

New England
Water Environment
Association
presents

**Celebrating the
50th Anniversary
of the Clean
Water Act...
*A Job Well Done!***

**NEWEA 2023
Annual Conference
& Exhibit**

January 22 – 25
Boston Marriott Copley Place
Boston, Massachusetts



NEWEA
WORKING FOR WATER QUALITY

PRELIMINARY CONFERENCE PROGRAM



Frederick McNeill
NEWEA President



Lauren Hertel,
NEWEA Program
Committee Chair

Welcome to the 2023 NEWEA Annual Conference!

We are thrilled to be hosting our first all-in person conference since January 2020. We appreciate our attendees, exhibitors, and sponsors for their continued support of our association as we have navigated several challenging years.

This year's event features 34 technical sessions, a Student Poster Competition showcasing the work of water quality undergraduates and graduates, the Innovation Pavilion, and two floors of exhibitors highlighting the industry's latest products and services.

This past year, we have celebrated the 50th anniversary of the Clean Water Act and the progress and achievements of the water industry during these last five decades. This year's conference will be the culminating event in this yearlong commemoration of the most significant law passed to protect our water resources.

The conference commences on Monday with six concurrent technical sessions each in the morning and afternoon. The Opening Session at 11:00 AM will convene attendees to hear from NEWEA and WEF leadership and our 2023 Keynote, EPA Region 1 Administrator Dr. David Cash. Undergraduate and Graduate students will present their research in the Student Poster Competition throughout the day. The afternoon winds down with the first of two Exhibit Hall receptions on the 3rd floor.

Tuesday offers another full day of exciting events. We celebrate and recognize operators by offering morning and afternoon Plant Operations technical sessions, as well as the Operator's Reception. To continue the conversation about the Clean Water Act and consider what's to come in the next 50 years, a keynote session will be held from 11:00 AM to 12:15 PM. Attendees can meet with emerging water industry innovators and learn about their technologies at the fifth annual Innovation Pavilion, taking place in the 3rd Floor Atrium from 8:00 AM to 4:00 PM. The day concludes with an Exhibit Hall Reception on the 4th floor.

The final day of the conference features a full day of technical sessions and exhibits, our lunch-time awards ceremony recognizing outstanding efforts in our industry, and the passing of the gavel to the 2023 NEWEA President, Robert Fischer of South Burlington, VT. We hope you take advantage of all the 2023 Annual Conference has to offer and use this occasion to connect with your water industry colleagues.

We wish to recognize the significant efforts of the Meeting Management Council and members of the Program, Registration, Exhibits, and Awards Committees who make this conference one to look forward to each year. Thanks to the members of all the technical committees who review abstracts, moderate sessions, and provide the technical and subject matter expertise we need to do our jobs better. This conference would not be possible without the tireless efforts of the NEWEA office staff: Mary Barry, Janice Moran, Jordan Gosselin, and Heather Howard. Thank you for your dedication, energy, professionalism, new ideas, and patience in planning and coordinating this great event every year!

Frederick McNeill, NEWEA President

Lauren Hertel, NEWEA Program Committee Chair

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New England Water Environment
Association Presents

Celebrating the 50th Anniversary of the Clean Water Act... *A Job Well Done!*

NEWEA 2023 Annual Conference & Exhibit

January 22–25, 2023

Boston Marriott Copley Place, Boston, MA

Conference Events

Sunday, January 22

Young Professionals Summit.....8:00 AM–5:00 PM
See description on page 29

New Committee Chair and Council Director Orientation.....10:00 AM–Noon

Executive Committee Meeting.....Noon–3:30 PM

Registration (4th Floor).....Noon–4:00 PM

Exhibit Hall Set-Up.....Noon–6:00 PM

Monday, January 23

Registration (4th Floor).....7:00 AM–6:00 PM

Speakers' Ready Room.....7:30–8:30 AM

Coffee and Continental Breakfast (3rd Floor Atrium).....7:30–9:00 AM

Young Professionals Lounge.....7:30–9:00 AM

The YP Committee will be hosting a Young Professionals Lounge
YP Committee Chair: Daryl Coppola, FR Mahony

NEWEA Annual Business Meeting.....8:00–8:30 AM

Welcome and Opening Remarks: Frederick McNeill, NEWEA President/City of
Manchester, NH—Presentation and vote on 2023 Slate of NEWEA Officers
See description on page 28

Technical Sessions 1–6.....8:30–10:30 AM
See descriptions beginning on page 8

College Student Poster Board Competition.....9:00 AM–4:00 PM
Coordinator: Joanna Sullivan, VHB • Session with authors12:30–2:00 PM
See description on page 26

Workshop—Flowing into the Future of the Water Workforce.....8:30–10:30 AM
See description on page 6

Monday, January 23 continued

Exhibit Hall Grand Opening.....10:30 AM
Paul Russell, Exhibits Committee Chair; Frederick McNeill, NEWEA President
Grand opening will take place at the main entrances of both the 3rd and 4th floor
exhibit areas

Exhibits (3rd and 4th Floor Exhibit Areas).....10:30 AM–6:30 PM
Please note that the 3rd and 4th floor exhibit areas are connected by a stairwell in
the back of the exhibit hall. *See list of exhibitors (as of 11/4/22) on pages 38–39*

Opening Session.....11:00 AM–Noon
See description on page 5

Select Society of Sanitary Sludge Shovelers' Lunch.....Noon–2:00 PM
by invitation—Charles Tyler, Influent Integrator

Technical Sessions 7–12.....2:00–4:30 PM
See descriptions beginning on page 11

Exhibit Hall Break.....3:00–3:30 PM

Exhibit Hall Reception (3rd Floor Exhibit Area).....4:30–6:30 PM

Tuesday, January 24

Registration (4th Floor).....7:00 AM–6:00 PM

Speakers' Ready Room.....7:30–8:30 AM

Coffee and Continental Breakfast (3rd Floor Atrium).....7:30–9:00 AM

Exhibits (3rd and 4th Floor Exhibit Areas).....8:00 AM–6:30 PM

Innovation Pavilion.....8:00 AM–4:00 PM
See description on page 27

Technical Sessions 13–18.....8:30–11:00 AM
See descriptions beginning on page 14

Exhibit Hall Break.....9:30–10:00 AM

Tuesday Keynote Presentation.....11:00 AM–12:15 PM
Clean Water Act 50th Anniversary—Innovating for the Next 50 Years
(panel discussion) *See description on page 7*

Operator's Reception.....12:15–1:45 PM
Sponsored by:
Connecticut Water Environment Association
Green Mountain Water Environment Association
Maine Water Environment Association
Massachusetts Water Environment Association
Rhode Island Clean Water Association
New Hampshire Water Pollution Control Association

Technical Sessions 19–24.....2:00–4:30 PM
See descriptions beginning on page 17

Exhibit Hall Break.....3:00–3:30 PM

Exhibit Hall Reception (4th Floor Exhibit Area).....4:30–6:30 PM

Wednesday, January 25

Registration (4th Floor).....	7:30 AM–2:00 PM
Speakers' Ready Room	7:30–8:30 AM
Exhibits (3rd and 4th Floor Exhibit Areas).....	8:00 AM–1:00 PM
Technical Sessions 25–29	8:30–11:00 AM
<i>See descriptions beginning on page 20</i>	
Exhibit Hall Break	9:30–10:00 AM
NEWEA Awards Ceremony and Lunch (ticket required).....	11:00 AM–1:00 PM
Exhibit Area Brunch	11:00 AM–1:00 PM
The exhibit area brunch will be held in both the 3rd and 4th floor exhibit areas	
Technical Sessions 30–34	1:00–3:00 PM
<i>See descriptions beginning on page 23</i>	
Adjourn	3:00 PM

TRAINING CONTACT HOURS

This program has been submitted and is pending approval from all six New England states for Training Contact Hours (TCHs).

Monday 11:00 AM–Noon

Moderator:
Lauren Hertel,
NEWEA Program Chair
Woodard & Curran



David Cash

Opening Session

Welcome:

Frederick McNeill, NEWEA President
City of Manchester, NH

Keynote Speaker:

David Cash, Regional Administrator EPA New England

David W. Cash has spent his career in public service harnessing science, innovative policy and participatory decision-making to solve challenges and seize opportunities at the intersection of environment, economy and equity.

Prior to coming to EPA, Dr. Cash was the Dean of the John W. McCormack Graduate School of Policy and Global Studies at the University of Massachusetts Boston.

Dr. Cash also spent a decade in Massachusetts state government where he held a range of senior positions, working to transform the Commonwealth's environmental and energy policy. As Assistant Secretary of Policy in the Executive Office of Energy and Environmental Affairs in Governor Deval Patrick's Administration, he was an architect of a range of nation-leading climate, clean energy and environmental justice policies. All of these initiatives were grounded in the notion that wise environmental policy, economic policy and policies for equity can and should go hand-in-hand. He then served as a Commissioner in the Department of Public Utilities, followed by serving as the Commissioner of the Department of Environmental Protection. With this experience of being both an environment and an energy commissioner, he had the unique perspective of understanding the importance of breaking down silos and focusing on complex issues in much more comprehensive and integrative ways.

Dr. Cash holds a Ph.D. in public policy from the John F. Kennedy School of Government at Harvard University, a science teaching degree from Lewis & Clark in Portland, OR, and a BS in biology from Yale.

Dr. Cash's biography is also available on EPA New England's website: <https://www.epa.gov/aboutepa/about-administrator-epas-new-england-region-region-1>

Monday
8:30–10:30 AM

Moderators:
Joanna Sullivan, VHB
Annalisa Onnis-Hayden,
Northeastern University
Nick Tooker,
University of Massachusetts
Stephen King,
Town of Danvers, MA

Hosted by NEWEA's
DE&I and Student
Activities Committees

Workshop: Flowing into the Future of the Water Workforce

WEF's "Introducing Future Leaders to Opportunities in Water" (INFLOW) program aims to bring diverse young leaders into the water industry by providing scholarships to students from historically underrepresented backgrounds to attend WEFTEC programming. Several NEWEA Committees are collaborating to craft a similar program tailored to New England, and we need your help!

Join our interactive workshop to develop a sustainable and effective program in New England. The goal of this program is to recruit and retain young leaders to help develop the water workforce of the future.

This will be a two-hour working meeting that will encourage collaboration and discussion among attendees. We are looking for feedback from a diverse range of stakeholders. Professionals from all backgrounds are encouraged to attend.

This workshop is being provided at no extra cost but space is limited. Pre registration is required.

Tuesday
11:00 AM–12:15 PM

Moderator:
Fred McNeill,
NEWEA President
Marianne Langridge,
Sustainable Synthesis

Tuesday Keynote Presentation

Clean Water Act 50th Anniversary— *Innovating for the Next 50 Years*

Throughout 2022, NEWEA commemorated the 50th anniversary of the Clean Water Act by coordinating a number of panel discussions, technical sessions, and articles to highlight the significant improvements to our water environment during this last half a century.

Now, we are looking ahead to consider the future of the Clean Water Act and our industry. Although there have been remarkable achievements during these last 50 years, there are current and emerging challenges threatening our water resources and industry, including a critical need for infrastructure investment, emerging contaminants, and climate change. New technologies, ideas, and approaches are needed to address these issues and preserve our water resources.

Join us as a panel of experts discuss funding, environmental stewardship and planning, public outreach/awareness, and partnerships, as well as innovating to transform our industry and environment. Through a guided conversation, as well as audience questions, we will dig into the issues that matter most to clean water professionals to inform, inspire, and explore the future of the Clean Water Act and the water industry.

Monday
8:30–10:30 AM

Technical Sessions 1–6

Session 1

Young Professionals—
The Future of the
Industry.

Moderators:

Jaimie Payne, BETA Group
Victoria Helle, NEIWPCC

Session 2

Stormwater 1:
Preparing for the
Future—Stormwater
Quality and Quantity

Moderators:

Eric Kelly,
Environmental Partners
Maria Rose,
City of Newton, MA DPW

**Harmonization of Water Industry Trends to Drive
Innovation of Analytics**

Ryan Flood, Water Analytics

**Planting the Seeds for Young Professional
Development through the Roots of Arcadis Program**
Baxter Miatke, Arcadis

**The Next Generation of Operators—Recruitment and
Retainage**

Robert Roland, Weston & Sampson

**ESG 101: Why and How Water Utilities are Shifting
from Sustainability Reports to ESG Reporting**

Karri Ving, Brown and Caldwell

**Assessing Extreme Storm Event Inundation in
Boston Using Spatial Rainfall—2-dimensional
Dynamic Flood Modeling and Innovative
Visualization Tools**

Ben Agrawal, Hazen and Sawyer
Charles Wilson, Hazen and Sawyer
Charlie Jewell, BWSC
John Sullivan, BWSC

**Mitigating High-Flows and Improving Water Quality
in a Stormwater Impaired Brook**

James Sherrard Jr., City of Burlington, VT
Dayton Marchese, Opti RTC

**Stormwater Phosphorus Load and BMP Tracking in
Brookline**

Sam Downes, Town of Brookline, MA
Matthew Davis, Brown and Caldwell
Stephanie Alimena, Brown and Caldwell

**The Port Flooding Resiliency Project: Safeguarding
At-Risk Populations from the Effects of Climate
Change**

Kate Goyette, Kleinfelder
David VanHoven, Stantec
Jerry Friedman, City of Cambridge, MA

Monday
8:30–10:30 AM

Technical Sessions 1–6

Session 3

Asset Management 1:
Let's Get [Pro]
Active with Asset
Management!

Moderators:

Matt Manchisi, Kimley Horn
Eliza Styczynski, NHDES

Session 4

Water Reuse—
Today and Tomorrow

Moderators:

Nick Ellis,
Hazen and Sawyer
Meredith Zona, Stantec

**New York Stated Department of Environmental
Conservation's Asset Management Pilot Program**
Timothy Taber, Barton & Loguidice

**Validating the Long-Term Cost-Effectiveness of
Proactive Asset Renewal**
Brian Brown, CDM Smith
Jason Waterbury, The MDC

**What Everyone Should Know About Asset
Management—An Expert Panel Discussion**
Eliza Morrison, NHDES

**How Long Will That Force Main Last? A Planning
Approach for Evaluating, Assessing, and
Rehabilitating Ductile Iron Force Mains**

Andrew Grota, Environmental Partners
Ziad Kary, Environmental Partners

**MBR for Potable Reuse—Validation of a Full-Scale
Flat Plate Membrane Bioreactor for Virus and
Protozoa Removal**

Larry Morris, Kubota
Kevin Crane, Kubota
Mike Sullivan, Carlsen Systems

**Our wAAtter Program—Implementing Indirect Potable
Reuse in Maryland**

Ramola Vaidya, HDR

**Using Electricity to Disinfect—Sparks Fly with O₃ &
UV—Is Reuse in your Future?**

Bruce Stevens, SUEZ
William Nezgod, SUEZ

**Achieving Enhanced Nutrient Removal with
AquaNereda® Aerobic Granular Sludge**

Joe Tardio, Aqua-Aerobic

Monday
8:30–10:30 AM

Technical Sessions 1–6

Session 5

Residuals Management 1: PFAS Impacts on Biosolids

Moderators:

Janine Burke-Wells, NEBRA
Eric Spargimino, CDM Smith

Maine—The First State to Ban Sludge Beneficial Reuse and its Immediate Impacts on WWTFs

Chris Dwinal, Wright-Pierce
Robert Pontau, Town of Brunswick, ME

Land to Landfill—How Presque Isle Utilities District Changed its Handling of PFAS-Containing Biosolids

Julianne Page, Woodard & Curran
Krista Forti, Woodard & Curran

Innovations with Biosolids Process Technologies

Charles Goss, AECOM

Gasification and Pyrolysis of Sewage Sludge Biomass

Philip Pedros, Mott MacDonald

Who Wants to Buy a Sewer System?

Adam Simonsen, Aquarion

Developing the Workforce Through Your Local School System

Phil Tucker, York Sewer District
Theresa Tucker, York Sewer District

Optimizing a Capital Improvement Program—How to Measure and Improve Effectiveness

Stephen King, Hazen and Sawyer

New England NPDES Permits are Out-of-step with the Rest of the Country

Paul Calamita, AquaLaw

Session 6

Utility Management: Fresh Ideas in Utility Management

Moderators:

Art Simonian,
The Mattabassett District
Karla Sangrey,
Upper Blackstone

Monday
2:00–4:30 PM

Technical Sessions 7–12

Session 7

Government Affairs: Regulatory Roundtable

Moderators:

Scott Firmin,
Portland Water District
Jeff McBurnie,
Casella Resource Solutions

There are many challenges facing the six states that make up the New England region. The intention of the Regulatory Roundtable Session is to allow for discussion of common issues/solutions and to facilitate the exchange of information.

Panelists from all six states will be present.

Session 8

Collection Systems 1: Pump Up the Volute

Moderators:

Jim Barsanti,
Hazen and Sawyer
Kara Johnston, CDM Smith

Rebuild or Replace? It Depends

Erik Meserve, AECOM
Zachary Cronin, City of Portsmouth, NH

Understanding Sewer Slope Transitions—Reduces Odor/Corrosion Impacts!

Richard Pope, Hazen and Sawyer

The Adventures of Large Diameter Force Main Piggings

Jonnas Jacques, Kleinfelder
Dave Peterson, Kleinfelder
Rob Schultz, City of Newport, RI

I Wonder What's Down Under? Condition Assessment and Rehabilitation of Critical Sewer Siphons

David Polcari, CDM Smith

Exhibit Hall Break

3:00–3:30 PM

Monday
2:00–4:30 PM

Technical Sessions 7–12

Session 9

**Plant Operations 1:
Troubleshooting,
Issues, and Creative
Solutions in Facility
Upgrades**

Moderators:

Adam Higgins,
Wright-Pierce
Patty Chesebrough,
NEIWPCC

A Tale of Two Processes—How The Metropolitan District’s Wet Weather Process Expansion Program Led to Overall Plant Improvements

Brian McGuire, Arcadis
Jeff Bowers, The MDC

Teaching an Old Dog New Tricks—Troubleshooting & Optimizing Chlorine Disinfection Systems

Brian Hilts, CDM Smith

Keeping the Aeration Train Rolling Through Turbulent Times—Hampton, NH WWTP Phase 1 Upgrade

Philip McHenry, Wright-Pierce
Michael Carle, Town of Hampton, NH

Force Main Break During Construction Adds to Complexity of Difficult Project

Doug Hankins, Wright-Pierce
Matthew Hross, Hazen and Sawyer

Session 10

**CSO/WWI 1:
CSO Program Update—
From Implementation
to Water Quality
Benefits**

Moderators:

Jason Kreil,
Woodard & Curran
Steve Perdios, Dewberry

Narragansett Bay Commission CSO Abatement: Water Quality Improvements Following Completion of Phase II

Eliza Moore, Narragansett Bay Commission

Massachusetts Water Resources Authority’s Journey from Long-term Control Plan to Post-Construction Compliance Monitoring Program

Erika Casarano, AECOM
Don Walker, AECOM
Greg Heath, AECOM
Jeremy Hall, MWRA

Incorporating Community Based GSI Solutions into a Large Scale CSO Program

Brandon Blanchard, Pare Corporation
Brian Kuchar, Horsley Witten
Christopher Feeney, Stantec
Kathryn Kelly, Narragansett Bay Commission
Peter Georgetti, Narragansett Bay Commission

CSO Mitigation, Wet Weather Flows, and Regulatory Compliance—A look into Fitchburg’s Collection System Rehabilitation Plan

Frank Occhipinti, Weston & Sampson

Exhibit Hall Break

3:00–3:30 PM

Monday
2:00–4:30 PM

Technical Sessions 7–12

Session 11

Diversity, Equity, & Inclusion: Engagement of DE&I Sustainable Strategies for Workforce Talent Acquisitions and Retention

Moderators:

Stephen King,
Town of Danvers, MA
Marina Fernandes,
Town of Milton, MA

Session 12

**Industrial Wastewater:
What’s in your
Industrial Wastewater**

Moderators:

Matt Dickson, Haley Ward
Sarah White, UniFirst

Developing a Racial Equity Lens at Woodard & Curran

Rachel Gilbert, Woodard & Curran
Julia Beni, Woodard & Curran

Application of DE&I Initiatives to Drive Successful Community Outreach

Udayarka Karra, Arcadis
Allison Zeoli, Arcadis

Bridging Differences to Inclusion

Jasmine Strout, Green International
Ko Ishikura, Green International

Implementing a Smart Industrial Pretreatment Monitoring Network

Scott Simpson, Brown and Caldwell

Can You Accept That Industrial Discharge? Let’s Test It!

Leigh-Ann Dudley, Dewberry
Katie Jones, Dewberry

Boston Groundwater Trust (BGWT): Wood Piles & Groundwater the Important Relationship

Christian Simonelli, Boston Groundwater

Breaking the Chain—PFAS Intervention in the One Water Cycle

Rosa Gwinn, AECOM

Exhibit Hall Break

3:00–3:30 PM

Tuesday
8:30–11:00 AM

Technical Sessions 13–18

Session 13 Government Affairs 1

Moderators:
Scott Firmin,
Portland Water District
Jeff McBurnie,
Casella Resource Solutions

State Revolving Funds and the Bipartisan Infrastructure Law

US EPA's SRF team will present on the Bipartisan Infrastructure Law and its opportunities and implementation for the State Revolving Fund. Topics will include but are not limited to financing, eligibility, and the similarities and differences between the domestic preference requirements, specifically the American Iron and Steel requirement and the Build America, Buy America Act. The presentation will also include a Q&A period.

Session 14 Collection Systems 2: Digging on the Dock of the Bay

Moderators:
Peter Garvey, Dewberry
John DiGiacomo,
Town of Natick, MA

Provincetown's Wastewater System Implementation Using Design-Build-Operate—20 Years Later

Paul Millett, Environmental Partners

A Tite Fit: Novel Slip-Lining of Nahant's Force Main

Stephanie Salerno, Wright-Pierce

Route 28 East Sewer Expansion Project in Barnstable, MA—The Cornerstone of the Future for a Cape Cod Community

Michael Paulin, Weston & Sampson
Paul Ruzala, Town of Barnstable, MA

Adapting Wastewater Infrastructure to Changing Flood Vulnerabilities—Southeastern Massachusetts Case Studies

Sara Greenberg, GHD
Anastasia Rudenko, GHD

Exhibit Hall Break
9:30–10:00 AM

Tuesday
8:30–11:00 AM

Technical Sessions 13–18

Session 15 Plants Operations 2: Optimizing Energy Use in Biological Nutrient Removal

Moderators:
Claudia Buchard,
Woodard & Curran
Nick Tooker, University of
Massachusetts

Utilization and Practical Optimization Strategies of Full-Scale Ammonia-Based Aeration Control (ABAC) at Bonnybrook Wastewater Treatment Plant

Mehran Andalib, Stantec

How's Brockton Doing? 2 Years of Process Optimization to Achieve 3 mg/L TN

William McConnell, CDM Smith

Combating Costly Nitrogen Credits and Kilowatt Hours in Connecticut—The Story of Greenwich's Full-Scale, "Smart" ABAC Pilot

Jennifer Lawrence, CDM Smith
Alyssa Beck, Town of Greenwich, CT
Isabella Silverman, CDM Smith
Richard Feminella, Town of Greenwich, CT
William McConnell, CDM Smith

More than Just Energy Savings—Understanding the Benefits of Low DO Operation

Varun Srinivasan, Brown and Caldwell

Session 16 CSO/WWI 2: Tunneling Challenges for Wet Weather Programs

Moderators:
Lin Liang, Stantec
Mike Armes, IDEX

Case History—Design and Construction of 5,100 LF of Soft Ground Microtunneling in Hartford, CT

Thomas Loto, AECOM
Andrew Perham, The MDC
James Sullivan, AECOM

NBC Pawtucket CSO Tunnel—By Diameter North America's Largest CSO Storage Tunnel

Kate Mignone, AECOM
Kathryn Kelly, Narragansett Bay Commission

Balanced Treatment and Storage Efficiently Control Combined Sewer Overflows

Kevin Trainor, Woodard & Curran
Erik Osborn, Woodard & Curran
Travis Peaslee, LAWPCA

Crossing the Connecticut River—Big Pipes and Endangered Prehistoric Fish

Gus O'Leary, Kleinfelder
Jason Lavoie, Kleinfelder

Exhibit Hall Break
9:30–10:00 AM

Tuesday
8:30–11:00 AM

Technical Sessions 13–18

Session 17

Residuals Management 2: Residuals Operations

Moderators:
Justin Motta, Stantec
Mike Theriault,
Wright-Pierce

Annual 503 Biosolids Reports—What Are They Good For?

Mickey Nowak, MAWEA (retired)

Comparison of P Recovery with Struvite and Brushite Recovery

Sara Arabi, Stantec
Mehran Andalib, Stantec

Putting the Principles of Sustainability and Resiliency into Practice—The GLSD Organics to Energy Project

Ben Mosher, CDM Smith
Mike Walsh, CDM Smith

Polymer/Flocculant 101: Fundamentals of Thickening and Dewatering

Yong Kim, UGSI

Session 18

Sustainability: Closing in on a Circular Economy

Moderators:
Wayne Bates, Tighe & Bond
Miles Moffatt, Tighe & Bond

New Technologies Open Doors for Chitosan Applications

Jenn Wood, Tidal Vision

Sand Dollars in the Streets

Jeff Mercer, Wright-Pierce
Ray Vermette, City of Dover, NH

Data Analytics Tools for Tracking Sustainability Goals and Improving Energy Performance

Elizabeth Watson Keddy, Hazen and Sawyer

Full-scale MABR Experience—Case Studies of Process Intensification

Jean Gagnon, Veolia

Exhibit Hall Break

9:30–10:00 AM

Tuesday
2:00–4:30 PM

Technical Sessions 19–24

Session 19

Government Affairs 2

Moderators:
Scott Firmin,
Portland Water District
Jeff McBurnie,
Casella Resource Solutions

EPA Infrastructure Planning

EPA will host a pilot workshop to walk participants through the ten steps in the Augmented Alternative Analysis (AAA) planning process called *Making the Right Choices for Your Utility: Using Sustainability Criteria for Water Infrastructure Decision Making*. This planning process incorporates social, economic and environmental (triple bottom line) criteria and community involvement into traditional alternative analyses for infrastructure planning. The workshop will include a brief presentation by Saco WRRD who participated in the AAA process. The workshop will also introduce our newly developed fillable worksheets which enable every stakeholder group, community, and/or utility to use this planning method on their own.

Session 20

Stormwater 2: Innovations in Green Infrastructure

Moderators:
Natalie Pommersheim,
Environmental Partners
Joe Keitner,
City of Westfield, MA

From Water Quality to Climate Resilience—Leveraging the Benefits of Widespread Green Infrastructure in Boston

Nicole Holmes, Nitsch
Emma Page, BWSC

A Creative Solution for Green Infrastructure Implementation in an Urban Area

Emma Page, BWSC
Kelsey Kern, Nitsch

Innovative Application of Green Infrastructure in Public Spaces in the Northeast

Emily Carlson, Arcadis

Green Stormwater Infrastructure Candidate Location Siting Application

Michael Hanley, Dewberry

Exhibit Hall Break

3:00–3:30 PM

Tuesday
2:00–4:30 PM

Technical Sessions 19–24

Session 21

Plant Operations 3: Data Driven Treatment Optimization

Moderators:

Emily Korot,
Hazen and Sawyer
John Adie, NHDES

Machine Learning: How It Can Support Innovation In WWT/WWR and Can It Be Trusted?

Amy Mueller, Northeastern University

What Have We Learned from AI? Lessons from Applying Machine Learning at Water Reclamation Facilities

Sue Guswa, Woodard & Curran
Jay Sheehan, Woodard & Curran
Jeanna Long, Woodard & Curran
Raymond Pettit, Northeastern University

Clarifying Insight: Using Machine Learning to Evaluate Secondary Clarifier Performance

Erik Osborn, Woodard & Curran
Julia Beni, Woodard & Curran

Predictive Iron Dosing for Phosphorus Removal— A Data-Driven Strategy

Varun Srinivasan, Brown and Caldwell

Session 22

Contaminants of Emerging Concern 1: CEC Measurement and Quantification

Moderators:

Rachel Schnabel,
Barton & Loguidice
Lohita Rajesh,
University of Massachusetts

PFAS Data from over 200 California Wastewater Treatment Plants

Josh Soper, CDM Smith

PFAS in Wastewater—Advancing Source Control by Understanding the PFAS Cycle on Nantucket

Eric Spargimino, CDM Smith
Andrew Miller, CDM Smith
Charles Larson, Town of Nantucket, MA
Roberto Santamaria, Town of Nantucket, MA

Detection and Quantifying Microplastic Pollutants in Beach Sand and River Sediment

Cole Radke, University of Massachusetts

Statewide PFAS Assessment of WWTPs in Michigan and Implications to the Beneficial Use of Biosolids for Land Application

Chris Curran, AECOM

Exhibit Hall Break

3:00–3:30 PM

Tuesday
2:00–4:30 PM

Technical Sessions 19–24

Session 23

Asset Management 2: Tools, Tips, and Technology in Asset Management

Moderators:

Dan Capano,
Gannett Fleming
Georgine Grissop,
CDM Smith

Leveraging Geospatial Information Systems Technologies and Data Analysis Automation to Optimize Catch Basin Inspection and Cleaning Statewide

Colin Bergmann, VHB

What Lurks Below: Utilizing Pipeline Condition Assessment Data in an “All Streets” Capital Plan

Jesse Herman, CDM Smith
James Carolan, CDM Smith
Shawn Syde, Town of New Bedford, MA

Managing Water, Wastewater, and Lead with Machine Learning

Jim Fitchett, VODA

Leveraging an Advanced Asset Management Framework to Optimize Investment Decisions

Hugh Sinclair, Arcadis

Session 24

Watershed Management 1: Nutrient Mitigation and Water Quality Restoration

Moderators:

Steven Wolosoff,
CDM Smith
James Plummer, NEIWPC

Implementing a Coastal Water Quality Restoration Program through an Adaptive Management Approach—Falmouth, MA Case Study

Anastasia Rudenko, GHD
Lenna Quackenbush, GHD

Protecting a Great Pond: Watershed Management Strategies to Control Nutrient Pollution

Carly Quinn, Woodard & Curran
Maggie Anderson, Woodard & Curran
Paul Ferland, City of Fall River, MA
Scott Medeiros, Woodard & Curran

Understanding the Role of Human Bacteroides Analysis in IDDE Investigations

Janelle Bonn, Woodard & Curran
Rich Niles, Woodard & Curran

The Culmination of Monitoring and Modeling Healthy Lake Boon Initiative

Fiona Worsfold, Brown and Caldwell

Exhibit Hall Break

3:00–3:30 PM

Wednesday
8:30–11:00 AM

Technical Sessions 25–29

Session 25

Collection Systems 3:
For Those About to
Dig...We Salute You

Moderators:

Scott Lander, Retain-it
Allison Shivers,
Tata and Howard

**A Clean Start for the Beachmont-Sales Creek
Neighborhood of Revere**

Angela Moulton, CDM Smith
John Viotto, CDM Smith
Nick Rystrom, City of Revere, MA

**Cohas Brook Sewer Project (Contracts 3 and 4)—
Applying Construction Lessons Learned to Collection
System Planning and Design**

Robert McCoy, Kleinfelder
Frederick McNeill, City of Manchester, NH
Robert Robinson, City of Manchester, NH

**KISS 108-Year-Old Interceptor Goodbye—Rerouting
Franklin's Oldest and Most Critical Asset, the Beaver
Street Interceptor, out of the Mine Brook**

Amy Anderson George, Arcadis
Doug Martin, Town of Franklin, MA

**Between a Rock and a Hard Place—Expanding Sewer
Service in the Town of Stoughton, MA**

Andrew Grotta, Environmental Partners
Ziad Kary, Environmental Partners

Session 26

Stormwater 3:
Stormwater Tools
and Technology

Moderators:

Cindy Baumann, CDM Smith
Brutus Cantoreggi,
Town of Franklin, MA

**New Technology for Real Time Detection of Illicit
Connections in Storm Drains**

Matthew Davis, Brown and Caldwell
Martha Wells, Brown and Caldwell
Nicholas Federico, City of Newburyport, MA
Stephanie Alimena, Brown and Caldwell

**How Using Biochar-amended Iron-enhanced Sand
Filters Can Reduce the Flow of Bacteria (*E. coli*) and
Phosphorus into Water Bodies.**

Ed Matthiesen, Stantec

**Optimizing Stormwater Treatment by Using the
MassDOT Stormwater Design Guide and Water
Quality Data Form**

Lauren Caputo, VHB
Henry Barbaro, MassDOT

**Best Practices Online Mapping Tools and Lessons
Learned to Improve Your IDDE Program**

Nate Pacheco, VHB

Exhibit Hall Break

9:30–10:00 AM

Wednesday
8:30–11:00 AM

Technical Sessions 25–29

Session 27

Plant Operations 4:
Pushing the Limits of
N & P Removal

Moderators:

Varun Srinivasan,
Brown and Caldwell
Pam Westgate, Kleinfelder

**The Role of an Adequate Anaerobic Mass Fraction
on RAS Hydrolysis/Fermentation for Sustainable
EBPR Process**

Mehran Andalib, Stantec

**Challenges in Upgrading One of the Last Municipal
Powdered Activated Carbon/Wet Air Oxidation
Plants in the U.S to Achieve Low Level Nutrient
Removal**

Frederick Mueller, Tighe & Bond
Paul Moran, Tighe & Bond
Rob Grasis, Town of Vernon, CT

**Ditch Your Nitrate Problems by Optimizing that
Oxidation Ditch!**

John Scheri, Mott MacDonald

**New England's Largest Continuously Backwashing
Sand Filter Helps the Meriden WCPF Achieve Low
Effluent Phosphorus**

Matthew Formica, AECOM
Frank Russo, City of Meriden, CT
Jeffrey Reade, AECOM
Rene Laliberte, City of Meriden, CT
Richard Meskill, City of Meriden, CT

Session 28

Contaminants of
Emerging Concern 2:
CEC Destruction
Technologies and Panel
Discussion

Moderators:

Amy Hunter, AECOM
Christian Pasichny,
University of Massachusetts

**Metal-Organic Frameworks as Platform for the
Efficient Removal of Per- and Polyfluoroalkyl
Substances From Water**

Mario Wriedt, Clarkson University

**Byproduct Formation During Electrooxidation of
PFAS**

Elisabeth Christ, Aclarity

**Some Like It Hot, but PFAS Does Not! Advancing
Thermal Destruction of PFAS in Biosolids**

Natalie Sierra, Brown and Caldwell

WEF's PFAS Roadmap for Water Utilities

Janine Burke-Wells, NEBRA

Exhibit Hall Break

9:30–10:00 AM

Wednesday
8:30–11:00 AM

Technical Sessions 25–29

Session 29 Small Community

Moderator:
Ian Catlow, Tighe & Bond

Comprehensive Wastewater Planning to Address Environmental and Economic Objectives in Littleton, MA

Kara Johnston CDM Smith
Corey Godfrey, Littleton Electric Light & Water
William Lengyel, CDM Smith

Detailed Facility Planning for Impending TN Limits in Hanover

Michael Theriault, Wright-Pierce

Small Town—Big Steps Toward Combating Future Effluent Limits, Population Growth, Environmental Sustainability

Casey Maranto, Wright-Pierce

The Messy Economics of Septage Treatment

Austin Weidner, Tighe & Bond

Wednesday
1:00–3:00 PM

Technical Sessions 30–34

Session 30 Collection Systems 4: Who let the Water Out?

Moderators:
Brendan O'Brien, Stantec
Tom Loto, AECOM

Close Collaboration with BWSC Leads to a Comprehensive Design-ready Product

Denise Prussen, CDM Smith

To CCTV or not CCTV, that is the question

Karen Chan, Wright-Pierce
Kelcy Green, City of St. Petersburg, FL
Peter Killeen, City of St. Petersburg, FL

I/I Study Finds H2S Corrosion to be the Critical Priority—Utilizing Institutional Knowledge to Guide Sewer Investigations and Rehab in Darien, CT

Lindsay McCarthy, Arcadis
Edward Gentile, Town of Darien, CT

Long Term Maintenance Done Right: Inspection, Assessment, and Construction Activities

Steve Perdios, Dewberry
Miles Bateman, Dewberry

Session 31 CSO/WWI 3: CSO Model Approaches for Public Notification and System Optimization

Moderators:
Peter Frick, IDEX
James Drake, CDM Smith

Forecasting Combined Sewer Overflows for Advanced Public Notification Using Data-driven Modeling

Varun Srinivasan, Brown and Caldwell

Building a Practical Digital Twin to Address Public Awareness of Sewage Pollution Legislation

Rajan Ray, Trinnex

Operating a Collection System Like a Stock Exchange to Optimize Operations

Richard Loeffler, Xylem

Application of Mixing Zone Modeling in Facilitating Decision Making for CSO Tunnel Construction Dewatering Pretreatment

Yuan Fang, Stantec

Exhibit Hall Break
9:30–10:00 AM

Wednesday
1:00–3:00 PM

Technical Sessions 30–34

Session 32

**Energy:
Energy Efficiency
and Management**

Moderators:

Tracy Chouinard,
Brown and Caldwell
David Michelsen, SESD

Energy from Wastewater—A Renewable Resource
Jeff Hammer, UHRIG

**Coupling Energy Efficiency with Asset Management
Prioritized Projects**

Sharon Nall, NHDES
Steve Bolles, Process Energy

**Strategic Energy Management is Decarbonization:
Using the SEM Method to Achieve Your Climate
Goals and Build Resiliency**

Peter Wernsdorfer, Cascade Energy

**Don't Forget Your Energy Costs! Comparing and
Reducing Lifecycle Costs for Treatment Facilities**

Lenna Quackenbush, GHD
Sara Greenberg, GHD

Session 33

**Watershed
Management 2:
From Stormwater to
Regulations—Building
Tools to Restore our
Ecosystems**

Moderators:

Sara Greenberg, GHD
Helen Gordon,
Environmental Partners

**Using the New England Retrofit Manual to Support
BMP Selection and Design for MS4 Compliance**
Kelly Siry, VHB

**Using Smart Stormwater Controls to Meet
Stormwater Requirements and Preserve the
Aesthetic Character of Two Historic Ponds in
Harrisburg, PA**

Andrea Braga, Jacobs

**Making Dollars and Cents of Growing Risk:
Showcasing a New Digital Tool to Understand Flood
Risk, Obtain Funding, and Build Resilience**

Heather Sprague, Arcadis

**Long-term Water Quality Monitoring Program to
Evaluate Benefits of Infrastructure Improvements
and Advocate for Science-based Regulations**

Zachary Eichenwald, CDM Smith
Karla Sangrey, Upper Blackstone
Tim Loftus, Upper Blackstone

Wednesday
1:00–3:00 PM

Technical Sessions 30–34

Session 34

Public Awareness

Moderators:

Deborah Mahoney,
Brown & Caldwell
Phil Tucker,
York Sewer District

**Leveraging Partnerships to Create a Stellar Public
Outreach Campaign**

Emily Cole-Prescott, City of Saco, ME
Emily Roy, City of Saco, ME

**Preparing for Effective, Adaptive Risk
Communication about PFAS in Drinking Water, Water
Reclamation, and Residuals**

Sarah Baryluk, CDM Smith

**Open Houses 101—An Invitation to Improving Public
Education, Awareness, and Support**

Bill Patenaude, RIDEM
Janine Burke-Wells, NEBRA
Scott Goodinson, Town of Narragansett, RI

**CSO Public Engagement Toolkit—Engaging a
Diverse and Multi-Generational Urban Community to
Craft an Effective CSO Long Term Control Plan**

John Dening, Mott MacDonald

Student Poster Competition/ Shark Tank Now Accepting Abstracts

Undergraduate and graduate students participating in research or a class project on water pollution control, water quality, hazardous waste, or other environmental engineering topics are invited to submit an abstract for NEWEA's 2023 Student Poster Competition and Shark Tank.

STUDENT POSTER COMPETITION

NEWEA's Student Activities Committee will be hosting a Poster Competition on Monday, January 23 from 9:00 AM – 3:30 PM, with a dedicated time with the presenters. Cash Prizes will be awarded for best graduate and undergraduate posters.

SHARK TANK

Students are also eligible to compete in our Shark Tank event, which is taking place as part of our fifth annual Innovation Pavilion on Tuesday, January 24. Participation in this event will involve a short presentation, followed by allotted time for Q&A from the panel of expert judges.

Submit an abstract online to be considered to participate in the Student Poster Competition or Shark Tank:

<https://annualconference.newea.org/student-activities/student-poster-form>

All submissions are due by December 30, 2022.

Tuesday
8:00 AM–4:15 PM

3rd Floor Atrium



INNOVATION PAVILION PROGRAM SCHEDULE

8:00 AM • Coffee

9:00 – 11:00 AM
Innovators set up &
Workshop—*Practice pitches
with assigned mentors*

11:00 – 12:15 PM
*Clean Water Act 50th
Anniversary—Innovating for
the Next 50 Years*

12:30 – 2:00 PM
Lunch break

2:00 – 3:00 PM
Update on I/A OWTS
Progress—*Where have we
been and where are we
going?*
Speakers: • Bruce Walton,
Chair, I/A OWTS Task Force;
• Brian Baumgaertel,
Director, MASSTC;
• Scott Horsley, Water
Resources Consultant,
Horsley Consulting

3:00 – 3:30 PM
Coffee break

3:30 – 4:15 PM
Student Shark Tank

NEWEA's Innovation Council Innovation Pavilion

NEWEA's Innovation Council is excited to announce the 5th annual Water Innovation Pavilion, taking place during the 2023 NEWEA Annual Conference. NEWEA's Innovation Council brings together people who share a common passion for bringing solutions to market to address challenges and opportunities in water. Members represent all sectors of the water economy including utilities, consultants, private business, regulators, investors and researchers from across the region and with national and international reach. Modeled on the Innovation Pavilion forum at the Water Environment Federation's Annual Conference, the goal of this event is to provide a forum for sharing new ideas, enabling innovators and researchers to get input from people on the front lines of providing clean water, and creating enduring connections between businesses, utilities, regulators, and academics to drive innovation in our region. The close proximity of so many cities, utilities, businesses, and innovators who are passionate about water makes the Northeast unique in the water-cluster ecosystem in the United States.

We are pleased to highlight leading water innovations during our full-day program, which will feature a panel discussion, Shark Tank pitches from students, and exhibits from some of the most promising water innovators in the region. Come visit the Innovation Pavilion to meet with these innovators and learn about their developments.

Thank you to our Water Innovation Partners:
Watts Water & Evoqua Water Technologies

Join us as we hear from the Water Innovators of New England at the Innovation Pavilion on Tuesday, January 24 on the 3rd floor Atrium. The Pavilion will highlight a selection of the most promising water technology businesses while championing an important dialogue about innovation. Come and meet with innovators; learn about their technologies; and listen to discussions on water innovation.

Monday
8:00–8:30 AM

Annual Business Meeting

2023 Officer Nominations

By vote of the Nominating Committee, I submit the following nominations in accordance with Article 9.3.1 of the NEWEA Constitution and Bylaws to the Executive Committee, for approval to place the slate of officers before the membership at the NEWEA Annual Business Meeting on January 23, 2023:

- Vice President – Deborah Mahoney
- WEF Delegate (through WEFTEC 2026) – Virgil Lloyd
- Council Director: Collection Systems and Water Resources – Scott Lander
- Council Director: Innovation – Michael Murphy
- Connecticut Director – Vanessa McPherson
- Massachusetts Director – John DiGiacomo

In accordance with the provisions of Article 9.3.2 of the NEWEA Constitution & Bylaws, these Officers will advance to the following positions:

- President – Robert Fischer
- President-Elect – Scott Goodinson
- Past President – Frederick McNeill
- Treasurer – David VanHoven

The remaining incumbents are fulfilling unexpired terms:

- WEF Delegate – Peter Garvey (through WEFTEC 2023)
- WEF Delegate – Raymond Vermette (through WEFTEC 2024)
- WEF Delegate – Janine Burke-Wells (through WEFTEC 2025)
- Council Director: Communications – TBD fulfilling Deborah Mahoney's term (3rd year)
- Council Director: Meeting Management – Amy Anderson George (2nd year)
- Council Director: Outreach – Colin O'Brien (3rd year)
- Council Director: Treatment System Operations & Management – Marina Fernandes (2nd year)
- Rhode Island Director – Edward Davies (3rd year)
- Maine Director – Paula Drouin (2nd year)
- Vermont Director – Michael Smith (3rd year)
- New Hampshire Director – Michael Trainque (2nd Year)

Respectfully Submitted by
the NEWEA Nominating
Committee:
Ray Vermette, Chair
Jennifer Kelly Lachmayr
Virgil Lloyd
Paula Drouin
Mike Smith

All nominees have
indicated their
willingness to serve.

SUNDAY
8:00 AM–5:00 PM

Young Professionals Summit

The Young Professionals Committee is excited to announce the return of the annual YP Summit.* The YP Summit brings together Young Professionals in the water and wastewater industry to learn from industry leaders and network with peers from across New England. This year's program will focus on 50 Years of the Clean Water Act.

The Committee has drafted an engaging program of panels, presentations, and networking sessions to help young professionals strengthen their leadership and technical skills and advance their water industry careers. This year's program will be kicked off by NEWEA's Young Professionals Chair, Daryl Coppola, followed by a session on "How to Network", which includes a speed networking session. Newt Tedder, EPA will give the keynote presentation on "50 Years of Clean Water Act", an overview of the act, where it stands today and its future. After lunch, a panel of professionals with different levels of working experience and backgrounds will discuss their career paths and share advice with attendees on navigating their own careers. The Meme Contest, an attendee favorite from our 2021 program, will allow attendees a chance to submit memes and vote on their favorite. The Summit will wrap up with introductions and discussion of three water and wastewater treatment plants.

Following the completion of the program, attendees are invited to enjoy a reception, which will be attended by experienced water industry professionals and members of NEWEA and NEWWA's Executive Committees.

NOTE: This event requires separate registration from the Annual Conference. Morning coffee/pastries and Lunch are included in registration.

*This event is intended for professionals who have less than five years of experience in the industry and are younger than 35 years old

The YP Summit Meme Contest is back! The YP Committee invites attendees to create and submit water-related memes to participate in this contest. All submissions will be shared on the overhead screen during the event and attendees will vote on their favorite. Send your memes to EMAIL: jplummer@neiwppcc.org

Hotel Information

Check-out time is Noon
Guest rooms will be available after 4:00 PM.
All rooms subject to 16.45% tax (subject to change).

Reservations must be made before **Wednesday, December 28** to ensure availability of accommodations and the special group rate.

Hotel and Room Reservation Information

Boston Marriott Copley Place Hotel
110 Huntington Avenue, Boston, MA 02116
617-236-5800

Rates: SINGLE--\$214, DOUBLE--\$234

For Reservations, call the Marriott at 617-236-5800 or 1-877-901-2079 (worldwide reservations). Please refer to the New England Water Environment Association to receive the group rate.

Reservations may also be made online at:
<https://book.passkey.com/event/50345328/owner/249/home>

Registration Deadline is Wednesday, December 28.



Presenters

PRESENTER	AFFILIATION	SESSION NO.
Ben Agrawal	Hazen and Sawyer	2
Stephanie Alimena	Brown and Caldwell	2, 26
Mehran Andalib	Stantec	15, 17, 27
Maggie Anderson	Woodard & Curran	24
Amy Anderson George	Arcadis	25
Sara Arabi	Stantec	17
Henry Barbaro	MassDOT	26
Sarah Baryluk	CDM Smith	34
Miles Bateman	Dewberry	30
Alyssa Beck	Town of Greenwich, CT	15
Julia Beni	Woodard & Curran	11, 21
Colin Bergmann	VHB	23
Brandon Blanchard	Pare Corporation	10
Steve Bolles	Process Energy	32
Janelle Bonn	Woodard & Curran	24
Jeff Bowers	The MDC	9
Andrea Braga	Jacobs	33
Brian Brown	CDM Smith	3
Janine Burke-Wells	NEBRA	28, 34
Paul Calamitta	AquaLaw	6
Lauren Caputo	VHB	26
Michael Carle	Town of Hampton, NH	9
Emily Carlson	Arcadis	20
James Carolan	CDM Smith	23
Erika Casarano	AECOM	10
Karen Chan	Wright-Pierce	30
Elisabeth Christ	Aclarity	28
Emily Cole-Prescott	City of Saco, ME	34
Kevin Crane	Kubota	4
Zachary Cronin	City of Portsmouth, NH	8
Chris Curran	AECOM	22
Matthew Davis	Brown and Caldwell	2, 26
John Dening	Mott MacDonald	34
Sam Downes	Town of Brookline, MA	2
Leigh-Ann Dudley	Dewberry	12
Chris Dwinal	Wright-Pierce	5
Zachary Eichenwald	CDM Smith	33
Yuan Fang	Stantec	31
Nicholas Federico	City of Newburyport, MA	26
Christopher Feeney	Stantec	10
Richard Feminella	Town of Greenwich, CT	15
Paul Ferland	City of Fall River, MA	24

PRESENTER	AFFILIATION	SESSION NO.
Jim Fitchett.....	VODA.....	23
Ryan Flood.....	Water Analytics.....	1
Matthew Formica.....	AECOM.....	27
Krista Forti.....	Woodard & Curran.....	5
Jerry Friedman.....	City of Cambridge, MA.....	2
Jean Gagnon.....	Veolia.....	18
Edward Gentile.....	Town of Darien, CT.....	30
Peter Georgetti.....	Narragansett Bay Commission.....	10
Rachel Gilbert.....	Woodard & Curran.....	11
Corey Godfrey.....	Littleton Electric Light & Water.....	29
Scott Goodinson.....	Town of Narragansett, RI.....	34
Charles Goss.....	AECOM.....	5
Kate Goyette.....	Kleinfelder.....	2
Rob Grasis.....	Town of Vernon, CT.....	27
Kelcy Green.....	City of St. Petersburg, FL.....	30
Sara Greenberg.....	GHD.....	14, 32
Andrew Grota.....	Environmental Partners.....	3, 25
Sue Guswa.....	Woodard & Curran.....	21
Rosa Gwinn.....	AECOM.....	12
Jeremy Hall.....	MWRA.....	10
Jeffrey Hammer.....	UHRIG.....	32
Doug Hankins.....	Wright-Pierce.....	9
Michael Hanley.....	Dewberry.....	20
Greg Heath.....	AECOM.....	10
Jesse Herman.....	CDM Smith.....	23
Brian Hilts.....	CDM Smith.....	9
Nicole Holmes.....	Nitsch.....	20
Matthew Hross.....	Hazen and Sawyer.....	9
Ko Ishikura.....	Green International.....	11
Jonnas Jacques.....	Kleinfelder.....	8
Charlie Jewell.....	BWSC.....	2
Kara Johnston.....	CDM Smith.....	29
Katie Jones.....	Dewberry.....	12
Udayarka Karra.....	Arcadis.....	11
Ziad Kary.....	Environmental Partners.....	3, 25
Kathryn Kelly.....	Narragansett Bay Commission.....	10, 16
Kelsey Kern.....	Nitsch.....	20
Peter Killeen.....	City of St. Petersburg, FL.....	30
Yong Kim.....	UGSI.....	17
Stephen King.....	Hazen and Sawyer.....	6
Stephen King.....	Town of Danvers, MA.....	8, 11
Brian Kuchar.....	Horsley Witten.....	10
Rene Laliberte.....	City of Meriden, CT.....	27
Charles Larson.....	Town of Nantucket, MA.....	22
Jason Lavoie.....	Kleinfelder.....	16
Jennifer Lawrence.....	CDM Smith.....	15

PRESENTER	AFFILIATION	SESSION NO.
William Lengyel.....	CDM Smith.....	29
Richard Loeffler.....	Xylem.....	31
Tim Loftus.....	Upper Blackstone.....	33
Jeanna Long.....	Woodard & Curran.....	21
Thomas Loto.....	AECOM.....	16
Casey Maranto.....	Wright-Pierce.....	29
Dayton Marchese.....	Opti RTC.....	2
Doug Martin.....	Town of Franklin, MA.....	25
Ed Matthiesen.....	Stantec.....	26
Lindsay McCarthy.....	Arcadis.....	30
William McConnell.....	CDM Smith.....	15
Robert McCoy.....	Kleinfelder.....	25
Scott McGlynn.....	City of Rochester, NH.....	30
Brian McGuire.....	Arcadis.....	9
Philip McHenry.....	Wright-Pierce.....	9
Frederick McNeill.....	City of Manchester, NH.....	25
Scott Medeiros.....	Woodard & Curran.....	24
Jeff Mercer.....	Wright-Pierce.....	18
Erik Meserve.....	AECOM.....	8
Richard Meskill.....	City of Meriden, CT.....	27
Baxter Miatke.....	Arcadis.....	1
David Michelsen.....	SESD.....	8
Kate Mignone.....	AECOM.....	16
Andrew Miller.....	CDM Smith.....	22
Paul Millett.....	Environmental Partners.....	14
Eliza Moore.....	Narragansett Bay Commission.....	10
Paul Moran.....	Tighe & Bond.....	27
Larry Morris.....	Kubota.....	4
Eliza Morrison.....	NHDES.....	3
Ben Mosher.....	CDM Smith.....	17
Angela Moulton.....	CDM Smith.....	25
Amy Mueller.....	Northeastern University.....	21
Frederick Mueller.....	Tighe & Bond.....	27
Sharon Nall.....	NHDES.....	32
William Nezgod.....	SUEZ.....	4
Rich Niles.....	Woodard & Curran.....	24
Mickey Nowak.....	MAWEA.....	17
Gus O'Leary.....	Kleinfelder.....	16
Frank Occhipinti.....	Weston & Sampson.....	10
Annalisa Onnis-Hayden.....	Northeastern University.....	11
Erik Osborn.....	Woodard & Curran.....	16, 21
Nate Pacheco.....	VHB.....	26
Emma Page.....	BWSC.....	20
Julianne Page.....	Woodard & Curran.....	5
Bill Patenaude.....	RIDEM.....	34
Michael Paulin.....	Weston & Sampson.....	14

PRESENTER	AFFILIATION	SESSION NO.
Travis Peaslee	LAWPCA	16
Philip Pedros	Mott MacDonald	5
Steve Perdios	Dewberry	30
Andrew Perham	The MDC	16
Dave Peterson	Kleinfelder	8
Raymond Pettit	Northeastern University	21
David Polcari	CDM Smith	8
Robert Pontau	Town of Brunswick, ME	5
Richard Pope	Hazen and Sawyer	8
Denise Prussen	CDM Smith	30
Lenna Quackenbush	GHD	24, 32
Carly Quinn	Woodard & Curran	24
Cole Radke	University of Massachusetts	22
Rajan Ray	Trinnex	31
Jeffrey Reade	AECOM	27
Robert Robinson	City of Manchester, NH	25
Robert Roland	Weston & Sampson	1
Emily Roy	City of Saco, ME	34
Anastasia Rudenko	GHD	14, 24
Frank Russo	City of Meriden, CT	27
Paul Ruzala	Town of Barnstable, MA	14
Nick Rystrom	City of Revere, MA	25
Stephanie Salerno	Wright-Pierce	14
Karla Sangrey	Upper Blackstone	33
Robert Santamaria	Town of Nantucket, MA	22
John Scheri	Mott MacDonald	27
Rob Schultz	City of Newport, RI	8
Jay Sheehan	Woodard & Curran	21
James Sherrard	City of Burlington, VT	2
Natalie Sierra	Brown and Caldwell	28
Isabella Silverman	CDM Smith	15
Christian Simonelli	Boston Groundwater	12
Adam Simonsen	Aquarion	6
Scott Simpson	Brown and Caldwell	12
Hugh Sinclair	Arcadis	23
Kelly Siry	VHB	33
Josh Soper	CDM Smith	22
Eric Spargimino	CDM Smith	22
Heather Sprague	Arcadis	33
Varun Srinivasan	Brown and Caldwell	15, 21, 31
Bruce Stevens	SUEZ	4
Jasmine Strout	Green International	11
James Sullivan	AECOM	16
John Sullivan	BWSC	2
Mike Sullivan	Carlsen Systems	4
Shawn Syde	Town of New Bedford, MA	23

PRESENTER	AFFILIATION	SESSION NO.
Timothy Taber	Barton & Loguidice	3
Joe Tardio	Aqua-Aerobic	4
Michael Theriault	Wright-Pierce	29
Kevin Trainor	Woodard & Curran	16
Phil Tucker	York Sewer District	6
Theresa Tucker	York Sewer District	6
Ramola Vaidya	HDR	4
David VanHoven	Stantec	2
Ray Vermette	City of Dover, NH	18
Karri Ving	Brown and Caldwell	1
John Viotto	CDM Smith	25
Don Walker	AECOM	10
Mike Walsh	CDM Smith	17
Jason Waterbury	The MDC	3
Elizabeth Watson Keddy	Hazen and Sawyer	18
Austin Weidner	Tighe & Bond	29
Martha Wells	Brown and Caldwell	26
Peter Werndorfer	Cascade Energy	32
Charles Wilson	Hazen and Sawyer	2
Michael Wilson	SESD	8
Jenn Wood	Tidal Vision	18
Fiona Worsfold	Brown and Caldwell	24
Mario Wriedt	Clarkson University	28
Allison Zeoli	Arcadis	11

Moderators

SESSION	MODERATOR	AFFILIATION
1	Jaimie Payne	BETA Group
1	Victoria Helle	NEIWPC
2	Eric Kelly	Environmental Partners
2	Maria Rose	City of Brookline, MA
3	Matt Manchisi	Kimley Horn
3	Eliza Stycznski	NHDES
4	Nick Ellis	Hazen and Sawyer
4	Meredith Zona	Stantec
5	Janine Burke-Wells	NEBRA
5	Eric Spargimino	CDM Smith
6	Art Simonian	The Mattabassett District
6	Karla Sangrey	Upper Blackstone
7	Scott Firmin	Portland Water District
7	Jeff McBurnie	Casella Resource Solutions
8	Jim Barsanti	Hazen and Sawyer
8	Kara Johnston	CDM Smith
9	Adam Higgins	Wright-Pierce
9	Patty Chesebrough	NEIWPC
10	Jason Kreil	Woodard & Curran
10	Steve Perdios	Dewberry
11	Stephen King	Town of Danvers, MA
11	Marina Fernandes	Town of Milton, MA
12	Matt Dickson	Haley Ward
12	Sarah White	UniFirst
13	Justin Motta	Stantec
14	Peter Garvey	Dewberry
14	John DiGiacomo	Town of Natick, MA
15	Claudia Buchard	Woodard & Curran
15	Nick Tooker	University of Massachusetts
16	Lin Liang	Stantec
16	Mike Armes	IDEX
17	Justin Motta	Stantec
17	Mike Theriault	Wright-Pierce
18	Wayne Bates	Tighe & Bond
18	Miles Moffatt	Tighe & Bond
19	Scott Firmin	Portland Water District
19	Jeff McBurnie	Casella Resource Solutions
20	Natalie Pommersheim	Environmental Partners
20	Joe Keitner	City of Westfield, MA
21	Emily Korot	Hazen & Sawyer

SESSION	MODERATOR	AFFILIATION
21	John Adie	NHDES
22	Rachel Schnabel	Barton & Loguidice
22	Lohita Rajesh	University of Massachusetts
23	Dan Capano	Gannett Fleming
23	Georgine Grissop	CDM Smith
24	Steven Wolosoff	CDM Smith
24	James Plummer	NEIWPC
25	Scott Lander	Retain-It
25	Allison Shivers	Tata and Howard
26	Cindy Baumann	CDM Smith
26	Brutus Cantoreggi	Town of Franklin, MA
27	Varun Srinivasan	Brown & Caldwell
27	Pam Westgate	Kleinfelder
28	Amy Hunter	AECOM
28	Christian Pasichny	University of Massachusetts
29	Ian Catlow	Tighe & Bond
30	Brendan O'Brien	Stantec
30	Tom Loto	AECOM
31	Peter Frick	IDEX
31	James Drake	CDM Smith
32	Tracy Chouinard	Brown and Caldwell
32	David Michelsen	SESD
33	Sara Greenberg	GHD
33	Helen Gordon	Environmental Partners
34	Deborah Mahoney	Brown & Caldwell
34	Phil Tucker	York Sewer District

Exhibitors

ABBA Pump Parts and Service	Chadwick-BaRoss
ADS L.L.C.	Champlin Associates, Inc.
Aegion-Underground Solutions, Inc	Coyne Chemical Environmental Services
APTIM	Cretex Specialty Products
AQUA SOLUTIONS, INC.	CSI Controls
Aquametrix by Water Analytics	CUES, Inc.
AquaPoint	Denali Water Solutions, LLC
Asahi/America, Inc.	DN Tanks
Atlantic Fluid Technology Inc.	Duke's Root Control, Inc.
BAU/Hopkins - Andritz Separation & Aqualitec`	Environmental Operating Solutions, Inc. (EOSI)
BAU/Hopkins - Denora/Saf-T-Flo	EST Associates
BAU/Hopkins - Hach Flow Group/RACO/ Pribusin	F.R. Mahony & Associates
BAU/Hopkins - JWB Company	Ferguson Waterworks
BAU/Hopkins - Motor Protection Electronics/MPE & Optifloat/Cox Research & Electroscan	Flow Assessment Services
BAU/Hopkins - Nivelco/Autrol America/ Toshiba Magnetic Flowmeters	Flow Tech, Inc.
BAU/Hopkins - UGSI	FlowWorks
BAU/Hopkins, Glasco UV, & Griffco	Franzenburg Centrifuges
BioChem Technology, Inc.	GA Fleet - Fleet Pump&Service
BMC CORP	GeoTree Solutions
Boyson and Associates, Inc.	Green Mountain Pipeline Services
Brown and Caldwell	Hach
C.N. Wood Co., Inc.	Hazen and Sawyer
Carl Lueders & Company	Hobas Pipe USA
Carlsen Systems, LLC	Holland Company
Casella Organics	ILC Dover
	Industrial Flow Solutions

Exhibitors

Infiltrator Water Technologies	Scavin Equipment Company LLC
J&R Sales and Service, Inc.	Sealing Systems, Inc.
Kemira Water Solutions	SNF Polydyne
LandTech Consultants, Inc.	SPRAYROQ, INC
Maltz Sales Company	Stacey DePasquale Engineering, Inc.
Mass Tank Inspection Services	StormTank
Mechanical Solutions inc	SULLIVAN ASSOCIATES/ RITEC ENVIRONMENTAL
Meridian Associates, Inc.	Synagro Northeast, LLC
National Filter Media	Technology Sales
National Water Main Cleaning Co.	The Hayes Group/Hayes Pump/ Walker Wellington/Atlantic Pump & Engineering
New England Environmental Equipment, Inc.	The MAHER Corporation
NORESCO	Truax Corporation
Oakson	Trumbull Manufacturing
Omya Inc.	United Concrete - Building Group
Orenco Systems	United Industrial Products
POND Technical	USABlueBook
Primex Controls	VEGA Americas
Pump Systems Inc	Veolia
R.H White Construction Co., Inc./ WhiteWater	VIR Proteus
Rain for Rent	Walker Wellington LLC
RCAP Solutions, Inc.	Wescor Associates, Inc.
REA Resource Recovery Systems	Westlake Pipe & Fittings
Righter Group, Inc. / Tnemec	Williamson Electrical Co., Inc.
Russell Resources, Inc.	Xylem Dewatering Solutions
Savy & Sons	Xylem Water Solutions - Flygt Pumps

as of 11/4/22

2023 Annual Conference & Exhibit Health and Safety Guidelines

NEWEA's main priority is the health and safety of our attendees, exhibitors, volunteers, and staff. NEWEA will adhere to all official government and local authority guidance, as well as any venue or location-specific regulations. We will continue to monitor the evolving situation related to COVID-19 and all other epidemics, pandemics, and other public health situations and will update our strategy and guidelines below as needed.

As of September 22, 2022, the following guidelines should be followed at all NEWEA conferences and events:

1. All conference/event participants must sign the Attendee Terms and Conditions during registration.
2. Masks are optional. NEWEA will continue to monitor [COVID-19 Community Levels](#) to determine appropriate masking guidelines. NEWEA will also adhere to any masking mandates that are put in place by the venue and/or local, state, and/or federal government.
3. NEWEA recommends staying up-to-date with vaccinations and following [CDC Guidelines](#) for minimizing the spread of illness.
4. Individuals who test positive for COVID-19 within 10 days of a conference/event and/or who are experiencing any cold/flu-like symptoms including but not limited to cough, fever, and/or sore throat should not attend.

Despite the protocols above, there is still an inherent risk of exposure to COVID-19 in any public place where people are present. Should you fail to observe any of these protocols, NEWEA may remove you from the Event without refund. By voluntarily choosing to attend NEWEA's conferences and events, participants assume all risks associated with exposure to COVID-19.

NEWEA will continue to update these guidelines as needed. Please contact the NEWEA Office with any questions.

HEALTH GUIDELINES AND INFORMATION

COVID-19 Community Levels

<https://www.cdc.gov/coronavirus/2019-ncov/your-health/covid-by-county.html>

CDC guidelines

<https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html>



ATTENDEE REGISTRATION

BEST RATE DEADLINE: FRIDAY, JANUARY 6, 2023

1. BADGE INFORMATION

Last Name: _____ First Name: _____ Nickname: _____

Company: _____ Email: _____

Address: _____ City: _____ State: _____ Zip: _____

2. WHAT IS YOUR PRIMARY JOB FUNCTION? (check one)

- | | |
|---|--|
| <input type="checkbox"/> Communications/Public Relations | <input type="checkbox"/> Public Officials/Regulators |
| <input type="checkbox"/> Educators/Students | <input type="checkbox"/> Purchasing/Marketing Sales |
| <input type="checkbox"/> Engineering/Laboratory/Operations Management | <input type="checkbox"/> Scientist/Researcher |
| | <input type="checkbox"/> Other |

3. MEMBERSHIP TYPE

NEWEA/WEF Member ID # _____ Non Member

*NOTE Membership will be verified and is not transferable.

4. CONFERENCE REGISTRATION/PRICING	BEST RATE		STANDARD RATE	
	before January 6		after January 6	
Full Conference Registration (select one below)	Member	Non Member	Member	Non Member
<input type="checkbox"/> Full Conference	\$490	\$665*	\$585	\$760*
<input type="checkbox"/> Academic/PWO/Young Professional	\$345	n/a	\$440	n/a
<input type="checkbox"/> NEWEA Regulatory Agency	\$90	\$140**	\$120	\$170**
<input type="checkbox"/> WEF Retired/Life or Student (w/ID)	\$0	\$0	\$0	\$0
One-Day Registration (select day you will attend)	Member	Non Member	Member	Non Member
<input type="checkbox"/> Single Day Attendee <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed	\$275	\$340	\$325	\$460
<input type="checkbox"/> Academic/PWO/Young Professional <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed	\$185	n/a	\$235	n/a
<input type="checkbox"/> NEWEA Regulatory Agency <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed	\$30	\$80**	\$40	\$90**
<input type="checkbox"/> WEF Retired/Life or Student (w/ID) <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed	\$0	\$0	\$0	\$0
<input type="checkbox"/> Public Agency - Exhibit Hall Only <input type="checkbox"/> Mon <input type="checkbox"/> Tues <input type="checkbox"/> Wed	\$25	\$25	\$25	\$25

Speaker Check if you are speaking. Speakers receive a \$40 discount on registration fees (regulatory speakers are not eligible)

*Includes one-year NEWEA/WEF membership.

**Includes one-year NEWEA only membership. Must be employed at a Regulatory Agency: USEPA; CT DEEP; ME DEP; MA DEP; NH DES; RI DEM; VT DEC

5. SPECIAL EVENT TICKETS	BEST RATE	STANDARD RATE
Young Professional Summit - Sunday, January 22; 8AM-5PM	\$100	\$145
Workshop: Future of the Water Workforce - Monday, January 23; <input type="checkbox"/> Yes, I'll Attend		
Awards Luncheon & Ceremony - Wednesday, January 25, 2023 _____@	\$65	\$85

6. REGISTRATION INFORMATION

TOTAL REGISTRATION FEE: \$ _____

[REGISTER ONLINE >>](#)

BEST RATE DEADLINE: FRIDAY, JANUARY 6, 2023

COVID Guidelines: NEWEA will monitor the situation to provide the safest possible event experience.

QUESTIONS? Call the NEWEA office at 781-939-0908 or contact us at mail@newea.org.

CANCELLATIONS Must be submitted in WRITING by Friday, January 6, 2023. A 25% service fee will apply to all cancellations received before January 6; no refunds will be made on registration fees or special events after Friday, January 6. Due to Association agreements and guarantees, no refunds will be made on registration fees or special event tickets after Friday, January 6. Registration fees are forfeited if you are not able to attend the Conference.

New England Water Environment Association - Annual Conference & Exhibit
January 22–25, 2023 | Boston Marriott Copley Place Hotel



REGISTRATION INFORMATION

ONLINE: www.annualconference.newea.org
EMAIL: mail@newea.org **PHONE:** 781-939-0908
MAIL: NEWEA, 10 Tower Office Pk Suite 601
 Woburn, MA 01801 **FAX:** 781-939-0907
 Make checks payable to NEWEA

PWO: Professional Wastewater Operator (PWO); you must be a NEWEA/WEF PWO Member AND work on a day-to-day basis in a treatment plant, and are responsible for the operation of wastewater collection, treatment and/or laboratory.

LIFE/RETIRED: To qualify, requires a life or retired membership in NEWEA/WEF.

REGULATORY AGENCY: To qualify, you must have a NEWEA regulatory membership and be employed by either USEPA, CT DEEP, ME DEP, MA DEP, NH DES, RI DEM, or VT DEC.

PUBLIC AGENCY: To qualify, you must be employed by a federal, state or municipal agency (i.e. USEPA, MassDEP, etc.). Includes entrance only to Exhibit Hall Only & Opening Session. Not eligible for TCH credits.

CANCELLATIONS: Must be submitted in WRITING by Friday, January 6, 2023. A 25% service fee will apply to all cancellations received before January 6; no refunds will be made on registration fees or special events after Friday, January 6. Due to Association agreements and guarantees, fees are forfeited if you are not able to attend the Conference.

CONFIRMATIONS: Confirmations of receipt of registrations will be emailed prior to the conference.

TAX DEDUCTION: Treasury regulation 1.162-5 permits an income tax deduction for educational expenses (registration fee, cost of travel, meals and lodging) undertaken to maintain or improve skills required

IMPORTANT INFORMATION

BEST RATE DEADLINE: Friday, January 6, 2023.
 Registrations postmarked after Friday, January 6, 2023 will automatically be charged the onsite registration rate.

MEMBERSHIP STATUS: NEWEA Membership must be current or the non-member rate will automatically be charged. Contact NEWEA at mail@newea.org to verify membership, renew/JOIN!
 Membership is NOT transferrable.

CONFERENCE EVENTS

Sunday, January 22, 2023
 8:00 AM–5:00 PM YP Summit - 4th Floor

Monday, January 23, 2023
 10:30 AM–6:30 PM Exhibits - 3rd and 4th Floor
 8:30 AM–10:30 AM Technical Sessions 1–6
 11:00 AM–12:00 PM Opening Session
 2:00–4:30 PM Technical Sessions 7–12
 4:30–6:30 PM Welcome Reception (3rd fl)

Tuesday, January 24, 2023
 8:00 AM–6:30 PM Exhibits - 3rd and 4th floor
 8:00 AM–4:00 PM Innovation Pavillion
 8:30–11:00 AM Technical Sessions 13–18
 11:00 AM–12:15 PM Tuesday Keynote Session
 2:00–4:30 PM Technical Sessions 19–24
 4:30–6:30 PM Meet/Greet Reception (4th fl)

Wednesday, January 25, 2023
 8:00 AM–1:00 PM Exhibits - 3rd and 4th floor
 8:30–11:00 AM Technical Sessions 25-29
 11:00-1:00PM Awards Luncheon Ceremony
 1:00-3:00 PM Technical Sessions 30-34

IMPORTANT: The safety and welfare of attendees are a priority. All NEWEA is requiring all event participants to read and sign an risk and waiver of liability release. Masks are optional. NEWEA recommends staying-up-to-date with vaccinations. Individuals who test positive five (5) days prior to NEWEA's Annual Conference, should not attend. Visit https://www.newea.org/events/health_safety/ for more information.

HOTEL INFORMATION

Boston Marriott Copley Place
 110 Huntington Avenue, Boston, MA 02116

Accommodation Rate: \$214++ (single)
Group Rate Deadline: Friday, December 28, 2022.
 Reserve Online: <https://book.passkey.com/event/50345328/owner/249/home> or Call the Marriott at 617-236-5800 or toll free at 888-236-2427. Group rates are subject to date and space availability

WHAT'S INCLUDED IN YOUR REGISTRATION?	Technical Session	Exhibit Hall	Monday Reception	Tuesday Reception	Wednesday Exhibit Brunch	Wednesday Award Lunch*
Full Conference	✓	✓	✓	✓	✓	
One Day	✓	✓	✓	✓	✓	
Life/Retired Members & Students	✓	✓	✓	✓	✓	
Public Agency		✓				

*additional tickets may be purchased separately.

ONE DAY REGISTRANTS: Monday, Tuesday Reception and Wednesday Brunch are limited to the day you are registered for.