MAINE WATER UTILITIES ASSOCIATION

MWUA

OUR WATER. YOUR FUTURE.

98TH ANNUAL CONFERENCE AND TRADE SHOW

JAN. 31 – FEB. 1, 2024

IN-PERSON CONFERENCE

AINE WATER UTILITIES ASSOCIATION
MWUA
OUR WATER. YOUR FUTURE.

15 University Dr
Augusta, ME 04330
OFFICE: (207) 623-9511

Thanks for joining us!

MAINE WATER UTILITIES ASSOCIATION welcomes you to our 98th Annual Conference and Trade Show, co-sponsored by the Training and Program Committee (TaP), Maine Water Environment Association (MeWEA), and the Maine Water Utilities Association (MWUA).

The February conference has long served as the venue for the demonstration of new products and the exchange of operational tips and techniques. The Association's Associate Members provide much in the way of resources and energy in order to make the Conference such a success. The Program Committee, the Directors and other volunteer members all contribute to this effort as well.

TRACK LEGEND

To easily identify the tracks for each course, we have color-coded them according to the legend below.

	Source & Treatment: PFAS
	MeWEA
	Source & Treatment
	Admin & Management
	Emergency Prep & Safety
	Distribution and Storage: LCR

ADA - In order to ensure your complete participation, please let us know of any special requirements you need.

Cancellation Policy: MWUA is unable to offer a refund for cancellations with less than a 7-day notice. 100% refund for cancellations received by 1/23/2024. The conference will not be canceled due to weather.

MAINE WATER UTILITIES ASSOCIATION
MWUA
OUR WATER. YOUR FUTURE.

98th Annual Conference & Trade Show
Jan. 31 – Feb. 1, 2024

CONFERENCE SCHEDULE

WEDNESDAY, JANUARY 31 (Trade Show 7:45 AM - 3:30 PM)

Registration and Full Breakfast	**7:00 AM**
MWUA Welcome	**8:00 - 8:30 AM**
Keynote Speaker: Patrick Woodcock	**8:30 – 9:00 AM**
Session 1: Understanding Your Utility's Business Process Architecture	9:15 - 10:15
Session 2: PUC Rules, Updates and Q & A	9:15 - 10:15
Session 3: Creating a Cost Effective GIS Program and How to Get Started	9:15 - 10:15
Session 4: So, You Think You Know Distribution & Collection Systems	9:15 - 10:15
Session 5: How to Collect Your Money	10:30 - 11:30
Session 6: Navigating Federal Funding Sources: Results from an EPA Pilot Project on Innovative Use to Protect Water Supplies in Maine	10:30 - 11:30
Session 7: Lead Service Line Inventories: A Case Study	10:30 - 11:30
Session 8: Natural Disasters and Keeping an Up to Date Emergency Response Plan	10:30 - 11:30
BUSINESS LUNCH / AWARDS / EXHIBIT TIME	11:30 -1:30
Session 9: Why Are You Still Working 5 Days a Week	1:30 -2:30
Session 10: Reactive to Proactive Maintenance Through Hydraulic Modeling Investments	1:30 -2:30
Session 11: PFAS in Maine Drinking Water	1:30-2:30
Session 12: Kennebec Water District Backflow Contamination and Emergency Response	1:30 -2:30
Session 13: You've Been Awarded DWSRF or CWSRF Funding for Your Project, Congratulations. What's Next?	2:45 - 3:45
Session 14: Not in My School: PFAS	2:45 - 3:45
Session 15: Lead & Copper Rule Revisions and Lead Service Line Inventories	2:45 - 3:45
Session 16: Kennebec Water District Fire Service Account Auditing	2:45 - 3:45
MEET & GREET / RECEPTION	3:30 – 6:00

THURSDAY, FEBRUARY 1 (Trade Show 8:00 AM - 3:00 PM)

Registration and Full Breakfast	**7:00 AM**
Session 17: Asset Management, Utility Administration, and Emergency Response - Part 1	8:00 - 9:00
Session 18: PFAS Impact on Water, Wastewater and Biosolids: Strengthen Public Trust, Restore Environmetal and Financial Resources	8:00 - 9:00
Session 19: Drill It or Dig It, GAUD's Kennebec River Utility Crossing	8:00 - 9:00
Session 20: New Cybersecurity and Best Practices	8:00 - 9:00
Session 21: Public Realm Resilient Strategics	8:00 - 9:00
Session 22: Asset Management, Utility Administration, and Emergency Response - Part 2	9:15 -10:15
Session 23: What We Learned About PFAS: Case Study from Merrimack Village District	9:15 -10:15
Session 24: Preliminary Design and Installation of HDPE Trenchless and Open Cut Water Systems	9:15 -10:15
Session 25: Understanding VFDs for Remote Submersible Water Well Application	9:15 -10:15

Session 26: Managing Your FSP: Are You Getting What You Need From It?.....	9:15 -10:15
Session 27: Asset Management, Utility Administration, and Emergency Response - Part 3.....	10:30 -11:30
Session 28: Groundwater Supplies: Keeping Up With Growing Demands.....	10:30 -11:30
Session 29: Leak Detection.....	10:30 -11:30
Session 30: Eliminating the Wet Well With Direct In-Line Pumping.....	10:30 -11:30
Session 31: Climate Change/Resiliency in Wastewater.....	10:30 -11:30
LUNCH / EXHIBITOR TIME.....	11:30 -12:45
Session 32: Asset Management, Utility Administration, and Emergency Response - Part 4.....	12:45 – 1:45
Session 33: New Groundwater Source to Achieve DBP Compliance - Project Case Study.....	12:45 – 1:45
Session 34: Protective Coating for the Water and Wastewater Industry.....	12:45 – 1:45
Session 35: Hydraulic Alternatives for PFAS Mitigation.....	12:45 – 1:45
Session 36: Preparing for an Uncertain Future: Proactive Planning for PFAS Regulatory Changes.....	12:45 – 1:45
Session 37: Surface Water Treatment Panel.....	2:00 – 3:00
Session 38: Chemical Feed Upgrade.....	2:00 – 3:00
Session 39: Valves 101.....	2:00 – 3:00
Session 40: A Summary Maine's Drought Task Force.....	2:00 – 3:00
Session 41: Biosolids Management Solutions.....	2:00 – 3:00

CONFERENCE RESOURCES

Conference Tracker

Conference Tracker - Check your emails for more information on Conference Tracker and the attendee app. You can also follow the instructions on the next page to download.

Conference Attendee

Attendee Quick Start Guide

Conference Tracker Attendee App Layout

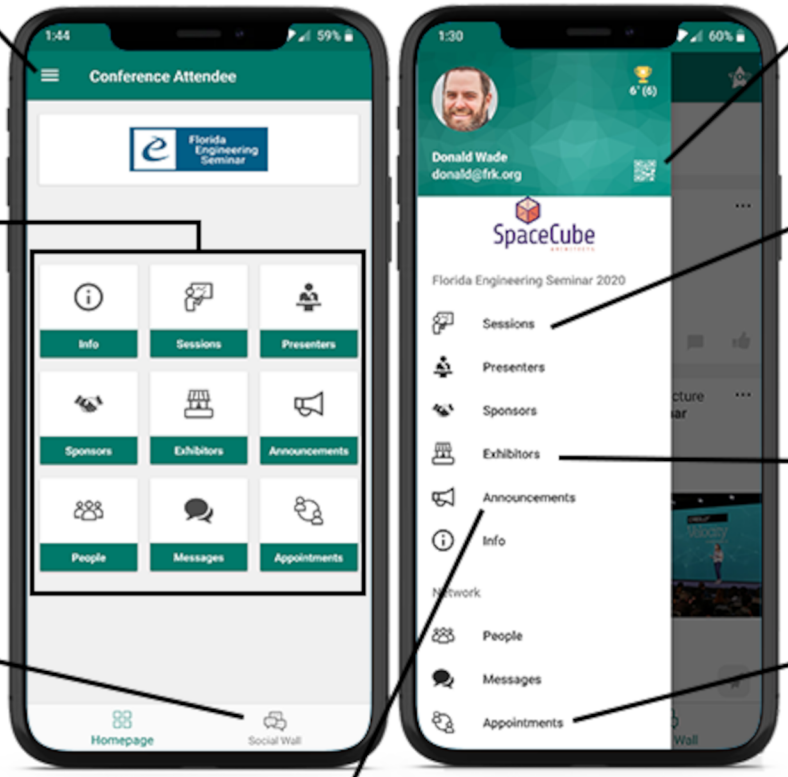
Navigation Bar
This will show all of your conference's available pages

Homepage
The Home Screen houses all of the important shortcuts pertaining to your event

Refresh App
Swipe down from the home page to refresh the application

Social Wall
Visit the main social feed of your conference and share posts

Surveys & Polls
View all posted surveys and polls



Announcements
View important announcements

Self Sign-In
Use your phone to sign in to your sessions

Badge
Here you will see the options that attendees on the app can see

Sessions
View all of your conferences sessions and attend online presentations

Exhibitors
Shows all of the exhibiting vendors at your conference.

Appointments
Here, you can view, create and reschedule appointments

Profile
Edit your profile information and add a profile photo

First Time Setup

1. You will be asked to log into your account. Enter the e-mail you used to register for the conference.
2. After the system finds your account, you will be asked to input your password.
3. Once entered, you will be given access to the Attendee app and all of its features.

Resetting Password

If you don't know your password, there is a password reset link on the Enter Password screen. Follow this simple process to set up a new password for your account.

WEDNESDAY, JANUARY 31, 2024

Session 1: Understanding Your Utility's Business Process Architecture

Time: 9:15 AM – 10:15 AM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Management

Course Instructor: Steve Cox, Ann Marie Ronan, and Drue Hontz; Raybern Consulting

Course Description:

A Utility's business process architecture consists of the technological platforms, the processes enabled by that technology, and the staffing recourses that perform those processes. In this session, we'll discuss why it's important to have a strong grasp of this architecture: Succession Planning and Knowledge Transfer; Employee Training and Engagement/Retention; and CapEX/OpEx planning. We will focus on the core functional areas of a Utility's operations and outline key elements of importance, such as system data structure, data overlap, data transfer, and the impacts of each of your day-to-day operations. Finally, we will discuss how to capture and document the information so that you can enable timely, accurate metrics that allow data driven decision making as you seek to effect change and capture operational improvements.

Session 2: PUC Rules, Updates and Q & A

Time: 9:15 AM - 10:15 AM

Track: Admin & Management

1.0 TCH BLWSO Approved

Course Instructor: David Braley and Stephani Morancie, Maine PUC

Course Description:

Join Maine Public Utilities Commission (Maine PUC) staff for this interactive class that will cover new statutes and rules of interest to Maine PUC regulated water utilities.

Session 3: Creating a Cost-Effective GIS Program and How to Get Started

Time: 9:15 AM - 10:15 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Susanne Timani, ESRI and Nick Bates, EJ Prescott

Course Description:

In recent years, GIS technology has become cost-effective and user-friendly, making it accessible even to small and rural water utilities. GIS serves as a vital tool for utilities seeking to enhance asset information management, streamline operations, maximize efficiency, and achieve more with fewer resources. Suzanne Timani from Esri will give an overview of how systems of all sizes can make cost-effective decisions with their GIS programs. Nicholas Bates from EJP will take the introduction further with examples of how to get started including an introduction to leveraging paper maps as a foundational entry point into the world of GIS. While GIS can seem daunting when viewed in its entirety, this presentation will unveil a practical approach for initiating your journey using existing resources. You will gain insights into optimal strategies and methods for digitizing paper maps and seamlessly integrating them into an online GIS platform, unlocking their potential beyond mere office-bound documents. Utilizing a standard Creator License for Esri ArcGIS Online empowers you to digitize maps and provide field crews with the flexibility to access these maps remotely from any location. This technological capability serves as the cornerstone for initiating the map-building process.

Session 4: So, You Think You Know Distribution & Collection Systems

Time: 9:15 AM – 10:15 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Tom Bahun, Tom's Water Solutions

Course Description:

Water distribution systems are designed and operated to supply sufficient volumes of water at adequate pressure as well as maintain the quality of potable water provided by the water treatment plant. The primary purpose of wastewater collection systems is to transport used water to treatment facilities where the water is treated, recycled, and/or safely discharged to the environment. Join Tom, as your presenter and "skilled" game show host, in a fun and interactive presentation that will allow participants to show-off their knowledge of the water distribution systems and wastewater collection systems.

Session 5: How to Collect Your Money

Time: 10:30 AM – 11:30 AM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Randi Taylor, Greater Augusta Utility District and Maine PUC Staff

Course Description:

Does your utility struggle on the financial side of things? Join MPUC and a variety of water utilities for a discussion about case flow, rates, fees, and customer collections, including liens and consumer-owned water utilities. Audience participation is encouraged in this informal roundtable session.

Session 6: Navigating Federal Funding Sources: Results from an EPA Pilot Project on Innovative Use of SRF to Protect Water Supplies in Maine

Time: 10:30 AM – 11:30 AM

Track: Source & Treatment

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Kira Jacobs, US EPA Region 1

Course Description:

There is a historic level of Federal funding available today for water infrastructure and water quality improvement. Understanding how to navigate all these sources of funding can be incredibly challenging. In 2022, Maine CDC was selected to receive contractor support from EPA HQ's for a pilot project to be used as a national model. The contractor, Northridge, is a national expert on State Revolving Funds (SRF) and provided technical assistant to develop a roadmap for using SRF. This presentation will focus on how the project identified current and potential funding sources in Maine, using the Saco Watershed Collaborative to "beta test" these approaches in their watershed. The presentation will discuss in detail the myriad sources of funding, with an emphasis on providing assistance in navigating the nuances of the SRF and the Infrastructure Bill. Attendees will also learn how the Maine SRF/Source Water Protection report can be used to draft a long-term plan for sustainable source water protection activities.

Session 7: Lead Service Line Inventories: A Case Study

Time: 10:30 AM – 11:30 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

Course Instructor: Margaret Blank, Underwood Engineers (UE)

Course Description:

UE is involved with inventorying lead service lines for over 170 water systems in New Hampshire. The approach and methods of the work will be discussed so others can benefit from the methods.

Session 8: Natural Disasters and Keeping an Up to Date Emergency Response Plan

Time: 10:30 AM – 11:30 AM

Track: Emergency Preparation, Safety & Security

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved: Operations

Course Instructor: John Cummons, Greater Augusta Utilities District

Course Description:

As Maine faces an increase in storm intensities, as well as the challenges of rising sea levels, it is important for utilities to have the systems in place to minimize exposure and maximize response to natural disasters within your organization. This course will provide insight into assessing natural disasters in your area and identifying your areas of exposure, the key components of maintaining an effecting Emergency Response Plan (ERP), as well as how to properly implement and test an ERP.

11:30AM – 1:30PM **Exhibitor Time / Business Lunch**

Session 9: Why Are You Still Working 5 Days a Week

Time: 1:30 PM – 2:30 PM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Management

Course Instructor: Rob Pontau, Brunswick Sewer District

Course Description:

As Henry Ford said, "whether you think you can, or you think you can't – you're right." Society has taught us that we must work a five day, 40 hour, week. We have been programmed to think that is normal. The reality is, there is no one size fits all solution. This session will provide a historical review of how the current work week came about and why it has remained popular. We'll also discuss alternative work schedules and discuss the pros and cons of each. We'll look into other cultures, and review what some large corporations are doing to improve employee satisfaction and retention. Lastly, we'll take an in-depth look at the Brunswick Sewer District and demonstrate how a 4-day workweek has benefitted the organization.

Session 10: Reactive to Proactive Maintenance Through Hydraulic Modeling Investments

Time: 1:30 PM – 2:30 PM

Track: Distribution

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Justine Drake and Autumn Kellar, Haley-Ward

Course Description:

A common approach to water systems in the United States is “if it ain’t broke – don’t fix it!” as municipalities balance replacing aging infrastructure with tightening budgets. Responding to emergencies can involve temporary solutions, expensive downtime, and inflated repair costs. A proactive investment requires investing money to replace fixtures before quality deteriorates past the point of return. But how do we know which improvements to make? The answer isn’t always replace the oldest pipes first.

Through developing hydraulic models for asset management and planning, we will cover challenges faced while developing hydraulic models and how to use simulation results to respond to current challenges and prevent future breakdowns. Come and learn how, through modeling, the information available by the model can help water operators across Maine evaluate cost-effective, long-term solutions to maintaining their water systems.

Session 11: PFAS in Maine Drinking Water

Time: 1:30 PM – 2:30 PM

Track: Source & Treatment: PFAS

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved: Operations

Course Instructor: Jonathan O'Donnell and Courtany Hanley; Maine Drinking Water Program

Course Description:

This session will give an overview of the scope of PFAS contamination at public water systems in Maine and how they are dealing with PFAS contamination. This session will include perspectives of both the State Drinking Water Program and that of a Public Water System currently dealing with a PFAS problem. Guidance will be provided on proper sampling techniques and ways to minimize potential contamination. Results will be summarized from compliance testing completed in 2022. We will discuss EPA's proposed PFAS Rules including MCLs for PFOS and PFOA; the Hazard Index for the additional four analytes; and what that will mean for Maine going forward. Treatment options and funding opportunities for systems in exceedance will also be shared, along with where these resources can be found.

Session 12: Kennebec Water District Backflow Contamination and Emergency Response

Time: 1:30 PM – 2:30 PM

Track: Emergency Preparation, Safety & Security

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved: Operations

Course Instructor: Roger Crouse and Robbie Bickford, Kennebec Water District

Course Description:

On May 22, 2023, the Kennebec Water District experienced a contamination event that led to a system wide do not drink order. During this class, those that were directly involved in managing the contamination event will review the origins of the contamination, how the contamination was discovered, the immediate actions taken to mitigate the contamination, communication with customers and the media, and follow up actions linked to this event. Both operators and managers will gain insights into emergency management, how contamination events are handled in a municipal drinking water system, and how to communicate with the public and the media. Likewise, those in attendance will develop a greater understanding of the importance of a cross-connection control policy.

Session 13: You've Been Awarded DWSRF or CWSRF Funding for Your Project, Congratulations. What's Next?

Time: 2:45 PM – 3:45 PM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Kelly Wheeler and Kristi Lamoreau, Maine Municipal Bond Bank

Course Description:

You've been awarded State Revolving Loan Funds for your drinking water project, congratulations! What's next? The Maine Municipal Bond Bank (MMBB) and the Department of Health and Human Services Drinking Water Program (DHHS DWP) jointly administer the Drink Water SRF. DHHS DWP serves as the project manager for the program. The MMBB serves as the administrator and financial manager of the program. Once your project has been approved and placed on a DHHS DWP project priority list the next step is to apply for financial assistance through MMBB. Financial applications are accepted continuously through the year and rates are at or below market interest rates.

Session 14: Not in My School: PFAS

Time: 2:45 PM – 3:45 PM

Track: Source & Treatment:

PFAS

.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Justine Drake, PE, and Sienna Roberge, PE, Haley-Ward and Tyler Putnam, MSAD #70

Course Description:

With the passage of PFAS regulations in the State of Maine, many schools and daycares across the state have found themselves in a tough situation. They discovered forever chemicals in their drinking water sources, which serve some of our most at-risk individuals in the population, children. For these institutions, they have been required to provide bottled water to their students while they work toward a long-term solution for removal of PFAS from their drinking water sources. In this presentation, Haley-Ward Engineers will share the story of one Maine school.

Session 15: Lead & Copper Rule Revisions and Lead Service Line Inventories

Time: 2:45 PM – 3:45 PM **Track: Distribution & Storage** **1.0 TCH BLWSO Approved**	**Course Instructor:** Paulo Ribeiro and Amy Lachance; Maine Drinking Water Program **Course Description:** This session will be a discussion of the new federal Lead and Copper Rule, particularly focusing on guidance for completing service line inventories.

Session 16: Kennebec Water District Fire Service Account Auditing

Time: 2:45 PM – 3:45 PM **Track: Emergency Preparation, Safety, & Security** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved: Operations**	**Course Instructor:** Roger Crouse and Benny LaPlante, Kennebec Water District **Course Description:** Following a backflow event contaminating its distribution system with fire-fighting foam, the Kennebec Water District (KWD) audited all fire service accounts to determine the adequacy of backflow protection, corrective actions needed, and to identify the risks of this type of event occurring again. During this session we will review the audit, including on-site inspections of all fire systems, progress tracking, service requirements, and customer notification as well as improvements needed in KWD's cross-connection control policy and compliance with backflow testing requirements.

3:30pm – 6:00pm **Meet & Greet**

6:00pm **MWUA Social**

THURSDAY, FEBRUARY 1, 2024

Session 17: Asset Management, Utility Administration, and Emergency Response - Part 1

Time: 8:00 AM – 9:00 AM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Arnab Bhowmick, Aktivov Asset Management

Course Description:

Utilities struggle with maintenance and operations of their assets, while trying to upkeep their infrastructure to the required state of good repair, and comply with various regulations, condition assessments, and reporting requirements. Organizations confront challenges with tactical maintenance management, strategic asset management, strategic planning, capital and comprehensive planning, rate setting, project management, forecasts, and budgets etc. While good asset management enables you to get the most from your assets, understanding how to do it right is the key. Utility operations do not stop even in a pandemic or during natural calamities, emergencies, disruptions, and staff turnovers. There are established rules about the upkeep of the assets and operations during any major events, crisis situations, and loss of critical human resources. We will discuss asset management, maintenance and operations management, business continuity, emergency response, and succession planning in depth. This is easier to achieve than you might think, and your citizens will appreciate the ramifications - better service, rates, and responsive government. This is an immersive session that will discuss the basics and go beyond to equip you with the knowledge and a real time data driven approach to manage your utilities better.

Session 18: PFAS Impact on Water. Wastewater and Biosolids: Strengthen Public Trust, Restore Environmental, and Financial Resources

Time: 8:00 AM – 9:00 AM

Track: Source & Treatment:

PFAS

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Kenneth Sansone, SL Environmental Law Group P.C.

Course Description:

Harmful PFAS substances are an urgent public health and environmental issue. The EPA is actively implementing its Strategic Roadmap, including the release of proposed national standards for PFAS in drinking water the proposal to designate PFOA and PFOS - two PFAS legacy chemicals - as CERCLA hazardous substances. Compliance with these new regulations is likely to result in steep cost increases for water and wastewater utilities. In this session, we will go over both federal and state levels PFAS regulations, provide an update on the PFAS settlements for drinking water providers, and share how wastewater systems can follow drinking water systems' example by using the law to recover the costs of of PFAS contamination cleanup.

Session 19: Drill It or Dig It, GAUD's Kennebec River Utility Crossing

Time: 8:00 AM – 9:00 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved: Operations

Course Instructor: Andy Begin, Greater Augusta Utility District (GAUD)

Course Description:

In 2016 GAUD was performing maintenance on a sanitary sewer siphon in order to conditionally assess the 1962 vintage cast iron line that connects the east side of the river to the west side. Learn how we navigated replacement of this line using horizontal directional drillings vs an open dredge of the river, and the permitting involved. The District was able to leverage several funding sources to support a much larger project scope as the project evolved. Why stop at just installing sewer, why not a redundant water main and a backup fiber communications line. We will focus on the initial efforts involved to develop the project from permitting to construction. We will also discuss lessons learned and what we would do differently.

Session 20: New Cybersecurity and Best Practices

Time: 8:00 AM – 9:00 AM

Track: Emergency Preparation, Safety, & Security

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved: Operations

Course Instructor: Susan Breau, Maine Drinking Water program; Ryan Barnes, CISA, DHS Cybersecurity Advisor; Tim Donaldson, VTScada

Course Description:

This session will update water utilities on the latest in cybersecurity regulations coming to Maine as well as provide best practices for cybersecurity for both water and wastewater utilities. Attendees should leave the session with ideas on how to improve their overall cyber position at their respective organizations.

Session 21: Public Realm Resilient Strategics

Time: 8:00 AM – 9:00 AM **Track: MeWEA** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Robert Adams, PLA ASLA, Tighe & Bond Studio **Course Description:** Learn how the City of Boston and other communities have evolved to facilitate large-scale resiliency planning. The opportunities and constraints surrounding sea level rise and climate change mitigation, and how these are executed in planning and project level solutions. How the public realm can be integrated into waterfront designs, providing a critical component to the both/and concept of resilient design.

Session 22: Asset Management, Utility Administration, and Emergency Response - Part 2

Time: 9:15 AM – 10:15 AM **Track: Admin & Management** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Arnab Bhowmick, Aktivov Asset Management **Course Description:** Please see Part 1 during the 8:00am - 9:00 session for description.

Session 23: What We Learned About PFAS: Case Study from Merrimack Village District

Time: 9:15 AM – 10:15 AM

Track: Source & Treatment:

PFAS

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Peter Pitsas, PE and Lynnette Carney, PE, Underwood Engineers

Course Description:

PFAS in drinking water has been a rapidly emerging filed over the past five to ten years. Federal regulations and guidance have been lagging, while some individual states have been pro-active in taking on the responsibility for regulating and guiding the industry during this time. If recently proposed federal regulations are enacted, many more drinking water systems may find themselves treating for PFAS in the future. Merrimack Village District (MVD) was one of the first communities in NH to begin navigating the world of PFAS in 2016. Since that time, Underwood has worked with MVD to construct three PFAS water treatment plants for six of their wells, navigated startup, monitoring, media changeouts and more. PFAS treatment has been a rapidly evolving field with everchanging regulations and technical research affecting every aspect of handling these compounds. By sharing experiences, we can all learn about this rapidly developing and changing field. In this session, we'll share some of the MVDs experiences with PFAS, including design, construction, startup, media handling, operational issues and on-going monitoring.

Session 24: Preliminary Design and Installation of HDPE Trenchless and Open Cut Water Systems

Time: 9:15 AM – 10:15 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Camille George Rubeiz, Plastic Pipe

Course Description:

This presentation will review the recently updated and published AWWA Standards (C901-2020 and C906-2021) and MWWA M55 (2020) manual to assist consultants, contactors, and utilities in specifying, designing, and installing HDPE water piping systems. The HDPE systems include potable water, wastewater, and reclaimed water that are built using open cut or trenchless construction (such as HDD, pipe bursting, compression fit, and sliplining).

Session 25: Understanding VFDs for Remote Submersible Water Well Application

Time: 9:15 AM – 10:15 AM

Track: Source & Treatment

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Tony D'Amelio, Wright-Pierce

Course Description:

The application of water extraction from remote well sources incorporating non-linear Variable Frequency Drives (VFDs) type equipment, long electrical cable runs, submersible motors, and interconnections plays a big role in maintaining proper operation and reliability of the ability to pump water. All of these factors will be addressed and discussed during this presentation.

Session 26: Managing Your FSP: Are You Getting What You Need From It?

Time: 9:15 AM – 10:15 AM

Track: MeWEA

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Rychel Gibson, Wright-Pierce

Course Description:

You've created a fiscal sustainability plan (FSP) or had one created for you, now what do you do with? The information put into fiscal sustainability plans can be out of date so quickly that the outputs can become inaccurate in just a few years. So, let's talk about how to manage your information, what you need to keep on top of, how you can delegate the load, and how to get accurate information out of your plan in the long term. The FSP can be an excellent forecasting tool as well as a great succession planning tool, but it's only as effective as its maintenance.

Session 27: Asset Management, Utility Administration, and Emergency Response - Part 3

Time: 10:30 AM – 11:30 AM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Arnab Bhowmick, Aktivov Asset Management

Course Description:

Please see Part 1 during the 8:00am - 9:00 session for the description.

Session 28: Groundwater Supplies: Keeping Up with Growing Demands

Time: 10:30 AM – 11:30 AM

Track: Source & Treatment

1.0 TCH BLWSO Approved

Course Instructor: Greg Smith, Wright-Pierce

Course Description:

Does your water system have enough capacity? What if a new development or industry demands more water? Can demand be met when one of your sources goes down? What about the next drought? These are all questions that water systems should be asking. This presentation will cover: the approach, cost and time it takes to develop a new groundwater well source; assessing system capacity, redundancy and vulnerability; future demand; and funding. Several case studies will be discussed.

Session 29: Leak Detection

Time: 10:30 AM – 11:30 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Cam Keyes, Gutermann

Course Description:

This session will look at the history of leak detection, the science of sound, and new upcoming technologies to help find leaks before they surface.

Session 30: Eliminating the Wet Well with Direct In-Line Pumping

Time: 10:30 AM – 11:30 AM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Rebecca Turner, Industrial Flow Solutions

Course Description:

Imagine a future with smart pumping stations and no more wet wells. For nearly a century, wastewater systems have used the same technology to lift influent or stormwater from the gravity network: fill a tank, signal the drive with a float, then pump at full speed until the tank's minimum-level float activates. It's archaic and inefficient, creating hazardous conditions that leave caustic, disgusting, odorous liquids standing in wet wells. Universally, submersible pump stations require unclogging and cleaning from a common villain: "flushable" wipes. But there is now a solution with direct in-line pumping, which eliminates the root cause of this issue: the wet well. In this presentation, we will share several case studies including one from the city of Austin, Texas where a 23-story, 320-unit high rise building with a grocery store and restaurant experienced pump station faults from clogged submersible pumps 6 times in two months. With each service, the culprit was the same: "flushable" wipes. Their service charges were compounding. Being a residential building, they can't control the materials their occupants flush. Tenants received multiple notifications regarding the issue, but there was no improvement. Building management needed a solution that was robust and maintenance-free and moved from traditional submersible pumps to a new direct inline pumping system. By removing the wet well and lifting influent directly from the gravity invert, fats, oils, and greases, along with wipes and any other culprits, do not have the opportunity to separate and solidify. With direct in-line pumping fibrous material is kept in solution, ejecting it as it arrives. Because the influent is also contained, there is no potential for it to become atmospheric, eliminating all concerns for odor and dangerous gases. Also, removing the wet well eliminates well maintenance. There is no collection of grease on basin walls or fear of leaching into the adjacent solid or ground water. Direct in-line pumping is changing the world one wet well at a time.

Session 31: Climate Change/Resiliency in Wastewater

Time: 10:30 AM – 11:30 AM **Track: MeWEA** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Meave Carlson, Wright-Pierce **Course Description:** Wastewater infrastructure undoubtedly represents a significant investment for municipalities, provides critical services to the public, and protects our environment. As the effects of climate change are being observed across Maine and New England, it is our responsibility as representatives of the water industry, to respond to risks and help make our client's infrastructure resilient. Communities cannot risk losing these assets to flooding or the rising seas. Join us for a multidisciplinary look at municipal climate resiliency in Maine, focusing on community action, planning, and technical support for the communities that are already seeing the effect of climate change on their wastewater infrastructure.

11:30AM – 12:45PM **Exhibitor Time / Lunch**

Session 32: Asset Management, Utility Administration, and Emergency Response - Part 4

Time: 12:45 PM – 1:45 PM **Track: Admin & Management** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Arnab Bhowmick, Aktivov Asset Management **Course Description:** Please see Part 1 during the 8:00am - 9:00 session for the description.

Session 33: New Groundwater Source to Achieve DBP Compliance - Project Case Study

Time: 12:45 PM – 1:45 PM

Track: Source & Treatment

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Dan Flaig and Katelyn Cox, Wright-Pierce

Course Description:

The project case study will provide an overview of a multi-year project development and construction phase for Mars Hill & Blaine Water Company to achieve compliance with EPA's disinfection byproduct regulations with the conversion from a surface water supply and slow sand treatment facility to a new groundwater source and water treatment facility. The case study will provide an overview of the groundwater development exploration phase, schedule challenges with construction during the COVID 19 pandemic, groundwater quality, water quality considerations with changing water supplies, and new operational strategies with conversion from a gravity flow slow sand plant to a pumped groundwater system.

Session 34: Protective Coating for the Water and Wastewater Industry

Time: 12:45 PM – 1:45 PM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Rick Goyette, Sherwin-Williams

Course Description:

This presentation will cover various water and wastewater environments and discuss what types of surface preparation and coatings, based on substrates and chemical resistance requirements, are needed to protect infrastructure from premature corrosion. It will walk through a clarifier project at a wastewater treatment plant, a manhole rehabilitation project, and a potable water storage tank project as well. We will discuss industry standards, optimum life cycles, common infrastructure challenges, and potential cost saving methods to extend service life.

Session 35: Hydraulic Alternatives for PFAS Mitigation

Time: 12:45 PM – 1:45 PM

Track: Distribution & Storage

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Heather Doolittle, PE, Tighe & Bond

Course Description:

This session focuses on hydraulic considerations for managing PFAS in drinking water and challenges related to modifying distribution system point of entry. Case studies presented include impacts to water distribution as a result of centralizing treatment and optimizing regional interconnections from the perspective of both the supplier and purchaser.

Session 36: Preparing for an Uncertain Future: Proactive Planning for PFAS Regulatory Changes

Time: 12:45 PM – 1:45 PM

Track: MeWEA

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Maddison Vidal, PE, CDM Smith

Course Description:

Project planning can be straightforward when the regulations are known, but how do you make or continue progress on critical infrastructure improvements when awaiting the draft and final EPA PFAS regulation? This presentation will include a variety of groundwater and surface water case studies in Maine, New England, and beyond describing how this challenging landscape was navigated through collaboration, creative thinking, and communication.

Session 37: Surface Water Treatment Panel

Time: 2:00 PM – 3:00 PM

Track: Admin & Management

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Robbie Bickford, Kennebec Water District; Jacob Spinney, Bangor Water District; Ryan Lynch, York Water District; Greg Pargellis, Kennebunk, Kennebunkport & Wells Water District; Dan Wells, Winthrop Utilities District

Course Description:

Each panelist has an unparalleled understanding of the surface water treatment technique employed at their individual water treatment plants to produce safe, clean drinking water. This intimate knowledge of the treatment processes they implement and oversee will be reviewed and discussed in an open forum where audience members will be encouraged to ask questions and participate in the panel discussion. Attendees of the conference will be exposed to surface water treatment techniques that may be unfamiliar to them or have limited interactions with on a regular basis. Attendees will be encouraged to participate in the conversation, thus gaining a deeper knowledge of the subject and allowing to them to make connections to their individual experiences in the water industry.

Session 38: Chemical Feed Upgrade

Time: 2:00 PM – 3:00 PM

Track: Source & Treatment

1.0 TCH BLWSO Approved

1.0 TCH DEP Approved:

Operations

Course Instructor: Heidi Baird, Tighe & Bond

Course Description:

Using examples from various chemicals feed projects this session will review some of the challenges and opportunities facilities have when updating their chemical feed systems. The session will cover sizing of chemical feed systems, considerations for chemical delivery and handling, operational considerations during upgrades to existing systems, and design considerations for monitoring chemical systems and worker safety.

Session 39: Valves 101

Time: 2:00 PM – 3:00 PM **Track: Distribution & Storage** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Dylan Ross, EJ Prescott **Course Description:** In Valves 101 we will cover the different types of valves, applications, operations, maintenance, installation, and troubleshooting for waterworks applications.

Session 40: A Summary Maine's Drought Task Force

Time: 2:00 PM – 3:00 PM **Track: Source & Treatment** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Samuel Roy, Maine Emergency Management Agency **Course Description:** The Drought Task Force activates when prolonged, abnormally dry conditions occur in Maine. In this session, the Drought Trak Force facilitator will discuss the conditions, roles, and responsibilities for developing and communicating a unified assessment of drought with members, improving the situational awareness for decision makers and the public, and providing recommendations on potential responses to the Office of the Governor.

Session 41: Biosolids Management Solutions

Time: 2:00 PM – 3:00 PM **Track: MeWEA** **1.0 TCH BLWSO Approved** **1.0 TCH DEP Approved:** **Operations**	**Course Instructor:** Scott Firmin, Portland Water District **Course Description:** Management of residuals and biosolids in Maine has become more challenging and costly in the last few years. As management options have become more limited, long rage planning efforts are underway to develop possible solutions. These solutions are likely more capital intensive, so affordability concerns are likely. The future will include volume and reductions of contaminants of emerging concern.