New England Water Works Association
a Section of the American Water Works Association

138TH ANNUAL CONFERENCE

September 22 - 25, 2019
Samoset Resort
Rockport, Maine
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## EDITORS
- Peter C. Karalekas, Jr., P.E., Journal Editor
- Charles D. Larson, Assistant Journal Editor
- Michael R. Schock, Assistant Journal Editor
- George R. Allan, The Source Editor
- Kirsten King, Currents Editor

## NEWWA STAFF
- Kirsten King, Executive Director
- Pam Amalfi, Accounting Manager
- Don Bunker, Deputy Executive Director
- Nelson Cabral, Backflow Program Coordinator & Trainer
- Jacqui Campana, Publications Coordinator
- Lisa Franks, Materials Preparation Assistant
- Jeanne Gilpin, Registrar
- Claire O’Dell, Accounting Clerk
- Mary Quigley, Membership & Volunteer Coordinator
- Paul Riendeau, Instructor/Education Program Coordinator
- Linda Smith, Facility & Office Manager
- Katelyn Todesco, Events & Marketing Specialist

## 2018-2019 BOARD OF DIRECTORS
- David G. Miller, P.E., President
- Barbara K. Cook, P.E., President-Elect
- Lisa H. Gove, P.E., BCEE, Vice President
- Gregory M. Leighton, Treasurer
- Michael Pelletier, P.E., BCEE, Assistant Treasurer
- Nathan H. Little, P.E., Director-at-Large
- Erica Lotz, P.E., ENV SP, Director-at-Large
- David E. Putnam, Director-at-Large
- Frederick W. Rogers, Connecticut Director
- Stephen C. Olson, P.E., Massachusetts Director
- Thomas D. LeCourt, P.E., New Hampshire Director
- James L. DeCelles, P.E., Rhode Island Director
- Michael G. Barsotti, Vermont Director

## 2018-2019 CONFERENCE COMMITTEES
- Nominating Committee
  - Christopher C. Hodgson, Chair
  - Barbara K. Cook
  - James L. DeCelles
  - Craig W. Douglas

- Program Committee
  - Kevin M. Flood, Chair
  - Christina L. Jones, Vice Chair
  - Lindell D. Willnow, Secretary
  - Kristen M. Berger
  - Savas C. Danos
  - Paul O. Gardner
  - Carolyn C. Giampe
  - Karen L. Gracey
  - Michael M. Greeley
  - Chris Grillo
  - Carol A. Harris
  - Ron H. Hidu
  - Christopher C. Hodgson
  - Robert Little

- Innovations Committee
  - Demetrios G. Vidalis, Chair
  - Scott Fitzgerald
  - Jeremy Golec

- Sponsor Services Committee
  - Tom Garrity, Chair
  - Mark Q. Anderson
  - Don Bunker (non-voting)
  - Barbara K. Cook
  - Savas C. Danos
  - Scott Fitzgerald
  - Christopher C. Hodgson
  - Jeff S. Houser
  - Kirsten King (non-voting)

## NEWWA 2018-2019 Committee Chairs
- Brett Johnson
- David E. Putnam
- Dave Robinson
- Brad Whitaker

## Forms and Information
- Guest and Social Programs
- 10th Annual “New England’s Best” Drinking Water Taste Test Rules and Entry Form
- 13th Annual Aging Infrastructure Contest Rules and Entry Form — NEW for 2019: NEWWA Aqueduct Competition

## 2018-2019 Conference Committees
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  - Savas C. Danos
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  - Kirsten King (non-voting)
# ANNUAL CONFERENCE SCHEDULE OF EVENTS

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 AM - 11:00 AM</td>
<td>NEWWA Board of Directors Meeting</td>
<td>Penobscot Bay Room</td>
</tr>
<tr>
<td>11:00 AM - 12:00 PM</td>
<td>NEWWA Annual Business Meeting</td>
<td>Penobscot Bay Room</td>
</tr>
<tr>
<td>1:30 PM - 4:45 PM</td>
<td>9-Hole Mixed Scramble Fun Golf Tournament</td>
<td>Meet at Samoset Golf Clubhouse</td>
</tr>
<tr>
<td>6:00 PM - 7:00 PM</td>
<td>Under the Sea Meet &amp; Greet Reception</td>
<td>Poolside</td>
</tr>
<tr>
<td>7:00 PM - 9:00 PM</td>
<td>Meet &amp; Greet New Englander Buffet</td>
<td>Poolside</td>
</tr>
<tr>
<td>7:00 AM</td>
<td>Informal Bike Ride</td>
<td>Meet Outside Hotel Lobby</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>25th Annual Fun Run/Walk</td>
<td>Meet in Hotel Lobby</td>
</tr>
<tr>
<td>9:00 AM - 12:00 PM</td>
<td>Opening General Session</td>
<td>Rockport &amp; Camden Rooms</td>
</tr>
<tr>
<td>9:15 AM - 12:30 PM</td>
<td>Schooner Olad Boat Tour</td>
<td>Meet in Hotel Lobby</td>
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<tr>
<td>12:00 PM - 5:00 PM</td>
<td>NEWWA Water For People Silent Auction</td>
<td>Schooner Room</td>
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<tr>
<td>12:00 PM - 2:00 PM</td>
<td>Regional Water Works Association Officers Meeting (by invitation)</td>
<td>Penobscot Bay Room</td>
</tr>
<tr>
<td>1:20 PM - 4:00 PM</td>
<td>Technical Session A — Water Resources</td>
<td>Rockport Room</td>
</tr>
<tr>
<td>1:20 PM - 4:00 PM</td>
<td>Technical Session B — Distribution</td>
<td>Camden Room</td>
</tr>
<tr>
<td>5:45 PM - 7:30 PM</td>
<td>Reception sponsored by DN Tanks and Everett J. Prescott, Inc.</td>
<td>Pen Bay Gardens</td>
</tr>
<tr>
<td>7:00 AM</td>
<td>Informal Bike Ride</td>
<td>Meet Outside Hotel Lobby</td>
</tr>
<tr>
<td>7:30 AM</td>
<td>Past Officer Breakfast</td>
<td>Penobscot Bay Room</td>
</tr>
<tr>
<td>8:00 AM - 3:00 PM</td>
<td>NEWWA Water For People Silent Auction (last bids open 5:45 PM — Bay Point Ballroom)</td>
<td>Schooner Room</td>
</tr>
<tr>
<td>8:00 AM - 2:00 PM</td>
<td>Exhibitor Displays</td>
<td>Vinalhaven Room</td>
</tr>
<tr>
<td>8:30 AM - 11:10 AM</td>
<td>Technical Session C — Asset Management/GIS</td>
<td>Rockport Room</td>
</tr>
<tr>
<td>8:30 AM - 11:10 AM</td>
<td>Technical Session D — Water Treatment</td>
<td>Camden Room</td>
</tr>
<tr>
<td>9:30 AM - 10:30 AM</td>
<td>Oceanview Yoga</td>
<td>Meet in Hotel Lobby</td>
</tr>
<tr>
<td>12:00 PM - 1:30 PM</td>
<td>Complimentary Lunch</td>
<td>Vinalhaven Room</td>
</tr>
<tr>
<td>12:00 PM - 1:30 PM</td>
<td>13th Annual Aging Infrastructure Contest &amp; 10th Annual “New England’s Best” Drinking Water Taste Test</td>
<td>Vinalhaven Room</td>
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<tr>
<td>1:30 PM - 4:00 PM</td>
<td>Savage Oaks Vineyard Tour</td>
<td>Meet in Hotel Lobby</td>
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<tr>
<td>1:50 PM - 4:30 PM</td>
<td>Session E — Management/Finance</td>
<td>Rockport Room</td>
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<tr>
<td>1:50 PM - 4:30 PM</td>
<td>Session F — Potpourri</td>
<td>Camden Room</td>
</tr>
<tr>
<td>5:45 PM - 7:00 PM</td>
<td>Reception sponsored by Core &amp; Main, R.H. White Construction Co., Inc., and Xylem, Inc.</td>
<td>Bay Point Ballroom</td>
</tr>
<tr>
<td>7:00 PM - 10:00 PM</td>
<td>Membership Recognition Gala</td>
<td>Knox County Ballroom</td>
</tr>
<tr>
<td>10:00 PM - 11:00 PM</td>
<td>Après Membership Gala Party</td>
<td>Enoteca Lounge</td>
</tr>
<tr>
<td>7:00 AM - 9:10 AM</td>
<td>Breakfast Buffet and Town Hall Discussion: PFAS Issues</td>
<td>Rockland/Rockport</td>
</tr>
<tr>
<td>9:15 AM - 3:00 PM</td>
<td>Annual Conference Golf Tournament (You must be registered for the conference to participate)</td>
<td>Meet at Samoset Golf Clubhouse</td>
</tr>
</tbody>
</table>

Any changes in the above schedule will be posted at the Conference Registration Desk located in the Schooner Room.

Companies and other groups are asked to respect scheduled conference events as included with the conference program including the Sunday, Monday, and Tuesday evening receptions, and to not conduct separate events during those times.
The Samoset Resort is perched on 230 waterfront acres overlooking Penobscot Bay. Samoset has a rich history dating back to 1889. Located in the tranquil town of Rockport, Maine just south of Camden, Samoset has played host to families, celebrities, and politicians alike with the signature hospitality that has made them one of New England’s premier luxury resorts. This AAA Four-Diamond resort continues a tradition of gracious hospitality established over 100 years ago along with luxurious accommodations, distinctive dining, an 18-hole championship golf course, and many year-round activities that celebrate the enchanting Rockport setting.

The Samoset Resort is also a certified “Environmental Leader” for our commitment to eco-friendly practices including water conservation, composting, and resort-wide recycling programs. To learn about Samoset’s interesting history visit https://www.samosetresort.com/about-us/.

Reservations
Room reservations must be made with the resort directly by calling 807.594.2511 or 800.341.1650 and referencing New England Water Works Association. Or, visit the annual conference page at newwa.org/events for a link to online reservations. Discounted rooms are $229/night for a Garden View; $252/night for an Ocean View; and $275/night for a Deluxe Ocean View. Suites are also available. Call the hotel to inquire. Rates and room types are subject to availability and state and local taxes (currently 9%). Reservations must be made by August 21, 2019 in order to receive the discounted rate. Reserve your room early - the hotel is likely to sell out prior to this date!

NOTE: Per hotel policy, all reservations that are not cancelled three days prior to arrival will be charged a fee equal to one night room rate to the individual.

Conference Attire
Sunday evening’s Meet & Greet is Under the Sea themed, so flippers, tridents, and fins are encouraged! Read more details on page 3. Average temperatures in September range from a high of 70 to a low of 48 so plan accordingly. The Membership Recognition Dinner on Tuesday evening is formal. All other conference activities are “business casual.” Comfortable clothing and footwear is encouraged for the guest activities.
SUNDAY MORNING
9:00 AM to 12:00 PM — Penobscot Bay Room

9:00 AM  NEWWA Board of Director’s Meeting

11:00 AM  NEWWA Annual Business Meeting

The Business Meeting is open to the public. Members are encouraged to attend and learn about association activities.

Executive Director’s Report — Kirsten King
Treasurers’ Report — Gregory M. Leighton and Michael Pelletier
Editors’ Report — Peter C. Karakekas, Jr. and George R. Allan

Council Reports
Administration Council — Nathan Little
Communication Council — Thomas D. LeCourt
Environmental Stewardship Council — Fred W. Rogers
External Affairs Council — Erica Lotz
Management Council — David Kane
Operations Council — John J. Boisvert
Professional Development Council — Michael Barsotti
Recognition Council — David E. Putnam
Standards Council — Stephen C. Olson
Water Quality/Treatment Council — James W. DeCelles

Other Business

12:00 PM  NEWWA Annual Business Meeting Adjourns

SUNDAY AFTERNOON

9-Hole Mixed Scramble Fun Golf Tournament
1:30 PM to 4:45 PM | Meet at Samoset Resort Golf Clubhouse

Back by popular demand, this year’s Sunday Mixed Scramble will be held at the beautiful Samoset Golf Course. The Samoset Golf Course continues to inspire players of all skill levels with its breathtaking ocean vistas. Individuals and couples of all abilities are welcome for this fun event. The Scramble is a team event with refreshments and a few surprises included. Proper golf attire is required. The cost is $55 in advance per player. Check the box on the registration form if you plan to attend.

On Your Own

Not a golfer, but looking for something fun and different? Join Don Bunker on the Samoset’s 9-hole Disc Golf course on Sunday afternoon at 2:30 PM! Played like golf, only with Frisbees® and nets, Disc Golf is something anyone can do! No special equipment is required other than flip-flops and sunglasses, although outlandish clothing is encouraged. We’ll assemble teams and play a 9-hole scramble. Contact Don at dbunker@newwa.org to let him you know you will be joining the fun, light-hearted competition.

SUNDAY EVENING

Under the Sea Meet & Greet
6:00 PM to 7:00 PM Reception | 7:00 PM to 9:00 PM New Englander Buffet — Poolside

Pack your flippers, trident, and fins for a deep dive into the Meet & Greet Reception—it’s an “Under the Sea” party! Head poolside for tasty appetizers, drinks, and a splashing good time. Mermaids, deep sea divers, and yellow sponges are welcome. Whether you wear a costume or not, the Meet & Greet is a boatload of fun!

The Meet & Greet, sponsored by associate and consultant members, will include a presentation of the following awards:

Sponsor of the Year Award ▶ Young Professional Employer Support Award
OPENING GENERAL SESSION
9:00 AM to 12:00 PM — Rockport and Camden Rooms

9:00 AM Welcome & Opening of the Annual Conference
DAVID G. MILLER, P.E., President, NEWWA

9:10 AM “Welcome to Town”
RICHARD KNOWLTON, President, Maine Water Company, Saco, ME

KIRSTEN KING, Executive Director, NEWWA, and GREG LEIGHTON, Treasurer, NEWWA

9:35 AM President’s Address
DAVID G. MILLER, P.E., President, NEWWA

9:45 AM Membership Recognition and Awards Ceremony
NEWWA is proud to recognize exemplary service and commitment to the water profession and the association.

AWWA Silver Water Drop Awards • AWWA Life Member Awards • AWWA Gold Water Drop Awards
NEWWA, Inc. Membership Awards • NEWWA Honorary Member Awards
John H. Chafee Distinguished Public Servant Award • Legislator of the Year Award
Past Presidents’ Award • Dexter Brackett Award • Operator Meritorious Service Award

10:10 AM “NEWWA – A Look Ahead”
BARBARA K. COOK, President-Elect, NEWWA
Incoming President, Barbara Cook, will discuss NEWWA’s goals and important plans for the coming year.

10:40 AM “AWWA Perspective and Update”
LEE ANNE JONES, P. ENG., Vice President, American Water Works Association, Denver, CO
Lee Anne is a Consulting Engineer with Jacobs in Toronto, Ontario. With over 28 years of experience in the water industry, Lee Anne has been an active member of AWWA since 1993. Involved in OWWA, A Section of AWWA, Lee Anne has served as President, Vice-President & Conference Chair, and Treasurer of the Ontario Section. On the association level, she has served as the WQTC local arrangements chair and is currently serving on the Board of Directors as the Ontario Director and Vice President.

Lee Anne holds a Bachelor of Applied Science degree in Chemical Engineering from the University of Toronto and is a licensed Professional Engineer (P.Eng.) in Ontario. She lives in Brampton, Ontario, Canada with her husband (Daryn) and young son (Tyler).

11:10 AM Keynote Address — “My 20+ Year Journey with the Partnership Programs”
ROBERT CHENG, Ph.D., P.E., Steering Committee Chair, Partnership for Clean Water, and Assistant General Manager, Coachella Valley Water District, Coachella, CA

Robert Cheng is the current Steering Committee Chair for the Partnership for Clean Water, and a former Steering Committee Chair for the Partnership for Safe Water for six years; he has been the Assistant General Manager at the Coachella Valley Water District (CVWD), California, since 2013. CVWD is a special district that provides potable water, wastewater, stormwater, agricultural water, recycled water, and replenishment water services to the 1,000 mi² area of the California desert known for tourism and agriculture. Cheng helps to manage a staff of nearly 570 employees, represents the organization on imported water contract discussions, including State Water Project and Colorado River, and acts as the agency lead for their strategic planning process. Previous employment includes the Metropolitan Water District of Southern California and Long Beach Water Department.

Other volunteer activities include serving on the Water Utility Council and the AWWA Journal editorial board, and a past chair of AWWA's Standards Council. Cheng is an appointee to the California Drinking Water Operator Certification Board and served on the Research Advisory Committee for Water Research Foundation and WaterReuse Research Foundation. Cheng was a past Fuller Awardee and AWWA Volunteer of the Year in 2013.

Cheng is a graduate from Vanderbilt University (Chemical Engineering) and UCLA (Civil Engineering, PhD). He is a registered professional engineer, and holds the highest certifications in treatment and distribution, and is proud to say his preferred drink is tap water. Cheng will be sharing his personal views of the Partnership programs through his 20+ years of involvement in this talk.

12:00 PM Opening General Session Adjourns
In December 2018, the President signed the Agriculture Improvement Act (aka Farm Bill). This marked the culmination of an extensive, long-term, and successful effort by AWWA to make source water protection a priority within USDA's conservation programs – and to designate significant funding towards those efforts. The purpose of this presentation is to provide information to water utilities on opportunities to work with state technical committees and local work groups to facilitate implementation of conservation practices to protect source water.

Significant water scarcity issues are increasingly driving the need for creative water reuse solutions. However, different parts of the country have very different water rights, water availability, regulations, and economic drivers that shape the opportunities communities have. This presentation will highlight the drivers that steered reuse projects in CT, FL, and CA. It will compare the different socioeconomic and regulatory challenges in each region and will make the case for domestic and industrial water reuse throughout the country.

Recent advancements in water-well technology, especially the use of manufactured glass beads for artificial filter pack, have revolutionized water-well design, creating wells of higher efficiency at a lower cost, and the promise of less well-maintenance and longer well-life. At the same time, improved understanding of well-clogging mechanisms, well-cleaning additives, and sources of iron and manganese promise to extend well life.

Cyanobacteria can produce toxins that negatively impact human health and pose a threat to public water systems. Across the country, drinking water systems have been impacted by large-scale cyanobacteria events - affecting millions of Americans. To better understand the risk posed to Maine's drinking water systems, the Drinking Water Program conducted a study of cyanobacteria in 2017. Results showed that Maine's water systems remain relatively unimpacted by cyanobacteria. However, it is important that systems remain vigilant and maintain diligent protection measures.

Pennichuck Water Works (PWW) has implemented a multi-year process of education; quantification; and BMP installation. This is an overview presentation of the entire program that is bringing awareness of watershed issues to hundreds of 4th graders (and their parents) as well as quantifying hydrology, water quality and sediments to improve the understanding of various threats; and the installation of stormwater BMPs is helping to control flooding, pollutant loads and reduce watershed flashiness from impervious surfaces.

Cyanobacteria and Cyanotoxins: Potential Impacts to Drinking Water in Maine
by SOPHIA SCOTT, Source Water Protection Coordinator, Maine Center for Disease Control and Prevention, Augusta, ME

How to Earn Training Contact Hours (TCHs)

TCHs will be awarded for technical sessions on Monday and Tuesday as well as the Town Hall Discussion on Wednesday (pending approval of state agencies). You must follow the procedures below to earn TCHs.

• Present your badge to the moderator upon entering each technical session you attend. The moderator will scan the code on your badge. You must have your badge scanned before the end of the first presenter in order to obtain credit for the session. Accordingly, plan to ARRIVE EARLY to your session.

• You must remain throughout the ENTIRE session to receive TCH credit; partial attendance in any session WILL NOT qualify you for TCH credit. You cannot move between sessions in the same time period.

• At the end of the session, proceed to the TCH EXIT door to be scanned out of the session. YOU MUST BE SCANNED TWICE (BOTH IN AND OUT OF EACH SESSION) TO RECEIVE TCH CREDIT.

• After completing these steps, your TCH certificate will be prepared and mailed to you within 8-10 weeks.
TECHNICAL SESSION B — Distribution
1:20 PM to 4:00 PM — Camden Room
2.0 Training Contact Hours

Moderator: ROBERT J. WILLIAMSON, P.E., Senior Project Manager, Wright-Pierce, Portland, ME
Assistant Moderators: LINDLE D. WILLNOW, P.E., Technical Leader III, Hydraulic Modeling, AECOM Water, Chelmsford, MA

1:20 PM — Welcome and Introduction

1:30 PM — “Lessons Learned from Full Lead Service Line Replacement Programs in Two Large Cities”
by SANDRA KUTZING, P.E., Project Manager, CDM Smith, Edison, NJ

This presentation will focus on the challenges of full LSL replacement programs in two large cities in New Jersey. Topics to be discussed include full replacement vs. partial replacement, developing a materials inventory, prioritization, public and media education, getting customers to sign up for their portion of the service line, bidding tips and lessons learned during construction. Obtaining State and Federal funding and applying it to private property improvements will also be discussed.

2:00 PM — “An Alternate Approach to Painting and Structural Improvements to the Bellevue 2 Steel Water Tank”
by MARC MORIN, P.E., Senior Associate, Hazen and Sawyer, Manchester, NH, and MARIE RIVERS, P.E., Principal Engineer, Hazen and Sawyer, Boston, MA

The Massachusetts Water Resources Authority undertook painting and structural improvements to its Bellevue 2 Tank in West Roxbury, MA. The work included full interior and exterior painting and various structural repairs. The contractor proposed cutting a 10x10 "door sheet" into the tank allowing for the use of motorized lifts in lieu of scaffolding for interior work. The approach allowed for accelerated schedule, ease of access for the work and detailed inspections. This presentation discusses the benefits of this approach.

2:30 PM — “MWRA Metropolitan Boston Tunnel Redundancy Program”
by KATHLEEN MURTAGH, P.E., Director of Tunnel Redundancy, and FREDERICK O. BRANDON, Director, Design and Construction, Tunnel Redundancy, Massachusetts Water Resources Authority, Chelsea, MA

The MWRA provides wholesale water/wastewater services to over 2.5 million customers. A redundant water transmission system exists from the Wachusett Reservoir to the Metropolitan Tunnel System which carries approximately 60% of the total system daily demand. With no redundancy to the Metropolitan Tunnel System, partial system shutdowns for planned maintenance or unplanned emergencies cannot take place. The Metropolitan Tunnel Redundancy Program will consist of approximately 14 miles of 10-ft diameter deep rock tunnel at an estimated cost of $1.5B.

3:00 PM — “Forges Field Expansion, Plymouth, MA — Hydraulics & Operations”
by ADAM KRAN, P.E., Senior Project Engineer, Environmental Partners Group, Quincy, MA

The town of Plymouth is adding the Forges Field Well, a new 1 MGD groundwater source, to its existing water system. The proposed well is located beyond the extents of the existing system near the border of two northern pressure zones. This presentation will focus on the hydraulic design and future operations of this expansion and redundancy needs of balancing six water pressure zones, as Plymouth prepares to celebrate its 400th anniversary and increased demands the celebration will bring.

3:30 PM — “Water Distribution Management”
by RYAN FLYNN, Technical Sales Consultant, 540 Technologies, Worcester, MA, and JOHN BRUTZ, General Manager, 540 Technologies, Selinsgrove, PA

Help attendees better understand methods to reduce NRW with cost-effective water loss management. Attendees will learn: 1) How to use audits to identify & quantify real vs. assumed loss; 2) Implement distribution system DMAs and sub-metering to more efficiently localize areas of NRW loss; 3) Techniques to identify, localize, pinpoint, and repair leaks more efficiently; and 4) How pressure relates to flow in a distribution system and how pressure regulators can minimize water loss of existing leaks and prevent future leaks.

4:00 PM — Questions and Answers – All Presenters

Monday Social Programs
7:00 AM
Informal Bike Ride — Meet Outside Hotel Lobby
Join other NEWWA cyclists for a morning bike ride to enjoy the picturesque Maine landscape and ocean air!

7:30 AM
25th Annual 5K Fun Run/Walk — Meet in Hotel Lobby
Compete in a friendly jog or walk while enjoying breathtaking views of the ocean and shoreline.

9:15 AM to 12:30 PM
Schooner Olad Boat Tour — Meet in Hotel Lobby
Climb aboard the Schooner Olad and set sail on a two hour charter. Beautiful rocky shoreline, hidden mansions, small islands, lighthouses, marine wildlife, and lobster boats, are just a few of the things you may see!

5:45 PM to 7:30 PM
Reception sponsored by DN Tanks and Everett J. Prescott, Inc. — Pen Bay Gardens
DN Tanks and E.J. Prescott join together again to host the Monday evening reception. This year’s reception will be held in the Pen Bay Gardens. Dress casual and comfortable for this outdoor reception (weather permitting).

See pages 14 & 15 for full details and applicable fees.
CDM Smith
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CDM Smith is a leading provider of water, environment, transportation, energy, and facilities solutions. We deliver exceptional client service, quality results, and enduring value across the entire project life cycle. CDM Smith’s experienced and dedicated professionals have a long history of municipal service, and follow our philosophy of listen, think, and deliver in providing high-quality service on every project.

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IDEXX provides easy, rapid, accurate tests and a full line of water testing supplies, equipment, and accessories for all water testing needs.

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Preload is the world leader in the design and construction of prestressed concrete tanks. With over 80 years of industry experience, Preload has designed and constructed more than 3,600 tanks. Preload tanks can be built up to 80’ tall with capacities of 40.0 MG or greater.

Purolite Corporation
800.343.1500 • purolite.com

Purolite is a leading developer, manufacturer and supplier of ion exchange, adsorbent and specialty resin technologies. Purolite helps solve your water challenges.

SIP Industries
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At SIP Industries we manufacture, import, and distribute municipal casting, utility fittings, joint restraints, and OEM castings. Since 1960, SIP Industries has manufactured quality products that deliver clean water and cover infrastructure needs across the world.

Statewide Aquastore
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Statewide Aquastore Inc. is a provider of Aquastore glass-fused-to-steel storage tanks. Applications involve the storage of potable water, wastewater, sludge, trickling filters, SBR’s, fire water storage, methane recovery, industrial waste and many other applications.

SUEZ Advanced Solutions
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SUEZ Advanced Solutions is a professional service and contracting firm dedicated to providing sustainable products and services for Water and Wastewater distribution systems. In addition to our asset maintenance programs, we supply technologies and smart asset management tools.

Swan Analytical USA
847.229.1290 • swan-analytical-usa.com

Swan Analytical USA supplies continuous monitoring analyzers for raw and potable water. Measurements include conductivity, pH/ORP, phosphate, nitrate, ammonium, chlorine, bromine fluoride, turbidity, and organics (SAC 254).

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From AMR/AMI systems and remote monitoring systems, to hydrants and chemical feed systems, Ti-SALES, located in Sudbury, MA, has been offering expert service and fast shipping to municipalities and contractors in the water and wastewater industries throughout the Northeast for over 55 years.

Zenner USA
888.279.9670 • zennerus.com

Formed in 1903, the Zenner/Minol group is a global company focused on meter production, AMR/AMI systems, and sub-metering contracts. Zenner/Minol serves customers in more than 90 countries with manufacturing plants on five continents including a plant located in Banning, CA.

NEW for 2019! NEWWA Aqueduct Competition!
Don’t miss the NEWWA Innovations Committee’s latest event during lunch.

Drinking Water Taste Test
Find out this year’s “New England’s Best” Drinking Water Taste Test winner.

See pages 16 & 17 for details.
Moderator: DONALD WARE, P.E., Chief Operating Officer, Pennichuck Water, Merrimack, NH
Assistant Moderator: KIRSTEN RYAN, P.G., Principal Hydrogeologist, Kleinfelder, Boston, MA

8:30 AM — Welcome and Introduction

8:40 AM — “Employing GIS and Dashboard Technology to Support Small Utility Asset Management”
by JAYSON BRENKEN, GISP, Vice President, CDM Smith, Manchester, NH

Utilities today are relying on the implementation of advanced asset management (AM) to support more effective utility operations and paramount to the successful implementation of an AM program is a strong technology framework. During this presentation, case studies will be presented on how smaller communities employed the use of GIS, web and mobile applications, and business intelligence dashboards to support key aspects of asset management. Demonstrations will be provided on emerging technologies that can support more effective utility management.

9:10 AM — “Using Artificial Intelligence for Virtual Mains Assessments”
by JIM FITCHETT, Chief Scientist, Voda, Inc., Boston, MA

Water loss is a challenge for utilities globally. Proactively replacing mains is an efficient way to reduce loss from pipe failure. Selecting the right pipes to replace at the right time is difficult. These decisions are often based on previous breaks, material and age. Replacing pipes with remaining useful life is frustrating. Artificial intelligence (AI) can affordably guide replacing the right pipes at the right time – a virtual assessment.

by ANDREW GOLDBERG, Project Professional, and CRISTINA PEREZ, Asset Management Technical Leader, Kleinfelder, Boston, MA

Canton, MA, is developing an Asset Management Program which integrates water, sewer, drain, and pavement infrastructure. An integrated approach to infrastructure asset management makes fiscal sense and minimizes public disruption. However, synchronizing pavement and buried infrastructure renewal requires careful planning and analysis. Deterioration models were developed and calibrated to provide a 5-year water and pavement CIP. This ‘dig once’ strategy provides better public service outcomes at lower costs.

10:10 AM — “Keeping GIS and Hydraulic Models Together”
by LINDLE D. WILLNOW, P.E., Technical Leader III, Hydraulic Modeling, AECOM Water, Chelmsford, MA

Many water distribution system hydraulic models now are developed using GIS data for the data representing the pipelines in the system. As GIS data evolves through construction and field verification of existing assets, there is a danger that the differences between the data in the models and the data in the GIS will make the model results less accurate. This presentation will cover procedures for keeping the two datasets better synchronized. Applications with other data sets will also be covered.

10:40 AM — “Transmission System Risk Prioritization”
by CHRISTOPHER BERG, P.E., Project Manager, Wright-Pierce, Portsmouth, NH, and JOSEPH DUNCAN, P.E., Director of Projects & Programs, Champlain Water District, South Burlington, VT

The Champlain Water District has developed a Pipeline Integrity Program to assist the District with risk prioritization in their transmission system. This program includes the use of available GIS data to develop a weighted risk priority score for each asset, which the District is using to proactively monitor and inspect areas with higher risk priority scores. This presentation will include a discussion of the development of the program, the District use of the program, and anticipated future refinement.

11:10 AM — Questions and Answers – All Presenters
**TECHNICAL SESSION D — Water Treatment**

8:30 AM to 11:10 AM — Camden Room
2.0 Training Contact Hours

**Moderator:** RON H. HIDU, P.E., Vice President, Woodard & Curran, Bangor, ME

**Assistant Moderator:** ROBERT J. WILLIAMSON, P.E., Senior Project Manager, Wright-Pierce, Portland, ME

**8:30 AM — Welcome and Introduction**

**8:40 AM — “Flexible Approaches for Treating PFAS in an Uncertain Regulatory Future: 3 Case Studies”**
by ERIK ROSENFELDT, P.E., Associate Vice President, MATHEW GEORGE, P.E., Associate, and SCOTT BONNETT, P.E., Associate Vice President, Hazen and Sawyer, Boston, MA

This presentation focuses on developing comprehensive and flexible approaches to addressing PFAS and PFOS in drinking water sources through three case studies from Alabama, North Carolina, and New York. By blending these three case studies, attendees will be exposed to strategies for developing short- and long-term approaches to addressing these contaminants of concern within the context of the currently on-going national conversation and an uncertain regulatory future.

**9:10 AM — “Water Quality Improvement in Water Storage Tanks”**
by BARRY PARFITT, P.E., Lead Project Engineer, and AMANDA ZIEGLER, P.E., Lead Project Engineer, Wright-Pierce, Middletown, CT

The development of trihalomethanes as a by-product of chlorination in the distribution system can reduce water quality and cause regulation violations. Wright-Pierce worked with Aquarion Water Company in Connecticut to proactively address trihalomethanes in their distribution system by means of mixing and aeration in their 3 million gallon water storage tank. Selection of equipment was based on removal efficiency and the net present value of the life cycle cost of the manufacturers considered.

**9:40 AM — “Comparison of GAC and Ion Exchange Resin Technologies for PFAS Removal”**
by MORGAN ROPER, P.E., Project Engineer, Woodard & Curran, Bangor, ME

GAC and Ion Exchange resin are proven technologies for removal of PFAS compounds. Factors such as available footprint, initial capital costs, media saturation and breakthrough timeframes, and media replacement costs are unique and can be affected by source water characteristics. To select the best technology and design a full-scale system for a client in the Northeastern U.S., Woodard & Curran evaluated the performance of GAC and Ion Exchange resin by conducting a head to head pilot test comparing performance of several commercially available products.

**10:10 AM — “Evaluation and Design of Ion Exchange for Optimal PFAS Treatment of Groundwater”**
by JIHYON IM, P.E., Environmental Engineer, and ALAN LeBLANC, P.E., BCEE, Associate, CDM Smith, Manchester, NH, and MARK WETZEL, P.E., Superintendent, Town of Ayer Public Works Department, Ayer, MA

This presentation will summarize how various GAC and ion exchange (IX) media were tested to treat PFAS in the town of Ayer’s groundwater source and review the important considerations for designing an IX facility. The study observed significant performance differences among the media, especially for PFAS with short carbon chain lengths and carboxylic acid functional groups. This new facility will be the first IX application for PFAS treatment in Massachusetts, and construction will begin in summer of 2019.

**10:40 AM — “Aluminum in Drinking Water: Concentrations, Concerns, and Control”**
by JAMES EDZWALD, BCEE, Professor Emeritus, University of Massachusetts, Amherst, MA

The presentation is about the fate and forms of Al in drinking water systems. I will address 1) the concentrations of Al in raw waters, within treatment plants, and in treated waters; 2) regulations for several countries, and concerns: both non-health and health effects; and 3) how to best control Al in treated waters to mitigate any potential problems.

**11:10 AM — Questions and Answers – All Presenters**

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**Visit Exhibitors in the Vinalhaven Room**

- Coffee, juice and pastries will be available at 8 AM and complimentary lunch will be available from 12:00 to 1:30 PM.
- New this year! Assemble a team or come to watch the “NEWWAqqueduct Competition.” See page 17 for details and the entry form.
- Find out the winner of the “New England’s Best” Drinking Water Taste Test. See page 16 for details and the entry form.
TUESDAY AFTERNOON, SEPTEMBER 24TH

TECHNICAL SESSION E — Management/Finance
1:50 PM to 4:30 PM — Rockport Room

2.0 Training Contact Hours

Moderator: KEVIN M. FLOOD, P.E., Associate, Fuss & O'Neill, Inc., Manchester, CT

Assistance Moderator: LINDLE D. WILLNOW, P.E., Technical Leader III, Hydraulic Modeling, AECOM Water, Chelmsford, MA

1:50 PM — Welcome and Introduction

2:00 PM — “Capital Improvement Planning with an Asset Management Mindset”
by REBECCA GONSALESE-LAMONTAGNE, Engineer II, and MARGARET McCARTHY, P.E., Team Leader, Weston & Sampson, Reading, MA; and STEPHEN KING, P.E., Town Engineer, Town of Danvers, MA

Using an asset management approach alongside Sedaru’s CIP software, the town of Danvers strategically created a 20-year capital improvement program (CIP) for their water distribution system. In order to prioritize and track projects, the Town created a horizontal asset inventory incorporating information from their water system GIS and hydraulic model. Improvements were prioritized based on asset condition, criticality, and remaining useful life. This presentation provides an overview of designing a CIP with an asset management mindset and the lessons learned.

2:30 PM — “The Water Rate Affordability Roadshow - Stop 3: Maine”
by DAVE FOX, Manager, and LUKE EASTMAN, Consultant, Raftelis, Natick, MA

At the last two annual NEWWA conferences, Raftelis has presented customer bill and demographic data that sheds light on the affordability of water rates in Massachusetts (2017) and Vermont (2018). Now, we will present the findings of our most recent affordability survey to provide session attendees with a snapshot of the current status of water rate affordability in Maine. The presentation will also include an update of best practices for affordability, including rate design, customer assistance programs, and customer outreach.

3:00 PM — “Building a Utility’s Revenue Base: Practical Approaches to Sustainable Funding”
by ROB LITTLE, P.E., Drinking Water Practice Leader, Woodard & Curran, Andover, MA

Utilities struggle to balance the need to invest in their systems and assets against economic and political pressure to keep costs down. Fortunately, there are under-explored opportunities that utilities can take advantage of to generate new revenue, keep costs down, and fund necessary projects without changing rate structures. This presentation will describe a number of revenue-positive and cost saving process optimization, energy efficiency, and business efficiency projects that utilities can implement, using real-world examples to show the challenges and benefits.

3:30 PM — “Water Loss Tapping the Rockies: Colorado’s Statewide Technical Assistance Program”
by DREW BLACKWELL, NRW Program Manager, Cavanaugh & Associates, P.A., Winston Salem, NC

Modeled after Georgia’s groundbreaking statewide water loss program, the Colorado Water Loss technical assistance program in 2016 included detailed instruction on Level 1 Water Audit Validation and implementation. The program’s success attracted others. Hawaii followed, then in 2018, the Colorado Water Loss Initiative, targeting 165 urban water systems was instituted. Its objective is to promote adoption of best-practices without regulatory mandate. The initiative’s structure, its successful high participation rates in a voluntary environment, progress, and results will be presented.

4:00 PM — “Taking the Lead - Somerville's Proactive Lead Service Program”
by ADRIA FICHTER, P.E., Project Professional, Kleinfelder, Boston, MA, and HALEEMAH QURESHI, Project Manager, Engineering, City of Somerville, MA

The increased focus on lead exposure from drinking water motivated the city of Somerville to proactively develop a lead service replacement program. As one of the densest cities in New England and having an aging infrastructure, Somerville had to plan for not only construction challenges during service replacement, but also difficulties engaging, educating, and coordinating with the public. This presentation describes lessons learned planning for and initiating Year1 of the program, and the city’s continued commitment to lead service replacement.

4:30 PM — Questions and Answers – All Presenters

TCH Reminder!

You must follow these procedures to earn TCHs:

• Present your badge to the moderator upon entering each technical session you attend. The moderator will scan the code on your badge. You must have your badge scanned before the end of the first presenter in order to obtain credit for the session. Accordingly, plan to ARRIVE EARLY to your session.

• You must remain throughout the ENTIRE session to receive TCH credit; partial attendance in any session WILL NOT qualify you for TCH Credit. You cannot move between sessions in the same time period.

• At the end of the session, proceed to the TCH EXIT door to be scanned out of the session. YOU MUST BE SCANNED TWICE (BOTH IN AND OUT OF EACH SESSION) TO RECEIVE TCH CREDIT.

• After completing these steps, your TCH certificate will be prepared and mailed to you within 8-10 weeks.
TECHNICAL SESSION F — Potpourri
1:50 PM to 4:30 PM — Camden Room
2.0 Training Contact Hours

Moderator: CHRISTOPHER C. YANNONI, P.E., ENV SP, Senior Principal, Stantec, Burlington, MA
Assistant Moderator: GARRY F. McCARTHY, P.E., Principal, Stantec, Burlington, MA

1:50 PM — Welcome and Introduction

2:00 PM — “Hope for the Best, Plan for the Worst: Development of a Coliform Detection Response Plan”
by KIMBERLY LeBEAU, Program Manager, WQ, Massachusetts Water Resources Authority, Southborough, MA

Public Water Systems collect coliform samples from routine locations as required in their state-approved sampling plans. MWRA will discuss key elements of a prevention and response program including but not limited to sampler training, tap inspections, chlorine residual review, and prevention of spurious positives. This presentation will discuss some of the planning challenges and lessons learned from past occurrences including recommended actions for potential Boil Water Orders or distribution system isolation when E. coli or repeat coliform detections occur.

2:30 PM — “Saving Lives with Safe Water - Protecting Our Veterans with a State-of-the-Art Membrane Plant”
by JOHN CIVARDI, P.E. Vice President, Mott McDonald, Hunt Valley, MD

The Veterans Administration Perry Point Maryland facility includes a water treatment plant and distribution system with a capacity of 1 MGD. The plant is characterized as a “mission critical” facility. Mission critical requires that the new plant be designed to withstand an exterior blast and special construction was needed for the exterior/interior equipment had to be designed to minimize damage to essential water treatment components. This presentation will describe the design, permitting, construction and commissioning components of the project.

3:00 PM — “AWIA, What Does It Mean To You?”
by DENISE C. SPRINGBORG, P.E., Chief, and J. KEVIN REILLY, Microbiologist & Operations Specialist, Drinking Water Quality & Protection Section, U.S. EPA, Boston, MA

The America’s Water Infrastructure Act (AWIA) was passed by Congress on October 23, 2018. It makes significant changes to the Safe Drinking Water Act. Those changes include the “Study of Intractable Water Systems,” “Improved Consumer Confidence Reports,” “Contractual Agreements,” “Additional Considerations for Compliance,” “Improved Accuracy and Availability of Compliance Monitoring Data,” “Asset Management,” “Community Water System Risk and Resilience,” “Source Water,” and “Monitoring for Unregulated Contaminants.” This presentation will very briefly review the intent and required changes of each of these sections above.

4:00 PM — “Groundwater Manganese Removal by Biofiltration”
by BOJUN XU, Process Engineer, SUEZ Water Treatment Solutions, Ontario, Canada

Biofiltration for manganese removal (e.g. Mangazur) is a process for removing dissolved manganese from groundwater for drinking water treatment. It has been proven a successful technology over a few decades and has had installations across North America and Europe. Biofiltration has advantages such as reduced backwash frequency, savings in chemicals, and easy operation and maintenance. In this presentation, the design of a biofiltration system is introduced and the performance of a recent installation in the New England area is discussed.

4:30 PM — Questions and Answers – All Presenters

ON YOUR OWN ACTIVITIES

In addition to the scheduled guest activities, the Samoset has a lot of activities right on property including, tennis, basketball, disc golf, shuffleboard, volleyball, badminton, croquet, horseshoes, and a “zero entry” outdoor pool. You can also enjoy a walk along the mile-long Rockland Breakwater to Rockland’s Lighthouse built around the turn of the century.

Interested in presenting at a future NEWWA conference or meeting? Visit newwa.org/Events to submit an abstract.
SESSION G — BREAKFAST BUFFET AND TOWN HALL DISCUSSION
7:00 AM to 9:20 AM — Rockport/Rockland Rooms
1.0 Training Contact Hour

7:00 AM — Breakfast Buffet (available until 8:40 AM)
A breakfast buffet will be provided to all session attendees from 7:00 AM to 8:40 AM. There is no additional fee to attend the breakfast and Town Hall Discussion but you must sign up in advance so that proper seating can be arranged. Please indicate if you plan to attend on the Conference Registration Form. It is very important for planning!

"PFAS Issues"

Moderator — RON H. HIDU, P.E., Vice President, Woodard & Curran, Bangor, ME
Assistant Moderator — J. KEVIN REILLY, Microbiologist & Operations Specialist, Drinking Water Quality & Protection Section, U.S. EPA, Boston, MA

7:30 AM — “PFAS Treatment Method Optimization for a Large Public Water Utility”
by MARGARET McCARTHY, P.E., Team Leader, Weston & Sampson, Reading, MA; BRIAN GOETZ, Deputy Director of Public Works, and AL PRATT, Water Supply Operations Manager, City of Portsmouth Public Works, Portsmouth, NH
PFAS have been identified in public drinking water supply wells at a number of locations in New England above United States EPA’s health advisory of 70 parts per trillion (ppt). Treatment to remove PFAS from water supply wells must be carefully designed to assure removal is achieved, accounting for varying water chemistry. This presentation will discuss pilot testing completed at the former location of the Pease Air Force Base in Portsmouth, NH, and selection of system for full scale design.

8:00 AM — “PFAS Treatment Technology Selection – Comparison of Bench and Pilot-Scale Testing”
by JAMES COLLINS, P.E., Principal Engineer, Tighe & Bond, Inc., Portsmouth, NH, DANIEL LAWRENCE, Director of Engineering and Planning, Aquarion Water Company, Bridgeport, CT, and CARL McMORRAN, M. En., Operations Manager, Aquarion Water Company of New Hampshire, Hampton, NH
Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that are widely used in manufactured products. Aquarion Water Company of NH has detected PFAS in the majority of their groundwater production wells. To proactively evaluate potential treatment requirements, Aquarion conducted bench and pilot-scale testing to evaluate various treatment technologies and develop treatment costs. This presentation will review the results of bench and pilot-scale testing of GAC and IX for long and short chain PFAS.

8:30 AM — “Maine Governor’s Task Force To Study the Threats of PFAS Contamination to Public Health and the Environment”
by MIKE ABBOTT, P.E., C.G., Program Director, Maine Drinking Water Program, Augusta, ME, and NORM LABBE, former Superintendent, Kennebunk, Kennebunkport & Wells Water District, Kennebunk, ME
The speakers will talk about the recently convened task force (Executive Order 5 FY 19/20, March 6, 2019) that was established to undertake the following:

A. Review information regarding known locations of PFAS detection in Maine and the status of any response strategies for those sites;
B. Identify significant data gaps in the knowledge of PFAS in Maine and develop recommendations to address such gaps;
C. Identify opportunities for public education regarding PFAS contamination and the effects of its exposure on public health and the environment;
D. Identify the sources of PFAS contamination and exposure pathways that pose the greatest risk to public health and the environment in Maine;
E. Examine the benefits and burdens of various treatment and disposal options for PFAS-contaminated media;
F. Assess how state agencies can most effectively use their existing authority and resources to reduce or eliminate priority and other risks from PFAS contamination;
G. Determine the inventory and use of fluorinated aqueous film forming foam in firefighting and fire training activities in Maine and evaluate effective nonfluorinated alternatives; and
H. Examine Maine and other data regarding PFAS contamination in freshwater fish and marine organisms and determine whether further such examination is warranted.

The task force has initiated a sampling program and will be meeting monthly through the summer and fall in anticipation of delivering its formal recommendations by the end of 2019. Findings could range from better understanding the impacts to water, wastewater, and land application of residuals systems to proposals for state-determined regulatory action levels to pushing for federal guidance.

8:45 AM — Town Hall Discussion
9:10 AM — Town Hall Discussion Adjourns

SAVE THE DATE FOR 2020!
139th Annual Conference
September 20-23, 2020
Omni Mount Washington Resort
Bretton Woods, New Hampshire
NEWWA ANNUAL CONFERENCE GOLF TOURNAMENT

LOCATION

Samoset Resort Golf Course
220 Warrenton Street, Rockport, ME 04856
207.594.1431

The Samoset Resort’s championship 18-hole golf course winds through seaside woods and gardens while showcasing some of the most formidable holes in New England. The course is as challenging as it is beautiful, with contoured greens, added bunkers, and an impressive seawall along with 14 holes that offer spectacular views of the Atlantic.

TIME

Meet at the Samoset Resort Golf Clubhouse by 9:15 AM for a 9:30 AM Shotgun Start.

COST

The fee for the tournament is $130 per person and includes greens fees, golf cart, boxed lunch, and an after golf reception with hors d'oeuvres and prizes.

FORMAT

Scramble

PRIZES

Prizes for low score, closest to pin, and long drive will be awarded.

TO REGISTER

All players must be registered for the conference. Register online at newwa.org or complete the conference registration form on page 20 and include the fee for golf with your conference registration. Any questions, contact Dave Polcari at CDM Smith, 603.222.8353/polcaridg@cdmsmith.com or Katelyn Todesco at NEWWA, 508.893.7979/ktodesco@newwa.org.

FOURSOMES

If you have a prearranged foursome, please email the names of the people you have made arrangements to play with to Katelyn Todesco at ktodesco@newwa.org. Please confirm your playing arrangements with the others listed in your foursome prior to registering. If you have not made arrangements to play in a foursome, you will be placed in one at random.

DRESS CODE

Proper golf attire required.
Informal Bike Ride — Meet in Hotel Lobby
7:00 AM

A NEWWA tradition! Join other NEWWA cyclists for a morning bike ride to enjoy the picturesque Maine landscape and enjoy the ocean air! The pace is moderate but not competitive, and all are welcome. Meet outside the lobby at 7:00 AM. There is no fee for the bike ride, but please check the box on the Conference Registration Form if interested. For further details, contact Adam Yanulis at 617.680.3091 or fayanulis@tighebond.com.

SUNDAY, SEPTEMBER 22ND
1:30 PM to 4:45 PM
9-Hole Mixed Scramble Fun Golf Tournament — Meet at Samoset Resort Golf Clubhouse
Back by popular demand, this year’s Sunday Mixed Scramble will be held at the beautiful Samoset Golf Course. The Samoset Golf Course continues to inspire players of all skill levels with its breathtaking ocean vistas. Individuals and couples of all abilities are welcome for this fun event. The Scramble is a team event with refreshments and a few surprises included. Proper golf attire is required. The cost is $55 per player. Sign up Under Part IV on the Conference Registration Form.

2:30 PM
On Your Own Disc Golf — Meet at the Samoset Disc Golf Course by Outdoor Pool
Not a golfer, but looking for something fun and different? Join Don Bunker on the Samoset’s 9-hole Disc Golf course on Sunday afternoon at 2:30 PM! Played like golf, only with Frisbees® and nets, Disc Golf is something anyone can do! No special equipment is required other than flip-flops and sunglasses, although outlandish clothing is encouraged. We’ll assemble teams and play a 9-hole scramble. Contact Don at DBunker@newwa.org to let him know you will be joining the fun, light-hearted competition.

6:00 PM to 7:00 PM
Under the Sea Meet & Greet Reception — Poolside
Pack your flippers, trident, and fins for a deep dive into the Meet & Greet Reception—it’s an “Under the Sea” party! Head poolside for tasty appetizers, drinks, and a splashing good time. Mermaids, deep sea divers, and yellow sponges are welcome. Whether you wear a costume or not, the Meet & Greet is a boatload of fun.

7:00 PM to 9:00 PM
Meet & Greet New Engander Buffet — Poolside

MONDAY, SEPTEMBER 23RD
7:00 AM
Informal Bike Ride — Meet Outside Hotel Lobby
A NEWWA tradition! Join other NEWWA cyclists for a morning bike ride to enjoy the picturesque Maine landscape and enjoy the ocean air! The pace is moderate but not competitive, and all are welcome. Meet outside the lobby at 7:00 AM. There is no fee for the bike ride, but please check the box on the Conference Registration Form if interested. For further details, contact Adam Yanulis at 617.680.3091 or fayanulis@tighebond.com.

7:30 AM
25th Annual Fun Run/Walk — Meet in Hotel Lobby
Compete in a friendly jog or walk at the 25th Annual 5K Fun Run/Walk. You’ll enjoy breathtaking views of the ocean and shoreline along the scenic course at the Samoset Resort. In addition to a light workout, you’ll see the best parts of picturesque Rockport. Prizes will be awarded in various categories and t-shirts will be provided for all participants who pre-register. The cost is $20. Sign up under Part IV on the Conference Registration Form. For further information, contact Dave Putnam at Putnam Pipe, 508.435.3090 or at dputnam@putnampipe.com.

5:45 PM to 7:30 PM
Silent Auction — Schooner Room
Money raised at the Silent Auction will fund Water For People projects. Please support these activities by donating an item prior to the conference, visiting the Silent Auction, and bidding. Bidding on all items will be available through the reception on Tuesday evening. Contact Larry Durkin at larrydurkin@gmail.com if you’d like to donate an item.

5:45 PM to 7:30 PM
Reception sponsored by DN Tanks and Everett J. Prescott, Inc. — Pen Bay Gardens
DN Tanks and E.J. Prescott join together again to host the Monday evening reception. This year’s reception will be held in the Pen Bay Gardens. Dress casual and comfortable for this outdoor reception (weather permitting). Average temperatures in September range from a high of 70° to a low of 48°. Evenings by the ocean can be cool so plan accordingly. Any changes in location due to inclement weather will be posted at the Conference Registration Desk in the Schooner Room.

TUESDAY, SEPTEMBER 24TH
7:00 AM
Informal Bike Ride — Meet Outside Hotel Lobby
(See details under Monday, September 23rd)
**GUEST AND SOCIAL PROGRAMS**

8:00 AM to 3:00 PM  
Silent Auction — Schooner Room  
(last bids open 5:45 PM in the Bay Point Ballroom)

Please support Water For People activities by donating an item prior to the conference and visiting the Silent Auction.

9:30 AM to 10:30 AM  
Oceanview Yoga — Meet in Hotel Lobby

Increase your flexibility, strengthen and tone your body while enjoying the picturesque surroundings of Penobscot Bay. You'll be rejuvenated and refreshed after this energizing experience. Towels and mats are provided; you may bring your own, if desired. The cost is $10. Sign up under Part IV on the Conference Registration Form.

1:30 PM to 4:00 PM  
Savage Oaks Vineyard Tour — Meet in Hotel Lobby

Embark on a 45 minute guided tour of the Savage Oaks Vineyard, which includes a walk out to Maine's most productive vineyard, consisting of 10 different hybrid, cold tolerant grapes located on a hillside where Belted Galloway cattle used to graze. Along the way you'll stop at their 15 acre wild blueberry field. Back at the tasting room you'll tour the winery. This is where you will see their processing area, with wine in different stages of maturity. And finally, enjoy a tasting and some light snacks. You even get to keep the tasting glasses as a souvenir! The cost is $30. Sign up under Part IV on the Conference Registration Form.

5:45 PM to 7:00 PM  
Pre-Gala Reception sponsored by Core & Main, R.H. White Construction Co., Inc., and Xylem, Inc. — Bay Point Ballroom

Join us for a pre-Gala reception sponsored by Core & Main, R.H. White Construction Co., Inc., and Xylem, Inc. Last bids for the Water For People Silent Auction will open at 5:45 PM and items will be available through the reception.

7:00 PM to 10:00 PM  
Membership Recognition Gala — Knox County Ballroom

- National Anthem | Giving of Thanks  
- Welcome & Introduction | President’s Dinner  
- Announcement of NEWWA Scholarship Recipients and Water For People Silent Auction Results  
- Awards Ceremony  
  - K.O. Hodgson Distinguished Service Award • Award of Merit  
  - Younger Member of the Year Award • Utility Recognition Awards  
  - David M. Erickson Groundwater Award • Jerome J. Healey Award  
  - Lifetime Achievement Award • George Warren Fuller Award  
- Election Results / Passing of the Gavel  
- New President’s Greeting

10:00 PM to 11:00 PM  
Après Membership Gala Party — Enoteca Lounge

Join us in a toast to our past and future president! Enjoy the deck and fire pit at the Enoteca Lounge with outgoing President Dave Miller and incoming President Barbara Cook, compliments of NEWWA's Annual Sponsors.

One Membership Recognition Gala ticket is included in a Regular Registration and Young Professional Tuesday Only Registration. The cost of extra tickets is $90 and can be purchased on Part IV on the Conference Registration Form. Please indicate how many will attend and meal choice(s).

**WEDNESDAY, SEPTEMBER 25TH**

9:15 AM to 3:00 PM  
Annual Conference Golf Tournament — Samoset Resort Golf Course (See page 13 for details.)

**ON YOUR OWN ACTIVITIES**

In addition to the scheduled guest activities, the Samoset has lots of activities right on property including, tennis, basketball, disc golf, shuffleboard, volleyball, badminton, croquet, horseshoes, and “zero entry” outdoor pool. You can also enjoy a walk along the mile-long Rockland Breakwater to Rockland’s Lighthouse built around the turn of the century.

**2018-2019 AWARD COMMITTEES**

- **Award of Merit**  
  - Carol A. Harris, Chair  
  - J. Kevin Reilly, Secretary  
- **David M. Erickson Groundwater Award**  
  - Andrew B. Miller, Chair  
  - Frank Getchell  
  - Ted Kenney  
  - Ted Morine  
  - Ray Talkington  
- **George Warren Fuller Award**  
  - Thomas R. Morgan, Chair  
  - Patrick J. Connelly  
  - Stephen Estes-Smargiassi  
  - James Malley  
  - Christopher P.N. Woodcock  
- **Jerome J. Healey Award**  
  - Christopher C. Hodgson, Chair  
  - Yvette DePeiza  
  - Jane Downing  
  - Matthew Pearson  
  - Teresa Trott  
- **K.O. Hodgson Distinguished Service Award**  
  - David A. Harris, Chair  
  - Lenny Assard  
  - Justin Connor  
  - Thomas H. Descoteaux  
  - Barbara K. Cook  
  - Robbi Lockhart  
  - David G. Polcari  
  - David E. Putnam  
- **Lifetime Achievement Award**  
  - David G. Miller, Chair  
  - Barbara K. Cook  
  - Lisa H. Gove  
  - Christopher C. Hodgson  
  - Kirsten King  
- **NEWWA Scholarship Awards**  
  - Stephen Donovan, Chair  
  - Sharon Carroll-Tidman  
  - Lillian Jeznach  
  - Julie Parenteau  
  - Mike Smith  
  - Lauren Underwood  
  - Greg Leighton (non-voting)  
- **Operator Meritorious Service Award**  
  - Matthew E. Pearson, Chair  
  - Russell Makiej  
  - Christopher Countie  
  - Ronald Tivey  
  - David G. Miller  
  - Marco Philippon  
  - Matthew J. Stosse  
- **Publication Awards (Dexter Brackett and Past Presidents)**  
  - John E. Tobiason, Chair  
  - Stephen Estes-Smargiassi  
  - John N. McClellan  
  - James Malley  
  - Christopher C. Hodgson  
  - John N. McClellan  
- **Sponsor of the Year Award**  
  - James L. DeCelles, Chair  
  - Richard Knowlton, Vice Chair  
  - Christopher D. Allen  
  - James L. DeCelles  
  - Marco Philippon  
  - Matthew J. Stosse  
  - Adam Yanulis  
- **Younger Member Recognition Awards**  
  - Lisa H. Gove, Chair  
  - Colleen Heath  
  - Jihyon Im  
  - Christina Jones  
  - Louis Soracco  

**NEWWA 138th Annual Conference — 15**
10TH ANNUAL “NEW ENGLAND’S BEST” DRINKING WATER TASTE TEST
Open to NEWWA Utility Members

Bragging Rights up for Grabs! Enter YOUR water in the 2019 Drinking Water Taste Test. ACT FAST - Limited to the first 10 utilities that return this entry form.

CONTEST RULES

Eligibility
1. Participating utilities must be NEWWA members.
2. Entrants must have incurred no state or federal drinking water violations (MCL, monitoring, recordkeeping, etc.) during 2019.
3. The local utility for the conference host city will be invited to participate in the taste test.

Requirements
1. You, or a representative from your utility, must be attending the Annual Conference and be present at the taste test on Tuesday, September 24 in order to participate.
2. Samples must be hand-delivered to the Conference Registration Desk at Samoset Resort no later than 9:00 AM on Tuesday, September 24, 2019. Water must be ambient upon submittal or it will be disqualified.
3. Two samples are required, each in a 1-liter container. Glass containers are recommended and preferable. Once participants have been chosen by NEWWA, utilities will be contacted and issued a number that will be used to identify their samples. Each sample must be clearly marked with that number when delivered.

Contest Judging
1. The panel will be a mix of NEWWA/AWWA members and conference attendees.
2. Samples will be judged on a 10-point scale from Good (1) to Best (10).
3. Scores will be tabulated and the winner will be announced immediately following the taste test.
4. Only the winning sample will be announced - samples will not be ranked, nor will scores be released.

The winner will receive a complimentary exhibits-only registration to AWWA ACE20 in Orlando, Florida, where the winning utility’s water will represent NEWWA in the national contest. The winner will also receive the highly respected “Water Cup” trophy. Don’t get too attached, the trophy is destined to be passed on each year to the home of New England’s best tasting water.

ENTRY FORM - ACT FAST!
First Come/First Served - Limited to the first 10 utilities that return this form.

This entry form must be received by August 30, 2019. You will be contacted by NEWWA if you are chosen for the taste test and will be issued a number to identify your sample. Please type or print clearly and return this completed entry form with your conference registration to: NEWWA, 125 Hopping Brook Road, Holliston, MA 01746 or Fax at 508.893.9898.

Official Water System Name:

Water System Address:

Contact Name:

Email: Phone:

Name of Representative Attending Conference (if different from above):

Treatment and Source of Water:
(This information is for NEWWA only and will not be made available to the judges):
13TH ANNUAL AGING INFRASTRUCTURE CONTEST

WATER, WATER, COULD BE EVERYWHERE!

NEWWAqueduct CHALLENGE!

Here’s the way it works . . .

Our water delivery systems are aging and often said to be held together with “paper clips, band-aids, and chewing gum.” Many water departments are pretty darn good at holding things together in this manner. Here’s your opportunity to demonstrate your skills or discover how difficult it is working with only what you’ve got.

Your team’s goal is to construct the tallest functional AQUEDUCT, on-site, and the fastest with available materials.

**RULES**

1. All construction materials water will be provided to each team at 11:45 AM on Tuesday, September 24, at the start of the event.
2. A team can consist of either two or three members (no more), whose Team Leader must be a NEWWA member.
3. Teams must have a name, or one will be assigned by the judges.
4. All teams should register at the Conference Registration Desk by 4:00 PM on Monday, September 23.
5. The provided AQUEDUCT construction materials kit may include:
   a. 1 plastic cup, 16oz (this is your reservoir)*
   b. 20 large paper clips*
   c. 1 package of chewing gum*
   d. 6 regular adhesive bandages*
   e. 8 cardboard tubes
   f. 30 standard non-flexible straws
   g. 6 rubber bands
   h. 36-inches of aluminum foil
   i. 20 craft sticks
   j. 36-inches of string
   k. 8 push pins
   l. 24-inch X 24-inch square of foam board
   m. 1 inch height deduction will be assessed for each required material not used as part of the support structure.
6. WARNING (Change happens!) — Components may be added or removed by the judges at the start of, or during construction.

**JUDGING**

A team arriving with less than two members cannot participate; last minute subs are OK. Each team will be given 40 minutes to construct the tallest free-standing AQUEDUCT that delivers 16 ounces of water to their reservoir at the bottom. The water provided by the judges will be added at the top by a team representative just after measuring the height from the base of the reservoir to the top of the aqueduct measured at the invert. Each team’s time for completion of construction will be recorded by the judges and used for the purpose of breaking a height measurement tie.

**REWARDS**

<table>
<thead>
<tr>
<th>Functionality Rewards Provided by NEWWA</th>
<th>Architectural Appeal Rewards Provided by SUEZ Advanced Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Place: $100 and all bragging rights</td>
<td>When the AQUEDUCT construction time expires, all aqueducts will be judged</td>
</tr>
<tr>
<td>2nd Place: $75</td>
<td>for “Architectural Appeal” and “Not So Appealing.” Suez Advanced Solutions</td>
</tr>
<tr>
<td>3rd Place: $60</td>
<td>is providing $150 and $50, respectively.</td>
</tr>
<tr>
<td>4th Place: $45</td>
<td>Most Appealing = $150 and all bragging rights</td>
</tr>
<tr>
<td>5th Place: $30</td>
<td></td>
</tr>
</tbody>
</table>

To secure advance team registration before Monday, September 16, or for questions & comments, please contact:
Demetrios Vidalis, Chair, NEWWA Innovations Committee at vidalisd@bwsc.org or 617.989.7272

NEWWA’s 2019 AGING INFRASTRUCTURE CONTEST - OFFICIAL ENTRY FORM (Please Print)

<table>
<thead>
<tr>
<th>Submit Date:</th>
<th>Team Name:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Representing — community, agency, utility, vendor, consultant:</td>
</tr>
<tr>
<td></td>
<td>Team Leader Name (Must be a NEWWA Member):</td>
</tr>
<tr>
<td></td>
<td>Team Leader Cell Phone:</td>
</tr>
<tr>
<td></td>
<td>Team Leader Email:</td>
</tr>
<tr>
<td></td>
<td>Team Leader Address:</td>
</tr>
<tr>
<td></td>
<td>City:</td>
</tr>
<tr>
<td></td>
<td>State:</td>
</tr>
<tr>
<td></td>
<td>Zip:</td>
</tr>
<tr>
<td></td>
<td>Team Member:</td>
</tr>
<tr>
<td></td>
<td>Email:</td>
</tr>
<tr>
<td></td>
<td>Team Member:</td>
</tr>
</tbody>
</table>

NEWWA 138th Annual Conference — 17
| BOARD |
|-----------------|-----------------|
| Executive       | David G. Miller  |
| Nominating      | Christopher C. Hodgson |
| Organizational Development | Lisa H. Gove |
| Past Presidents | Christopher C. Hodgson |
| Planning        | Lisa H. Gove    |

| ADMINISTRATION |
|-----------------|-----------------|
| AWWA Nominating and Awards | Christopher C. Hodgson |
| Exhibits         | Ralph D’Onofrio |
| Facilities       | Douglas Martin |
| Innovations      | Demetrios Vidalis |
| Programs         | Kevin M. Flood |
| Site Selection   | Lisa H. Gove   |
| Sponsor Services | Thomas Garrity |

| COMMUNICATION |
|-----------------|-----------------|
| Legislative & Regulatory Affairs | Stephen Estes-Smargiassi |
| Public Relations | Vacant Seat |
| Publications     | Thomas D. LeCourt |
| Youth Education  | Rachel Patenaude |

<table>
<thead>
<tr>
<th>ENVIRONMENTAL Stewardship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation</td>
</tr>
<tr>
<td>Sustainability</td>
</tr>
<tr>
<td>Water Resources</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>EXTERNAL AFFAIRS</th>
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</thead>
<tbody>
<tr>
<td>Historical Landmarks</td>
</tr>
<tr>
<td>Membership</td>
</tr>
<tr>
<td>NEWWA Scholarship</td>
</tr>
<tr>
<td>Student Activities</td>
</tr>
<tr>
<td>University Outreach</td>
</tr>
<tr>
<td>Water For People</td>
</tr>
<tr>
<td>Young Professionals</td>
</tr>
</tbody>
</table>

| MANAGEMENT |
|-----------------|-----------------|
| Customer Service | Sharon Carroll-Tidman |
| Emergency Preparedness/Security | James Barsanti |
| Financial Management | Mark D. Abrahams / Michael J. Schrader |
| Organizational Diversity | Sean D. Osborne |

| OPERATIONS |
|-----------------|-----------------|
| Distribution/Storage | Robert T. Mackie |
| Groundwater       | Peter G. Newton / Amy B. Rusiecki |
| Information Technology | Mark L. Wetzel |
| Safety            | James L. DeCeles |
| Small Systems     | Vacant Seat     |

<table>
<thead>
<tr>
<th>PROFESSIONAL DEVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Certification of Backflow Prevention and Cross Connection Control</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Laboratory Operations</td>
</tr>
<tr>
<td>Operator Certification</td>
</tr>
</tbody>
</table>

| RECOGNITION |
|-----------------|-----------------|
| Award of Merit   | Carol A. Harris |
| David M. Erickson Groundwater Award | Andrew B. Miller |
| Fuller Award     | Thomas R. Morgan |
| John H. Chafee Distinguished Public Servant and Legislator of the Year Awards | Christopher C. Hodgson |
| K.O. Hodgson Distinguished Service Award | David A. Harris |
| Lifetime Achievement Award | David G. Miller |
| Operator Meritorious Service Award | Matthew E. Pearson |
| Publications Awards | John E. Tobison |
| Sponsor of the Year Award | James L. DeCeles |
| Utility Recognition Awards | David M. Kane |
| Younger Member Recognition Awards | Lisa H. Gove |

| STANDARDS |
|-----------------|-----------------|
| Ductile Iron Pipe and Fittings | Timothy M. Stinson |
| Filtering Materials | Michael G. Barsotti |
| Iron Salt, Aluminum Sales & Related Aids | Stephen C. Olson |
| Polyofin Pipe & Fittings | Camille Rubeiz |
| Protective Interior Coating for Valves & Hydrants | John M. St. Pierre |
| Scale and Corrosion Control Chemicals | Darin LaFalama |
| Sluice Gates | Paul E. Brunelle |
| Softening & Condition Chemicals | Howard Steiman |
| Steel Elevated Tanks, Standpipes & Reservoirs | Nicholas Meder |
| Steel Pipe | Martin Lobik |
| Taste & Odor Control Chemicals | Bradley Perron |
| Tendon Type Prestressed Concrete Tanks | Mark L. Wetzel |
| Thermosetting Fiberglass-Reinforced Pipes | Phillip Sharff |
| Thermosetting Fiberglass-Reinforced Tanks | Phillip Sharff |
| Vertical Turbine Pumps | Stephen J. DeFrancesco |
| Water Main Rehabilitation | Ian Mead |
| Water Meters | James Cray |
| Water Service Line Fittings | Bradley Perron |
| Wells | Richard Davee |
| Wire Wound Prestressed Concrete Tanks | William B. Powers |

<table>
<thead>
<tr>
<th>WATER QUALITY/TREATMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosion</td>
</tr>
<tr>
<td>Disinfection</td>
</tr>
<tr>
<td>Filtration</td>
</tr>
<tr>
<td>Fluorides</td>
</tr>
<tr>
<td>WTP Residuals</td>
</tr>
</tbody>
</table>
CONFERENCE REGISTRATION INFORMATION

REGISTERING FOR THE CONFERENCE

Register online with a credit card at newwa.org or complete the registration form on the reverse side and return with payment information by fax to 508.893.9898 or mail to NEWWA, 125 Hopping Brook Road, Holliston, MA 01746-1471. Advanced registrations must be received by September 13. No refunds will be given after September 13.

REGISTRATION FEES / DISCOUNTS

All fees are listed on the registration form on the reverse side. NEWWA members and speakers receive a discounted fee. Deduct $30 if you register and pay by August 23. This discount will automatically be applied to online registrations. Utilities and government agencies may send up to 10 employees to the conference at a discounted fee. See detailed instructions under Part V below.

WHAT IS INCLUDED IN YOUR INDIVIDUAL REGISTRATION FEE?

<table>
<thead>
<tr>
<th>Registration Option</th>
<th>Sunday Meet &amp; Greet</th>
<th>Monday &amp; Tuesday Technical Sessions</th>
<th>Tuesday Exhibitor Displays</th>
<th>Tuesday Evening Member Gala</th>
<th>Wednesday Town Hall Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Registration</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Retired Member[^2] Regular Registration</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Spouse/Guest (non water works professional)</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Full-Time Student</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Monday or Tuesday 1-Day Only Registration</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Wednesday 1-Day Only Registration</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Young Professional (Tuesday)</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Young Professional (Monday or Wednesday)</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Retired Member[^2] One-Day Registration</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

[^1] Please indicate if you will attend the Wednesday Town Hall Discussion on the Conference Registration Form.
[^2] Retiree must be a fully retired NEWWA member.

The Meet & Greet reception on Sunday and the Apres Membership Gala Party on Tuesday are sponsored by associate and consultant members who contribute as sponsors to the association. These events are provided as a networking opportunity for attendees and guests. The association would like to thank the companies for sponsoring these events. If you work for an associate or consultant member, your company should contribute as a sponsor if you plan to attend these events.

INSTRUCTIONS FOR COMPLETING THE CONFERENCE REGISTRATION FORM

PART I — CONTACT INFORMATION: Please print clearly. Your name and title will appear on your badge as it is written here. There is a separate fee to register a spouse/guest and separate fees for individual activities (see Part IV). A spouse/guest must be a non-water works professional.

PART II — INDIVIDUAL REGISTRATION OPTIONS & FEES WITH MEALS: Check the box(es) if you plan to attend the Sunday Meet & Greet, Tuesday Lunch in Exhibit Hall, or Tuesday Member Gala. Also indicate your meal choice for Tuesday’s dinner or if you have a special dietary need.

PART III — INDIVIDUAL REGISTRATION OPTIONS & FEES WITHOUT MEALS: Tickets for meals must be purchased separately in Part IV. For 1-day options, please indicate which day you will attend. There is no fee to attend the Town Hall Discussion on Wednesday, however, you must indicate if you are attending.

PART IV — REGISTERED ATTENDEE/GUEST ADDITIONAL OPTIONS: These options (including extra meal tickets) are not included in the registration fees. You must be registered for the conference to attend any of the activities. Space is limited, so register early.

PART V — DISCOUNTED MEMBER UTILITY/GOVERNMENT AGENCY REGISTRATION FEES: Utilities and government agencies who choose the group registration package listed in this section may send up to 10 employees to the conference for a flat fee. The registration package includes meals for two employees; additional registrants must purchase meal tickets. If you choose this registration option, complete the conference registration form for yourself and check the box to have a separate form faxed to you for your employees. Individual names must be submitted by September 13. Registration must be submitted as a group and payment received prior to September 13.

PART VI — PAYMENT INFORMATION: Deduct $30 if you register and pay by 8/23. Indicate method of payment and enter the total fee.

CONFERENCE BADGES

Your badge will be available at the Conference Registration Desk located in the Schooner Room when you arrive at the hotel (see page 2 for registration desk hours). Badges must be worn at all times in order to be allowed entrance to conference functions. If you wish to receive TCH credit at technical sessions, you must have your badge scanned upon entering and exiting the session room (see page 5).

QUESTIONS?

If you have questions about registering for the conference, call the NEWWA office at 508.893.7979 or email Jeanne Gilpin, Registrar, at jgilpin@newwa.org.
### PART II - INDIVIDUAL REGISTRATION OPTIONS & FEES WITH MEALS*

*The fees below include one Meet & Greet ticket and one Gala ticket.

<table>
<thead>
<tr>
<th></th>
<th>Full Price</th>
<th>Member/Speaker Discount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Registration</td>
<td>$650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retired Member</td>
<td>$300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Day Young Professional on Tuesday</td>
<td>$275</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Check if you will attend:
- Sunday Meet & Greet
- Tuesday lunch in Exhibit Hall
- Tuesday evening Member Gala (included in above fees)

**Tuesday Member Gala Meal Choice:**
- Grilled NY Sirloin
- Baked Stuffed Haddock
- Vegetarian
- Other dietary needs: ________________________

### PART III - INDIVIDUAL REGISTRATION OPTIONS & FEES WITHOUT MEALS**

(Indicate which day for 1-Day options)

**Tickets for the Meet & Greet and Member Gala must be purchased separately.**

<table>
<thead>
<tr>
<th></th>
<th>Full Price</th>
<th>Member/Speaker Discount</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spouse/Guest Registration (non water works professional)</td>
<td>$65</td>
<td></td>
<td>$65</td>
</tr>
<tr>
<td>Full-Time Student (Both days - no meals)</td>
<td>$70</td>
<td></td>
<td>$70</td>
</tr>
<tr>
<td>1-Day Monday or Tuesday Only</td>
<td>$370</td>
<td></td>
<td>$320</td>
</tr>
<tr>
<td>1-Day Wednesday Only</td>
<td>$100</td>
<td></td>
<td>$85</td>
</tr>
<tr>
<td>1-Day Operator Monday or Tuesday</td>
<td>$255</td>
<td></td>
<td>$205</td>
</tr>
<tr>
<td>1-Day Retired Member (must be a fully retired NEWWA member)</td>
<td>$90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please indicate below if you plan to attend the Town Hall Discussion (no additional fees).

- ☐ Wednesday Town Hall Discussion — Please indicate if you will attend for planning purposes.

### PART IV - REGISTERED ATTENDEE/GUEST ADDITIONAL OPTIONS
(Not Included in Above Registration Fees)

You must be registered for the conference to attend these activities.

<table>
<thead>
<tr>
<th></th>
<th># Tickets</th>
<th>Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUNDAY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-Hole Mixed Scramble Fun Golf Tournament</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra Meet &amp; Greet Ticket(s)</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MONDAY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fun Run/Walk</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schooner Olad Boat Tour</td>
<td>55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TUESDAY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oceanview Yoga</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Savage Oaks Vineyard Tour</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extra Member Gala Ticket(s)</td>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WEDNESDAY - Golf Tournament. Please email foursome names to ktodesco@newwa.org (see page 13)

130

BIKE RIDE - There is no fee for the bike ride, but please indicate which day(s) you will participate:
- ☐ MON
- ☐ TUES

### PART V - DISCOUNTED MEMBER UTILITY/GOVERNMENT AGENCY FEES
(The organization must be a NEWWA member)

Utilities/government agencies may send up to 10 employees to the conference at a discounted fee below. Refer to detailed instructions on reverse side.

<table>
<thead>
<tr>
<th>Utility Discount Package</th>
<th>Regular Registration Fee</th>
<th>Reduced Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package includes 2 meals for commissioners or employees</td>
<td>$1,190</td>
<td>$1,110</td>
<td></td>
</tr>
</tbody>
</table>

☐ I am the contact person for my utility/agency. Please fax me the form at the above fax # to indicate employee names from my utility/agency.

For information on purchasing additional meals, contact the NEWWA office.

### PART VI - PAYMENT INFORMATION

Early Registration Discount - Deduct $30 if you register and pay by 8/23.

☐ Personal Check (Payable NEWWA) ☐ Company Check ☐ MasterCard ☐ Visa ☐ AMEX ☐ Discover

TOTAL PAYMENT $  

Credit Card # Exp. Date Signature

☐ Check if you have a disability and require accommodations to fully participate.
The association appreciates all the support of its many sponsors. The following companies are supporting the association’s ongoing activities at the Gold Level of $2,000 at the time of publication.

**ANNUAL CONFERENCE GOLD SPONSORS**

- **Haley and Ward, Inc.**
  Civil and Environmental Engineers

- **DN Tanks**
  A partnership for engineering solutions

- **Green International Affiliates, Inc.**
  Civil and Structural Engineers

- **Core & Main**
  Design & Consultancy for natural and built assets

- **CDM Smith**
  Civil and Environmental Engineers

- **FIRE HYDRANT & WATER MAIN SERVICES**

- **Haley and Ward, Inc.**
  Civil and Environmental Engineers

- **RH White**
  Construction & Service Solutions

- **Tata & Howard**

- **Utility Cloud**

- **U.S. Pipe**
  A Forcella Company

- **Weston & Sampson**

- **Woodard & Curran**

- **The Maher Corporation**

- **Sensus**
  a xylem brand

- **Kleinfelder**
  Bright People. Right Solutions.

- **Hydra-Tech**
  Fire Hydrant & Water Main Services

- **Dewberry**
  Civil and Environmental Engineers

- **1-800-EJP-24HR | EJPrescott.com**

- **Team EJP**
  Water - Wastewater - stormwater solutions

- **ARCADIS**
  Design & Consultancy for natural and built assets
NEWWA 138th Annual Conference
The Samoset Resort, Rockport, Maine
September 22-25, 2019