

GO with THE FLOW

THE OFFICIAL PUBLICATION OF THE ATLANTIC CANADA WATER AND WASTEWATER ASSOCIATION

2021 ACWWA ANNUAL CONFERENCE ON THE HORIZON **Recap & Award Winners**



INSIDE:

- Project Spotlight: Permanent Leak Detection System in St. John's
- Get Ready for the 2022 ACWWA Annual Conference

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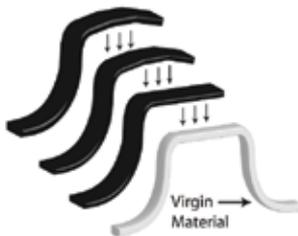
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Atlantic Canada Water & Wastewater Association

Box 28141, Dartmouth, NS B2W 6E2
 Phone: 902.434.6002 Fax: 902.435.7796
 contact@acwwa.ca www.acwwa.ca

Section Office

ACWWA Executive Director
 Clara Shea contact@acwwa.ca
 902.434.6002 F: 902.435.7796

Board

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 scotiatech.main@ns.sympatico.ca
 902.468.277

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 brent.mcgovern@saintjohn.ca
 506.658.4455

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 john.lam@afnwa.ca
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Rob Gillis, P.Eng.
 robg@halifaxwater.ca
 902.497.1740

WEF Delegate (2020–2023)

Dave Galbraith
 dave.galbraith@sansom.ca
 902.895.0252 F: 902.893.7584

AWWA Director (2020–2023)

Scott Grasman
 scott.grasman@fredericton.ca
 506.460.2020 F: 506.460.2141



www.kelmanonline.com
 Tel: 866-985-9780
 Fax: 866-985-9799

Managing Editor: Monique Doyle
 Design/Layout: Tracy Toutant
 Marketing Manager: Chad Morrison
 Advertising Co-ordinator: Jenna Matthes



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Magazine Chair:
 Katherine MacCaull
 902.450.4000
 Ext. 5049
 kmaccaull@dillon.ca

On the cover: St. John's at night. | dreamstime.com





Change and opportunities

Welcome to the spring issue of *Go With the Flow*. 2022 is underway. We have the 2021 Conference in the rear-view and the Strategic Planning session held in January was a success, even though it was held virtually. It was a great opportunity to see members that are often hard at work in the background but never have an opportunity to join the group as a whole. We hosted guests Nancy Sullivan and Cody Finan from AWWA.

The 2022 Conference Committee, led by Barb Crawford and Michael Baker, have begun the process of planning an in-person event to be held in Saint John, NB, October 2-5, 2022. Fingers crossed that Public Health guidelines continue in a positive manner and we will be able to meet face to face. The 2022 Conference theme is **Uncertainty to Opportunity**.

“Wherever there is change, and wherever there is uncertainty, there is opportunity.” –Mark Cuban

The Committee is seeking abstracts to build their Technical Program – please take a minute to give some thought to participating. www.acwwa.ca/conferences/2022-call-for-abstracts.html.

We are now entering the third year of having COVID in our lives, and it will forever be. It is up to us to decide, as a society, and as individuals, how we will allow it to continue to control our lives, always with a glance to Public Health officials for guidance.

What has your COVID positive been?

Our recent Strategic Planning ice-breaker brought some unique responses... maybe something to bring to your lunchroom to lighten the mood and find out something new about a co-worker.

“Spring is a time for renewal, new growth, fresh starts, and a sense of being refreshed – let us be the support you need as you plan for the coming year.”

After the past few seasons of change in both pattern and strength in our weather systems, I think it is now evidently clear that climate change is a real and very present part of our world and must be part of our plans going forward. Not only must the utilities be aware of the change necessary but, as individuals, we must be more aware and take an active role in being part of the remedy as we move toward change. We will soon be able to review, and refer to, the new Atlantic Canada Drinking Water Guidelines. Thank you to all parties involved in bringing this to completion.

Change and adaptation are carried out through education – education in both a formal and informal way. The ACWWA has a robust education program with offerings both online and in-person, when and where permitted/requested. Please refer to www.acwwa.ca/education/acwwa-courses. If you have a need please reach out and we will find a way to deliver the required material. If you have a course pertinent to our market and would like it reviewed for possible delivery/CEUs, please email contact@acwwa.ca.

“Be the change you want to see in the world!” –Ghandi
Continuing on the theme of education – tomorrow’s leaders are on the cusp of graduation. Were you aware of the numerous scholarship opportunities available from the ACWWA and the ABEA? Have your graduate/current secondary student search out these opportunities at: www.acwwa.ca/committees/scholarship and <http://abea.biz/scholarship-program>.

If you are an operator seeking to further your training/education and require assistance, you may want to look at *The One AWWA/ACWWA Operator Fund*.

Spring is a time for renewal, new growth, fresh starts, and a sense of being refreshed – let us be the support you need as you plan for the coming year.

“Spring is the time of plans and projects.” –Leo Tolstoy ☺



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My involvement with WEF

I began working on this message on February 2, and as I started to collect some thoughts for preparing my WEF Delegate Spring 2022 article for our *Go With the Flow* magazine, it also happened to be Groundhog Day. Guess what Miss Shubenacadie Sam says? That's right, six more weeks of winter. With the four consecutive weekends of snowstorms in January, we didn't need Sam to tell us Mother Nature was not letting up any time soon. Did you catch that? I said Miss Shubenacadie Sam... our beloved groundhog at the Shubenacadie, NS Wildlife Park, is a female groundhog this year. Who knew, Sam? Nice to see equal employment opportunities exists all over.

As we start to think about 2022 and all the great things we will do with family, friends, and colleagues, we can try to forget about the inconveniences of 2020 and 2021. I am really looking forward to being able to go to in-person events and meetings with people without background filters on a computer screen. I would like to extend a big welcome the new members of the ACWWA Board and committees. I also want to welcome back the returning members. I look forward to working with all you over the next year (or more). I need to give a big shout out to Clara who has been keeping us all on task and providing great leadership for our Association over these past two years. She is like a duck on a pond... on top she looks calm and cool, but below the surface her feet are super busy. Clara is our rock star!

As part of my role as your WEF Delegate, I volunteer on several WEF fronts. I am an active member of the following for the 2021–2022 fiscal year:

- a) Emerging Professionals to Leadership Workgroup
- b) WEFMAX Committee
- c) Chair of the WEF CAC – Canadian Affairs Council

Emerging Professionals to Emerging Leadership Workgroup description

WEF relies on a constant influx of new leaders to join committees, the House of Delegates, Member Association Boards, the Board of Trustees, and other leadership opportunities. Many of these roles are filled by the same group of individuals and have overlooked emerging leaders from elsewhere in WEF including the Students and Young Professionals Committee. There are several suspected reasons for this:

1. Lack of awareness of opportunities
2. Lack of apparent support or an invitation to join
3. Lack of clear objectives and growth opportunities



4. Lack of perceived value
5. Lack of resources to support the success of new leaders
6. Lack of participation in WEF activities (specifically WEFTEC)
7. The need for existing leadership to embrace emerging professionals as leaders the WEF community

For WEF to continue to grow, we need the engagement and advancement of new leaders from within the organization. Therefore, this workgroup will support the organization by identifying barriers to entering leadership positions, creating pathways into leadership roles, and developing resources that better enhance emerging professional transitions.

Workgroup objectives:

- Working with SYPC Leadership and WEF committee chairs to identify roadblocks to leadership transitions. Collaborate with SYPC leaders and committee chairs to identify actions for enhancing engagement.
- Based on feedback from SYPC leadership and committee chairs, create examples of “roadmaps” to leadership in WEF. This roadmap will identify roles, opportunities, and growth paths. Include case studies and stories of these transitions. Gain stakeholder feedback and incorporate recommendations. The workgroup will summarize this information in a one-page infographic for education of WEF staff, members, and MAs.
- Working with CLC Leadership to identify upcoming leadership opportunities and match them with emerging professionals. Summarize a realistic process to maintain a resource of upcoming leadership opportunities.

“As we start to think about 2022 and all the great things we will do with family, friends, and colleagues, we can try to forget about the inconveniences of 2020 and 2021.”

- Identify actions for connecting this workgroup with the WEF SYPC and MA SYPCs over the course of the year to establish stronger paths of connection to WEF.

WEFMAX stands for WEF Member Association (MA) Exchange

- This program’s mission is to offer a forum to share successes and lessons learned to strengthen MAs and WEF.
- Several topics from Diversity, Equity, & Inclusion; Communications, Event/Conference Planning; Recruitment & Retention; Finances, Programs; etc., are presented and discussed.
- There were four held virtually in each of 2020 and 2021 – there will be three in-person WEFMAX events this year plus one virtual WEFMAX. More details can be found at www.wef.org/membership/wef-member-associations/wefmax.
- The ACWWA hosted a virtual conference in 2021 and will be hosting an in-person WEFMAX in Charlottetown in May 2023. We hope to see you there.

The Canadian Affairs Council – WEF CAC

There are five WEF Member Associations across Canada.

- **BCWWA** – British Columbia Water & Waste Association
- **WCWEA** – Western Canada Water Environment Association
- **WEAO** – Water Environment Association of Ontario
- **Réseau** – Réseau Environnement Inc.
- **ACWWA** – Atlantic Canada Water & Wastewater Association
- ***CWWA** – Canadian Water & Wastewater Association – a non-voting member

Our Mission is to be a collaborative voice for the Canadian WEF MAs on water sector issues.

Our Vision is to capitalize on, strengthen, and optimize the value of WEF for Canadian WEF MAs.

“For WEF to continue to grow, we need the engagement and advancement of new leaders from within the organization.”

CAC goals:

1. Discuss, identify, and address common Canadian MA challenges and opportunities.
 - a) Update the list of priority issues annually.
 - b) Review and prioritize the list of WEF materials to be Canadianized annually.
 - c) Determine the topic, location, and host for at least one specialty conference in Canada each year; and
 - d) Support the Canadian Stockholm Junior Water Prize (CSJWP) competition through the recruitment of volunteers for the CSJWP committee.
2. Influence and support the Canadian Water and Wastewater Association (CWWA).
 - a) Provide CAC’s priority issues to CWWA on an annual basis.
 - b) Annual feedback to WEF on CWWA responsiveness on CAC’s priorities; and
 - c) Review and discuss CWWA report on activities at all CAC meetings.
3. Act as a conduit for knowledge exchange between WEF and Canadian MAs.
 - a) Ensure there is a WEF representative attending every CAC meeting and exchange reports on CAC priority issues.
 - b) CWWA and Canadian MAs to provide support for the development and review of Canadianized WEF materials.
 - c) Review progress on CAC priority issues and alignment with WEF strategic plan annually.

Please reach out if you have any questions about WEF.

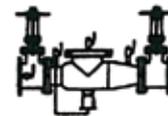
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One AWWA Scholarship for operators

Welcome to the Spring 2022 issue of ACWWA's *Go With the Flow* magazine. As of this writing, we are nearing the end of the winter months, and the longer daylight hours are an encouraging sign. I hope everyone has had a good winter thus far.

Regardless of the weather or season, operators are the backbone of any utility. Since the onset of the pandemic, most utilities have been focusing on operations, and trying to maintain business continuity while keeping staff members healthy. While some have had the option of working remotely, utility operators have been at work each day, ensuring our water and wastewater systems are functioning properly in what has been some very challenging times. With so much focus on keeping critical systems functional, career development opportunities have perhaps in some cases been lacking.

To that end, I thought it might be helpful to highlight an AWWA/ACWWA scholarship that is designed especially for working utility operators. Known as *The One AWWA Operator Scholarship*, this award is funded jointly by AWWA and ACWWA, and may include up to \$2,000 that can be used toward an operator's career development. This can include payment for a training course, registration for a professional development conference, purchase of textbooks and manuals as part of preparation for certification exams, or other eligible expenses. To apply, an applicant must be a current water utility operator, or seeking to enter the profession. This particular award has not seen a significant number of applicants from our Section year to year since its inception, so I would encourage all operators who are interested in learning more about the funding opportunities that may be available to visit the

ACWWA website, which outlines eligibility criteria for this award in detail.

For more information, visit www.acwwa.ca/committees/scholarship/acwwa-scholarships1.html.

Turning to AWWA news, the Board of Directors again held their annual winter board meetings virtually over two days early in January. The annual elections were held, and four Vice President positions, along with a Director-at-Large position, were filled. There was also an election held for the position of AWWA President-Elect. Patrick Kerr of the Louisiana Section, and current chair of the Water Utility Council, was the successful candidate. Patrick will assume his role at ACE22, scheduled to be held in-person this June in San Antonio, Texas. For anyone wondering, this conference will also have a virtual attendance option for those who are unable to travel. With any luck, members of our industry in Atlantic Canada will be able to safely resume attendance to at least some conferences this year. To that end, I would encourage everyone to plan, budget, and hope to be able to attend our ACWWA annual conference, hosted in Saint John, NB from October 2–5. While there are still many uncertainties surrounding our ability to travel and meet in person, I know the conference organizing committee is working hard at planning the conference as an in-person event, and I can only say that it would be wonderful to be able to gather with friends and colleagues at our Association's premier training and networking event. Please check the ACWWA website for further information related to this year's conference.

Thank you for the opportunity to serve our Section. Please feel free to contact me with any AWWA-related questions or concerns at scott.grasman@fredericton.ca. 

"I would encourage all operators who are interested in learning more about the funding opportunities that may be available to visit the ACWWA website."



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CWWA activities

As I have only recently been appointed the Government Relations Director for ACWWA, I am still coming to terms with what this position includes. One part of the job that was identified early was to represent ACWWA on the Board of Directors of the Canadian Water and Wastewater Association (CWWA).

The CWWA is the national body representing the common interests of Canada's municipal water and wastewater services, their private sector partners, and other stakeholders. It is recognized by the federal government and national bodies as the national voice of this public service sector. As part of its mandate, CWWA encourages and promotes a variety of policies and programs including water use and efficiency, full cost pricing, and national certification of water and wastewater operators. Further, CWWA attempts to provide to government the industry's perspectives on water and wastewater quality guidelines.

The CWWA Director is required to write regular articles for the ACWWA quarterly magazine to inform members of national issues, so here goes...

Activity from the CWWA

National Conference

The National Water & Wastewater Conference was held virtually from January 11 through February 3, 2022. There were discussions on federal water policy and what to expect from the current government in terms of water and the environment. There were also presentations on water quality, water efficiency, energy, wastewater treatment, and a cyber discussion. Other discussions

included the impacts of the pandemic on our workforce and a consideration of natural infrastructure concluding with a wrap-up virtual hospitality suite.

2021 Annual General Meeting

CWWA's 33rd Annual General Meeting took place Tuesday, November 30, 2021 by video conference.

CWWA continues to advocate for a Canadian Water Agency

CWWA continues to work with a coalition of other environmental and non profit organizations to continue to promote the creation of a national Canadian Water Agency. The coalition has recently sent a letter to Prime Minister Trudeau to encourage the new federal government to continue with their commitment to create the Agency and to suggest the appointment of a Parliamentary Secretary on Water. That appointment would ensure that the government has the resources and leadership in place to deliver on the commitment to form a Water Agency.

Towards a Sustainable Utility – Guidance document for water, wastewater, and stormwater utilities

Last March, the CWWA Utility Leadership Committee released a guidance document on Towards a Sustainable Utility. This March, they will release the next guidance document focused on Workforce Development. The brief document outlines some of the key issues utilities face with succession planning, training, and recruiting, offers some best practices, and a reference to helpful resources. It will also include specialized checklists for the different types of employees within your utility. The new guidance document was scheduled to be released on March 10 with a webinar event to review the major topics with some of our water leaders.

Drinking Water Quality Management March 21 and 22

Our Drinking Water Quality Committee has developed a very active subcommittee focused on quality management and they have organized an interactive workshop for March 21 and 22.

National Water and Wastewater Conference 2022 – Halifax, November 6–9

Planning is underway for an in-person conference in Halifax this fall. 🌊

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- F.D. (Del) Sweet, February 1982

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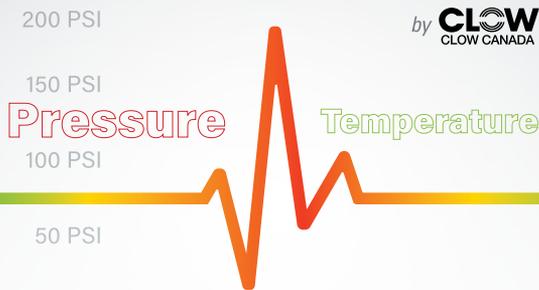


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Spring update

We are happy to see a number of new members from North Shore Micmac District Council and from Atlantic First Nations Water.

Welcome to the following new members:

Name	Organization	Membership
Helena Steeves	LuminUltra Technologies Ltd.	WEF
Noel Doucette	North Shore Micmac District Council Inc.	WEF
Robert Francis	North Shore Micmac District Council Inc.	WEF
Chase Paul	North Shore Micmac District Council Inc.	WEF
Isobel DeMont	Dalhousie University	WEF
Brandon Howard	Sansom Equipment	WEF
Corbin Stevens	North Shore Micmac District Council Inc.	WEF
Michael Ward	North Shore Micmac District Council Inc.	WEF
CJ Tarling	North Shore Micmac District Council Inc.	WEF
Justin Moulton	North Shore Micmac District Council Inc.	WEF
Katrina Paul	North Shore Micmac District Council Inc.	WEF
Jillian Hutchinson	Village of Riverside-Albert Water	AWWA
Xuedongzi Jiang	Dalhousie University	AWWA
Jeannie Gallant	Stratford Utility Corporation	AWWA
Cameron Whitcomb		AWWA
Region of Queens Municipality		AWWA
Aaron Bourgeois	Town of Amherst Water Utility	AWWA
Lauchlin Macinnis	Michelin North America Canada Inc.	AWWA

Andrew Toole	Don-More Surveys & Engineering Ltd.	AWWA
Mario Camacho	Andes University - Colombia	AWWA
Greg Demont	Michelin North America Canada Inc.	AWWA
James Trimble	Atlantic First Nations Water	AWWA
Gary West	Atlantic First Nations Water	AWWA
Jeff Wujcik	Atlantic First Nations Water	AWWA
Chantal Leblanc	Atlantic First Nations Water	AWWA
Mark Geck	Atlantic First Nations Water	AWWA
John Vandenberg	Atlantic First Nations Water	AWWA
Mark Macdonald	Atlantic First Nations Water	AWWA
James Dalton	Halifax Water	AWWA
Greg Weir	Municipality of the County of Victoria	AWWA
Mike Benson		AWWA
Ernest Trites	Westech Industries	AWWA
Dylan Hughes	United Rentals (Fluid Solutions)	AWWA
Alex DeSousa	Town of Wolfville	AWWA
Leigh MacLennan	Michelin North America Canada Inc.	AWWA

As of February 14, 2022

Total AWWA active members: **423**

Total AWWA late members: **16**

Total active WEF members: **104**

Total WEF late members: **10**

Don't forget the "refer a member" contest for a chance to win a \$50 gift card of your choice. 

welcome



2022 Planning

The 2022 planning process is well underway. And the ABEA continues to support the ACWWA and its members. Let us find a way to make your process more seamless.

We continue to listen to the needs of our customers and assist in problem solving. COVID is now a part of our daily lives so our members strive to develop communication strategies to adhere to Public Health guidelines, and respect individual protocols. We are a caring team made up of 56+ unique members and are here to assist in any way possible.

The ABEA offers four x **\$1,000 academic scholarships** annually to deserving individuals who meet the application criteria (visit www.ABEA.biz). Graduation is around the corner, so start planning today!

The 2022 ACWWA Conference Planning Committee has begun the process of developing the plan for the Saint John event (Oct. 2-5). ABEA members will be there to support the premier education event by offering opportunities to mingle and greet in informal settings – stay tuned as plans unfold.

Education is a hot topic this year, and our membership continues 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. We are certain that we have something to meet your needs on an individual basis, or we can create a program in conjunction with the ACWWA Education Team. 

2022 ABEA host suppliers

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Meet our ABEA members:

Contact information for our members, and applications for our Scholarship and Grant Program, can be found at www.ABEA.biz.

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Mueller Canada	SIGMA Corp.
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Sansom Equipment	Wolseley Waterworks Atlantic
Saunders Equipment	WWOTC
Scotia Tech	Xylem

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President – Andrew Duguay
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 Past-President – Mike McDonah
 Secretary/Treasurer – Kyle Gracie
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Your ABEA members are still available and there to assist with all of your needs – let's stay connected in 2022.

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2021 ACWWA ANNUAL CONFERENCE ON THE HORIZON Recap

By Jason Phillips

On December 7–9, 2021, we held our second virtual Annual Conference and Tradeshow. We would like to thank everyone who participated and supported the event to make it a success. The conference was well attended with 216 registrants. We hope that everyone enjoyed the event!

We would like to thank all of our sponsors that helped make this event possible. A very special thank you to our presenting sponsor Trihedral VT Scada and their staff for hosting the virtual conference.

I encourage everyone to save the date for next year's annual ACWWA conference to be held in Saint John, New Brunswick on October 2–5, 2022. This conference is currently being planned as an in-person event and we are hoping that we will all be able to get together this fall to experience it full together.

I also want to everyone to save the date for the 2025 annual ACWWA conference which will be held in St. John's, NL. This will mark the 10-year anniversary since the last time this event was held in St. John's and I'm sure we're going to have a time! 🎉



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ACWWA/WEF AWARD RECIPIENTS FOR 2021

We would like to take this opportunity to acknowledge our 2021 recipients and thank them for their continued work and efforts in, and for, the water and wastewater industry.

Silent Hero Awards

The Silent Hero Award is awarded by ACWWA to recognize the outstanding contributions of water and wastewater operators

This year's three winners are:

- **Matthew Bowers** with the Town of Springdale, NL
- **Jordan Moran** with the City of Saint John, NB
- **Tyler Veinot** with the City of Charlottetown, PEI (not pictured)

We thank these individuals for their outstanding service as well as their nominators for making us aware of all the good work they do.

Contribution Awards

- The Contribution Award for an **Individual** was presented to **Gabriel Belliveau**, of the City of Dieppe and a member of our

Membership Committee. We thank Gabriel for his consistent and continued contribution. (not pictured)

- The Contribution Award for an **Organization** was presented to **Trihedral**, and its band of merrymakers: Dave, Natashia, Chris, and Peter, without whose assistance, guidance, vision, and dedication we would not have been able to host the past two virtual conferences. We owe them a huge thank you and hope that some of you have the opportunity to work with them on your own project.

Young Professional Awards

Our Young Professional Awards were presented to **Matt Rogers** with Dillon Consulting, and **Dallys Serracin Pitti**, a research engineer with Dalhousie.

Without our young professionals we would not be able to continue growing and learning as an association. We are grateful for their continued contributions and look forward to what they will bring to the table as our industry evolves.

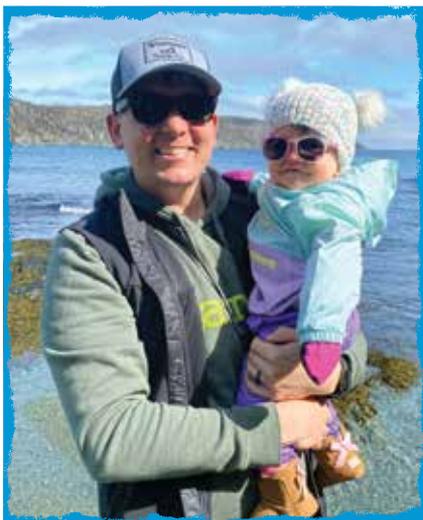
Project of the Year Award

The Project of the Year (small utility) went to **Atlantic First Nations Water Authority** under the guidance of Carl Yates and his team.

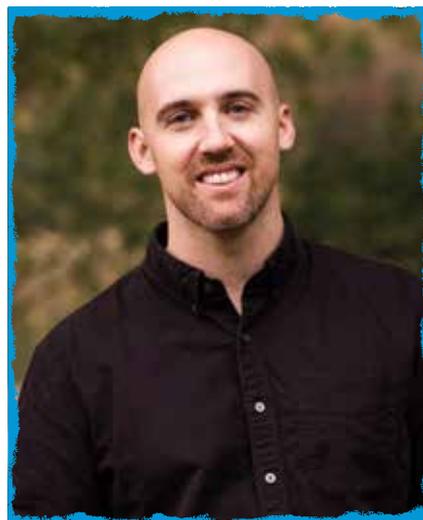
The winning project was the SCADA Master Plan which encompassed 16 communities across three provinces – the most critical component required to operate the many water and wastewater facilities across geographical divides.



Matt Rogers (Young Professional)



Matthew Bowers (Silent Hero)



Jordan Moran (Silent Hero)



Dallys Serracin Pitti (Young Professional)

5S Shovel awards

5S Shovel award – the Select Society of Sanitary Sludge Shovelers, is a society of chosen individuals based on merit.

This year, the recipients are:

- **Howard Carter** – WEF Board of Trustees member, and the Director of Water Resource Recovery for the City of Saco, Maine. Howard has been heavily involved with WEF since 1998.
- **Angela Ballard-Landers** – AWWA Vice President, and a STEAM specialist with the Washington Suburban Sanitary Commission among many other community-based initiatives.

Fuller Award

The Fuller Award is awarded in memory of George Warren Fuller and in honour of the distinguished service he and our recipient have in common. This year we recognized the efforts of an individual who has served the association, and the industry, wearing many hats for which we have been, and continue to be, most grateful.

The Fuller Award was presented to **Amy Winchester**. Congratulations Amy!

About Amy:

Amy Winchester has over 18 years' experience as a Process/Environmental Engineer. Amy is a Registered



Amy Winchester (Fuller Award)

Professional Engineer working for the Saint John office of CBCL Limited. She received her undergraduate degree in Chemical Engineering from the University of New Brunswick and then went on to obtain her Master of Applied Science degree in Chemical/Environmental Engineering from the University of Ottawa. Since starting with the firm in 2004, Amy has worked on a diverse range of projects including water distribution master planning and modelling, asset management, climate change risk assessments, and environmental assessments. For more than 10 years, Amy has managed many multi-discipline engineering and environmental projects. She has taken several courses while working on her

Infrastructure Resilience Professional designation, including Asset Management for Engineers, PIEVC Infrastructure Vulnerability and Risk Assessment, and Understanding the Changing Legal Climate: Climate Law in Canada for Engineers. Over the past year, Amy has also taken "4 Seasons of Reconciliation" from the First Nations University of Canada, "Indigenous Canada" from the University of Alberta, and "The Path – Your Journey through Indigenous Canada" from NVision.

MacNab Award

The MacNab Award is awarded in honour of Ira P. MacNab and for the outstanding service, untiring efforts and wise council which he, and our



Wendy Krkosek (MacNab Award)

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recipient, have in common. Again, we have been blessed with an individual who continues to give to the association much of themselves, for which we are most grateful.

We awarded Wendy Krkosek with the MacNab award and thank her for her past and continued efforts and contributions. Congratulations Wendy!

About Wendy:

Wendy Krkosek, Ph.D., P.Eng., is the Water Quality Manager with Halifax Water, where she works

with treatment, water quality, and distribution operations staff to conduct water quality research, solve water quality and treatment problems, improve treatment methodologies, and develop and implement water quality plans.

Before joining Halifax Water, Wendy worked for nine years as a Research Engineer in the Centre for Water Resources Studies at Dalhousie University, where she managed and executed small- and large-scale water quality research contracts and

grants with different organizations, including Health Canada, Nova Scotia Environment, The Canadian Water Network, The Atlantic Policy Congress of First Nations Chiefs, the Government of Nunavut, and others.

Wendy received her BAsC in Civil (Environmental) Engineering from the University of Waterloo, followed by a Ph.D. in Civil Engineering at Dalhousie University, focusing on the fate of emerging contaminants in wastewater treatment. Wendy is currently the Technical Director with ACWWA. 



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2022 ACWWA Annual Conference

A message from the Conference Co-Chairs

Welcome back to Saint John, New Brunswick and welcome back to the ACWWA Annual Conference!

On behalf of the Conference Organizing Committee, we are thrilled to extend an invitation to attend the Annual Conference of the Atlantic Canada Water and Wastewater Association in Saint John, October 2–5, 2022. The Hilton Saint John is pleased to welcome visitors back to the harbourfront hotel. Saint John is growing from the inside out – you’ll have a window seat to the exciting changes at the Fundy Quay, Market Slip, and the Port Saint John Modernization project.

The conference theme this year is “Uncertainty to Opportunity.” The past few years have forced organizations to pivot, adapt, and become flexible as they discover new

paths for delivery of their services. We want to embrace these challenges and find out what opportunities have come from the past two uncertain years.

The Conference schedule will include several days of diverse technical and social events, including awards, recognition, and the reimagined ABEA Hospitality Night.

Registration will be available soon through the ACWWA website. Please come and enjoy our Port City!

– Chairs Barb Crawford, P.Eng., Michael Baker, P.Eng.



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ACWWA Invites Submissions for Award Nominations for 2022



If you know someone who has made a contribution to the water and/or wastewater industry, don't let their efforts go unnoticed. The following awards are eligible for presentation at the ACWWA Conference on October 2-5, 2022 in Saint John, NB.

Please note that the deadline for 2022 Award Nomination submissions is August 2, 2022.

NOMINATIONS PROCEDURE

Where applicable, an awards committee has been established for the specific awards. The awards committee shall select the recommended candidate for the award from the nominations

received, and shall present the award to the recipients during the ACWWA annual conference.

All awards are presented at the ACWWA annual conference.

Individuals wishing to nominate an individual or group for an award should complete the form that follows, or contact the ACWWA office and request the applicable nomination form.

LIST OF AWARDS (descriptions follow)

Individual awards

- Silent Hero Award
- Young Professional Award
- Contribution Award

Organizational award

- Project of the Year

SILENT HERO AWARD (nominee must be an AWWA or a WEF member)

The Silent Hero Award(s) is awarded by ACWWA and is presented annually to recognize outstanding contributions of water and wastewater operators.

CONTRIBUTION AWARD (nominee must be an AWWA or a WEF member)

The Volunteer Recognition Award is awarded by ACWWA and may be presented annually to recognize outstanding contributions by an individual or a group of individual volunteers to ACWWA programs and/or the water industry throughout Atlantic Canada.

YOUNG PROFESSIONAL AWARD (nominee must be an AWWA or a WEF member)

The Young Professional Award recognizes a Young Professional within the Atlantic Canada Water & Wastewater Association for outstanding contributions to the water and wastewater industry, and to the ACWWA Young Professionals' committee.

PROJECT OF THE YEAR – ENGINEERING AWARD/ENVIRONMENTAL AWARD

The Project of the Year – Engineering Award/Environmental Award is awarded by ACWWA to a Municipality or Utility and their Consultant, one of which is a member of ACWWA, to recognize **outstanding projects in Atlantic Canada that demonstrate innovation and state-of-the-art technology** in water or wastewater projects.

Awards may be presented in each of the following three categories:

- Small Utility – less than 5,000 customers
- Medium Utility – between 5,000 and 25,000 customers
- Large Utility – more than 25,000 customers

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ODOUR CONTROL SYSTEMS IN WASTEWATER TREATMENT PLANTS

By Linda Cooke-Weaver,
Wolseley Canada Inc.

A preview of the upcoming
ACWWA 2022 Annual
Conference, Saint John, NB.



With new Canadian 2021 requirements and set targets on municipalities to reduce carbon footprints and reduce GHG emissions, some traditional approaches have come under pressure, leaving the door open to new and supplemental methods for achieving higher standards.

Maintenance budget restrictions and skilled trades shortages are an additional catalyst, requiring municipalities to look at new ways of achieving the same or better outcomes. As municipalities focus attention toward mitigating hydrogen sulfide gas (H₂S) as an industrial and environmental pollutant (Roth S.H. 2004), the resultant foul-air systems and the materials from which they are constructed must be called into question and viewed through the lens of new and ever-changing environmental requirements.

Historically, wastewater foul-air has been conveyed using composite materials. Composite materials generally include fiberglass/glass fiber reinforced plastic (GFRP), carbon (CFRP) or aramid (AFRP) reinforcing fibers dispersed in a resin matrix (Ribeiro, M.C.S., Fiuza, A., Ferreira, A., Dinis, M.D.L., Castro, A.C.M., Meixedo, J.P. and Alvim, M.R. 2016). According to Ribeiro et. al. (2016), "GFRP are by far the largest group of materials in the composites industry, representing over 95% of all FRP composites." Moreover,

studies into end-of-life options for GFRP composite waste indicate that landfilling and incineration remain the primary methods of disposal for this material (Bank, L.C. and Yazdanbakhsh, A. 2014).

With respect to recyclability, designing waste out, reducing GHG emissions, and reducing carbon footprints, efforts to develop end-of-life options for composite waste have resulted in the exploration of chemical recycling, mechanical recycling, and pyrolysis procedures. Among these, mechanical recycling has come the closest to achieving industrial-scale market viability when compared to alternative methods. However, there is no evidence to suggest that mechanical recycling can address, resolve or safely re-use industrial GFRP materials that have been chemically contaminated by process fumes or deemed hazardous waste.

Currently in the EU, the practices of landfilling and incinerating composite waste "will be progressively unavailable as traditional end-routes" (Ribeiro, M.C.S., Fiuza, A., Ferreira, A., Dinis, M.D.L., Castro, A.C.M., Meixedo, J.P. and Alvim, M.R. 2016). Facing this inevitability, individuals, companies and entire industries are waking up to the costs and considerations of how to contend with end-of-life GFRP composite materials.

With these considerations in mind, forward-thinking municipalities have an opportunity to get ahead of growing emissions and waste disposal challenges by adopting a circular economic mindset. Considering present-day industrial GFRP materials are forecast to begin entering the waste stream sometime around 2040, this paper provides an assessment of the tonnage of fiberglass reinforced plastic that can be prevented from entering global landfills simply by specifying the use of fully recyclable, fully reusable construction materials in a hypothetical wastewater foul-air system design.

By starting at the design phase and specifying materials like 316 stainless steel fluoropolymer lined duct, which requires no maintenance or specialized labor, and which is 100% recyclable, water and wastewater treatment facilities can simultaneously set the stage for a cleaner, greener and more cost-effective facility life-cycle and stand at the leading edge of a far greater global environmental movement.

References:

Bank, L.C., and Yazdanbakhsh, A. (2014). Reuse of Glass Thermoset FRP Composites in the Construction Industry – A Growing Opportunity.

“Municipalities have an opportunity to get ahead of growing emissions and waste disposal challenges by adopting a circular economic mindset.”

Conference paper: 7th International Conference on FRP Composites in Civil Engineering, pp. 1-2.

Ribeiro, M.C.S., Fiuza, A., Ferreira, A., Dinis, M.D.L., Castro, A.C.M., Meixedo, J.P., and Alvim, M.R. (2016). Recycling Approach Towards Sustainability Advance of Composite Materials' Industry. MDPI Journal / Recycling / pp.178-182.

Roth S.H. (2004). Toxicological and Environmental Impacts of Hydrogen Sulfide. In: Wang R. (eds) Signal Transduction and the Gasotransmitters. Humana Press, Totowa, NJ.



About the author:

Linda Cooke-Weaver is a member of ACWWA as well as all water & wastewater associations across Canada: CWWA, BCWWA, WCWWA, WEAO, OWWA, including Réseau Environnement.

Linda is the National Sales Manager for Wolseley Canada specializing in water & wastewater treatment plants. (Wolseley Canada is the Canadian representative for Fab-Tech Inc.) She is a bilingual native Montrealer who is based in Ontario and a winner of the 2021 OWWA Award of Appreciation as well as the 2014 OWWA Albert E. Berry Award. Linda has a BComm and BAS from York University majoring in Marketing as well as Sheridan College, where she graduated with Honours in Business Administration and a Business Marketing Diploma.

Linda is known for her passion on the environment and sustainability and for contributing towards helping us achieve a net zero future as well as her pride in being a French Canadian and actively helping promote, within our community, the importance of the French language and identity. 🇫🇷

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COMPANY NAME:	City of St. John's, NL	
PROJECT MANAGER:	Jason Phillips – Manager of Infrastructure Division	
TEAM MEMBERS:	Chauncey Hayes – Project Engineer, Infrastructure Division and Dave Batten – Supervisor – Leak Detection, Infrastructure Division	
PROJECT DESCRIPTION:	Installation of a Permanent Leak Detection System	

PROJECT BACKGROUND:

Within the City of St. John's, there is a development area located on the Southside Hill that is referred to as Shea Heights; this area consists of approximately 600 properties. The area is serviced from a pump station that is located at the base of the hill that has a water inlet pressure of 110 psi and an outlet pressure of 225 psi which supplies a 2,200 m³ water storage reservoir. The water distribution system is comprised of 7.5 km of 150 mm and 200 mm cast and ductile iron pipes.

PROJECT SCOPE:

This development area is located on a hill which contains fractured bedrock that allows any water to flow down into the ground. As such, the majority of the watermain or service leaks that occur in this area do not surface. Previous leak detection efforts involved bi-annual noise surveys and additional noise surveys were completed when the run time on the booster pumps increased or based upon customer complaints. This method increased the time between when a water

leak occurred and when it was detected and located. This resulted in increased volume of water lost due to leaks and breaks or non-revenue water.

PROJECT SOLUTION:

To install a permanent leak monitoring and detection system that would be able to detect a water leak shortly after the leak formation. The system uses sensors that are integrated into the fire hydrant pumper caps which are strategically placed throughout the



Typical photo of a fire hydrant with a leak detection sensor in the pumper cap.



Location of watermain leak detected by the leak monitoring system.



Leaking watermain before water was shut off.



Leaking watermain after water was shut off.



Repaired watermain.

“The leak detection system is listening for any leak noises or any changes in noise patterns. Once the presence of a leak is detected and confirmed, a message is sent to the City...”

water distribution system. These sensors are programmed to ‘listen’ to the system and each night they take recordings of the data and send it off for analysis. The leak detection system is listening for any leak noises or any changes in noise patterns. Once the presence of a

leak is detected and confirmed, a message is sent to the City to deploy a crew to verify the location of the leak so that it can be repaired.

PROJECT OUTCOME:

Within the first two months of activation of the leak monitoring

system, a total of eight leaks were located and repaired. Since the system has been in operation, we have been able to maintain a lower daily average water flow to the area, resulting in a 25–30% reduction in water usage. 🌊

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Please see below for announcements, upcoming deadlines, and volunteer opportunities. If you have any items you would like to add to the announcement board in an upcoming issue of *Go With the Flow*, please contact Katherine MacCaull at kmaccaull@dillon.ca.

ABEA scholarships

The ABEA annually awards up to four scholarships of \$1,000 to a first-year entrant into a college or university program. The application deadline is April 30.

Eligibility applicants shall:

- Be a son/daughter of an ACWWA/ABEA member
- Be a Canadian citizen or permanent resident of Canada
- Be a resident of Atlantic Canada, or whose parent is the Atlantic Canadian supplier representative
- Preference will be given to those intending to pursue a career related to the water/wastewater industry, and those choosing to study in Atlantic Canada

More information and where to apply is available at: <http://abea.biz/scholarship-program>.

Volunteer positions!

ACWWA is looking for individuals who are interested in becoming more involved on tasks within the organization. Current positions available include:

- **Project Highlights Coordinator:** Responsible for finding interesting projects and working with project teams to develop the stories to include in *Go With the Flow* magazine and on our website. This individual would work the Communications Committee to develop and publish the Project Highlights.
- **Interviews Coordinator:** Responsible for finding and working with individuals in the water and wastewater industry to highlight in *Go With the Flow* magazine and on our website.

This individual would work the Communications Committee to develop and publish the interviews.

• **Announcement Board**

Coordinator: Responsible for updating and maintaining the Announcement Board for both *Go With the Flow* magazine and the ACWWA website. This individual will work with the Communications Committee.

If you are interested in these positions, please provide a maximum 200-word submission expressing your interest and explain what you would like to do in the role. This can be sent to: Michael Brophy, mbrophy@cbcl.ca.

Call for award nominations

If you know someone who has made a contribution to the water and/or wastewater industry, don't let their efforts go unnoticed. The following awards are eligible for presentation at the 2022 ACWWA Conference on October 2-5, 2022 in Saint John, NB.

Please note that the deadline for 2022 Award Nomination submissions is August 2, 2022.

Individuals wishing to nominate an individual or group for an award should complete the nomination form available at www.acwwa.ca/conferences/awards/award-nominations.html or contact the ACWWA office and request the applicable nomination form: contact@acwwa.ca.

Please note: Nominees must be a member of AWWA or WEF.

Awards included:

Project of the Year – Engineering Award/Environmental Award

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Young Professional Award

The Young Professional Award recognizes a Young Professional within the Atlantic Canada Water & Wastewater Association for **outstanding contributions to the water & wastewater industry**, and to the ACWWA Young Professionals' committee. 

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For more information, visit <https://cwwa.ca/events>. 

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No industry is perfect. But the paper industry has made, and continues to make, huge investments in environmental responsibility. Specifying and buying paper from certified sources ensures the continuation and growth of carbonabsorbing forests. Using paper with appropriate amounts of recycled fibre helps preserve forests, conserve energy, and maximize fibre usage through paper lifecycles.

Cyber security and our water systems

By Kyle MacIntyre, P.Eng., Dillon Consulting

The use of supervisory control and data acquisition (SCADA) systems in our industry has grown significantly over the past decade or two. Many of our critical data systems that monitor drinking water quality, or help protect the environment from accidental wastewater discharges, are connected to either a local network or the internet. However in recent years, cyber criminals have targeted utilities, contractors, consultants, and regulators and have found ways to cause significant disruption, headache, and financial loss – oftentimes to smaller organizations, who may not have staff in-house with the skills to respond against such an event.

Even new systems that may be built with these considerations in mind are not always safe. We have seen sophisticated networks locally and across Canada fall victim to international security attacks, which can cost millions of dollars to recover from. Recently the federal US government issued a 100-day deadline for water utilities to improve their cyber security protection program, step up IT monitoring, and increase information sharing between parties. It's likely that something similar may come forward in Canada, but in the meantime it is still prudent for companies and organizations to be mindful of their cyber risks, and work to implement effective and practical strategies that will protect the public and environment.

Every situation is different, but for those just starting to develop cyber security plans, consider looking first at the data and permissions that can be accessed remotely. Consider approaching an IT firm that specializes in cyber security and



can work with your specific needs to protect your SCADA systems.

Do you have a topic for a future Back to

Fundamentals article? Email it to kmacintyre@dillon.ca or contact@acwwa.ca and we will do our best to cover it! 

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