

VIRTUAL ACWWA ANNUAL CONFERENCE ST. JOHN'S, NEWFOUNDLAND AND LABRADOR





ATLANTIC CANADA WATER & WASTEWATER ASSOCIATION

American Water Works Association Atlantic Canada Section





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## MESSAGE FROM THE CONFERENCE CHAIR



### **JASON PHILLIPS, P.ENG.**

We are looking forward to the annual ACWWA conference. This is a great opportunity to learn from our colleagues on current water and wastewater industry topics. This year's conference theme is "On the Horizon," which we believe reflects everyone's thoughts as we return to "normal" life, albeit changed slightly due to the COVID pandemic. We look ahead to the new challenges and opportunities that wait for us, "On the Horizon."

While we are disappointed that we cannot get together in person this year for our networking event, we will be hosting another virtual conference building upon the success of our inaugural event from last year. This year's conference will include technical sessions, including a YP section to highlight the accomplishments of young professionals within our industry. The ABEA tradeshow will continue, providing an opportunity for our local vendors to spotlight new products and advancements in their products and services. New to this year's event, we will be offering virtual technical tours of the Windsor Lake water treatment plant and the Riverhead wastewater treatment plant. We will also be hosting a virtual "meet and greet" session where we will be able to connect with old acquaintances and meet new colleagues.

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We hope that you can all join us online to enjoy our virtual conference.

## MESSAGE FROM THE ACWWA BOARD CHAIR



ON THE

Welcome to our annual ACWWA conference. 2021 will be presented virtually, for the second year, to maintain everyone's health and safety, as we work our way through the fourth wave of COVID. But, as usual, we have prepared a premiere collection of technical sessions, vendor highlights, entertainment and socially engaging experiences.

The past 18 months have proven to be challenging both physically and mentally. We have all become well aware of what PPE means when it comes to protecting yourself and your coworkers from a pandemic. We continue to follow strict health measures but look forward to seeing everyone's smiles in person, in 2022, in Saint John, NB – fingers crossed!



The 2021 program takes place December 7-9, and we will all use our imaginations and

pretend we are in St. John's NL, with Jason Phillips and his Conference Committee. As the theme states, we are preparing for what is "On the Horizon", and as we have learned in the recent past, it is ever-changing. Not only have we learned to deal with a pandemic, but climate change and its effects on our daily lives, the requirements of our utilities and communities as a whole. Being flexible is key and having the proper tools in your tool kit to make the shifts more manageable.

I would like to thank Wendy Krkosek and her team for their efforts in preparing our technical sessions and providing a well-rounded program. To offer some of the tools we will need for our tool kits.

We also look forward to the messages being brought to us from our AWWA, WEF and CWWA dignitaries. They will, no doubt, have more national and international perspectives on the current challenges being faced by our utilities and their staff.

The vendor highlights will bring us new technologies in the industry - so stay tuned to see what may make improvements to your daily work lives, or solve a problem.

We would also like to thank the ABEA for their continued support of the ACWWA and its endeavours. This year they will be the host sponsor of the Monday mid-morning break/entertainment.

We would like to thank all of our sponsors, without whose support this would not be possible.

It goes without saying, but we would like to acknowledge the continued tireless efforts of our Executive Director, Clara Shea.

I look forward to greeting our water and wastewater professionals as we gather for our annual conference and once again provide a platform to share.

Stay healthy and safe.



## AWWA REPRESENTATIVE

### **ANGELA J. BALLARD-LANDERS**

Angela J. Ballard-Landers is an AWWA Vice-President and STEAM Specialist for WSSC Water. She creates and coordinates educational outreach programs to engage students in grades 3-12 about water, wastewater, the Chesapeake Bay, the environment, and careers in the industry.

Angela also has more than 30 years of experience in customer service training, ten years in emergency preparedness/incident command, and is a certified ALICE active shooter trainer. In addition, she is very active in her community, serving as a Howard County chief election judge and crisis intervention telephone counselor.

Angela attended Howard University and the University of Maryland Global Campus. She and her husband, Clarence, are the proud parents of three adult children, Clarence Jr., Cordney, and Cheridan.





### **HOWARD CARTER**

Howard Carter is a member of the 2020-21 Board of Trustees for the Water Environment Federation (WEF), an international organization of water quality professionals headquartered in Alexandria, Va.

Howard is the director of the Water Resource Recovery Department for the City of Saco, Maine. He is responsible the daily operations and maintenance, funding, staffing, billing, licensing and construction and of the city's Resource Recovery Facility and 32 pumping stations. He also oversees the implementation of Combined Sewer Overflow Master Plan and any separation or construction projects associated with that.



A WEF member since 1998, Howard spent five years in the House of Delegates as a representative of the New England Water Environment Association (NEWEA) and his last year as the speaker of the

House. During that time, he has chaired the House Nominating Committee, served on the House Steering Committee, the CLC Steering Committee, along with the WEFMAX, Outreach and Budget committees, and has been a member of most work groups. Additionally he was a founding member of the New England Operations Challenge team "Pump Fiction" that went on to compete nationally in both Division 1 and 2 for a number of years.

Howard is also an active member of NEWEA, where he served as president in 2010. He is also a past president of the Maine Water Environment Association in 2002.

In addition to receiving numerous WEF Operations Challenge team awards over the years Howard is also a recipient of the William D. Hatfield Award, the Arthur Sidney Bedell Award, A WEF Fellow, a WEF Service Pin Recipient, and a member of the Select Society of Sanitary Shovelers.

Howard is a graduate of both the U.S. Naval Nuclear Piping/Mechanical Apprenticeship program and the Southern Maine Technical College Wastewater Treatment/ Environmental program.



## **CWWA REPRESENTATIVE**

### **ROBERT HALLER**

Robert Haller is the executive director of the Canadian Water and Wastewater Association, which is THE national voice of the water and wastewater sector in Canada. Robert took on this national leadership role after almost 20 years as a senior municipal administrator - most of those years serving as a CAO for small and medium-sized communities.

With a Geography degree from Carleton University and a Masters in Public Administration (MPA) from the University of Western Ontario, he now serves as the spokesperson for the Canadian water sector at the national level. He admits he relies heavily on CWWA's many members for their expertise and support; especially on technical matters of engineering and chemistry. Robert's role is facilitating national dialogue and information sharing.



On behalf of the CWWA, Robert represents Canada to the world as Secretary of the Canadian National Committee of the International Water Association and is part of the team bringing the World Water Congress to Canada in 2024.

**ST. JOHN'S HARBOUR** 





## **CONFERENCE SCHEDULE**

# DEC. 7 TUESDAY

8:30 - 8:35	WELCOME & SPONSORSHIP
8:35 - 8:50	AWWA, WEF, CWWA
8:50 - 9:35	LAND MANAGEMENT SESSION
9:35 - 9:50	TRADESHOW 1
9:50 - 10:05	TRADESHOW 2
10:05 - 10:50	BREAK/ABEA MAGICIAN
10:50 - 11:15	<b>TECHNICAL SESSION: GENERAL 1</b>
11:15 - 11:40	<b>TECHNICAL SESSION: GENERAL 2</b>
11:40 - 12:05	<b>TECHNICAL SESSION: WATER 1</b>
12:05 - 12:30	TECHNICAL SESSION: WATER 2



8:15 - 8:20	WELCOME & SPONSORSHIP
8:20 - 8:35	TRADESHOW 3
8:35 - 8:50	TRADESHOW 4
8:50 - 9:05	TRADESHOW 5
9:05 - 9:35	WATER TECHNICAL TOUR
9:35 - 10:05	AGM
10:05 - 10:20	BREAK
10:20 - 10:50	WASTEWATER TECHNICAL TOUR
10:50 - 11:15	<b>TECHNICAL SESSION: GENERAL 3</b>
11:15 - 11:40	<b>TECHNICAL SESSION: WATER 3</b>
11:40 - 12:0 <b>5</b>	<b>TECHNICAL SESSION: WASTEWATER 1</b>
12:05 - 12:30	<b>TECHNICAL SESSION: WASTEWATER 2</b>



8:15 - 8:20	WELCOME & SPONSORSHIP
8:20 - 9:35	YOUNG PROFESSIONAL SESSIONS
9:35 - 9:50	TRADESHOW 6
9:50 - 10:15	<b>TECHNICAL SESSION: WATER 4</b>
10:15 - 10:40	<b>TECHNICAL SESSION: WATER 5</b>
10:40 - 11:10	BREAK - MEET & GREET
11:10 - 11:25	TRADESHOW 7
11:25 - 11:40	TRADESHOW 8
11:40 - 12:0 <b>5</b>	<b>TECHNICAL SESSION: WASTEWATER 3</b>
12:05 - 12:30	<b>TECHNICAL SESSION: WASTEWATER 4</b>

### ON THE H\_RIZ\_N\_YOUNG PROFESSIONAL SESSIONS

The Young Professionals Technical Session is organized by the YP Committee, which is an active group that offers engaging speaking, networking and volunteering opportunities for members of the ACWWA who are new to the water and wastewater industry. The group is made-up of engineers, researchers, operators, technical sales people, and managers. This year we are pleased to offer our second virtual YP Session, where five YPs in our industry will give exceptional technical presentations.





### TAKING A CLOSER LOOK: ANALYZING THE LEAD AND COPPER CONCENTRATIONS IN NOVA SCOTIA SCHOOLS Kalli Hood

PREDICTING THE OCCURRENCE OF GEOSMIN IN LAKE WATER

Paul Bjorndahl

AN EVALUATION OF BENCH AND PILOT-SCALE PRIMARY WASTEWATER TREATMENT PROCESSES TO MEET MORE STRINGENT WASTEWATER SYSTEM EFFLUENT REGULATIONS

Sydney Lowe

INVESTIGATION OF SEWER GRID BIOAUGMENTATION TO ENHANCE BIOLOGICAL TREATMENT PERFORMANCE AND MEET MORE STRINGENT DISCHARGE REQUIREMENTS

Zachary Bishoff

DETECTION OF SARS-CoV-2 IN WASTEWATER AND MUNICIPAL SOLIDS IN A CANADIAN PROVINCE WITH LOW PREVALENCE OF COVID-19

Emalie Hayes

## VIRTUAL MEET & GREET

### HAVE YOU MISSED NETWORKING WITH FRIENDS AND INDUSTRY PEERS DURING THE PANDEMIC?

Join us this year for our first virtual meet and greet.

The meet and greet will be held on Thursday, December 9, at 10:40 AM, using the Gathertown platform. With your conference registration, you will receive an invitation link to the meet and greet and simple instructions on how to join us.



### We are looking forward to seeing you all in December.

Regards, Julie Stokes, ACWWA Membership Director

### **RIVERHEAD WASTEWATER TREATMENT FACILITY**

ON THE

The Riverhead Wastewater Treatment Facility (RHWWTF) is a 135 MLD conventional primary treatment plant that has been designed to treat wastewater from the City of St. John's, the City of Mount Pearl, and the Town of Paradise. This municipal service area has a total existing population of approximately 135,000 people and a buildout population of 160,000 people. Effluent is discharged to St. John's Harbour and biosolids are disposed of at the Robin Hood Bay Waste Management Facility.

The RHWWTF includes an Administration Building with offices for personnel, a facility control room, a laboratory, and a boardroom. The treatment process buildings include a Shallow Pump Station, Deep Pump Station, Grit Removal Facility, Primary Clarifiers, Chlorine Disinfection Facility, Anaerobic Digesters, and a Solids Dewatering Facility. The RHWWTF is also equipped with two hot water boilers and two diesel-powered generators for the provision of standby power.



### PETTY HARBOUR LONG POND WTP

Commissioned in 2015, the Petty Harbour Long Pond Water Treatment Plant (PHLP WTP) is the newest and smallest of the three water treatment plants that supply drinking water to the City of St. John's. The PHLP WTP has a maximum design capacity of 26 MLD however with a current average day demand of approximately 10 MLD, the water treatment plant only services approximately 15% of the City's population. The water treatment process is conventional, combining coagulation, flocculation, and DAF clarification in the pre-treatment stage. This is followed by dual media gravity-fed filtration, UV and chlorine disinfection, pH adjustment and alkalinity enhancement at the post-treatment stage. The treated water effluent is stored in a 10ML in-ground reservoir and fed to the water distribution system on demand. In 2018, a potassium permanganate feed system was also added to the treatment process to improve water quality and precipitate seasonal spikes in dissolved manganese.



## **TECHNICAL PROGRAM**

SPECIAL DEC. 7 8:40 - 9:35	LAND MANAGEMENT: LESSONS LEARNED FROM MANAGING LAND ISSUES Heidi Schedler, Halifax Water
GENERAL 1 DEC. 7 10:50 - 11:15	<b>DIVERSITY IN THE ATLANTIC CANADIAN WATER INDUSTRY</b> Jennie Rand, Acadia University
GENERAL 2 DEC. 7 11:15 - 11:40	MILESTONES FROM CANADIAN AND US PARTNERSHIPS BENEFITTING SMALL AND MEDIUM SIZED UTILITIES Michael D. Dirks, The Water Research Foundation
WATER 1 DEC. 7 11:40 - 12:05	<b>CASE STUDY EXAMPLE – POTLOTEK FIRST NATION WATER</b> Julianna Haché, North Shore Mi'kmaq District Council
WATER 2 DEC. 7 12:05 - 12:30	USING ESRI GIS WEB APPLICATIONS TO MAINTAIN DISTRIBUTION SYSTEM WATER QUALITY Adam McKnight, Halifax Water
GENERAL 3 DEC. 8 10:50 - 11:15	<b>WATER MOVEMENT</b> Bita Malekian, Water Movement
WATER 3 DEC. 8 11:15 - 11:40	THEY MAY BE SMALL, BUT THEY COME WITH BIG CONSEQUENCES: LESSONS LEARNED FROM IMPLEMENTING AN ALGAL MONITORING STRATEGY Jessica Campbell, Halifax Water
WASTEWATER 1 DEC. 8 11:40 - 12:05	<b>CASE STUDY: SOLVING ALGAE BLOOMS AND H2S EMISSIONS WITH A</b> WELL-PLANNED LAGOON SLUDGE CLEANOUT Paul Saulnier, Scotia Tech Fluid Services
WASTEWATER 2 DEC. 8 12:05 - 12:30	WASTEWATER SURVEILLANCE OF SARS-COV-2 IN NOVA SCOTIA Crystal Sweeney, Dalhousie University
WATER 4 DEC. 9 9:50 - 10:15	<b>PRIORITIZING TRANSMISSION MAINS SHOULDN'T BE RISKY BUSINESS</b> Heather Miller, Halifax Water & Lauren MacDonnell, CBCL
WATER 5 DEC. 9 10:15 - 10:40	PRESSURE MANAGEMENT BASICS Jason Phillips, City of St. John's
WASTEWATER 3 DEC. 9 11:40 - 12:05	BENCH-SCALE DAF POLYMER OPTIMIZATION STUDY TO IMPROVE EFFLUENT QUALITY AT A MUNICIPAL WWTF Sheila Fyfe, Centre for Water Resources Studies
WASTEWATER 4 DEC. 9 12:05 - 12:30	HIGH FLOWS AND WEAK WASTEWATER AT A NORTHERN WWTP - DON'T STRESS OUT Warren Martin, Stantec Consulting Ltd.

Make sure you join us for the live show featuring Master Magician, Escape Artist, Mind Reader, Hypnotist, Keynote Speaker, and TV Magic Consultant:

ON THE HASTER MAGICIAN: STEVE SPADE

**ABEA ENTERTAINMENT** 



### The Master Magician

Steve Spade was born in Limerick, Ireland, and has quickly established himself as a firm favourite on the Irish celebrity circuit. He combines top-drawer sleight of hand skills with psychological subtleties and great comic timing.

Spade has been doing magic since his childhood, performing at every opportunity on the streets and in the pubs and clubs of his native city.

For Spade, the intimate miracle of closeup magic is at the heart of his art. He has wowed many celebrities, including Mike Tyson, Russell Brand and Rihanna. No after-show party is complete without his manipulations – just ask Florence & The Machine, Calvin Harris, Metallica, The Coronas, Bressie, Glen Hansard, and many more. He also stunned 10,000 people with his illusions at Electric Picnic.

"To be in the presence of Steve Spade while watching him perform was jaw dropping!"

"Without a doubt, Steve is Ireland's top and most professional magician. He is a master in the world of magical presentation."

"This is why you never sit at a table in the front row of a magic show. Steve Spade, my heartbeat is still not back to normal!"

"I'm still losing sleep over some of the magic Steve performed. I will never understand how he does it. He had a room mesmerized and in awe – you could hear a pin drop. Brilliant!!"



## VIRTUAL TRADESHOW OPPORTUNITY

## **GET IN FRONT OF YOUR AUDIENCE**





**BE TOP OF MIND** 

BOOK YOUR TIME TO TELL ACWWA ATTENDESS ABOUT YOUR AMAZING PRODUCTS/ SERVICES! A LIMITED NUMBER OF VIRTUAL TRADESHOW TIME SLOTS ARE AVAILABLE, BOOK TODAY!



### CAPITALIZE ON YOUR TIME IN THE SPOTLIGHT

EACH TIME SLOT IS 15 MINUTES LONG. PROMOTE YOUR PRODUCT/SERVICE THROUGH VIDEOS, SLIDES, A LIVE OR PRE-RECORDED PRESENTATION.

WRAP-UP WITH A QUICK Q&A SESSION AND LINK TO YOUR WEBSITE/CONTACT INFORMATION.



### **GENERATE QUALITY LEADS**

CONFERENCE ATTENDEES ARE LEADERS IN WATER, WASTEWATER, AND STORMWATER FIELDS. GET YOUR PRODUCTS/SERVICES IN FRONT OF THE PERFECT AUDIENCE!

## 2021 ABEA HOST SUPPLIERS



The Atlantic Branch Equipment Association (ABEA) would like to take this opportunity to thank everyone for their continued support during such unprecedented times and hope you enjoy the Monday morning entertainment provided by our membership.

Contact information for our members, and applications for our Scholarship and Grant Program can be found on <u>www.ABEA.biz</u>



### ADS

Anthrafilter Aqua Data Atlantic Atlantic Purification Systems Ltd. Avensys **Bibby Ste-Croix BioMAXX Wastewater Solutions** Birksco-Aqualoader Cambridge Brass Campbell's Concrete Canada Pipe **Chemline Plastics** Clow Canada Coastal Controls & Instrumentation Concord Supply Denso NA-Can Denyg Mechanical **DRL** Piping Solutions **EEP Technical Solutions** 

Flowstar Ind. Ford Meter Box Galaxy Plastics Greatario Storage Systems H2Flow HACH Hetek lpex Inc. K&D Pratt Kemtag Enterprises Ltd. Liberty Pumps Magnor Maritime Infrastructure **Technologies** McLennan Sales (div. of EMCO) Mueller Canada Napco-Royal Neptune Technology Group Nulantic Omnitech

**Pro-Line Fittings** Prominent Pure Technologies Sansom Equipment Saunders Equipment Scotia Tech Sensus (KTI) ShadComm Ltd SIGMA Corp. **SIP** Products Soleno Star Pipe Canada Inc. Sulzer The Panel Shop Veolia Water Solutions & Technologies Veronics Wolseley Waterworks Atlantic **WWOTC** Xylem

### **Current ABEA Board**

President Vice-President Sr. Director Jr. Director Past-President Sec./Treasurer Director/Liaison Andrew Duguay Matthew Manning Vacant Vacant Mike McDonah Kyle Gracie Catherine Cameron

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## **CONFERENCE REGISTRATION**

ACWWA CON	IFERENCE REGIS	TRATION PART 1 – C	ONFEREN		NDEE GENERAL INFO	RMATION		
FIRST NAME LAST NAME			ORGANI	ZATION				
MAILING ADDRESS				CITY				
PROVINCE COUNTRY		POSTAL CODE	POSTAL CODE A		AWWA MEMBERSHIP NUMBER			
PHONE		FAX		WEF MEMBERSHIP NUMBER				
EMAIL ADDRESS Check box if you would like to be added to the ACWWA email list Check box if you are a first time conference attendee								
Sector 🗆 Utility	y 🛛 Supplier		ultant 🛛	Student	□ Academic □Regulate	or 🗌 Other		
		PART 2 – DELEGA	TE REGIST	RATION				
Conference Deleg	jate – On or Before	November 30, 2021		r – \$175	□ Non-Member – \$200	\$		
Conference Deleg	jate – On or After D	ecember 1, 2021		r – \$225	🗆 Non-Member – \$250	\$		
Conference Deleg	jate – Day Pass – I	December 7, 2021		r – \$100	□ Non -Member –\$125	\$		
Conference Deleg	jate – Day Pass – I	December 8, 2021		r – \$100	□ Non-Member – \$125	\$		
Conference Deleg	jate – Day Pass – I	December 9, 2021	□ Member	r – \$100	□ Non- Member –\$125	\$		
Student (Registration is free ) – Covered by a sponsor								
					Part 2 – Subtotal	\$		
		PART 3 – TR	ADE SHO	W				
Tradeshow Virtua	Presentation Slot	ABEA Member – \$	6225	Non-M	lember – \$275	\$		
1 Slot per Compa	any				Part 3 – Subtotal			
		PART 4	– FEES					
					Subtotal	\$		
					Total Amount Due	\$		
		PART 5 - PAYM	IENT OPTI	ONS				
Choose payment	method. Complete	as appropriate.						
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		WWA Conference", Bo	x 28142, D	artmouth,	NS B2W 6E2			
CARD HOLDER	NAME							
CARD NUMBER				EXPIRY				
SIGNATURE								
Fax: 902-435-7796 or Email: contact@acwwa.ca								
WHEN PAYING WITH A CREDIT CARD AN EMAIL ADDRESS IS REQUIRED FOR A RECEIPT TO BE ISSUED By registering for this event, your contact information may be shared with exhibitors and/or sponsors.								
ACWWA Delegate Can	cellation Policy							

Cancellations must be received in writing, on company letterhead, and faxed, mailed or emailed to the ACWWA Office. Phone cancellations are not accepted. All cancellations postmarked/fax-dated 14 days in advance of the conference start date will receive a full refund, minus a 10% administrative fee. Cancellations between 7 and 14 days of the conference start will receive a 50% refund. Cancellations less than 7 days in advance of conference will not be refunded. Please note that substitute registrants are welcome. Fax requests for substitutions or cancellations to (902) 435-7796 or email to contact@acwwa.ca.

#### ACWWA Trade Show Cancellation Policy – Payment Options

Cancellations must be received in writing, on company letterhead, and faxed, mailed or emailed to the ACWWA Office. Phone cancellations are not accepted. All cancellations postmarked/fax-dated 30 days in advance of the conference start date will receive a 50% refund. Cancellations less than 30 days in advance of conference will not be refunded. Please note that substitute registrants are welcome. Fax requests for substitutions or cancellations to (902) 435-7796 or email to contact@acwwa.ca.

#### Conference Information

Full conference has a 1.2 CEU value.



## THANK YOU TO OUR PROUD SPONSORS

### **PRESENTING/PLATINUM**

