection Guide.

Learning Objectives:

1. Describe federal regulatory efforts for PFAS
2. Identify the effective drinking water treatment techniques for PFAS
3. Understand pros/cons of each technique for PFAS, including water quality considerations
4. Implement small-scale (rapid, bench, and pilot) treatment testing to evaluate options
5. Characterize treatment design considerations (water quality, process design, and others)

Presenter Biography Information

Samantha Black, Ph.D, P.E. – Water Treatment Process Engineer HDR, Inc

Samantha is a water treatment process engineer who has extensive experience with emerging contaminant and applied water research. Her project experience primarily includes water treatment process evaluation, bench-scale and pilot testing, and water quality investigations. Samantha frequently works in HDR's Applied Research and Engineering Center (AREC), performing bench-scale studies for emerging contaminant removal for clients across the United

States. Samantha works closely with clients to help them overcome regulatory, water quality, and treatment challenges.

Carel Vandermeijden, P.E. – Deputy Executive Director Cape Fear Public Utilities Authority
Mr. Vandermeijden is the Deputy Executive Director for the Cape Fear Public Utility Authority (CFPUA) in Wilmington, NC. Over the last three years, CFPUA developed a PFAS management strategy that included pilot testing of different treatment technologies and the design of a 44-mgd GAC treatment facility to remove PFAS. Mr. Vandermeijden has over 36 years of water and wastewater utility experience and is an active member of AWWA and the Water Research Foundation.

Mike Pickel – Director of Compliance & Regulatory Affairs Horsham Water and Sewer Authority
Mr. Pickel has over 40 years' experience in water and wastewater utility operations. Prior to joining the Horsham Water & Sewer Authority, Mr. Pickel served as Vice President & Chief Environmental Officer of Aqua America, and prior to that worked at the Philadelphia Water Department. Mr. Pickel currently serves on the AWWA Microbial/Disinfection By-Products (M/DBP) and the Lead & Copper Rule (LCR) Technical Advisory Workgroups.

Brian Steglitz – Manager, Water Treatment Services City of Ann Arbor
Brian Steglitz is the Manager of Water Treatment Services for the City of Ann Arbor, where he has been employed for over 20 years, and is responsible for operation of the City's 50 MGD Water Treatment Plant that serves approximately 125,000 people in the City of Ann Arbor and environs. Mr. Steglitz is a former Chair and Director of the Michigan Section AWWA and served as Vice President of AWWA in 2015-6, and is currently on the Board of Directors for The Water Research Foundation, where he also Chairs the Tailored Collaboration Research Committee.