

# GO with THE FLOW

THE OFFICIAL PUBLICATION OF THE ATLANTIC CANADA WATER AND WASTEWATER ASSOCIATION

## 2024 ACWWA ANNUAL CONFERENCE

FREDERICTON, NB  
SEPTEMBER 22-24

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**INSIDE:**

- Emerging Leaders Committee
- Test Your Knowledge!
- Back to Fundamentals: Emergency Management



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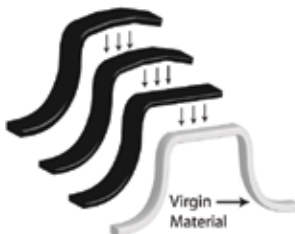
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On the cover:

The Princess Margaret Bridge over the Saint John River in Fredericton, NB. | dreamstime.com



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## Make your plans now for September

It's hard to believe that another year has passed, and our long-awaited summer has arrived. I hope that everyone has the opportunity to take some well-deserved time off to relax and experience the beauty of the Atlantic provinces or wherever your adventures will take you. While enjoying your summer, take a moment to capture the memories with a photo and be sure to include something "water" related, and then enter it into the annual ACWWA photo contest. The winning photos and a selection of the submitted photos will be used to create the 2025 ACWWA calendar which is very popular among our

members, more information can be found at [www.acwwa.ca](http://www.acwwa.ca).

While enjoying the summer, don't forget to take some time to plan to attend the ACWWA Annual Conference, which will be held in Fredericton, NB, from September 22 to 24. The conference is a few weeks earlier than usual this year so you need to take a moment away from your summer activities to make your plans for this event. This is our local association's annual conference and tradeshow, which provides the opportunity to learn about the latest technology and developments in the water and wastewater industry

within around region. Planning is well underway for this event, and we are hoping to build upon the success of our last conference, which was well attended as everyone enjoyed the social interactions with friends and colleagues. More information on the conference is included in this issue of the *Go With the Flow* magazine. And remember to register early; not only will you save on the conference registration, but if you register prior to the early bird deadline you will also be entered into a draw for a Visa gift card.

I wish everyone a safe and happy summer! ☺

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## Summer is here

Welcome back, summer... the dandelions are out in full force, and I hear the lawn mowers busy every other day in my neighbourhood. The two snapper turtles are back in the pond chasing frogs and tadpoles but are getting a little brazen by coming up to the front door scratching looking for something. I don't speak turtle, but I think he/she was looking for my grandkids to feed them some strawberry hulls. Then after getting no response at the front door, turns and finds a pair of my granddaughter's rainbow coloured



cotton gloves on the ground, grabs them and bolts back to the pond thinking it hit the jackpot until it figures out that cotton gloves



don't taste very good and spits them out. You know you live in the country when.

As I have mentioned previously, I am chairing the WEFMAX Committee this year. WEF offers three in-person workshops each spring plus one virtual WEFMAX "Best of the Best from the in-person events" in the summer (scheduled for August 1). WEF completely sponsored my attendance to all three in-person events which were held in Alexandria, Virginia in April, Park City, Utah and St. Petersburg, Florida in May. Our very own Lindsay Anderson provided a presentation at the Florida WEFMAX with the Topic of "Fostering Relationships with Emerging Leaders: Benefits to the organization and industry at large". Lindsay did a great job and made Atlantic Canada proud. As a footnote: WEF offers MA grants each year with a total budget \$125K US. Half is distributed in January and half in June. The ACWWA put in an application for funding support to sending members to the WEFMAX event in Florida. The grant application was approved, so WEF paid the expenses to get Lindsay to and from the workshop, which means the ACWWA did not incur any cost. One of the great benefits of WEF membership is when

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they help smaller MAs with funding to help develop and support our future leadership.

Registration for the ACWWA Annual Conference opened on May 31 and the event will occur September 22–24, 2024 at the Fredericton Convention Center in NB. Go to [www.acwwa.ca](http://www.acwwa.ca) to get more details and register. I look forward to seeing you all there.



Now that summer is here, it is the time to register for WEFTEC. This year is the 97th Annual Technical Exhibition &

Conference, being held at the Ernest N. Morial Convention Center, in New Orleans, Louisiana, USA.

**Conference: October 5–9, 2024**

**Exhibition: October 7–9, 2024**

[www.weftec.org/reg-and-hotel/registration/conference-registration-and-policies](http://www.weftec.org/reg-and-hotel/registration/conference-registration-and-policies)

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As usual, I will be attending WEFTEC this year representing the ACWWA as your WEF Delegate. I suspect I will see several people from Atlantic Canada there. I look forward to catching up with you in New Orleans. ☺



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## Keeping up with the top issues

By the time you read this, AWWA ACE24 in Anaheim, CA will be in our rearview mirrors and a beautiful summer will be underway. Hopefully everyone will get some time to enjoy the summer with friends and family.

I will be attending ACE24 and participating in the AWWA Board Meeting along with the Canadian Affairs Committee Meeting later in the week. As Canadian representatives, we are always looking opportunities to improve the AWWA experience for Canadian members.

On the water industry front, on April 10, 2024, the United States Environmental Protection Agency (EPA) announced the final National Primary Drinking Water Regulation (NPDWR) for six Per- and Polyfluoroalkyl Substances (PFAS). This regulation will establish the first-ever nationwide, legally enforceable drinking water

“I am the Canadian Affairs Committee’s representative on the *Journal AWWA* Advisory Board and I am always seeking Canadian content for the journal.”

standards to protect communities from PFAS in their drinking water. AWWA has been examining this new regulation very closely. Canadian utilities should be following this since similar regulations are likely to be introduced in Canada at some point in the future.

Another top issue in the water industry is cybersecurity, as utilities have been facing an increase in international cyber attacks on critical infrastructure. It is important that utilities are prepared to deal with these threats to ensure a continuous supply of safe drinking water. One cybersecurity expert I spoke with said utilities have to be prepared because it is not a matter of if, but when. More information on cybersecurity can be found on AWWA’s website.

As I noted in the last issue of this magazine, long-time AWWA Deputy Executive Director Paula MacIlwaine announced that she will retire in June after ACE. Paula has been with AWWA since 1986 and has served as the AWWA Deputy Executive Director since 2004. Following a thorough candidate search and interview process, AWWA recently announced that John Albert has accepted the position of AWWA’s next Deputy CEO. John currently is chief research officer at the Water Research Foundation (WRF), a position he has held since 2016.

I am the Canadian Affairs Committee’s representative on the *Journal AWWA* Advisory Board and I am always seeking Canadian content for the journal. If you are interested or know of someone who may be interested in writing an article for the journal about an interesting project or water-related initiative, please reach out to discuss the process for submitting an article.

I hope everyone has a great summer and I will see you at our Annual Conference in Fredericton. ☺

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## Gearing up for these events

### Government Affairs Committee

The Canadian Water and Wastewater Association (CWWA) continues to be active keeping members informed on national issues, facilitating national dialogue and information sharing, and advocating for the water and wastewater sector on the national and international scene. Current and upcoming events include the following.

#### Window on Ottawa – June 19, 26 & July 10, 17

Spread over several weeks, the Window on Ottawa Agenda is

“The IWA WWCE 2024 presents a unique opportunity to profile your organization and showcase your technologies, solutions, and expertise.”


designed to offer a spotlight on federal activities related to all aspects of water and wastewater management, allowing you to pick and choose the sessions most relevant for you. The Agenda and registration are online at [www.cwwa.ca](http://www.cwwa.ca).

Session topics include drinking water, cybersecurity, the Canadian benchmark initiative, and the Canada Infrastructure Bank.

#### IWA World Water Congress & Exhibition 2024 – Toronto, August 11–15

The 2024 IWA World Water Congress & Exhibition (WWCE) will take place in the first-class facilities of the Metro Toronto Convention Centre. This is one of the greatest global water events, and it is being hosted here in North America by CWWA and CAWQ, with the support of WEF and AWWA. The IWA WWCE 2024 presents a unique opportunity to profile your organization and showcase your technologies, solutions, and expertise.

#### National Water and Wastewater Conference 2024 – Winnipeg, November 3–6

This annual conference offers a wide-ranging technical program covering almost all aspects of the municipal water sector, while offering the best networking environment for Canada's water leaders. As the national conference for the water utility sector, this event offers a great opportunity for sponsorship and exhibiting your products and services to Canada's most senior water managers. 



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## Summer membership update & photo contest

Welcome to the following new members:

Name	Organization	Membership
Alana Murray	Halifax Regional Water Commission	AWWA
Justine Corey	Halifax Water Department	AWWA
Matthew Ruff	District of Tobique Valley	AWWA
Marc Ouellette	Ville De Belle-Baie	AWWA
Brennan Sock	North Shore Micmac District Council Inc.	WEF
Kolton Patles	North Shore Micmac District Council Inc.	WEF
Jonah Simon	North Shore Micmac District Council Inc.	WEF
Velma Labillois	North Shore Micmac District Council Inc.	WEF
Isabelle Prevost-Aubin	North Shore Micmac District Council Inc.	WEF
Wayne Ward	North Shore Micmac District Council Inc.	WEF
Edward Motty	North Shore Micmac District Council Inc.	WEF
Raine Somerville	North Shore Micmac District Council Inc.	WEF
Lai Shun Jason Ho	Xylem	WEF
Paige Turnbull	Pictou County Solid Waste	WEF

As of May 18, 2024

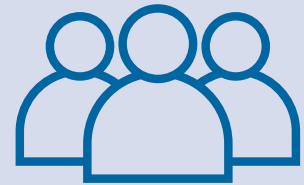
Total AWWA active members: **441**

Total AWWA late members: **18**

Total active WEF members: **122**

Total WEF late members: **1**

Don't forget to refer a member for a chance to win a \$100 gift card of your choice!



## 2024 ACWWA Photo Contest

Must be water-focused and may include family, pets, or a scenery taken within Atlantic Canada



1<sup>st</sup> Runner Up  
Nancy MacDougall  
Municipality of Colchester



Top Prize  
Deborah Smith  
City of St. John's



2<sup>nd</sup> Runner Up  
David Parsons  
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**Rules and Criteria:**

- 1) Photo must be submitted by an ACWWA Member.
- 2) Photo must water-focused and may include a family member(s) and/or pet(s) or scenery taken within Atlantic Canada.
- 3) Please provide first name of those in photo.
- 4) Unlimited submissions. Only one winning picture per member.
- 5) Judged by ACWWA Board.
- 6) Deadline for submission is September 8, 2024.
- 7) Submit pictures or questions to julie.stokes@moncton.ca.



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Third place prize – \$100 gift card of your choice



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## With Catherine Cameron, Scotia Tech/Aqua Data Atlantic

*Go With the Flow* magazine presents an exclusive interview with Catherine Cameron of Scotia Tech/Aqua Data Atlantic

**Can you tell us about the history and founding of Scotia Tech and Aqua Data Atlantic? What inspired you to start these companies, and how have they evolved over the past 30 years?**

We are a 100% local and family-owned business which began due to necessity and an opportunity. Scotia Tech began in 1993. Tom Cameron has been the boots on the ground since day one and I entered the doors in 1998. In 2005 we became the sole owners of Scotia Tech, and in 2009 for Aqua Data Atlantic. Our main business was fuel oil and propane, meters/calibration/repair, with a small percentage of water meter sales. We have been the exclusive distributor for Sensus since the beginning and have always serviced the Atlantic provinces and Quebec with the fuel oil/propane business. When the environmental liability of fuel oil and propane became too costly for us to carry, we began to focus more on the water side of the business.

In 1997, we were approached by individuals in Quebec who wanted to expand into Atlantic Canada with Aqua Data Atlantic, a complimentary service business still in the water sector and providing unidirectional flushing services, leak detection, hydrant inspections, etc., at a time when department of environment was looking for more accountability from water providers.

**As a small, family-run business for over three decades, what key challenges and successes have you experienced in the water industry?**

It is always a challenge to get your foot in the door, be heard and then given an opportunity to prove yourself.

As a small business you cannot always be the low-cost leader and in an environment where price wins, it is hard to gain market share. Some of our biggest successes have been projects where people took a chance on a local company with a solution for their problem and we continue to provide that service/product 20+ years later.

We pride ourselves on the opportunity to provide solution-based, first-rate services/products in a timely, cost-effective manner.

**Both Scotia Tech and Aqua Data are deeply involved in the education and training of the water community. Could you elaborate on your training courses and the importance of these educational initiatives?**

It is important for your customers to understand how/why you are solving a problem. Education has always been important in our business. It is key to understanding and creating a relationship based on trust and opens conversations. We don't all have to be experts, but we need to know enough to be enlightened on the subject.

Tom has delivered courses for NSCC, ACWWA and MPWWA, SWWA (SK), as well as the Annual Clean and Safe Drinking Water Workshop (NL). These courses cover topics in meterology, hydrant repair/troubleshooting, unidirectional flushing, and leak detection to list a few.

**Your companies work closely with Indigenous communities, such as through the Atlantic Integrated Water Utility Consultants and the North Shore Mi'kmaq Tribal Council. Can you share some examples of these collaborations and their impact on the communities?**

We have had the opportunity to work with the local Indigenous communities both directly and through third parties. We have provided training, as well as repair services, through NSMTC and directly. Recently we traveled to Natuashish, in northern Labrador, to provide leak detection through AIWUC. In the past, we have had our technician jump along the Labrador coast providing leak detection services for remote communities – in these cases the communities typically work as a group and share the costs. Working with remote and



“

We strive to listen to what customers need and find the best solution we can. We introduce a solution and education will bring them to their own conclusions. Like any good relationship – it takes time, effort and, most importantly, trust.

”

underserved communities is an important part of a business plan as we endeavour to bring safe drinking water and its necessary infrastructure to all.

#### **What unique services and technologies do Scotia Tech and Aqua Data offer that set them apart in the water and wastewater management sector?**

We do not carry 100+ product lines – we sell Sensus water meters and believe in the product we represent. Scotia Tech has survived the many changes/challenges the industry has faced over the past 30+ years and we will continue to serve the needs of our customers as we go into the future. We also have a relationship with Bishop Water Technologies/ Geotubes, or the offering of Biocord Technology.

At Aqua Data we have a small but strong service offering where we are experts in the subject matter. Due to customer requests, we have specialized in the repair of fire hydrants, and this is also complementary to the service we provide with Aqua Data – where we inspect the hydrants. Our Aqua Data staff specialize in leak detection, and we are sought after. We can provide hydraulic modeling, run system simulations, execute unidirectional flushing in a timely fashion, to list but a few of our services. Our staff are hydrant whisperers – they feel the hydrant communicate with them – it is something to see as they carry out their jobs in the field with knowledge and confidence.

We may be the employer (under two names), but we are a family. This also makes us unique – there is no I in Team!

#### **How do you ensure that your services meet the specific needs of Atlantic Canada’s municipalities and industries?**

This is where strong relationships, communication, and education are key to staying relevant and meeting customer needs. We strive to listen to what customers need and find the best solution we can. We introduce a solution and education will bring them to their own conclusions. Like any good relationship – it takes time, effort and, most importantly, trust.

#### **Aqua Data is noted for its cutting-edge technologies and innovative solutions. Could you discuss some of the most significant technological advancements your company has implemented to optimize water infrastructure?**

Aqua Data Inc., and by extension Aqua Data Atlantic, continues to constantly improve its current technologies, develop new products or changes in the way some are



carried out based on new technological advances. Technologies could be software – moving from paper to tablets, or new developments in equipment. They are all significant as they work together to provide a collective outcome.

Aqua Data Atlantic provides Network Monitoring using the inspection of manholes and sewer pipes with the Aqua Zoom telephoto camera and 360° camera. Leak detection on drinking water networks. Hazen-Williams coefficient measurements. Flow-pressure tests. Fire flow capacity tests (NFPA 291). Inspection of fire hydrants and valves. Hydraulic manipulation of valves. Running Unidirectional Flushing Programs and providing hard data in the form of reports supplied at the end of each project.

The significance of an implemented technology is realized immediately and in multiple year projects the significance is compounded.

#### **What are your future goals for Scotia Tech and Aqua Data Atlantic?**

Scotia Tech and Aqua Data continue to grow and change as the industry does. This season Aqua Data has taken on a relatively large project with the Irving Oil Refinery in Saint John, NB. Scotia Tech continues to recover from COVID-related supply chain issues, and we endeavour to grow key relationships and build our customer base. As our family continues to grow and change, we intend to bring on new staff. [CBA](#)



## A busy season

The ABEA continues to support the ACWWA and its membership. And we have been busy...

The ABEA offers four x **\$1,000 academic scholarships** annually to deserving individuals who meet the application criteria (visit [www.ABEA.biz](http://www.ABEA.biz)).

**Congratulations to:** *Anabel Stokes* (Julie Stokes, City of Moncton), *Katie Kelly* (John Kelly, PEI), *Ian Eisnor* (John Eisnor, City of Halifax), and *Larissa Wadden* (Nadine Keller-Wadden, CBRM).


The **2024 ACWWA Conference** is just around the corner – this September 22 to 25 in Fredericton, NB.

**ABEA golf** has been booked at the **Mactaquac Golf Course**, Mactaquac, NB on Sunday September 22, 2024, with a 9:00 am shotgun start.

The **Monday evening ever-popular Hospitality Night** will be held at Dolan's Pub from 8:00 pm – 1:00 am.

Music will be provided by The Mix. The Main Event **Trade Show will**

**be held on Tuesday** from 10:00 am – 2:00 pm – lunch will be served during the event. Come meet and greet and see what's new in the industry to solve your most troubling problem.

Education is always a hot topic, and our membership continue to find ways to assist their customers with creative delivery methods to keep them informed of changes in the industry. If you have a need, please feel free to reach out. 

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# 2024 ACWWA ANNUAL CONFERENCE

FREDERICTON, NB • SEPTEMBER 22–24



## WELCOME

**H**oly moly, it is almost conference time! Please mark the time off and schedule your trip to join water and wastewater peers in Fredericton at the 2024 Annual ACWWA Conference September 22–24.

We are delighted to host the conference at the Fredericton Convention Center in beautiful Fredericton, New Brunswick, nestled along the bank of the Wolastoq (Saint John) River. The two host hotels are located in the vibrant downtown in close proximity to riverfront walking trails, art galleries, museums, as well as many fabulous restaurants and shopping experiences. The timing of this year's event will hopefully come with some wonderful weather to get out and experience what Fredericton has to offer.

Atlantic Canada has for the last few years and remains to experience high levels of growth in commercial and residential development. Paired with climate change, this welcomed development has led to our conference theme: **“A Growing Concern: Adapting for the Challenges of Tomorrow.”** Given these challenges of growth and climate issues, the industry must adapt to meet the challenges of these strains on our municipal systems.

The ACWWA Annual Conference remains a technical conference and we have assembled a top-tier technical program thanks to the quality submissions by smart and hard working individuals that are part of our valued industry. We are alike in the growth in our communities and have been scrambling and pivoting operations and planning to adapt to these challenges. Come and learn about water and wastewater processes, operations, and projects from peers that will assist you in your work.

The organizing committee has been working hard to assemble a unique and memorable experience that is sure to be a valued experience.



The conference highlights will include popular events like golfing at the Mactaquac Golf Course, technical tours, the Emerging Leaders social, ABEA Hospitality Night (Dolan's Pub) and Tradeshow, as well as the “Best of the Best” water taste test. The water tower competition has been switched up to “Think Tank” Trivia Night and the Tuesday Night Social is going to provide a unique and relaxing mingling atmosphere.

The water and wastewater industry has provided critical public services for more than a century. We do important work! The industry has always embraced change to provide quality and valued services, and adapting to growth in our communities is merely another challenge. In Fredericton, the growth has led to changes in asset management. Infrastructure built to support low density is now leaned on to support higher density developments. The changing density is required to support housing needs. This has led to assessment of water and wastewater systems. Does the water main provide adequate fire flow protection? Are there any

downstream sewer capacity issues? Even larger questions like: will the water supply and wastewater treatment be able to meet the future demands? What do the new population numbers say about the lifecycle of your infrastructure? It is a certainty that clean water and reliable wastewater services will be needed in our communities for years to come.

Water and wastewater professionals, asset managers, government officials, cats and dogs, and anyone interested in the water and wastewater industry, plan on attending this year's ACWWA Annual Conference in Fredericton September 22–24. Network with like-minded individuals, reunite with old friends and make new ones. Come and share your experience and knowledge as we *“Adapt for the Challenges of Tomorrow.”*

**Greg McCann,**  
2024 Conference  
Chair







## THE CONFERENCE VENUE

The conference will be held at the Fredericton Convention Centre, located at 670 Queen Street in downtown Fredericton. It is adjoining the Hilton Garden Inn and is across the street from the Crowne Plaza.

Rooms at conference rates are available: \$204/night plus taxes for the Hilton Garden Inn and \$224/night plus taxes for the Crowne Plaza.

Reservations can be made using the link on ACWWA's website ([www.acwwa.ca](http://www.acwwa.ca)) or by visiting <https://rebrand.ly/ACWWA-2024> for the Hilton Garden Inn and <https://rebrand.ly/ACWWA0924> for the Crowne Plaza.

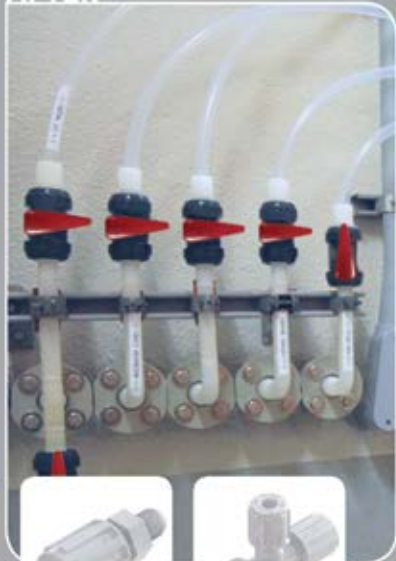


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## VISITING OFFICERS OF AWWA, WEF, CWWA

### Paul Rush – AWWA Visiting Officer



**P**aul Rush has served as Deputy Commissioner for the New York City Department of Environmental Protection's (DEP) Bureau of Water Supply since 2006. As Deputy Commissioner, he is responsible for operating New York City's water supply system that provides 1.1 billion gallons per day to more than nine million residents of New York City and portions of four upstate counties.

Paul began working for DEP in 1992 at a time when New York City was increasing staff to pursue a filtration avoidance determination for its supply in the Catskills after the EPA promulgated the surface water treatment rule. He worked in a variety of engineering and operations positions at DEP prior to becoming Deputy Commissioner.

Before joining DEP, Paul served on active duty in the Army as an engineer officer and continued his service in the Army Reserve until 2004.

Paul has served on the Water Research Foundation Board of Directors since 2012 and is currently serving as the Chair. He also serves as an ex officio member of the American Water Works Association Board of Directors.

Paul holds a Master of Science degree in civil engineering from Michigan Technological University and a Bachelor of Science degree in civil engineering from the United States Military Academy. He is a registered professional engineer in the state of New York.

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### Tracy Ekola – WEF Visiting Officer



**T**racy Ekola, PE, is a member of the 2023–24 Board of Trustees for the Water Environment Federation (WEF), an international organization of water quality professionals headquartered in Alexandria, VA.

Tracy serves as vice president and Midwest senior director for Brown and Caldwell. As an executive with more than 30 years of experience in environmental engineering and business leadership, Tracy provides clear, effective communication and collaboration to maintain a positive forward-thinking environment. Her leadership experience has focused on organizational strategy, innovation and utility performance, regional and national market analyses, risk management, project management improvement processes, succession planning and leadership training and development.

Tracy has been an active member of WEF and the Central States Water Environment Association (CSWEA), participating in various committees and leadership roles spanning almost three decades. Tracy has served on the WEF House of Delegates as a delegate at large and a second term as a delegate for CSWEA. She served on the WEF House of Delegates (HOD) Budget Committee and multiple HOD workgroups. She has served as the conveyance and watershed community director and recently as Director for multiple task forces for the Community Leadership Council. She has also served on multiple WEF committees, including Government Affairs, Utility Management, and Program communities.

Tracy graduated with a bachelor's degree in civil engineering from the University of Minnesota and Executive Education Vistage International at Stanford Graduate School of Business. She resides in Minnesota with her husband, who works for the state of Minnesota in natural resources and forestry planning. They enjoy working and playing in the great outdoors along with their two sons, who are employed as electrical and mechanical engineers.





## Robert Haller – CWWA Visiting Officer



**R**obert Haller is the executive director of the Canadian Water and Wastewater Association, which is THE national voice for the municipal water and wastewater sector in Canada. Robert took on this role after almost 20 years as a senior municipal administrator – most of those years serving as a CAO for small and medium-sized communities. Robert leads the CWWA with an obvious passion for the industry, a desire to facilitate national networks, and he works to promote collaboration between all the water organizations across Canada.





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## CONFERENCE HIGHLIGHTS

### SUNDAY SEPTEMBER 22, 2024

9:00–14:30	2024 ABEA Annual Golf Tournament
12:45–15:00	EJ Bliss Water Treatment Plant / Barker Street Water Resource Recovery Facility
17:00–19:00	Emerging Leaders Mixer – The Joyce
19:30–22:30	Meet and Greet Reception
20:30–21:00	Trivia Night

### MONDAY SEPTEMBER 23, 2024

7:30–8:30	Executive Continental Breakfast
8:30–10:00	Opening Session and Welcome
10:30–12:00	Technical Sessions
12:00–13:30	ACWWA AGM and Awards Luncheon
13:30–16:45	Technical Sessions
17:30–18:30	Water For People Fun Run/Walk
18:00–20:00	Dine On Your Own – Downtown Fredericton
20:00–1:00	2024 Annual ABEA Common Hospitality Event

### TUESDAY SEPTEMBER 24, 2024

8:00–9:00	Full Breakfast Buffet / “Best of the Best” Water Taste Test
9:00–10:00	Technical Sessions
10:00–14:00	ABEA Tradeshow
14:00–16:45	Technical Sessions
18:00–22:00	Tuesday Night Social



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# 2024 ABEA ANNUAL GOLF TOURNAMENT

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We welcome you to join us for our Annual Golf Tournament being held September 22, 2024 and sponsored by the ABEA, and its individual members. Tee times commence at 9:00 a.m. with a shotgun format. Price \$85 + tax (includes green



fees, shared cart, lunch and transportation – provided by CBCL Fredericton).

Put your team together, or we will be pleased to place you with a group – all ability levels welcome.

Rental clubs are available for an additional fee (arrangements to be made directly with the course).

Please note that only those registered by August 15, 2024 will be considered for clothing.



## THE PANEL SHOP

**For further information please contact:**

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## ACWWA TECHNICAL TOURS

On September 22 the ACWWA Conference is pleased to offer two technical tours. Delegates may choose from the EJ Bliss Water Treatment Plant or the Barker Street Water Resource Recovery Facility.

With Fredericton experiencing an unprecedented level of growth it was necessary to construct a second water treatment plant and upgrade the main wastewater treatment facility to ensure the city had the means to meet the present level of supply and treatment and to plan for the continued future growth of the population.

### EJ Bliss Water Treatment Plant

Located on a former service station property, the EJ Bliss Water Treatment Plant (EJB) became operational in May 2009. The EJB plant uses pressurized filters for pH adjustment and manganese removal and chlorine gas for disinfection prior to entering the distribution system.

Fredericton's potable water supply has been taken from high yield production wells since 1959 located at two concentrated areas in the City's downtown core. The original wellfield presently has seven production wells directed to the William L Barrett Treatment Plant (WLB) and three wells to the EJB Plant. As the city expanded, a need for more water and redundancy



became apparent, and a second well field was developed along with the EJB plant.

At the present time, there are ten production wells in service, one under

construction and another in the planning phase. These two new wells will be treated at the EJB plant which will bring the plant to full treatment capacity.

### Barker Street Water Resource Recovery Facility

Since the original construction in 1969, the Barker Street Water Resource Recovery Facility (WRRF) has been through several changes both in treatment process and in name. When the facility was first put online, Fredericton was divided into many smaller communities and the first iteration of the plant was the Fredericton Area Pollution Control Commission (FAPCC). This commission existed up until 2014 when the Commission was dissolved once Fredericton as we know it today became the single customer.

Through the years, the plant has been upgraded to accommodate newer technologies and to increase flow capacities for a growing city. After a study of the treatment facility in 2007,



a phased approach was taken to allow for continuous improvement in the treatment process, system redundancy, increased capacity, and to allow the city to spread the upgrade cost over many years. These phases included upgrades to the main lift station, a new UV system, additional

aeration, a supplemental secondary clarifier, and a screening system.

The final phase of the long-term plan is a sludge thickening process which is presently under construction, and we are hopeful this new process will be operational for this tour in September.





## EMERGING LEADERS MIXER



The ACWWA Emerging Leaders Committee is an active group that offers engaging networking and volunteering opportunities for members of the ACWWA who are new to the water and wastewater industry. The Emerging Leaders Committee is inviting conference attendees to join us for the networking event and mixer, which is being held from 5 p.m. to 7 p.m. on the opening day of the conference,

Sunday, September 22 at The Joyce in Fredericton. The networking event will provide an opportunity for career development where Emerging Leaders can get to know leading figures from the industry and other Emerging Leaders. Both novice and experienced professionals are encouraged to drop in for some snacks, refreshments, and conversation with leading members in our industry. This is a wonderful

opportunity to meet and support our future water and wastewater leaders.

Thank you to Sansom Equipment Limited for supporting the Emerging Leaders events.

Before the Emerging Leaders event, we will also attend technical tours as two groups, attending either the EJ Bliss Water Treatment Plant or the Barker Street Water Resource Recovery Facility, from 12:45 p.m. to 3 p.m.

## MEET AND GREET RECEPTION AND THINK TANK TRIVIA

Who's ready for the 2024 ACWWA Annual Conference? Remember when we used to do water and sewer jeopardy at previous conferences? Well, we're bringing it back, just in a slightly different format. This year the format will be TRIVIA! Greatario is our sponsor and Tony Whalen is our host.

The format will include five rounds of questions. Answers will be written out, so not multiple choice. We're thinking of teams six to eight people depending upon how much interest there is. Prizes will go to the top three teams.

It's going to be a lot of fun, so keep looking for more information in the final conference program for further details.



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## WATER FOR PEOPLE EVENTS



**W**ater For People (WFP) is a global non-profit that helps people bring clean water and sanitation solutions to their communities for generations to come. Born out of the American Water Works Association in 1991, WFP have helped millions of people across nine countries get access to clean water, sanitation solutions, and hygiene education.

ACWWA has a WFP Committee focused on raising awareness and providing opportunities for ACWWA members and others in Atlantic Canada to be involved with WFP by donating money or time in support of WFP's vision of a world where every person has access to reliable, safe water and sanitation services.

Each year, at the Annual ACWWA Conference, several WFP activities are organized to raise funds and awareness in support of WFP.

There fundraising efforts have gone a long way to make Atlantic Canada stand out as a tremendous donor among AWWA sections with the Atlantic Chapter, raising approximately \$20,000 annually. Events organized to raise funds and awareness for WFP this year at the 77th Annual ACWWA Conference include the Charity Silent Auction, WFP Fun Run/Walk, and the 50/50 raffle during the Sunday and Tuesday Night Socials. Prizes will include charitable donations to WFP in the name of the winners.

The Charity Silent Auction will be open for viewing and bidding throughout the conference, with bidding closing prior to the technical sessions on Tuesday afternoon. Those wishing to make donations to the Silent Auction can contact [acwwa.els@gmail.com](mailto:acwwa.els@gmail.com), or bring the item(s) to the registration desk the first day of the conference – Sunday, September 22.

When registering for the conference, do not forget to sign up for the 2024 Fun Run/Walk! The 5 km Fun Run/Walk will be held on Monday, September 23 at 5:30 p.m. and will start from the Convention Centre. This event will allow participants to see several of Fredericton's iconic scenes in the Carleton Street Pedway, the Lighthouse, Christ Church Cathedral, the Bill Thorpe Walking Bridge, the Nashwaak Walking Bridge and, one could argue with this crowd, the Wastewater Treatment Facility. Thank you to Sansom Equipment Limited for supporting the Run/Walk.

We look forward to seeing all the attendees at the ACWWA Conference and being able to share our passion of such a worthy cause – and a huge thank you to those who have supported the WFP charity and its past activities in previous years!

## THE 2024 ANNUAL ABEA COMMON HOSPITALITY EVENT

**W**elcome... Bienvenue...  
Kulahsihkulpa...

The Atlantic Branch Equipment Association cordially invites all ACWWA Conference delegates and attending members to join us for the 15th Annual Common ABEA Hospitality Event to be held at Dolan's pub – 39 King Street, Downtown Fredericton.

Festivities will be happening from 8 p.m. to 1 a.m., with entertainment provided by The MIX.

This is a wonderful opportunity to meet and greet your ABEA Equipment Suppliers, old friends, and introduce yourself to someone new. Please remember your "delegate badge" for admittance to this ABEA member sponsored premiere/private event.







## “BEST OF THE BEST” TAP WATER TASTE TEST



Submit a sample to join in as we celebrate the 10th annual “Best of the Best” Tap Water Taste Test competition!

Our panel of water professionals will be looking for the “Best of the Best” tasting tap water here at the ACWWA Conference in Fredericton, NB! Bring a sample of your hometown water that you supply to your customers and see where it ranks against your neighbouring Atlantic Canadian communities. Samples will

be judged on their appearance, odour, taste, and overall impression. The competition, beginning just before the ABEA Tradeshow, will take place from 8 a.m. to 9 a.m. during morning breakfast on Tuesday, September 24, 2024.

The first-place winner will have the opportunity to represent ACWWA at the AWWA Annual conference and Exposition (ACE) “Best of the Best” Tap Water Taste Test at their next conference!

Join us to find out who has the best tasting water in Atlantic Canada! Entry forms, rules, and judging criteria are available on the ACWWA website at [www.acwwa.ca](http://www.acwwa.ca). Entry forms are due by September 10, 2024.

Thank you to the North Shore Mi'kmaq Tribal Council for supporting the “Best of the Best” Tap Water Taste Test.

For more information, please contact Scott Grasman at [scott.grasman@fredericton.ca](mailto:scott.grasman@fredericton.ca).

## 2024 ATLANTIC BRANCH EQUIPMENT ASSOCIATION TRADESHOW

The 2024 Tradeshow will be held Tuesday September 24, 2024 from 10 a.m. to 2 p.m. This popular event provides the equipment suppliers an opportunity to showcase

their products and services, and delegates the opportunity to network with both participants and colleagues. Prepare to be introduced to the latest technologies and services available to

the water/wastewater industry.

Lunch will be served during the Trade Show. Allow time to explore and engage; there is something for everyone and more!

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# TECHNICAL PROGRAM

## MONDAY SEPTEMBER 23, 2024

	A	B	C
10:30–11:00	Managing Development and Infrastructure Needs with Significant Population Growth <i>Fredrick Van Rooyen, City of Fredericton</i>	Water Treatment Case Studies: Ballasted flocculation for a Resilient City <i>Laurent Oligny &amp; Christian Scott, Veolia</i>	Thunder Storm Impacts on Dam Safety <i>Perry Mitchellmore, Hamid Goharnejad, Jessica Fazio MECO Engineers</i>
11:00–11:30	Supply and Demand – How Fredericton’s Water Supply Developed and is Evolving to Meet Future Growth <i>City of Fredericton</i>	Future-Proofing Slow Sand Filtration: Adding Ancillary Technologies to a Time-Tested Science <i>Robert LeCraw &amp; Kristof Karpiuk, MSFilter</i>	Application of a Vulnerability-Based Risk Assessment Tool for Dam Safety <i>Perry Mitchellmore, MECO Engineers</i>
11:30–12:00	Charlottetown Water Supply Planning <i>Richard McEwen &amp; Joshua McInnis, City of Charlottetown</i>	Breaking Out of the Membrane Mold: Options and Considerations for Plant Design at Pasadena, NL <i>Wes Alexander, Membrane Specialists</i>	Modelling Peatland Disruption in Bisected Bogs and the Potential Impacts for Source Water Protection <i>Rory McPhail*, Dalhousie University</i>
<b>AGM &amp; Awards Luncheon (12:00–13:30)</b>			
13:30–14:00	Mill Cove WWTF Status Update – Membrane Bioreactor (MBR) It Is! <i>Olav Natvik, Stantec</i>	Cybersecurity Interactive TableTop <i>Stephanie LeBlanc &amp; Kirk MacDonald, Halifax Water</i>	Beyond Compliance: Experience with Implementing a Drinking Water Safety Plan <i>Wendy Krkosek, Halifax Water</i>
14:00–14:30	Sydney Harbour West WWTP – A New-Build Wastewater Treatment Case Study <i>Sarah Ensslin &amp; Holly Sampson, CBCL</i>	Can You Secure Remote Access to SCADA? <i>Zane Spencer, MPE</i>	Risk Management Across Canadian Provinces: Perspectives from Operators <i>Emma Wells*, UC Boulder</i>
14:30–15:00	City of Fredericton Wastewater Treatment Plant – Twenty Years of Phased Upgrades <i>Mike Abbott &amp; Marc Colwell, CBCL</i>	Machine Learning and AI Applications for Municipal Water Utility Managers <i>Mike Bensen, UNB</i>	Evolving our Professional Services Training Program for Future Leaders <i>Amy Winchester, CBCL</i>
<b>Break (15:00–15:15)</b>			
15:15–15:45	Water Down the Road: Repairing A Critical Transmission Main While Keeping the Taps Running <i>John Eisnor, Kevin Healy &amp; Wendy Krkosek, Halifax Water</i>	Barriers and Deployment of UV-C LED Technology in Municipal Water and Wastewater Applications <i>Aaron Leber, Aquisense</i>	Monitoring of Per- and Polyfluoroalkyl Substances (PFAS) in Atlantic Canadian Source Waters <i>Manda Tchonlla*, Jessica Bennett &amp; Graham Gagnon, Dalhousie</i>
15:45–16:15	PVC Leak Detection <i>Jason Phillips, City of St. Johns</i>	UV LEDs for Wastewater Disinfection <i>Bailey Reid*, Sean MacIsaac, Carolina Ontiveros, Amina Stoddart, Graham Gagnon, Dalhousie University</i>	Adapting a National Wastewater Surveillance program to NB and First Nations needs <i>Heather Cail, NSMTC</i>
16:15–16:45	City of Moncton – IWA/AWWA Audit(s) Benefits & Lessons Learned <i>Julie Stokes, City of Moncton</i>	Illuminating Alternative UV Dosing Strategies <i>Appana Lok, RV Anderson</i>	Viability qPCR, a Rapid Tool for Detecting Legionella Pneumophila in Cooling Towers <i>Nishanth Kuchi*, Attiq Rehman, Matthew Poole, Nadine Godin, Michael Lawlor, Diane Botelho, RPC</i>

\* Indicates Fresh Ideas





**TUESDAY SEPTEMBER 24, 2024**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>9:00–9:30</b>	A Tale of Two Towns – Water Distribution and Treatment Challenges <i>Warren Martin, Stantec</i>	Zoning in on Sewer Separation <i>Shawn Burke, Englobe</i>	Molecular Tools for Advanced Wastewater Management <i>Reham Yasser Farouk* &amp; Amina Stoddart, Dalhousie</i>
<b>9:30–10:00</b>	Trenchless Rehabilitation of Sanitary Forcemain Crossing the Wolastoq (Saint John River) <i>Rachel Hogge*, EXP</i>	Albro Lakes Combined Sewer Separation <i>Adam Sketchley, DesignPoint</i>	Big Data in Microbial Communities: An Analysis Toolset for eDNA in Water and Wastewater Ecosystem <i>Paul Bjorndahl, Dalhousie</i>
<b>Tradeshow (10:00–14:00)</b>			
<b>14:00–14:30</b>	Navigating a Changing Future: Climate Data for the Water and Wastewater Sector <i>Amanda Lagace, ECCC</i>	Harmful Algal Blooms: The What, Why and How of Implementing a Risk-based Monitoring Strategy <i>Jessica Campbell &amp; Wendy Krkosek, Halifax Water</i>	Meeting Evolving Performance Requirements for Iron and Manganese Reduction in Groundwater <i>Rick Sen, Magnor</i>
<b>14:30–15:00</b>	Climate Event Driven Impacts to Drinking Water Treatment in Atlantic Canada <i>Lindsay Anderson, Dalhousie</i>	Enhanced Monitoring Strategies for Toxic Cyanobacteria in Drinking Water Supplies <i>Dave Redden &amp; Clarke Brown, Dalhousie</i>	Evaluation of Drinking Water Additives on Lead Solder Corrosion in Premises Plumbing <i>Naomi Lewis,* Ben Trueman, Kalli Hood, Graham Gagnon, Dalhousie</i>
<b>15:00–15:30</b>	GAC as a Robust Technology for Adapting to Climate Event-based Changes to Source Water Quality <i>Ryan Swinamer, Dalhousie</i>	Blue Green Algae (Cyanobacteria) and Their Toxins in Atlantic Canada's Recreational Water <i>Maston,C,* RPC</i>	A Holistic Approach to Phosphorus Corrosion Control <i>Kevin Sullo, Aqua Smart Inc.</i>
<b>Break (15:30–15:45)</b>			
<b>15:45–16:15</b>	Year Round Cold Water Treatment Capacity Improvement Options <i>Regan Smith, Ecofixe</i>	Biomass-Derived Nanocomposites for Highly Efficient Photocatalytic Degradation of Wastewater <i>Rahil Changotra* &amp; Quan Sophia He, Dalhousie</i>	Interpreting a Laboratory Quality Control Report <i>Michael Doucet, ALS</i>
<b>16:15–16:45</b>	Springfield Lake Wastewater Servicing Study and Concept Design <i>Devin Bell, Stantec</i>	Removal of Pollutants from Wastewater Using Sustainable Bio-adsorbent <i>Himadri Rajput* and Quan Sophia He</i>	Winning the War Against Wipes <i>Troy Heimerl, JWCE</i>

\* Indicates Fresh Ideas

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PART 2 - REGISTRATION TYPE								
Included Activities <input checked="" type="checkbox"/> Included <input checked="" type="checkbox"/> NOT Included <input checked="" type="checkbox"/>			Sun Meet & Greet	Mon AGM Lunch	Mon ABEA Reception	Tue Trade Show	Tue Lunch	Tue Night Social
<b>Register before August 22, 2024, and be entered for the early bird draw – a \$300 VISA gift card!</b> <b>\$200 late fee for Full Conference Delegate after September 2, 2024</b> <b>If you are not a member but would like to become a member for savings benefits, contact <a href="mailto:julie.stokes@moncton.ca">julie.stokes@moncton.ca</a></b>								
Full Conference Delegate <i>On or Before Sept. 2, 2024</i>	Member – \$595	Non-Member – \$795	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Full Conference Delegate <i>After Sept. 2, 2024</i>	Member – \$795	Non-Member – \$995	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Full Conference Student	Member/Non-Member – \$75 <i>Registration is free if the student is presenting a technical session</i>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monday Full Day Pass	Member – \$350	Non-Member – \$450	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tuesday Full Day	Member – \$400	Non-Member – \$500	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tuesday 1/2 Day Trade Show Pass	Member – \$200	Non-Member – \$250	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tradeshow Exhibitor	Costing in the next section Included items shown here <input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Part 4 – Subtotal</b>								\$

PART 3 - TRADE SHOW BOOTH RENTAL & EXHIBITOR REGISTRATION			
Booth Rental (Max 3 Booths & 2 People/Booth) <i>Includes as indicated in Tradeshow Exhibitor Part 2</i>	ABEA Member – ___ Booths @ \$600	Non-Member – ___ Booths @ \$1,000	\$
EXHIBITOR'S NAME	EXHIBITOR'S NAME	EXHIBITOR'S NAME	
EXHIBITOR'S NAME	EXHIBITOR'S NAME	EXHIBITOR'S NAME	
Extra Booth Exhibitor Registration <i>Includes as indicated in Tradeshow Exhibitor Part 2</i>	ABEA Member – ___ @ \$75	Non-Member – ___ @ \$100	\$
EXHIBITOR'S NAME	EXHIBITOR'S NAME	EXHIBITOR'S NAME	
<b>Part 3 – Subtotal</b>			\$

## PART 4 - ADDITIONAL MEALS & ACTIVITIES NOT INCLUDED WITH REGISTRATION

### Sunday, September 22

Golf – Sunday, September 22, Transportation, Green Fee, Shared Cart and Lunch – <b>Limited Capacity</b> Indicate your shirt size(s): SM____, MED____, LG____, XL____, XXL____	___ @ \$85 =	\$
Technical Tour – EJ Bliss Water Treatment Plant Sunday, Sept. 22 (PPE required, Safety Boots, Hard Hat and Vest/Warm clothing)	___ @ \$20 = (Tours are concurrent)	\$
Technical Tour – Barker Street Wastewater Treatment Facility Sunday, Sept. 22 (PPE required, Safety Boots, Hard Hat and Vest / Warm clothing)	___ @ \$20 =	

### Monday, September 23

Additional Annual General Meeting Luncheon One ticket included with <b>Full Conference and Monday Full Day Pass</b> Registration	___ @ \$85 =	\$
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### Tuesday, September 24

Additional Tuesday Night Social Tickets One ticket is included with every <b>Full Conference and Tuesday Full Day</b> Registration	___ @ \$105 =	\$
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**Part 4 - Subtotal** \$

## PART 5 - FEES

	(Part 2 + Part 3 + Part 4) <b>Subtotal</b>	\$
	Life Members deduct \$100.00	-\$
	<b>HST 15% (869 924 910 RT2)</b>	\$
Indicate your shirt size(s): SM____, MED____, LG____, XL____, XXL____	Water For People Fun Run - ___ @ \$25	\$
	Water For People Fun Walk - ___ @ \$25	\$
	<b>Total Amount Due</b>	<b>\$</b>

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Choose a payment method. Complete as appropriate.

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The entire conference has a 1.5 CEU value.

### TRADE SHOW INFORMATION

Each booth measures 8' x 10'. Booth selection will be online and first come, first serve. ABEA members will have exclusive access for one week before the public. Contact the ABEA to learn more about becoming an ABEA member (Cathy Cameron at [catherine@scotiotech.ca](mailto:catherine@scotiotech.ca)). For trade show questions, contact Cathy Cameron at [catherine@scotiotech.ca](mailto:catherine@scotiotech.ca).

Booths are reserved at registration but cannot be selected until payment is received.

Register and pay online with Visa or MasterCard to avoid delays and select the booths you want.

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## Greatario's Ongoing Commitment to Build the Very Best

*Drew Williamson, CPA, MBA, Greatario President*



**A**s the CEO of Greatario, I am thrilled to highlight the significant role our company plays in promoting water security and supporting the expansion of communities across Canada. We've worked with many talented engineers and contractors across Eastern Canada on some of the biggest projects in the region. These partnerships help strengthen our position as one of the leading tank builders in Atlantic Canada.

Since 1986, we have specialized in building glass-fused-to-steel, bolted water storage tanks for municipalities across Canada. We have built over 800 tanks and have recently surpassed 200 projects in Atlantic Canada alone. Our employees are committed to providing the very best solution, experience and after-sale service for our customers. Additionally, our safety standards, including COR certification, underscores our dedication to maintaining the highest safety protocols in all our projects.

### **What types of products does Greatario offer, and how do they cater to different customer needs?**

Greatario has always built low-maintenance, long-lasting glass-fused-to-steel liquid storage tanks. GFS tanks offer the most reliable solution for municipalities water or wastewater storage needs. Over their lifespan, GFS tanks cost less than other types of tanks. Their modular design allows rapid construction – a big help as growing communities require more water storage to meet housing demands. We also offer factory epoxy coated tanks, GRP tanks, aluminum covers and a line of water quality products from IXOM.

### **Can you tell us about the success Greatario has had in Atlantic Canada?**

Greatario has been building tanks in Atlantic Canada for nearly four decades.

We started out with a travelling crew and an Ontario-based salesman covering the area. Today we have multiple locally based construction crews and team leads, a dedicated project manager and a local sales person. I'd be remiss if I didn't mention our Construction Superintendent Joey Sutherland, our Project Foreman Patrick McCarthy and East Coast Sales Manager Evan MacAuley – who all contribute a fresh perspective and innovative approach that drives us forward while preserving our core values. These local teams ensure each project is completed on time and according to plan. Being able to say we've built 200 tanks in Atlantic Canada is a testament to this teams' dedication and expertise. This achievement underscores our understanding of the region and our ability to meet the growing demand for water storage tanks, ensuring municipalities have reliable storage solutions. We are proud of the bonds we have with local municipalities across the Maritimes and respect the trust they have in us.

### **Greatario recently announced their partnership with Balmoral Tanks – can you tell us more about that partnership?**

Our partnership with Balmoral Tanks was driven by our ongoing commitment to build the very best tanks and to continue providing the very best customer service. Balmoral's expertise and innovative solutions allow us to provide our customers with on-time service and delivery, high quality products and post-construction support.

Balmoral has developed a wide range of tank products, helping us meet the growing needs of our customers more effectively. They also happen to be a great team to work with!

### **How does Greatario ensure ongoing service and maintenance for its tanks, and what role does the Asset Management Program play in this?**

At Greatario, our commitment to customer satisfaction extends beyond the initial build. We offer comprehensive service and maintenance for all tank types and our after-sales service is the best in the business. We can help municipalities create a comprehensive Asset Management Program. An AMP helps communities plan for and budget for maintenance. GFS tanks do offer the longest lifespan of any tank type, and following a predictive maintenance schedule will ensure the tank performs optimally throughout that lifetime. Our service team can also perform professional inspections that include detailed findings reports.

Greatario has grown and evolved over the past 40 years, striving for excellence and innovation. As we look to the future, we stand by our promise to provide the best tank solutions, backed by unparalleled service and commitment to quality. We invite you to partner with us on your next project, where together we can achieve remarkable results. As we always say, "Let's Build Something GREAT!"

[www.greatario.com](http://www.greatario.com)



# Member Spotlight

## Lindsay Anderson, MAsc, PhD, P.Eng

Post Doctoral Fellow

Centre for Water Resources Studies, Dalhousie University



Originally Published in *JournalAWWA*, Lindsay Anderson of Dalhousie University answered questions from the publication's editor-in-chief, Kenneth L. Mercer, about research in the published article “Adapting Direct Filtration to Increasing Source Water Dissolved Organic Carbon Using Clarification and Granular Activated Carbon” (Lindsay E. Anderson, Manda Tchonlla, Martin Earle, Ryan Swinamer, and Graham A. Gagnon).

### Where are you working? What is your research focus?

Currently I am working as a postdoctoral fellow at the Centre for Water Resources Studies (CWRS) at Dalhousie University in Halifax, N.S. My research focuses on incorporating climate resiliency into drinking water treatment plant design, which is a continuation of my PhD research.

### What path of education and training have you followed?

I did my undergraduate work in environmental engineering here at Dalhousie University. During this time, I met some amazing professors and researchers who motivated me to pursue further studies in the field of water treatment. Specifically, Dr. Margaret Walsh and Dr. Graham Gagnon have both been huge inspirations for me throughout my studies. Dr. Walsh introduced me to water research through several co-op work terms in the CWRS lab, which exposed me to fundamental drinking water treatment technologies like coagulation and ion exchange. Because of this experience, I decided to pursue a Master of Applied Science (MAsc) in Civil Engineering (also at Dalhousie) after my undergraduate studies, where I conducted research with Dr. Walsh on novel ion exchange technologies for the removal of organic matter, both at bench and pilot scales.



A view of the Bras D'Or lake from Lindsay's family home in Cape Breton, Nova Scotia.

I also worked closely with Dr. Gagnon and his group during my MAsc studies and went on to work with Dr. Gagnon and also pursue a PhD. My PhD research focused on how the quality of surface drinking water supplies are changing as a result of anthropogenic stressors like climate change and specifically how the concentration of natural organic matter (e.g., dissolved organic carbon) is gradually increasing. At the end of my PhD work, I did a lot of research on treatment plant resiliency and climate adaptation, part of which is described in my *AWWA Water Science* article. In my postdoc, I am continuing to focus on climate-driven changes to source water quality and the implications for treatability.

### How would you explain your research to someone without a background in water science?

My plain-language description would be that climate change impacts, like warming temperatures and more extreme or frequent rain events, are changing the chemistry and biology of our lakes and drinking water supplies. These climate impacts make treating the water to a safe level for consumption much more difficult than it was 20–30 years ago. When treatment plants were designed then, the water in our region was very clear and clean, but now it is brown and much more difficult and complicated to treat. As a result, drinking water providers need to adapt treatment strategies to maintain consistent treated-water quality at the tap.

### What motivated the research discussed in your *AWWA Water Science* article?

Our research program is directly motivated by the needs of our utility partners, many of which have been challenged with changes in raw water quality happening over many decades, and in particular elevated natural organic matter concentration. This research addressed some possible treatment adaptations for our partners, such as incorporating activated carbon caps into existing filter design to help enhance organic matter removal.



### Is there another study that influenced your own work?

The pilot plant that we used in the research for our AWWA Water Science article has been operational for more than a decade and has been used for many studies on direct filtration to help address our utility partner needs; I like to think of this work as a continuation or extension of our previous research. As source water quality changes, so do the treatment needs, and therefore we use the pilot plant to help inform and guide future treatment decisions. One of our more recent pilot studies (<https://doi.org/10.1016/j.jwpe.2020.101689>) assessed strategies to improve the efficacy of direct filtration plants facing changes in source water quality from anthropogenic and climatic pressures. This work evaluated various combinations of alum and cationic polymer to improve organic matter removal and filter performance. Our recent AWWA Water Science article can be viewed as an extension of this work, incorporating the use of granular activated carbon (GAC) media as an additional strategy to improve plant performance and finished water quality.

### What surprises or setbacks did you encounter?

One of the setbacks we encountered during this research was that it began during the COVID-19 pandemic, when we had limited access to treatment facilities because of restrictions that were in place at the beginning of the study. This made it difficult to collect samples as frequently as we would have liked.

### What ideas for further exploration were prompted by your latest research?

This research prompted us to investigate other ways to incorporate activated carbon into treatment plant design as well as ways to extend the media life. For example, we are looking into using post-filter GAC contactors that can be operated intermittently or as needed when source water quality is particularly challenging, as opposed to capping existing filters with GAC like we did in our AWWA Water Science article.



A photo of “Women in Water” at the Centre for Water Resources Studies (Dalhousie University) after speaking to a local news outlet about the impacts of climate change on our lakes.



A photo of Lindsay after successfully passing her PhD defense at Dalhousie in March 2023.

### How do you enjoy spending your free time?

I live in Dartmouth, N.S., which is known as the “City of Lakes,” so I like to spend my spare time on the weekends going on walks around the beautiful lakes in the area. I also enjoy going to visit my family in Cape Breton – my mother lives on Bras D’or Lake, which is a well-known part of Cape Breton and a “gateway” to the famous Cabot Trail. Most importantly, I like to give back to the water community by volunteering with our AWWA Section (Atlantic Canada Water and Wastewater Association). I have been a volunteer since 2017 and have held positions that include young professionals chair, director of member involvement, and now technical director. Volunteering with the ACWWA has been one of the most rewarding experiences of my career and has provided me with countless opportunities.

### What is the most exciting aspect of your work in the world of water?

It’s exciting to collaborate with talented people to develop new technologies and novel treatment approaches to address climate impacts. I am extremely lucky to collaborate with graduate students and researchers across many different projects and aspects of drinking water treatment. Although most of my research has been focused on source water quality and treatment, I get to work with researchers on projects advancing novel treatment technologies as well as distribution, corrosion control, and wastewater treatment, which means that I’m always learning. 🌊

Source: <https://awwa.onlinelibrary.wiley.com/doi/10.1002/awwa.2262>



# UPDATE FROM THE EMERGING LEADERS COMMITTEE

**A**re you new to the water and wastewater industry in Atlantic Canada and want to get more involved? The ACWWA Emerging Leaders (EL) Committee has members across the Atlantic region working in academia, consulting, sales, and operations and we are always looking to welcome new emerging leaders to ACWWA.

The EL committee gets new professionals involved in the industry by organizing several social and networking events throughout the year geared towards those who are early in their professional careers and want to make connections. EL Committee

members also get involved with the ACWWA conference each year, giving committee members great exposure to what is new and exciting in the industry.

Stay tuned to the ACWWA email and LinkedIn for updates about the specifics of all our EL events including our Lunch & Learn Series, where we get to chat with and learn from experienced leaders in the water and wastewater industry.

As part of the EL Committee, we want to help recognize, encourage, and celebrate the talents of emerging leaders in the industry. If you would like to get involved with the EL

Committee or receive updates on upcoming events, please send an email to [acwwa.els@gmail.com](mailto:acwwa.els@gmail.com).

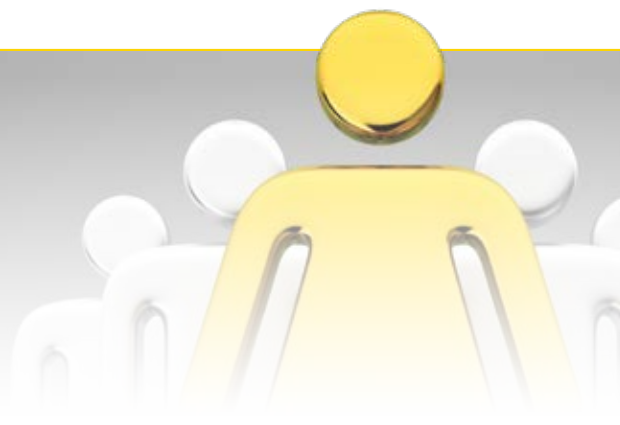
Don't miss the Emerging Leader Committee Events at the 2024 ACWWA Conference! Come join us Sunday, September 22 at the Emerging Leaders Networking Event & Mixer from 5 to 7 p.m. at The Joyce, or the Water For People Fun Run/Walk starting at 5 p.m. on Monday, September 23. You can also help to raise funds for the Water For People charity by bidding on some great items at the Water For People Silent Auction throughout the conference. We hope to see you there! 🌊



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# MEET THE EMERGING LEADERS COMMITTEE

## Committee Co-chairs:

Andrew Burgess & Helena Steeves

## Water For People Chair:

Gillian Stanton

## Committee Members:

James Dalton

Meghan Lea

Vinay Dansinghani

Alberto Serracin-Pitti

**Andrew Burgess** is a Co-Chair of the Emerging Leaders Committee, where he has been an active member for the past two years. With over five years of experience at Flowstar, he works as a Territory Manager, providing expertise and support to water and wastewater professionals on pumps, valves, flow metering, and related equipment.

**Helena Steeves** is a Co-Chair of the Emerging Leaders Committee and has been volunteering with ACWWA for two years. She has been working in the water and wastewater industry for over four years, and currently works as a Process Engineer at CBCL with a focus on wastewater treatment.

**Gillian Stanton** is the ACWWA Water For People Chair and has been volunteering with ACWWA since 2019. Gill is passionate about water security, safety, and treatment. They recently graduated from Dalhousie University in the Centre for Water Resource Studies and is currently working with African Nova Scotian and rural youth, engaging them towards STEM.

**James Dalton** is a member of the Emerging Leaders Committee and has been volunteering with ACWWA for a year. He worked at Halifax Water for three years, getting involved in various strategic

programs at Halifax Water including the Get the Lead Out and Non-Revenue Water programs.

**Meghan Lea** is a member of the Emerging Leaders Committee and began her volunteer work with ACWWA this year. She earned her Master's in Civil Engineering from Dalhousie University through the Centre for Water Resources Studies (CWRS) in 2023. Since then, she has been working as a Process Engineer at CBCL, undertaking projects in both water and wastewater treatment.

**Vinay Dansinghani** is a member of the Emerging Leaders Committee

and started volunteering with ACWWA this year. He is a recent Environmental Engineering graduate from Dalhousie University, and currently works in consulting as a Water Resources Designer.

**Alberto Serracin-Pitti** is a member of the Emerging Leaders Committee and has been volunteering with ACWWA for over a year. He currently works in Technical Sales of Engineered Products at EMS Water Systems, where his work focuses on water treatment and pumping system design for residential and industrial applications. 

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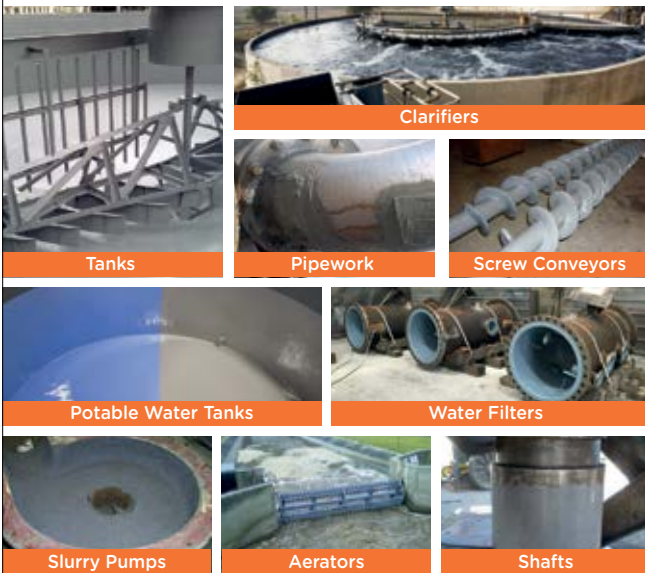
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# TEST YOUR KNOWLEDGE!



Questions below are similar to questions on operator certification exams and are a combination from Water Treatment, Water Distribution, Wastewater Treatment, and Wastewater Collection.

- 1. A Parshall flume is a type of:**
  - a. Orifice
  - b. Submerged nozzle
  - c. Open channel device for flow metering
  - d. Weir requiring free-fall discharge
- 2. A plan view is best defined as:**
  - a. View from the side
  - b. Preliminary design drawing
  - c. View from the top
  - d. None of the above
- 3. Samples that are taken at equal time intervals with the sample volume varied base on the flow rate at the moment of sampling are:**
  - a. Continuous samples
  - b. Grab samples
  - c. Flow-proportioned composite samples
  - d. Time composite samples
- 4. Which of the following factors does not affect the efficiency of UV disinfection?**
  - a. Contact time
  - b. Dissolved oxygen concentration
  - c. Turbidity
  - d. UV transmittance
- 5. The drawdown of a well refers to:**
  - a. Water level prior to pumping
  - b. Water level during pumping
  - c. The distance between the static water level and the ground
  - d. The distance between the pumping and static water level
- 6. What is a cross-connection control program?**
  - a. A program developed to track inventory and testing results of potential cross connections and the mechanical assemblies used to protect the system.
  - b. The process whereby a small amount of flow is maintained through the pipe during maintenance events to ensure that no contaminated water can enter the line.
  - c. A program to shut valves between different pressure zones.
  - d. A program developed by the utility to automatically close valves from a remote location.

Answers are found on page 44 in this magazine.

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# Emergency management and why we should care

By Michael Murray – Senior Partner, KI Emergency Management

**E**mergency management in the water and wastewater sector is crucial to mitigating the impact of natural disasters, cyber attacks, and other disruptions on critical infrastructure. In Canada, emergency management is a shared responsibility among federal, provincial, and territorial governments, as well as local authorities and individual citizens. By caring about emergency management, you play a vital role in building resilient communities, organizations and ensuring a safer future for all.

Emergency management training is essential for building resilience in individuals, communities, and organizations. The value of such training includes:

1. **Enhanced preparedness:** Training equips individuals with the knowledge and skills to prepare for emergencies, reducing the risk of harm and damage.
2. **Improved response:** Effective response strategies and techniques learned through training minimize the impact of emergencies and save lives.
3. **Faster recovery:** Training enables individuals and communities to recover more quickly from emergencies, reducing downtime and economic losses.
4. **Increased awareness:** Emergency management training raises awareness of potential hazards and risks, promoting a culture of safety and preparedness.
5. **Better decision-making:** Training provides individuals with the critical thinking and problem-solving skills to make informed decisions during emergencies.
6. **Enhanced collaboration:** Training fosters collaboration and communication among emergency responders, agencies,

and stakeholders, ensuring a coordinated response.

7. **Reduced economic losses:** By mitigating the impact of emergencies, training helps reduce economic losses and protect critical infrastructure.
8. **Improved community resilience:** Training empowers communities to develop resilience plans, ensuring they are better equipped to withstand and recover from emergencies.
9. **Personal and professional development:** Emergency management training enhances professional skills and knowledge, contributing to personal growth and career advancement.
10. **Compliance with regulations:** Training ensures organizations comply with emergency management regulations and standards, avoiding legal and financial consequences.

By investing in emergency management training, individuals, communities, and organizations can develop the skills and knowledge necessary to build resilience and effectively respond to emergencies, ultimately saving lives and reducing losses.

The Atlantic Canada Water and Wastewater Association is offering a basic emergency management course this October to assist our members increase their knowledge and understanding of Emergency Management. Visit <https://acwwa.ca/education/acwwa-courses.html> for more information.

Do you have a topic for a future Back to Fundamentals article? Email [adam.sketchley@designpoint.ca](mailto:adam.sketchley@designpoint.ca) or [contact@acwwa.ca](mailto:contact@acwwa.ca) and we will do our best to cover it! 📧

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Answers to questions from page 41:

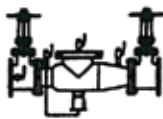
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