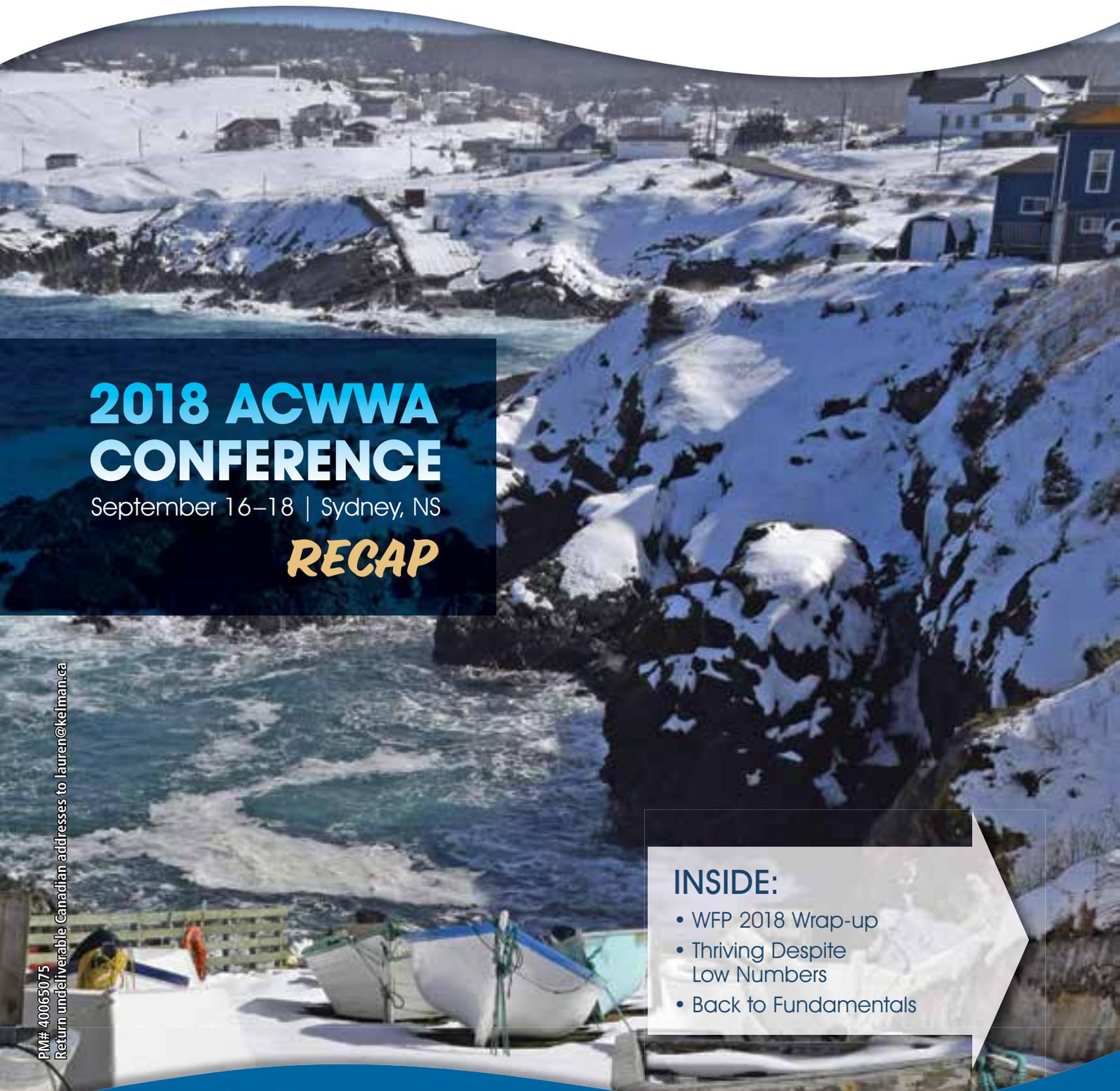


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THE OFFICIAL PUBLICATION OF THE ATLANTIC CANADA WATER AND WASTEWATER ASSOCIATION



2018 ACWWA CONFERENCE

September 16-18 | Sydney, NS

RECAP

INSIDE:

- WFP 2018 Wrap-up
- Thriving Despite Low Numbers
- Back to Fundamentals

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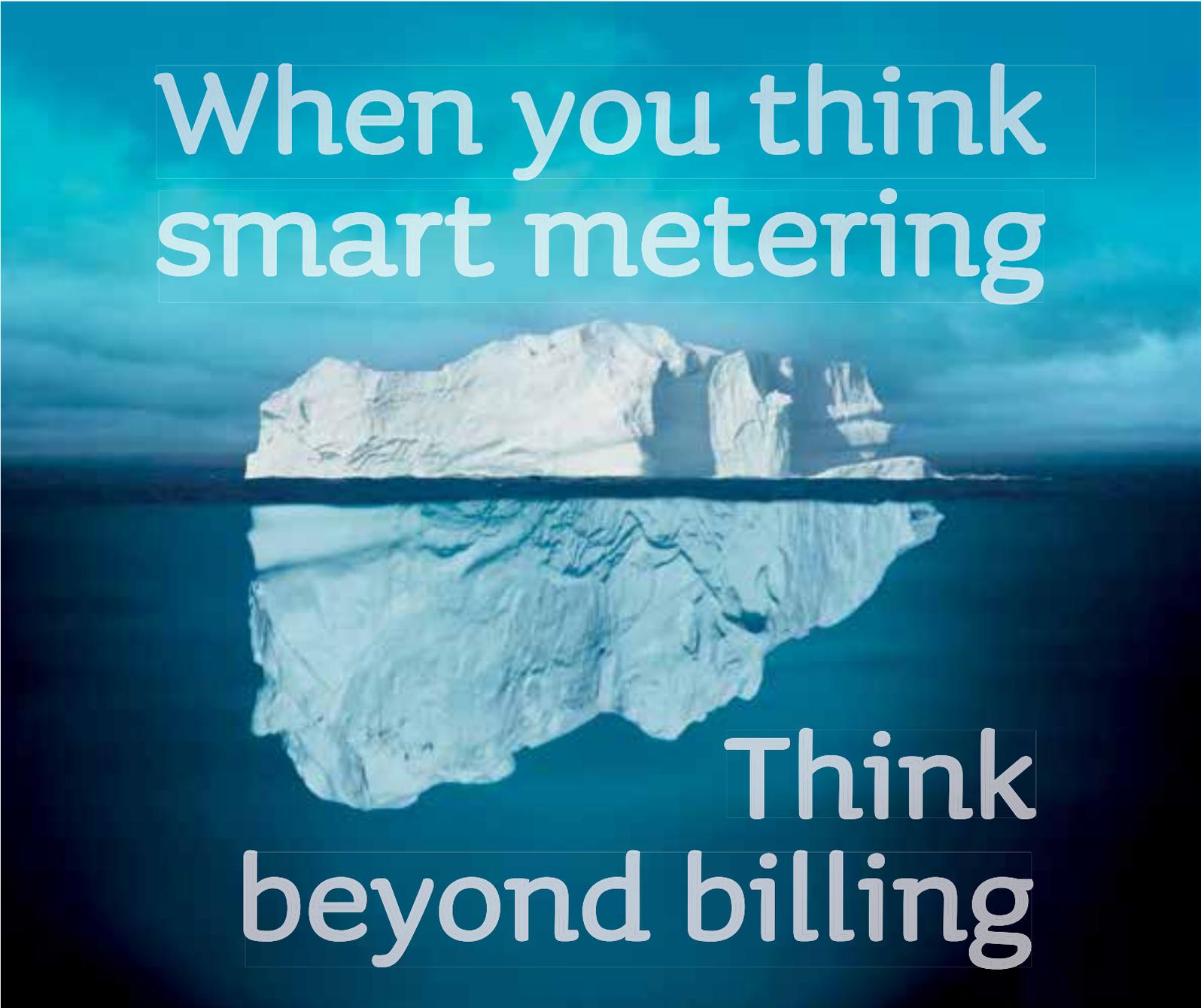


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Exciting things to look forward to

Let me start off by saying thank you for nominating me as the ACWWA Chair for 2018–19 – I’ve truly enjoyed being a member of the ACWWA family over the past several years, and I look forward to putting my experience from the various roles I’ve held to use as Chair.

Although I haven’t been Chair for very long, I have been to many ACWWA conferences, and Cape Breton did an amazing job at hosting this year. Congratulations to the organizing committee, and especially Greg Campbell and Matt Viva, Committee Co-chairs, for a highly pleasant, educational, and entertaining time. ABEA put on a great Canadian-style tradeshow in the hockey rink, the technical sessions were well-attended and touched on a variety of current issues in our industry, the fun run/walk in support of WFP was well sponsored and organized, and of course a highlight was the Down East Feast with laughs, lobster, and dancing. What a great showcase of our expertise and our hospitality in Atlantic Canada, and an honour to have Membertou First Nation as our host. The visiting dignitaries from WEF and AWWA were truly impressed with our area, our Association, and the conference. I look forward to next year’s conference in Halifax and wish Wendy Krkosek and John Eisnor and their committee a successful year of planning.

A highlight for me in the technical program at the conference in Membertou was our newly introduced stream of non-technical presentations that showcased issues and solutions for workplace environment. Robin Tingley of GlassSKY Inc. presented on *Managing Millennials*, while Dr. Randy Newman, of Acadia University, spoke of *Why Diversity Matters*. If you couldn’t see these presentations or missed some others at the conference, I encourage you to check them out on the AWWA website, where all presentations have been posted.

As these new presentations may indicate, ACWWA is moving toward becoming an organization that prioritizes diversity and inclusion in all aspects of the organization, and that will be the focus for me as Chair this year. To start, we will be following a ‘How-to Guide’ published by the

AWWA to add a Diversity and Inclusion Committee to our Board structure. We welcome Dallys Serracin-Pitti as Chair of this committee and invite comments and suggestions from our members as we navigate this new initiative.

“ACWWA is moving toward becoming an organization that prioritizes diversity and inclusion in all aspects of the organization, and that will be the focus for me as Chair this year.”

Our esteemed Executive Director, Clara Shea, and I recently travelled to Lancaster, Pennsylvania for the Regional Meeting of Section Officers, hosted by AWWA and the Pennsylvania Section. Discussion topics included membership recruitment – how we are doing and what others are doing; cultivating new members and volunteers through strategic succession planning; developing strategic and business plans; and the idea of micro-volunteering, where new volunteers are assigned smaller, specific tasks which may be part of a larger objective. I also gave a presentation on Canadian Affairs that was prepared by our AWWA Director, Dr. Graham Gagnon. Clara and I were greeted warmly by Steve Blakenship, the AWWA Director who attended our conference, who couldn’t stop gushing about his wonderful experience!

We have lots of exciting things happening with ACWWA that I look forward to sharing with you as the year rolls on. Thank you to all the volunteers who make this Association run, and a special thanks to Clara for keeping everyone on their toes and for being an amazing role model and representation of ACWWA. 🐾

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A bright future in water

First, I want to give a sincere thank you to Greg Campbell and the host team in Cape Breton for hosting an excellent ACWWA Conference. The feedback across our Section and from AWWA was a first-rate conference that will have a lasting impact on our Section. The Cape Breton hospitality was tremendous as would be expected, but I was particularly struck by the strength of technical sessions at this year's conference. The breadth of content from workforce issues like diversity and inclusion to addressing

climate change and lead in water – we covered it all!

One session that was particularly interesting addressed millennials in the workforce. I found this issue particularly important for AWWA. In terms of membership, AWWA has had a very strong year of recruiting and retaining members – however, we continue to ask ourselves about the next generation: what will AWWA look like in 20 years? And how do we continue to evolve to show value to our members? While I don't think anyone has the answer to these

broad questions, presentations and dialogue concerning generational trends will help us understand workforce and industry trends.

On that particular note, AWWA is offering student memberships for \$10 if they join between now and December 31; they'll use code 10STU at awwa.org/join. An incredible deal – and I believe much cheaper when I joined in November 1993! This promotion coupled with the Water Equation is an ideal way to engage new operations staff, students, and other youth into AWWA and its many opportunities.

As AWWA Director, I am looking forward to seeing the more than 100 students registered for the AWWA Water Quality Technology Conference that is being held November 11–14 in Toronto, ON. This is AWWA's premiere technical conference and I'm expecting to learn a great deal from some of the best and brightest in AWWA. I know that Atlantic Canada researchers, utilities, and service companies will be there to network and continue to bring bright ideas back home to apply to our communities.

As 2018 begins to wind down, I am very mindful of how lucky I am to work in water. We have careers that allow us to bring a broad range of value to the public and communities that we live in. I am looking forward to working with our ACWWA Board in 2019 that will be led this year by Dr. Jennie Rand – I am confident that we will continue to have a bright future in water. 



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- During the printing process, we use a solvent recycling system that separates the water from the recovered solvents and leaves only about 5% residue. This results in reduced solvent usage, handling and hazardous hauling.
- We ensure that an efficient recycling program is used for all printing plates and all waste paper.
- Within the pages of each issue, we actively encourage our readers to REUSE and RECYCLE.
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Representing you

The cooler weather is upon us and snow will be flying in some areas by the time you read this article. I would like to start by sharing a very special thank you from Jackie Jarrell, WEF President Elect for 2018/19. While I was at WEFTEC in New Orleans in October, Jackie could not stop talking about the great time she had at our Annual Conference in Cape Breton, NS. Jackie said it was the best one she has attended thus far and the buzz around WEF is that Atlantic Canada is the place to visit. Everyone I spoke to wants to come to our area and we are the number one choice on many people's bucket lists. It goes to show that the volunteers in Atlantic Canada know how to put on a great conference. *Spoiler alert: Our WEF VIP coming to our 2019 Conference will be Tom Kunez, WEF President 2018/19. Tom is an amazingly motivated entertaining person and you will want to be at the conference to meet him.*

While at WEFTEC, I had the privilege of meeting with many people with a variety of knowledge and experience in the water/wastewater industries. As your WEF Delegate, I attended many meetings discussing how to engage our membership and how to provide exceptional value. The WEF Board of Directors and Trustees has been actively listening to their members and is making improvements on a regular basis. As your member of the WEF House of Delegates, I bring our concerns to WEF and they listen. Many of the topics that are important to the ACWWA are also important to WEF. Their main objective for this year is to become more diverse and inclusive. They want to engage our youth/students and Young Professionals to take on more leadership roles within our Member Associations.

I am volunteering on the WEF Membership Diversity and Structure Initiative Workgroup and will bring back ideas to our ACWWA Board as they become available. I am also the Chairperson for the WEF Canadian Affairs Council (CAC). The CAC is made up of representatives from each WEF Member Association across Canada as well as several senior WEF personnel that sit around the table with us. The CAC has been involved with changing literature, social media articles, and videos to incorporate Canadianizing in them to be more inclusive. You can see these videos online and the ACWWA has sent out several Twitter feeds with links.

Finally, WEF has relaunched **Water's Worth It**.

THE FACTS

- In the U.S., an estimated 76% of the population – almost 250 million people – depends on nearly 15,000 water resource recovery facilities and a vast network of hidden infrastructure for wastewater services. An additional 56 million people are expected to connect to these systems by 2032.
- Over the next 20 years, estimated needs are USD \$4.8 trillion for U.S. drinking water and wastewater infrastructure and USD \$271 billion for U.S. stormwater infrastructure. Roughly 90% of Americans strongly support increased investment in these clean water systems.
- Estimated needs in Canada are CAD \$207 billion for drinking water, CAD \$234 billion for wastewater, and CAD \$134 billion for stormwater. A majority of Canadians also rank water, wastewater, and stormwater infrastructure as top funding priorities.
- Thirty large U.S. water and wastewater utilities, with support from ratepayers, will contribute USD \$524 billion to the economy and create nearly 300,000 jobs over the next decade through essential water and wastewater infrastructure improvement projects.

Sources: <https://bit.ly/2LFr14>

Water's Worth It has data that can be shared with school aged children... and if you like, please use this link below to watch a great PSA Video.

https://watersworthit.org/wp-content/uploads/2018/09/WatersWorthIt_480.mov



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WATER'S WORTH IT®

QUESTION & ANSWER

WHAT IS WATER'S WORTH IT AND WHAT IS THE PURPOSE?

WATER'S WORTH IT is organized by the Water Environment Federation (WEF) to help raise awareness about the value and importance of water and the work that water professionals do every day to provide clean and reliable services.

By using various keywords to define what the "it" means, we can better illustrate the connection between water and our actions, attitudes, and the things we most value. For example, "My Effort. WATER'S WORTH IT" evokes a personal responsibility while "Your Effort" serves as a call to action and "Our Effort" represents a shared commitment to sustainable water management.

The WATER'S WORTH IT tagline can be used on its own, in support of an existing program or brand, or coupled with a simple keyword and artwork to alter the impact and reach. The versatility of the campaign means that materials can be customized to reach any audience, in any location, about any issue. You Need Water. Water Needs You. It's that simple.

HOW CAN I USE THE CAMPAIGN?

WEF has provided general usage guidelines to protect the brand and integrity of the campaign, but we encourage you to use the tagline and all related materials however you choose. This campaign is designed to be as flexible as you need it to be. You can use it to complement an existing program, as the foundation for a new outreach campaign, or as a vehicle to raise awareness about an important issue in your community. The potential of WATER'S WORTH IT is limitless and we encourage you to think about how it can be applied within your community programs and outreach efforts.

WHAT ARE THE CURRENT AND FUTURE PLANS FOR THE CAMPAIGN?

Future plans include the translation of some materials into Spanish and French and the possible expansion of the website, including the exploration of a fully customizable product line.

WHAT UPDATES HAVE BEEN MADE?

To maintain the brand and integrity of the campaign, we have not changed the font and type treatment or the basic campaign elements. It is still built around the umbrella tagline of WATER'S WORTH IT, a shared call-to-action ("You Need Water. Water Needs You."), and the five focus areas of Respect, Effort, Passion, Health, and Future.

The focus areas allow for more targeted messaging about important water quality topics and action items as well as the flexibility to expand the platform to include new topics such as stormwater, resource recovery, and workforce development.

Visually, we have updated the campaign icons, imagery, and product line to be clean, modern, engaging, and relatable to a broad range of audiences. This is also reflected in the newly updated website, www.WatersWorthIt.org, which includes a complete set of resources such as fact sheets, ads, social media graphics, web banners, and logos.

Everything has been designed to grow and easily adapt to the needs of WEF, WEF Members Associations, WEF members, and the water sector.

WHAT IS THE HISTORY OF THE CAMPAIGN?

Raising awareness of the value and importance of water is as an integral component to WEF's role as a leading technical and educational water quality organization.

WATER'S WORTH IT was created and originally launched in 2012 to help WEF, its members, and the entire water sector unite under one umbrella message and call-to-action that would help raise public awareness and encourage personal responsibility for sustainably managing our water resources.

For the past six years, it was largely a grassroots and member-driven effort. In response to its continued popularity, WEF refreshed the visuals, resources, and website while remaining true to the original identity, purpose, and message platform.

CAN I USE ORIGINAL CAMPAIGN MATERIALS?

Ideally, we would prefer that everyone use the new visuals, materials, and products but recognize and understand that some may have made a financial investment with the original product line. We are supportive of continued use of these products as supplies last but encourage the incorporation and use of the new resources going forward.



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Your life and community is built on clean water and the infrastructure that supports it. It's so reliable that you might not give it—or the impact of your actions—a second thought.

RESPECT WATER BY TAKING THE TIME TO STOP, THINK, AND ACT.

THE FACTS

- In the U.S., an estimated 76% of the population—almost 250 million people—depends on nearly 15,000 water resource recovery facilities and a vast network of hidden infrastructure for wastewater services. An additional 56 million people are expected to connect to these systems by 2032.
- Over the next 20 years, estimated needs are USD \$4.8 trillion for U.S. drinking water and wastewater infrastructure and USD \$271 billion for U.S. stormwater infrastructure. Roughly 90% of Americans strongly support increased investment in these clean water systems.
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- Thirty large U.S. water and wastewater utilities, with support from ratepayers, will contribute USD \$524 billion to the economy and create nearly 300,000 jobs over the next decade through essential water and wastewater infrastructure improvement projects.

Source: <https://bit.ly/2LFR118>

SMALL ACTIONS, BIG IMPACT

- Only flush the 3Ps. Everything that goes down a pipe or storm drain ends up at your local water resource recovery facility or waterbody. Limit what you flush to (toilet) paper, pee, and poo—and responsibly dispose of, or recycle, the rest.
- Take a tour of your local water resource recovery facility to learn about water careers and the innovative ways water is managed in your community.
- Review your water/wastewater bill, ask about your community's stormwater plan, and stay informed about local, national, and global water issues.
- Invest in your local water infrastructure, become a water advocate, and volunteer for community clean-up and awareness activities.



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"As CWWA addresses federal legislation and policies, CWWA also works to strengthen the collective voice from this municipal water sector."

Greetings to all and hope that our winter months are white and cold, but not too cold.

There continues to be exciting developments this year with CWWA as the value of working on national initiatives is resulting in positive outcomes.

CWWA was created to advocate for municipal utilities on all national matters concerning water and wastewater related topics. Our advocacy is done in large part through the various CWWA technical committees. The following will provide you with an overview of only a few of the subjects and major issues currently being addressed by CWWA.

- **Climate change:** This subject is certainly considered one of the greatest challenges facing our planet. The federal government has identified climate change as a priority and has invited CWWA to represent the municipal utility sector. CWWA continues to be active on national round tables and working groups related to water and wastewater issues.
- **Potable water:** The proposed changes to the national guidelines for lead are definitely of primary concern to the Drinking Water Quality team and this group has been very engaged with federal staff and provincial regulators on how to roll out the changes. CWWA has been asked to be delegates to the next Federal-Provincial-Territorial Committee

on Drinking Water and our regional partners are coordinating meeting with each of their provincial regulators to discuss the delivery of the revisions and the public relations needed.

- **Wastewater:** CWWA recently submitted a letter to the Minister of Fisheries and Oceans, asking for more fair and predictable enforcement of the deleterious substances provisions of the Fisheries Act. Recently, several CWWA members have been issued warnings or charges for discharge of a deleterious substance due to release of chlorinated drinking water.
- Progress continues within the other CWWA committees including Energy & Water Efficiency, Wastewater, Flushable Wipes, Security & Emergency Management, Biosolids, Utility Leadership, and the various national and international initiatives.

On the International stage CWWA made an impressive showing at the IWA-World Water Congress & Exhibition in Tokyo during September 2018. This global event is organized every two years by the International Water Association (IWA). CWWA and Canada will host this event in 2022 in Toronto. IWA is represented in Canada by a joint committee for CWWA and the Canadian Association for Water Quality (CAWQ). Through other International initiatives CWWA and CAWQ will also be hosting the

IWA Young Professionals Conference in Toronto in June 2019 and the IWA's Strategic Asset Management and Performance Indicators/ Benchmarking Specialty Conference in Vancouver in September 2019.

Other collaborations

CWWA has also been facilitating cooperation amongst many more national water organizations such as the Canadian Water Network, Canadian Association for Water Quality, Canadian Public Works Association, Canadian Water Resources Association, Canadian Network of Asset Managers, Public Sector Digest, the Federation of Canadian Municipalities and more. As CWWA addresses federal legislation and policies, CWWA also works to strengthen the collective voice from this municipal water sector.

Winter continues to be a busy time for the CWWA staff as they prepare the path forward regarding the details for the two major events hosted by CWWA this year. CWWA's signature event, the "Window on Ottawa" was scheduled in June and the highly popular "CWWA's National Water & Wastewater Conference" was held in beautiful Banff, Alberta this past November.

Should any other information be required on CWWA activities or initiatives, please do not hesitate to contact me directly at roland.richard@nb.sympatico.ca or visit the CWWA website at www.cwwa.ca. 



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Member benefits

These past few months have been exciting and busy for our members. Once again, we had a very successful photo contest which saw the production of yet another wonderful calendar. It is very impressive to see so many of you with such great skills in photography. Congratulations to our winners, Shawn Burke, Crandall Engineering (top prize), David Parsons, CBCL (first runner-up) and Noah Brace, student (second runner-up). Thank you to all our members who take time to submit photos for the contest. This

year, we also had the opportunity to view photo contest submissions during the annual conference.

For the first time this year, the membership committee launched a contest at our annual conference in Sydney. Joe Keddy from Port Williams won himself \$100 gift card for becoming a new member and John Lam, from EXP Services, won a \$50 gift card for having recruited a new member. Thank you to all who participated and don't forget that our refer a member contest runs quarterly all year long. If you refer a

member, you have a chance to win a \$50 gift card of your choice.

Did you know?

- that in appreciation for all you do, AWWA members can now use a promo code "THANKYOU" to receive 20% OFF your next AWWA store purchase, * now through December 31, 2018.
- that students can become members for the low cost of \$10 per year if they register from now until December 31, 2018 using promo code "10STU" at checkout.



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Total WEF members: 107

Welcome new members! of October 28, 2018:

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Valerie	Savoie	AWWA	Communauté Rurale de Kedgwick
Brian	Burden	AWWA	Alfa Laval
Peak Process Controls Inc.		AWWA	
David	Russell	AWWA	DLR Piping Solutions Ltd.
Steven	Wheller	AWWA	
Michael	Wilson	AWWA	Northern Pulp
Allan	Phinney	AWWA	City of Saint John
Joe	Keddy	AWWA	Port Williams
Joshua	Wludyka	WEF	Exp Services

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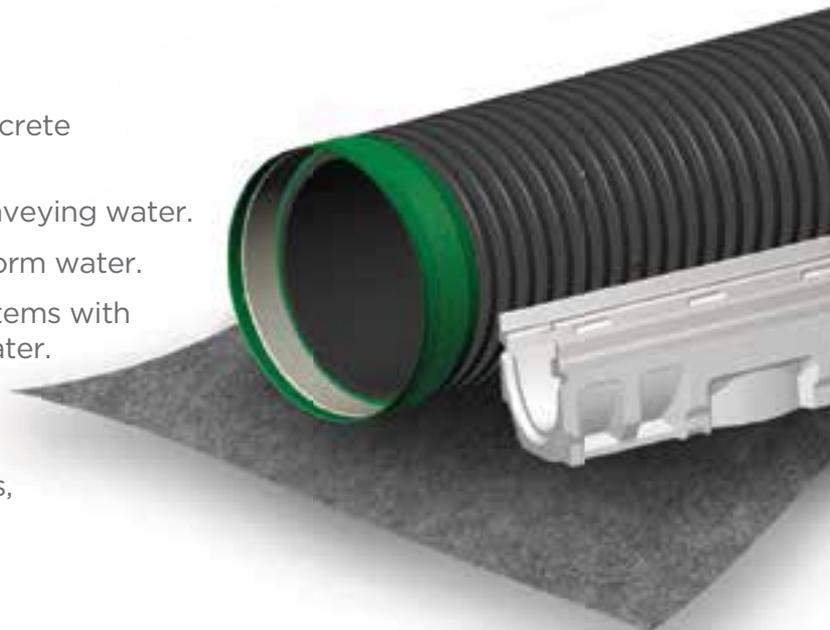
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Winner of the **Silent Hero Award**, David Hiscock



1. **Job title:** Superintendent of East/Benney Water Services and Regional Locates.
2. **Who do you work for?** Halifax Water.
3. **Where do you currently live?** Eastern Passage, NS.
4. **Where did you grow up?** Cape Breton.
5. **When I'm not working, I'm...** relaxing at the trailer.
6. **The accomplishment I'm most proud of is...** combining a regional locate program.
7. **What is your philosophy on life?** Just do your job.
8. **Toughest thing about your job?** Dealing with inconsistencies.
9. **When you were a kid, what did you want to be when you grew up?** A police officer.
10. **Last movie you saw?** Jigsaw.
11. **What music did you listen to this morning?** Country.
12. **Favourite TV show?** The Blacklist.
13. **What was the best gift you ever received?** My kids.
14. **What is your greatest luxury?** My F-150.
15. **What's your favourite famous quote?** "Let's do it."
16. **Describe your perfect day.** Everyone goes home safe.
17. **What AWWA/WEF Section would you most like to visit, and why?** New England due to the age of the infrastructure.
18. **Who is the most influential person in your life?** My wife.
19. **What is your ideal vehicle?** An F-150.
20. **How long have you been a member of ACWWA?** Since 1996. 

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2018 ACWWA Annual Conference Highlights

Sydney, NS

By Greg Campbell and Matt Viva

The 71st Annual Conference of the Atlantic Canada Water and Wastewater Association was recently held in Sydney at the Membertou Trade and Convention from September 16–18 and, as advertised, was an unforgettable experience. The conference was a tremendous success both from a technical and financial standpoint, consistent with the quality of content that delegates come to expect. Conference Co-Chairs Matt Viva and Greg Campbell of CBRM were extremely pleased with the level of support for the event, which enabled the conference committee to provide attendees with a wide range of networking opportunities, a full and robust technical program, and allowed attendees to be treated to some of the best hospitality and entertainment that Cape Breton has to offer. Initial feedback from the ACWWA Board of Directors and from dignitaries from the United States was that this was “the best conference to date,” including the international conferences held by both WEF and AWWA.

The conference theme, “Turning Tides,” was consistent throughout



the conference program as new spins were put on old favorite events throughout the conference. The fun began on Sunday morning as 82 golfers teed off at The Lakes Golf Club in Ben Eion and enjoyed a beautiful, sunny day with scenic views, plenty of lost balls, and lots of laughs. An alternative to golf, a technical tour of the former tar ponds site gave a glimpse into how the

tides were turned on one of the most polluted sites in Canada, which is now home to Open Hearth Park. The Young Professionals mixer then took place early Sunday evening in Kiju’s Corner office, with no shortage of stories and shared knowledge to go around. Conference attendees then gathered in the MTCC for the Meet & Greet to reacquaint themselves with old colleges and connect with

Opening General Session



Golf Tournament



Water Tower Competition



new friends. Those who were brave enough participated in the Water Tower Building contest, sponsored by Greatario, where creativity and ingenuity was on display.

The conference officially opened on Monday morning as the traditional drums of Membertou welcomed attendees to First Nation's lands. CBRM Mayor Cecil Clarke and Membertou Chief and CEO Terry Paul each welcomed delegates to our conference, and delivered an important message that resonated among attendees that the work we do matters and is important to decision

makers at all levels of government. Major award winners were then recognized, with Greg Penney of CBRM being awarded the prestigious George Warren Fuller Award and the Ira P. MacNab award going to Bruce Buchanan of Moncton. Our keynote speaker, Jeremy White, Founder and Ale Smith of Big Spruce Brewing then shared his story of how he turned the tides on his career, from managing business development and operations across Latin America and the Caribbean for Bi-water International to opening the popular craft beer brewery in Nyanza, leaving attendees

inspired, ready to participate, and maybe even a little thirsty!

A vast array of technical sessions, including some less traditional soft sessions on management and diversity, and a hands-on demonstration by Mantech, was followed up by the sold out Water For People Fun Run/Walk on Monday evening. Monday night began with the CB Tavern Tour with stops in downtown Sydney before accumulating at the Big Fiddle for the ABEA Hospitality night. Music by Andrew Doyle and a magical poutine and wing bar were enjoyed by all.

Technical Sessions



Tuesday morning began with Awards Breakfast at the MTCC followed by the Best of the Best Water Taste Test at the Membertou Sport and Wellness Centre. (See full details on this year's award recipients on page 28.) The taste test ran directly into the ABEA/ACWWA Trade Show where 167 exhibitors showcased their products across 85 booths, networking with existing and future clients. Companions, who enjoyed two days of cultural indulgence including a Membertou Medicine Walk and featuring stops at Island Crystal, Fortress of

Louisbourg, and the Cape Breton Centre for Craft & Design, joined up with delegates for the Down East Feast on Tuesday night. The entertainment did not disappoint as the audience experienced chills as the Men of the Deeps, who entered the room in darkness with only headlamps to lead the way, gave a pre-dinner performance celebrating Cape Breton's coal mining history. Island Girls, Jen and Bette, then gave a side splitting performance of music and sketch comedy. The night ended with the dance floor packed as the Privateers and High Society sang until

closing time. Rumor has it that the party continued onto our bus, which transported delegates from downtown hotels to the conference site, but as the old saying goes, "What happens in Cape Breton, stays in Cape Breton..."

The 2018 ACWWA Conference Committee would like to thank all those who attended or contributed to the success of our conference in any way. We hope you enjoyed your stay, remember us fondly, and visit us again in Cape Breton. It was our pleasure to host you and we look forward to seeing you all again in Halifax in 2019!

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Our 2018 Award Winners



Dave Hiscock – NS Silent Hero



Dave started working for Halifax Water more than 30 years ago. Over the years he has progressed from a Utility Worker with the former City of Dartmouth to his current role as Regional Superintendent. In his current role, he is responsible for the overall operation of water distribution system in the East Region. This includes preventative and corrective maintenance, reduction in water loss, and improved efficiency of operation. Dave is a tireless water professional who takes immense pride in the water system he looks after. He is always looking for ways to operate the system more effectively.

Kara Baisley – NS Silent Hero



Beyond Kara's work with at the Lake Major Water Treatment Plant, Kara has excelled in her volunteer roles with Halifax Search & Rescue. In the past years, Kara has been the operations lead for several lifesaving rescues and recently became Chief Director.

Christian Vienneau – NB Silent Hero

As a senior water and sewer operator for the City of Dieppe for many years, Christian is very innovative and knowledgeable. He is constantly trying to improve the Scada system, pump booster stations and lift stations, water reservoirs, and various programs in our water distribution. He is always working hard to achieve quality work in each project. This year he used an app for tablets using GIS for public work crews to inspect hydrants and other infrastructure programs to collect digital and spatial data that can then be analyzed and managed better.

Fenton Bambrick – PEI Silent Hero

Fenton is the Meter Person with the Charlottetown Water & Sewer Utility. He started in May 2001 as a part-time maintenance and construction worker and became full time in January 2012 as a Meter Person. Fenton is responsible for reading and recording consumption for metered customers. The City of Charlottetown is in the process of metering its residential customers and, as the primary meter reader, Fenton is responsible for more than 10,000 meters. His duties include comparing consumption history and investigating any large differences, checking meters for accuracy, installing/changing out meters, and customer service.

Melissa Fraser – YP Award



As a student at Dalhousie and now an employee of CBCL, Melissa has been passionately involved in ACWWA. She currently holds the position of ACWWA Volunteer Chair, sits on the membership committee, instructs ACWWA courses, and assists with WFP.

Jeff Jensen – Contribution Award

Jeff has been involved in the Association both through financial contributions as well as time given to education sessions. He was integral in sponsoring the MOU arrived at between the ACWWA and the ABEA. Jeff has been a willing participant since joining the industry.

Sansom Equipment – Contribution



ACWWA is fortunate to have the full support and commitment of many Sansom Equipment employees. Over many decades they have held numerous board positions locally and nationally. They have touched all aspects of the Association through training, membership support, tradeshow, auction donations, and sponsorship programs.

Project of the Year – Large Safe Clean Drinking Water Saint John, CBCL

Northarm Trunk Sewer Rehab HW, CBCL, Robinson



- Liqui-Force Services (Ontario) Inc. – prime contractor
- Insituform Technologies Ltd. – subcontractor
- Empipe Solutions – subcontractor
- Uni-Jet Industrial Services – subcontractor 

Water For People

2018 wrap-up

By Sean MacIsaac, Water For People Atlantic Canada Chair

At the annual ACWWA conference in Membertou, Nova Scotia this September, the Atlantic Canada chapter of Water For People held a number of fundraising activities for sustainable water projects in Bolivia and Malawi. In just three days we were able to raise a whopping \$17,869! This is no small feat for a small AWWA section! This year our silent auction had a number of highly contested bidding wars with ACWWA's own Clara Shea coming out on top in the battle for the Kholer generator donated by Samson equipment. We would like

to thank all those who generously donated to the auction this year as it means a lot to Water For People and we couldn't accomplish our goals without you!

The 50/50 draw also had an exciting conclusion with Tom Cameron having the winning ticket and immediately donating his winnings back to Water For People. Tom let us know he was feeling lucky when we sold him the ticket and he wasn't wrong! We would also like to thank the City of Moncton for their donation from their scrap metal recycling program. Each year we are

blown away with their contribution from this program and truly appreciate it! We would also like to thank all of our Fun Run participants, presenters from the technical sessions, and McKeen Engineering for all of their contributions to Water For People projects. Finally, we would like to thank Greatario for their donation to Water For People from their lanyard recycling program. We are excited for next year in Halifax and hope you will join us in our efforts in raising funds for sustainable water projects around the globe!

Everyone Forever



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people now using reliable water service



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schools have reliable water and sanitation



623

communities have reliable water service



532

health clinics have reliable water and sanitation



water for people

At Water For People, 2018 was a year of incredible progress. We have now reached 3.3 million people with drinking water since starting the Everyone Forever model in 2011! Everyone Forever means working at the district level to ensure every community, family, school, and clinic has sustainable water access. You can read more about each district's progress toward Everyone at www.waterforpeople.org/everyone-forever-progress.

Most exciting in 2018 was that San Pedro, Bolivia became the first district to achieve fully sustainable services – the Forever part of our model. This means the local water offices are managing their own water systems and maintaining a high level of service, without further investment or technical support from Water For People. 🌊



2019 ACWWA Annual Conference

UNCHARTED WATERS: PREPARING FOR THE UNKNOWN

Halifax Marriott Harbourfront Hotel, Halifax, NS | October 6–8, 2019

Call FOR Abstracts

Uncharted Waters: Preparing for the Unknown

It has been five years since the ACWWA Annual Conference was last held in Halifax, one of the most vibrant cities in Atlantic Canada. This year, the conference will be at the Halifax Marriott Harbourfront Hotel, located next to the beautiful Halifax Harbour. With access to the boardwalk, dozens of incredible

restaurants, bars, and attractions, downtown Halifax is truly a glowing representation of urban living in Atlantic Canada.

Join the ACWWA in Halifax in 2019 to learn and share your knowledge while visiting this historic city with friends and colleagues in the water and wastewater industry. Whether it be regulatory change, disruptive technology,

intelligent water networks, climate change, lake recovery, workforce changes, or asset management planning, come discuss current and future or potential challenges, as we collectively, prepare for the unknown. The conference will feature technical sessions, the ABEA Tradeshow, and industry networking opportunities.



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ORAL PRESENTATIONS:

The ACWWA is inviting abstract submissions for the 2019 Conference in Halifax, NS. All topics related to the water and wastewater profession will be considered. We encourage presentations that represent the whole industry beyond just water and wastewater treatment, including corporate topics like changing workforce demographics, communications, leadership, culture change, security, affordability, etc. Presentations will be 20 or 30 minutes in length with five minutes for questions.

INSTRUCTIONS FOR SUBMITTING ABSTRACTS:

Please submit an abstract (maximum length of 300 words), a presenter biography (maximum length of 200 words), and copyright release form at www.acwwa.ca by **February 23, 2019**. Also, please indicate if the presenter

is a first-time Young Professional participant at the ACWWA section conference, and would like to be considered for the Fresh Ideas program that has been developed through AWWA's Manufacturers/Associates Council and the Young Professionals Committee. The top presentation selected from this group of presenters will be given the opportunity to compete in the Fresh Ideas poster competition at the AWWA Annual Conference and Exposition (ACE 2020) in Orlando, Florida, representing the Young Professionals of ACWWA. Along with complimentary conference registration provided by the ACE 2020 organizing committee, ACWWA will provide the winner with a stipend to assist with travel costs to the conference.

SELECTION CRITERIA:

Submissions will be reviewed based on the significance of the work/content to a broad audience, originality of the work, new concepts, improvements or new

data, technical content, the status of the completeness of the work, and the relevance to the theme of the conference, if applicable. Case studies on new technologies and industry presentations that are innovative/educational are encouraged; however, submissions that appear to be marketing material for a particular product or company will not be accepted. Submissions from all aspects of the industry (engineering, customer service, communications, etc.) will be accepted. Authors will be notified of the selection of their abstracts for presentation by the end of May 2019.

CALLING ALL STUDENTS:

In addition to being considered for the Fresh Ideas program and a chance of representing the Young Professionals of ACWWA at ACE 2020, we are offering an added incentive for students. Students whose abstracts are accepted will have their conference registration waived!

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Thriving Despite Low Numbers

Women are underrepresented in water sector, data say

By Katherine Saltzman

The water sector employs significantly fewer women than the national average of all workers, according to the report, *Renewing the Water Workforce: Improving Water Infrastructure and Creating a Pipeline to Opportunity*, published in June 2018 by The Brookings Institute (Washington, D.C.).

According to the report, 46.8% of workers across the U.S. are women, though women “only account for 14.9% of the water workforce.” Furthermore, the occupational breakdown of women in water is skewed. “While women make up a majority of water workers in certain administrative positions – including 95% of secretaries – they only account for a fraction of employment in some of the largest water occupations overall, including plumbers (1.4%) and water treatment operators (5.2%),” the report says.

Successful women on the job

Joanna Healy, a Grade 4 certification operator at the McDowell Creek Wastewater Treatment Plant, which is operated by Charlotte Water in North Carolina, began her career in the mailroom at the Hoover Dam in Nevada. Soon a position testing water and wastewater samples opened, and she took it. Later she moved into compliance reporting. Healy then transferred to a community college where she received an associate degree in Applied Science in Wastewater Treatment before moving to North Carolina.

“Usually there aren’t a whole lot of us in the classes, Healy said. “In the maintenance tech class there were

over 60 students and I was one of two females.”

Healy attained her Grade 4 certification in 2.5 years by earning her associate degree. She also received a Pretreatment and Maintenance Tech 1 certification and plans to get a Pretreatment and Maintenance Tech 2 certification.

Despite few women in her classes, Healy said that she has received support and mentorship from trainers and colleagues throughout her training and career in the water sector.

“I think it’s really neat that women can do anything men can do,” Healy said. “That’s what I tell my daughter. You can do all the things the guys can do, but you don’t have to prove yourself to anyone.”

Tara Romine started working at Charlotte Water in October 1990 as a laborer. An operator position later became available and she received on-the-job training to become qualified; more formal training was not readily available then, Romine said. By July 1998 she had received her Grade 4 certification and in 2000 took on the responsibility of first chief operator at Mallard Creek Water Reclamation Facility for Charlotte Water. When the facility became the first ISO certified plant in Charlotte Water, she assisted with the development and creation of the ISO program. In her role, Romine helps implement standard operating procedures and create work instructions and procedures for new operators among many other responsibilities.

Romine said her career in water has been filled with strong relationships and rewarding opportunities.

“I was always treated well,” Romine said. “The gentlemen that I train have given me the utmost respect. It has been a very good working environment for me. I feel like I have really been given a gift to serve the community.”

Barriers to entry

The Brookings report includes overall recommendations on improving gender and racial diversity in the water sector. These include

- increasing the visibility of the sector for younger students,
- creating more opportunities for workforce training, and
- expanding career paths for professionals in the water workforce.

However, the report stops short of forming conclusions on why so few women are in the water workforce.

Kalpna Solanki, CEO of the Environmental Operators Certification Program, suggests that Canada faces similar obstacles to the U.S. in terms of recruitment, training, and retention, especially for female employees. Solanki’s non-profit organization classifies water and wastewater facilities in British Columbia and Yukon and certifies the operators who work in those provinces.

“Very often people literally fall into the career. It wasn’t necessarily a planned path. It would be better if it was proactive rather than reactive,” Solanki said.

Often information on these water jobs are heard about at the Canadian equivalent of city or state departments of parks and recreation or departments of sanitation with majority male staff, she said.

"[Men] get into the [water/wastewater] workforce because they happen to be there," she said. "There are not many women [here], so the result is fewer women going into the field from that point."

Solanki echoed The Brookings report message that women's job descriptions within water sector are skewed. While things are changing, and most female operators love their jobs, she said that she is aware of some situations of discrimination and harassment in the workforce.

If 10% of the water workforce is female, their number are not spread evenly among the four major area specialties: water treatment, water distribution, wastewater collection and wastewater treatment, she said.

"I would be surprised if more than 1% is female in wastewater collection and 1% to 2% of women in water distribution," Solanki said. "Within that 10% of female operators, there are some specialties that have almost no women at all."

Overcoming entrenched attitudes

Even though Canada has workforce standards in place at public utilities, each employer at the utility must reinforce rules and guide employees on proper workplace behaviors. This is especially true if women have historically been underrepresented in the specialty area, Solanki explained.

"Some of the feedback I have received from women especially in water distribution and wastewater collection, [is that] the problem often lies at the employer level," she said. "The support mechanisms are not in place in where women are just parachuted into the workforce. The men are not prepared for this change [and] are not educated with regards to workplace harassment. The women are not properly trained in terms of what is acceptable and what is not acceptable behavior and what resources are available to them," Solanki said.

In June 2018, Solanki participated on a panel discussion during a workplace diversity workshop at the Canadian Water Summit. Topics included how to promote the field

in general as well as to women; it also dealt with how to better recruit and integrate women in areas of the water sector where they are currently underrepresented.

"Most of the women that I meet like the work, are good at it, and like the variability of the job – there are no two days that are the same," Solanki said. "We do hear of a few women who face harassment but, in general, most the women are happy and really enjoy being in the field."

Amanda Schuffels serves as an example of a happy newcomer to the water sector. In January 2018, she took on the role of full-time grade 1 wastewater operator at the Kelowna Wastewater Treatment Facility in British Columbia, Canada. Previously she had worked in co-op training positions and part-time roles at the utility.

"A lot of men and women have taken me under their wing and have

taught me what I needed to learn so that I can strive in my position, she said. "I love the job and industry."

Despite their lower numbers, female operators and utility leaders are at the forefront of the sector. These women prepare and train new employees, support innovations and technologies, manage the day-to-day operations of their facilities, and support the environment and public health for communities across the world. 



Katherine Saltzman is a publications assistant at the Water Environment Federation (Alexandria, Va.) where she works on WEF's Operator Initiative programs.

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Remembering Our Colleague, Gary MacKinnon



At the 2013 ACWWA Conference in Fredericton, NB, our co-worker Gary MacKinnon was awarded the Silent Hero award for PEI. Gary started with the Charlottetown Water & Sewer Utility in 2005 as the Water & Sewer Pumping Station Maintenance Operator. A licensed electrician, Gary brought many skills to the position and took great pride in his responsibility to oversee the City's water, sewer, and booster stations along with two reservoirs. He was also involved in getting the City's new wellfield and reservoir operational.

While working for the Utility, Gary achieved Class IV certification in Water Distribution and Wastewater Collection. He also had his Class I in Water Treatment and was quite willing to take training related to his position to better able him to do his job. In addition to his regular duties, Gary was always available to work in other areas of the Utility that mostly related to failures and necessary emergency repairs. He was very eager and dependable to work overtime when required in all aspects of Utility operations, regardless of the time of day or night, week or weekend.

On Tuesday, July 31, 2018, we lost a co-worker and dear friend when Gary passed away suddenly at his workplace.



Gary receiving his award at the 2013 ACWWA Conference in Fredericton. L to R: Charlie Anderson (AWWA), Gary, Cordell Samuels (WEF). Photo by Maggie Hood.

It is a day that changed the lives of many and he will be missed. He was truly an asset to our utility.

Gary, son of Phyllis "Bonnie" and the late Leonard "Buddy," is survived by his mother, two sisters (Gail and Linda) and a niece, Josie, whom he totally adored. 🕊



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GUDI, Non-GUDI, and Surface Waters

As water professionals, many of us focus on supplying safe, clean drinking water to members of the public. To help regulate this, most jurisdictions in Canada classify public source water drinking supplies as either surface water, groundwater under the direct influence of surface water (GUDI) or secure groundwater (non-GUDI). The level of risk, source water protection, level of treatment, and monitoring requirements for each type varies depending on the supply. Non-GUDI wells are typically the most secure and consistent water supplies in terms of quality, followed by GUDI and surface waters.

Most aquifers are recharged from the infiltration of surface water into the ground. Depending on the surrounding geology, this surface recharge may take place in a relatively short period of time, or may take several days or months as the infiltration travels several kilometers. In situations where the recharge from surface supplies is quicker, the groundwater may exhibit some of the surface water characteristics; of particular importance is the presence of viruses, protozoa, and bacteria. Wells that have a shorter recharge, rapid shifts in water quality, have a strong hydraulic connection to surface water bodies, and show signs of macro-organisms or pathogen contamination are typically classified as GUDI.

Each province mandates the criteria and screening process to which a source water supply should be compared against to determine what classification it will fall under. For wellfields, typically a desktop screening

step is employed that considers the location of the well, distance to a surface water body, constructions details, and raw water chemistry. Depending on the results of this investigation, further testing and analysis may be required to determine if the well is non-GUDI; this investigation may include hydraulic calculations, long-term water quality monitoring, and comparison to rainfall events; in some cases detailed water analysis for microscopic particulate analysis may also be necessary.

After the source water has been classified, the required level of treatment can begin to be determined. For non-GUDI wells, many jurisdictions require only disinfection and routine monitoring. For GUDI and surface waters, engineered filtration, additional levels of disinfection (such as UV), and more frequent testing are almost always required. It is important to be aware of the laws and regulations in the province in which you are practicing, and protect the safety and health of the downstream consumers.☺

The “Back to Fundamentals” department is published in each edition of *Go With the Flow* magazine. It is intended to cover a broad range of fundamental water and wastewater topics that will be driven by you, the readers of this magazine. If you find a topic particularly interesting or confusing, most likely others do as well. Please forward your ideas for future columns to Kyle MacIntyre, Dillon Consulting (kmacintyre@dillon.ca) or John Lam (john.lam@exp.com) and we will respond in future publications to your queries.



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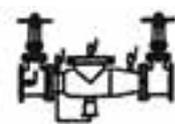
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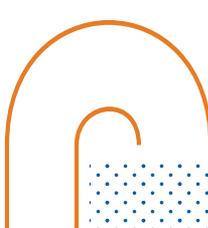
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