SUMMER 2016 with THE GU THE OFFICIAL PUBLICATION OF THE ATLANTIC CANADA WATER AND WASTEWATER ASSOCIATION

ACWWA 2016 Source to/à Source September 18–21 | Delta Beauséjour, Moncton, NB

INSIDE:

- MacNab Award Winner Roland Richard
- Lloyd Douglas Scholarship Winners
- 2016 Scholarship Call







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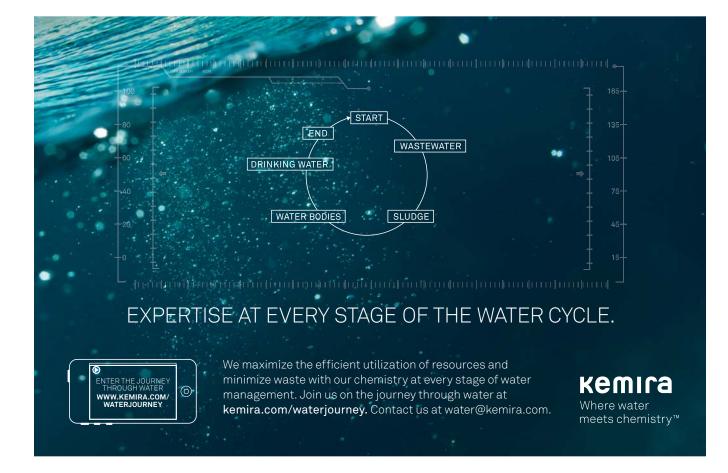


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ATLANTIC CANADA WATER & WASTEWATER ASSOCIATION

American Water Works Association Atlantic Canada Section Water Environment Federation*

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

Chair John Eisnor, M.A.Sc., P.Eng. johne@halifaxwater.ca 902.490.1930 F: 902.490.1584

Past Chair Scott Grasman, P.Tech scottgrasman@fredericton.ca 506.460.2749 F: 506.460.2461

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 mikec@cbcl.ca

 902.223.6683
 F: 902.423.39384

Second Vice-Chair Amy Winchester, M.A.Sc., P.Eng. amyw@cbcl.ca 506.633.6650 F: 506.633.6659

Secretary-Treasurer Rob Gillis, P.Eng. robg@halifaxwater.ca 902.497.1740

WEF Delegate (2014–2017) Gary Chew gary.chew@sansom.ca 902.895.2885 F: 902.893.7584

AWWA Director (2014–2017) Jamie Hannam, MBA, P.Eng. Jamie.hannam@halifaxwater.ca 902.490.4804 C: 802.441.1079



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> Monique Doyle Daniel Goulet

Stefanie Hagidiakow

Darrell Harris

Managing Editor Design/layout Marketing Manager Advertising Co-ordinator

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TABLE of CONTENTS FEATURES

Silent Hero Award	15
Ira P. MacNab Winner – Roland Richard	21
Lloyd Douglas Scholarship Winners	22
2016 Scholarship Call	25
2016 ACWWA Annual Conference in Moncton, NB	31



DEPARTMENTS

THINK GREEN

Message from the Chair	6
AWWA Director's Report	8
WEF Delegate's Report	10
CWWA Director's Report	12
Membership Corner	18
ABEA News	29
News & Notes	49
Professional Directory	53
Reach Our Advertisers	54



Magazine Chair: Lindsay Wilcott 506.633.6650 lwilcott@cbcl.ca

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MESSAGE THE CHAIR



An exciting and rewarding career choice

elcome to the spring edition of our magazine, Go With the Flow. Our Magazine Committee has put together another great edition for your reading pleasure.

It is an exciting time for young people looking to get into the water industry. According to the United States Bureau of Labor Statistics, an additional 7,000 water and wastewater operators will be needed over the next decade south of the border. It would be expected we will see a similar trend here in Canada. As technology becomes even more complicated, so will the demands on operators. To help address these present and future workforce needs, AWWA has created the One AWWA Operator Scholarship that will specifically assist with operator education and training. Through a partnership with ACWWA, this scholarship will be available here in Atlantic Canada. Further details will come forward in the near future.

We are also pleased to announce that the publisher of our magazine, Craig Kelman & Associates, will be offering a \$500 scholarship to students enrolled in a community college, institute of technology, or other institution in a water and wastewater operations program. Further details will come forward in the near future. With these opportunities, the next time you have a chance to talk to any young people, share with them your positive experiences in the water and wastewater industry and encourage them to think about a career in the industry. I think we can all agree that the water and wastewater industry can be a very exciting and rewarding career choice.

On another note, planning is well underway for our 67th Annual Conference to be held in Moncton, New Brunswick, September 18 to 21, 2016 at the Delta Beausejour. This year's theme is Source to / à Source. Start making your plans to attend our association's marquee annual event. Hopefully we will see you in Moncton. 鏦



Craig Kelman & Associates \$500 Scholarship Craig Kelman & Associates is the proud publisher of Go With the Flow magazine, the official publication of the Atlantic Canada Water and Wastewater Association.

The Craig Kelman & Associates Scholarship is intended to provide financial assistance to a person aspiring to work in water and/or wastewater systems operation. The award is currently \$500. Please see page 26 in this issue for further information.





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AWWADirector'sReport



Providing support & confidence in dealing with big issues

elcome to the Summer 2016 edition of the ACWWA Go With the Flow magazine. This excellent publication continues to help connect you with the Atlantic Canada water and wastewater industry and your peers. Enjoy the read.

For water professionals in North America, one of the largest stories/issues this year is lead. The story of Flint, Michigan has been viewed and reported on from many perspectives and has become a broader societal issue. We will come to understand that someone, or some group, could have or should have acted more diligently in Flint, however, the topic of lead is now heightened industry wide.

It is at times like these that we continue to rely on AWWA to ensure our industry and the broader public are provided with solid, scientific, and practical direction. AWWA has stood up above the crowd to provide support and confidence to collectively deal with the lead issue.

At a high level the AWWA Board endorsed the support of the recommendations of the National Drinking Water Authority Council (an advisory group to the US Environmental Protection Agency)



to proactively remove lead service lines. The good news is that this is in progress. There are many examples of Canadian and American utilities successfully removing lead lines.

David LaFrance, AWWA Chief Executive Officer, in his June 2016 AWWA Journal column, reminds us that water customers have heightened awareness of water issues and that they will look to their water utility for trusted leadership. We must use robust communication strategies and customer service approaches to ensure our customers understand the issues associated with lead and what utilities are doing to protect them today and in the future.

I encourage you all to utilize the AWWA resources and help keep your customers and community informed.

The next big conference opportunity for members is AWWA's ACE16 June 19–22, 2016, in Chicago, Illinois. The event is branded as Uniting the World of Water. ACE is the single best event to interact with the largest group of vendors, peers, and other water professionals in one place. The potential for learning is nearly limitless. One of the highlights will be the Canadian Water Forum on Tuesday evening. This is a marquee event each year bringing industry members together from all across Canada. See the ACWWA website for more information and online ticket sales.

Start planning now for your participation in the 2016 ACWWA Conference in Moncton, New Brunswick in September.

I remain committed to representing our needs at the AWWA level. Please send me your comments or questions to Jamie.hannam@halifaxwater.ca.

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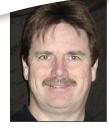


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WEFDelegate'sReport

Gary Chew (Sansom Equipment Ltd.)



Wildfires can adversely affect our infrastructure

am reprinting a chart from the WEFCOM website that relates to wildfires and how they affect our critical infrastructure. With all that has recently happened in Fort McMurray, Alberta, I thought the timing was good for this information, as it becomes very real when it happens close to you. Please look over this – maybe it will help to create a plan to put in place in the event this happens in our back door (if the snow ever stops).



National Protection and Programs Directorate Office of Cyber and Infrastructure Analysis (OCIA), May 2016

2016 WILDLAND FIRES AND POTENTIAL IMPACTS TO CRITICAL INFRASTRUCTURE

SCOPE

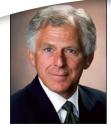
This product provides an overview of the National Interagency Fire Center (NIFC) Predictive Services Unit's National Significant Wildland Fire Potential Outlook for May through August 2016. It examines the potential impacts to U.S. critical infrastructure and is an update to the OCIA 2015 Wildland Fires and Critical Infrastructure Security and Resilience Note, released July 9, 2015. This update supports DHS leadership, DHS Protective Security Advisors, and other federal, state, and local agencies. This product was developed in coordination with the DHS National Protection and Programs Directorate/Office of Infrastructure Protection/Sector Outreach and Programs Division, DHS Federal Emergency Management Agency (FEMA)/U.S. Fire Administration, the Department of the Interior/Office of Wildland Fire, and the NIFC. OCIA will continue to monitor conditions and produce additional analysis as significant wildland fires occur.

POTENTIAL IMPACTS BY INFRASTRUCTURE SECTOR

Infrastructure	Local/ Regional Impact Level	National Impact Level	Impact: Dow Medium High	
Food and Agriculture	М	L	Impacts to the Food and Agriculture Sector may result from damage and destruction of crops, livestock, and production facilities. Additionally, damaged transportation resources such as roads, bridges, and rail lines can result in negative cascading impacts, since this Sector relies heavily on these assets to get its products to market.	
Financial Services	М	L	Fire damage to electric and communication assets may result in outages or disruptions. Electric and communication outages are likely to have negative local or regional effects on the Financial Services Sector.	
Chemical: Plants	L	L	Regional or national impacts to the Chemical Sector are unlikely because an overwhelming majority of chemical production and storage facilities are located outside of wildland fire prone areas.	
Dams	М	L	Wildland fires can damage the surface of dams or spillways, especially grass cover on embankment slopes, or grass-lined spillway channels. After a fire, the ground surface of earthen dams can be more vulnerable to erosion, leading to the possible failure of small dams on public and private reservoirs used for irrigation purposes.	
Commercial Facilities	М	L	Local businesses are most likely to experience wildland fire impacts in the form of damage to facilities, shipping delays caused by blocked or damaged transportation assets, loss of electric power, loss of water and waste water services, and interruptions in employee productivity.	

Emergency Services	Н	L	A lack of available water sources may complicate firefighting efforts in municipal areas encompassed or adjacent to a wildland fire where standard wildland fire firefighting tactics, such as the use of chemical retardants and controlled burns, are less suitable. Any extensive damage to roadways can slow response time. For remote regions, aerial operations may be required to move firefighting personnel and the injured into and out of these locations.	
Energy: Electric Power	Н	L	Electric power assets most likely damaged by a fire include aboveground transmission and distribution systems, poles, substations, and transformers. However, transmission circuits that may be affected by wildfire are normally taken out of service prior to wildfire encroachment. Redundancies built into the power systems often compensate for any outages.	
Energy: Petroleum	L	L	Regional or national-level impacts to the Petroleum Subsector are unlikely because of an overwhelming majority of petroleum refineries and storage facilities are located outside of wildland fire prone areas.	
Information Technology	L	L	Fire damage to power and communication assets may result in outages or disruptions. Electricity and communication outages are likely to result in negative impacts to the Information Technology Sector at local or regional levels.	
Healthcare and Public Health: Hospitals	М	L	Hospitals and related healthcare facilities will likely be affected by the cascading impacts from electric power disruption, water and wastewater service disruptions, and the closure of roadways caused by wildland fires. Healthcare facilities generally have backup generation capacity to mainta essential functions in the event of short-term power outages, but may stil have to evacuate if facilities cannot resupply because road closures. Staffi may also become an issue because of road closures.	
Communications: Wireline and Wireless	М	L	Wildland fires can disable landlines and wireless towers. Large numbers of emergency response personnel entering a wildland fire area create spikes in demand on networks. Wildland fires often occur in remote areas where wireless networks are weakest. When a wildland fire occurs, communications companies can deploy portable cell towers and network repeaters to boost wireless and data transmission coverage and capacity.	
Transportation Systems: Road and Rail	Н	L	Roadways and rail lines may close due to fire damage, fires blocking access, or poor visibility caused by smoke and ash in the air. Road and railway bridges may be damaged or destroyed. The closing of transportation assets can result in cascading impacts across a number of other critical infrastructure sectors, e.g., Food and Agriculture, Critical Manufacturing, Emergency Services, and the Petroleum Subsector, which relies, to a limited extent, on rail.	
Transportation Systems: Airports	М	L	Airports may close and reroute air traffic because of visibility problems (smoke, haze), unstable air currents caused by the fires, or damage to aviation facilities and runways.	
Transportation Systems: Maritime	L	L	Regional or national-level impacts to the Maritime Subsector are unlikely because an overwhelming majority of maritime ports are located outside o wildland fire prone areas.	
Water and Wastewater Systems: Drinking Water	М	L	Damage to electric power assets may result in drinking water service disruptions. Increased turbidity and pollutants caused by the fire and fire retardants can cause qualitative impacts on watersheds and reservoirs.	
Water and Wastewater Systems: Wastewater	М	L	Damage to electric power assets may result in the interruption of wastewater treatment.	

CWWADirector'sReport



CWWA – National advocacy

n preparation for this summer and mid-year issue of our Go With the Flow magazine, I thought that a brief overview of the many subjects and topics that CWWA is currently involved with on behalf of the water sector in Canada would provide an overall snapshot of the current activities. Some have been reported before in previous magazine articles; however, I believe it's important to remind and relate to the members of ACWWA the continued efforts placed by the CWWA executive director and staff including the members of the CWWA Board to encourage a National Voice for the water sector.

The following is an overview of topics:

The federal budget & advocacy

From the day of the federal election until the release of the latest budget the CWWA Executive Director,



Robert Haller, has been advocating for the water sector. Through communications to the Minister of Infrastructure to direct calls and meetings with key caucus members, CWWA has been calling for water and wastewater projects to be identified as priorities for federal funding support. Along with our partners at FCM, we have also been asking for federal funding support for those utilities facing deadlines to meet the new WSER upgrade requirements.

CWWA staff will continue to meet with federal officials as this plan is formulated and rolled out. Our next effort will be to have the provinces get behind this Infrastructure Plan and its philosophy and to match the funds in their region... then of course to have our own municipalities select water and wastewater projects as local priorities.

Wastewater effluent regulations

There are still very few of provinces that have concluded WSER agreements for harmonizing with the federal government. We are monitoring implementation issues and will address these matters at the Window on Ottawa scheduled in June. We want to see how the new federal government will provide financial support for those facing WSER infrastructure deadlines for 2020.

Infrastructure Report Card

FCM, along with several partners conducted the second edition of the Infrastructure Report Card and released this informative report in the late fall of 2015. The CWWA Executive Director formed part of the Report Card Advisory Committee as it framed the questions and analysed the results. CWWA believes this report was very important in advising the new government as it formulated its Infrastructure Plan.

RBC Attitudes survey

The RBC recently conducted its 9th survey of public attitudes around water. WWA served as municipal advisor to RBC as they developed the questions, analyzed the results, and prepare to release the findings. The report clarifies that we have a lot of work to do with regard to building public awareness and support for infrastructure investment.

Value of Water

CWWA is participating with WEF and AWWA and others as part of the Value of Water coalition to start to inform the public in Canada on the need for reinvestment in our utility infrastructure.

CWWA's Public Attitudes 2015 continues to be shared with the coalition and anyone working on public awareness around water/ wastewater issues. This report identifies three core messages with recommended strategies for each message as well as a lot of helpful hints. The report also lays out the reasons 'why' we need to conduct such campaigns and may assist utility managers in getting council support or explaining the project to a contractor.

CWWA participating in the development of international standards regarding flushable wipes

As concerns continue about the impact of flushable and non-flushable wipes on our wastewater systems, collaborative efforts are underway between the product producers and the wastewater industry. The wipes producers and sellers are represented by their trade organization known as INDA, while the wastewater industry is represented by the Water Environment Federation (WEF), the National Association of Clean Water Agencies (NACWA), the American Public Works Association (APWA), and the Canadian Water and Wastewater Association (CWWA).

WEF CAC

The WEF CAC has a new Strategic Plan. This plan was drawn up during the WEFMAX session in Orlando with tremendous support of WEF staff and leadership. The group now proceeds with a clearer purpose for existing and some solid short-term goals. The plan focuses on better communications each way within WEF, identification of Canada-wide issues, and support for joint national advocacy. CWWA will definitely support the Canadian advocacy.

AWWA CAC

The AWWA CAC met in conjunction with the CWWA's National Conference in Whistler last fall and are advancing on several fronts – including support for joint national advocacy. CWWA will again partner with the AWWA CAC as they host a two-day Canadian Summit as part of our National Conference in Toronto this fall.

National Water and Wastewater Conference

Our first 'consolidated' event in Whistler was a great success. We surpassed expectations for attendance (breaking 400) and revenue. We also received great applause for a solid program focused on utility leadership and a well-run event. We also saw a significant shift in our delegates, seeing far more utility leaders and consultants.

Window on Ottawa

As part of our event strategy, we have rescheduled this event to June 8 and 9, 2016 at the Albert at Bay Suites Hotel. We have a solid two-day program to educate our members on everything national about water and wastewater issues.

We are also introducing a new opportunity following each presentation for delegates to meet face-to-face with the key federal staff at the Window.

Technical Committees

These committees are getting rejuvenated and will soon be taking on our many CWWA Position Statements. Committees include: Drinking Water Quality, Wastewater & Stormwater, Energy & Water Efficiency, Biosolids, Security & Emergency Management, Climate Change – and we are stilling working to introduce a new Utility Leadership Committee.

MARK YOUR CALLENDARS and plan to attend the two key CWWA events during 2016:

• Window on Ottawa June 8–9, 2016

Albert at Bay Suites Hotel Plan on two full days of presentations and interactive panels on the priority water and wastewater issues facing all Canadian utilities and municipalities.

• CWWA's 2nd National Water and Wastewater Conference Toronto, Ontario November 13–16, 2016

Toronto Marriot 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.

In closing, I want to wish all a great summer. Please enjoy! 🗳





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Winner of the Silent Hero Award, Jerry Villard

- **1.** Job title: Utility Technician.
- 2. Who do you work for? Town of Stratford, PE.
- 3. Where do you currently live? Stratford.
- 4. Where did you grow up? St. Margarets, PE.
- When I'm not working... I'm tinkering with something.
- 6. The accomplishment I'm most proud of is... Being able to help.
- 7. If you could go on a road trip with any one person (living or dead), who would it be and where would you go? It would be by sailboat with a friend who recently died, to the Caribbean.
- 8. What is your philosophy on life? Take it as it comes.
- 9. Toughest thing about your job? Politics!
- 10. When you were a kid, what did you want to be when you grew up? Changed regularly, but had to work with my hands and mind, but definitely not behind a desk.
- **11. Last book you read?** Probably VBA for Dummies.
- **12. Last movie you saw?** Whatever my wife wanted, that's her domain.
- What music did you listen to this morning? Whatever was playing on CBC at 6 am.
- **14. Favourite TV show?** "Curse of Oak Island."
- What was the best gift you ever received? A pellet gun when I was 10.
- **16. What is the most useless thing you ever purchased?** Been a few "gadgets."
- **17.** Not many people know that I... I'm pretty much an open book!
- **18. What is your greatest luxury?** Spending time with family.
- **19. What's your favourite famous quote?** None in particular.

- **20.** Describe your perfect day. Sailing in 25 knots of steady wind, the only noise is from the hull of boat going through the water and wind passing through sails!
- 21. What three objects would you rescue from your burning house? There is no object worth risking your life for! Everything can be replaced.
- **22.** Who is the most influential person in your life? My wife.
- **23. What is your ideal vehicle?** A 36' sailboat.
- 24. How long have you been a member of ACWWA? Since joining the Town of Stratford, eight years. 4/10





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MEMBERSHIPCorner



Spring/summer membership update

Name	Company	
Jessica Brown		AWWA
Joe Cormier	Dillon Consulting	AWWA
Krista Fennell		AWWA
Connor Mooney		AWWA
Jane Wang		AWWA
Jeffrey Oakley	Emco Waterworks	AWWA
Ayotunde Omosule	Memorial University of Newfoundland	AWWA
Walter Collier	EEP Technical Solutions	AWWA
Wanda Macgregor		WEF
Sean Chilibeck		WEF
Nicholas Phelan		WEF

A big welcome to our new members over the past few months:

Here's snapshot of what our membership looks like: Membership totals as of May 2016

	Active
AWWA	426
WEF	109

Did you know?

NEW MEMBER REFERRAL – For every new member that you get to become a member of ACWWA (either through AWWA or WEF), **your name will be entered in a draw for a \$50**. All the new member has to do is include you as a reference. If you don't know your member number, please email *amyw@cbcl.ca* and I can provide it to you.



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What is your job title? The most appropriate job title at this point in my life is "Retired"... However, I prefer "Transitioning to new challenges." (I don't

like the word "Retired.")

Who do you work for?

At this point no formal employer... except my wife!

Where do you currently live?

On a little piece of oceanfront heaven in Cocagne Cape, N.B. (+/- 30 minutes from Moncton).

Where did you grow up?

Moncton, N.B.

What is the toughest thing about your job?

Honestly, nothing is tough with my new adventure... Will I go sailing or skiing or cycling today? Depending on the weather of course...

Finish these sentences: "When I'm not working, I'm..."

The question should be: "When I'm not enjoying my new free time, I'm..." Active in standardization through Standards Council of Canada participating in the development of ISO standards in the areas of Water Reuse; sludge recovery, recycling, treatment and disposal including biosolids. I continue to volunteer and serve on several water and wastewater associations including other professional engineering associations.

"The accomplishment I'm most proud of is..."

In addition to my family it's having experienced a very interesting career in both the private and public sectors of municipal engineering.

"When I was a kid, I wanted to be _____ when I grew up." An engineer... What was I thinking?

"Not many people know I can..." Cook up great mussels.

What is... The last book you read? Irving vs. Irving by Jacques Poitras.

The last movie you saw? The Revenant.

Your favourite TV show? CNN reporting on the U.S. Presidential races.

The best gift you have ever received?

An extraordinary day of heli-skiing with my two kids at Powder Mountain in Whistler to celebrate my 60th birthday. Your guilty pleasure? Good wine with my wife.

The song or story you remember from the radio this morning? Mike Duffy returns to work in the Senate

The most useless thing you have ever purchased?

Commodore personal computer.

If you could go on a road trip with any one person, living or dead, who would it be and where would you go (and what would be in the CD player)? A road trip across USA Highway 66 with my wife, listening to good jazz...

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LOYD DOUGLAS Scholarship Winners

The Atlantic Canada Water and Wastewater Association (ACWWA) renamed its annual scholarship in 2010 in recognition of the dedicated service rendered by long-time member and tireless ACWWA supporter, Lloyd Douglas.

CONGRATULATIONS

to our 2015/16 Lloyd Douglas Scholarship award winners!



KRISTA FENNELL (NL)

Krista Fennell is currently enrolled in her third year of the Chemical Process

Engineering Technology program at the College of the North Atlantic (CONA), in St. John's, NL. Prior to studying at CONA she attended Memorial University where she completed general study courses. She is very interested in water and wastewater treatment, which is one of the reasons why she decided to apply to the Chemical Process Engineering Technology program at CONA. This past summer she completed her first work term at the Clarenville Water Treatment Plant. During this work term she got to apply her knowledge as well as learn many things about the water treatment process. She gained a lot of experience by helping maintain and operate the various processes at the plant. She is a very dedicated student and looks forward to graduation in August of 2016. Once she has graduated she would like to obtain a career related to water or wastewater treatment.



MELISSA FRASER (NS) Melissa Fraser is currently enrolled in the second year of a Masters of Applied Science degree in civil engineering at Dalhousie

University. She started her interest in water from two courses focusing on water quality and treatment processes in her third and fourth years of her undergrad studies at St. F.X. University. The expertise and genuine interest of her professors led her to pursue further studies in this area. After graduating with a diploma in engineering, she continued her undergrad education at Dalhousie University, where she graduated with a B.Eng in Civil Engineering in May 2014. As part of her university experience she was involved with several extracurricular activities including Immersion Service Learning in Belize through St. F.X., social representative on the Civil Engineering Student Society, secretary for the Dalhousie student chapter of CSCE, which allowed her to develop an appreciation of how civil engineering is key in society and gained valuable leadership and teamwork skills that are important in any career. The focus of her research is on the use of low-pressure membranes for the treat-ment of secondary effluents from municipal wastewater treatment facilities. This research has increased her interest in wastewater treatment and has led her to pursue a career in this field after graduation.



JESSICA LANE BROWN (PE)

Jessica Lane Brown is currently in her second year of the Environmental Applied

Science Technology program at Holland College after graduating with an Environmental Studies Minor at UPEI. The reason to take this program is that she wants her interest and concern for the environment to translate into a career in the environmental field. She enjoys spending time in nature. Her interest in the environment and concerns about climate change led her to focus mainly on issues of sustainability and effective management of water and wastewater. This has also sparked her potential career plan in the field of water quality or wastewater treatment. She strongly believes that sustainable innovation in the water and wastewater treatment industry is of the utmost importance in maintaining a safe, healthy, environment for individuals in society. Her future education goals are primarily to enhance her skills in her career field. Potentially, this could mean wastewater treatment certification up to a Level 4. She enjoys being a student and would like to further her post-secondary education by completing her masters and doing some research on sustainable water treatment systems.



JOSEPH CORMIER (NB)

Joseph Gerard Cormier is currently in his fourth year of Civil Engineering at the University of New Brunswick Fredericton

(UNBF). He was born in Saint John, New Brunswick and spent his childhood and adolescence living in both Saint John and Fredericton. He has always been very successful academically, particularly in math and science courses. In 2010, he and his family moved to Belfast, Northern Ireland, where he completed his high school education. After they returned to NB in 2012, he began his studies in Civil Engineering at UNB shortly after. In his second year, he was introduced to water resource engineering in Fluid Mechanics. He quickly developed an interest in this area of engineering. He had the opportunity to do his work term with CBCL Limited and gained on-site experience, such as observing the installation of storm/sanitary pipe as well as the installation of a combined sewer overflow (CSO) chamber and later as a resident inspector of a site development project involving installation of storm and sanitary sewer. Following his graduation, he plans to obtain more field experience in the water resource field and then to pursue a Master's degree with the possibility of a PhD in water resource engineering.

PAST SCHOLARSHIP RECIPIENTS

2014/15 academic year

Sonja Parkman – PE Gary Whelan – NL Anna Haley – NS Samuel Jones – NB

2013/14 academic year

Ingrid N. Lozada – PE Conor Flanagan – NL Ellen O'Hara – NS Katuscya Gauvin – NB

2012/13 academic year

Colin MacEwan – PE JoAnne Dodd – NL Laura Hayes – NS Paul Young – NB 2011/12 academic year

Nathan MacNeill – PE Erin Mentink – NS Sarah Mapplebeck – NL Nicholas LeBlanc – NB **2010/11 academic year** David Ball – NL Tara Chisholm – NS 🍣



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he Atlantic Canada Water and Wastewater Association (ACWWA) established this scholarship in 2010 in recognition of dedicated service rendered by long-time member and tireless ACWWA supporter, Lloyd Douglas. ACWWA is a 'Section' of the American Water Works Association (AWWA) and a 'Member Association' of Water Environment Federation (WEF). ACWWA is comprised of over 550 water professionals from Atlantic Canada representing the water and wastewater industry from a number of disciplines including System Design & Consulting, Utility Management & Operations, Academia & Students, and Service Providers & Contractors. The goals of the association under its Strategic Plan are to:

- Support industry best practices
- *Provide* our industry with an education for the future
- Promote information exchange in the water and wastewater industry
- Conduct annual conferences
- Enhance government relations
- Increase/optimize membership
- Improve our Association's effectiveness

Number and value: Up to four awards with a value of \$1,000 each and one-year AWWA/ACWWA student membership (one winner for

Lloyd Douglas Scholarship (2016 Competition)

each Atlantic Canadian province: NB, NL, NS, and PEI).

Tenure: One year (non-renewable)

Eligibility: An applicant shall

- be a Canadian citizen or permanent resident of Canada;
- be registered as a full-time student in a university in Atlantic Canada;
- have successfully completed at least one year of postsecondary education; and
- intend to pursue a career related to the water or wastewater industry.
- Fields of study: University degree in engineering/science

Assessment criteria:

Academic record after at least oneyear completion of postsecondary

- education (30%);
- Statement/essay (60%); and
- Work experience and extracurricular activities (10%).

Preference will be given to a candidate with a demonstrated interest in working in the water or wastewater treatment sectors.

Application:

The application shall include

 a short biography, a recent photo and contact information including name, phone number, mailing and email addresses;

- a 500-word statement or essay of the applicant's interest, knowledge and future goals in the water/ wastewater industry together with applicable work experience or extracurricular activities;
- a description/list of planned future studies; and
- supporting documents including i) an official transcript completed to date, and ii) a copy of passport (the page showing your name, nationality and place of birth), citizenship/PR certificate or birth certificate.

The Scholarships Committee accepts only electronic applications, which should be received via email by October 21, 2016. Scanned copies of the supporting documents are required.

Apply to:

Dr. Bing Chen, Chair of ACWWA Scholarships Committee Faculty of Engineering and Applied Science Memorial University of Newfoundland St. John's, NL, Canada, A1B 3X5 Email: bingchen05@gmail.com

Selection:

Selection will be based on the principle of open and equal opportunity and carried out by the *Scholarships Committee*. The award winners will be announced in the following February.





s the publisher of Go With the Flow, the official publication of the Atlantic Canada Water and Wastewater Association, Craig Kelman & Associates has a deep appreciation for the readers and members of ACWWA whose task it is to ensure that water taken from and put back into our precious mother earth is clean and safe for the people, animals and plants whose very existence depends upon it. To demonstrate their admiration and respect for the association, its members and the water industry as a whole, they have established a yearly educational scholarship of \$500 to be funded through a percentage of advertising sales generated in Go With the Flow.

Number and value: One yearly cash award with a value of \$500 plus a one-year membership to the American Water Works Association and ACWWA.

Tenure: One year (non-renewable)

- Eligibility: An applicant shall
- be a Canadian citizen or permanent resident of Canada;

- be registered as a student in an Atlantic Canadian community college, institute of technology or other institution in a water/
- wastewater operations program;
 intend to pursue a career related to the water or wastewater industry.

Assessment criteria:

- Academic record in last year of study (20%);
- Statement/essay (60%); and
- Work experience and

extracurricular activities (20%). Preference will be given to a candidate with a demonstrated interest in working in the water or wastewater treatment, collection, or distribution sectors.

Application:

The application shall include

- a short biography, a recent photo and contact information including name, phone number, mailing and email addresses;
- a 500-word statement or essay of the applicant's interest, knowledge and future goals in the water/ wastewater industry together with applicable work experience or extracurricular activities;

- a description/list of planned future studies; and
- supporting documents including

 a transcript showing courses completed in the last year of study, and ii) a copy of passport (the page showing your name, nationality and place of birth), citizenship/PR certificate or birth certificate.

The Scholarships Committee **accepts only electronic applications**, which should be received via email by **October 21, 2016**. Scanned copies of supporting documents are required.

Apply to:

Craig Kelman & Associates

Scholarship (2016 Competition)

Dr. Bing Chen, Chair of ACWWA Scholarships Committee Faculty of Engineering and Applied Science Memorial University of Newfoundland St. John's, NL, Canada, A1B 3X5 Email: bingchen05@gmail.com

Selection: Selection will be based on the principle of open and equal opportunity and carried out by the *Scholarships Committee*. The award winners will be announced in the following February.

Celebrating On Vears

NEWS FROM THE PANEL SHOP

After 50 years of service, John and Kay McGraw have decided to retire. The Panel Shop will not only continue with business as usual, but has become part of PENNECON ENERGY TECHNICAL SERVICES. The Panel Shop's existing suite of services, complimented by Pennecon's strength and expertise, will build on our business to deliver even greater value.

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For further information please contact :

Mr. Mark Whalen, Manager Controls and Automation, Pennecon. Energy Technical Services mwhalen@pennecon.com







he **One AWWA Operator Scholarship** is funded through the support of AWWA's The Water Equation Campaign and the Atlantic Canada Water and Wastewater Association.

Purpose of award

AWWA's The Water Equation Campaign and the Atlantic Canada Water and Wastewater Association will award the **One AWWA Operator Scholarship(s)** in the amount up to \$2,000 for Water Operator training and education.

Scholarship award can be used for certification/licensure, two-year water related associate degree, technical school program, professional training program, books and manuals, and operator-related conferences.

Each scholarship recipient will receive a one-year AWWA Operator membership.

Eligibility/guidelines

- Applicant must be a current water operator or seeking to enter the water operator profession.
- Applicant must be pursuing an Operator's License or Certification,

The One AWWA Operator Scholarship

two or four-year degree related to the water operator profession, or professional development.

- Disbursement of the funds will be made directly by the Section to the financial office of recipient's college, university, or technical school.
- Items related to books, manuals, conferences, professional development courses, and other eligible expenses will be reimbursed to recipient upon presentation of eligible receipts.
- Applicant must reside or work within the geographical boundaries covered by the sponsoring Section.
- Acceptance of scholarship constitutes permission to use recipient's name and scholarship story forpurpose of promotion.

Application process: Deadline/selection/presentation

The Scholarships Committee **accepts only electronic applications**, which should be received via email by **October 21, 2016**. Scanned copies of supporting documents are required. Letters of recommendation may be mailed directly to the PO Box listed below and postmarked by the application deadline.

Apply to:

The One AWWA

Operator Scholarship Committee Atlantic Canada Water and

Wastewater Association (ACWWA) PO Box 28141, Dartmouth, NS, B2W 6E2 Email: contact@acwwa.ca

Selection: Selection will be based on the principle of open and equal opportunity and carried out by an ACWWA selection committee. The award winners will be announced the following December.

Be sure to include the following with your application:

- One-page essay of career objectives and how this scholarship will enhance your ability for professional development and bring value to the water industry
- Résumé
- Two letters of recommendation/ reference 4/2000



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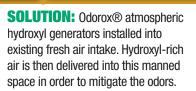






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Does the ABEA have something for you...?

he ABEA continues to bring added value to the ACWWA with its many initiatives: **Grant applications** were accepted until May 31 (visit www.abea.biz for full application).

In our inaugural year we look forward to hosting qualifying individual(s) at the 2016 ACWWA Conference, to be held in Moncton, September 18–21.

The ABEA offers four x **\$1,000 scholarships** to deserving individuals who meet the application criteria (visit *www.abea.biz*). Maybe not this year, and not in your house, but there must be someone in the office who could benefit from this opportunity. Please feel free to share this information.



We would like to take this opportunity to acknowledge Charlotte Pyke, our first scholarship recipient (2013), who will graduate

in May from UNB/Renaissance College (Fredericton) with a Bachelor of Philosophy in Interdisciplinary Leadership Studies. Charlotte will be recognized during graduation as a Sir Howard Douglas Scholar.

The ABEA is preparing for the Annual Golf Tournament to be held at Fox Creek Golf Club, Dieppe, Sunday September 18 starting at noon, with a crossover format. Your \$70 fee will cover green fees and a shared cart – don't forget to register early, and if you have a team or playing mate, please contact Cathy Cameron (scotiatech.main@ns.sympatico.ca). If you are interested in having supper at the course before heading to the Meet and Greet, it is advised to book reservations early for best availability (www.st-jamesgate.ca).

As we get closer to this year's ACWWA Annual Conference (September 18–21) in Moncton, NB, we are completing last-minute preparations for the ever-popular ABEA Common Hospitality Event to be held on Monday evening at McSweeney's, with the sounds of Raglan Road to keep the mood bubbly and jovial, and lighter fare to accompany the suds. Tuesday morning will allow our Monday evening ABEA Host Suppliers the opportunity to share their industry knowledge and latest offerings at the Annual Tradeshow – we look forward to seeing you there!

ABEA – Atlantic Branch Equipment Association



www.abea.biz



For other updates on the ABEA, its members, and its affiliates, please check out our Facebook, Twitter, and LinkedIn pages, where you can find the most up-to-date information.

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ACWWA 2016

SOURCE to/a SOURCE

SEPTEMBER 18-21 SEPTEMBRE

DELTA BEAUSÉJOUR MONCTON NB, CANADA



Welcome from the Conference Chair Source to/à Source, Moncton, NB September 18–21

Please join us in Moncton September 18–21 for the 2016 ACWWA Annual Conference, a conference you won't soon forget. The conference organizing committee has been working hard at making this a memorable event, and has added a few new items to the conference program.

We are very pleased to be hosting the Annual Conference in Moncton for the first time since 2006 at the Delta Beauséjour. Located in the heart of our beautiful downtown core where you can enjoy fine dining experiences, sit down in one of our beautiful terraces, take in a show at the Capitol Theatre or even a walk along our beautiful Riverfront trail while viewing the world renowned Tidal Bore. Moncton is known to be Canada's most polite and honest city (Readers Digest 2008). We dare you to figure out how your car rolls uphill at the extraordinary Magnetic Hill, or just a short drive away idyllic beaches and magnificent natural wonders.

Once again, the conference committee is striving for a strong high quality technical program. The technical sessions will run from Monday morning to Wednesday morning. This year's conference program will be filled with all kinds of favourites like golf (Fox Creek Golf Club), Technical tours, opening ceremonies with Martin Latulippe as keynote speaker, ABEA tradeshow, ABEA hospitality night (McSweeney's Dinner theatre with Raglan Road), YP mixer (Gusto), Top Ops competition, hands-on technical demonstrations, and our Down East Feast. Newly added to the conference program will be a water tower building competition as well as a prize for the stay to the end Down East Feast.

What innovation is being used in the development of your water source? Did you add a new treatment system? What are the challenges of your distribution system? What processes are being used to treat your wastewater? New regulations will be coming into place – How will you meet these regulations? "Source to/à Source" is the opportunity to showcase projects and solutions on topics ranging from the source of our potable water to the effluent discharged into our water source, and everything in between!

Whether you are a utility executive, supplier, consultant, regulator, operator or student, be sure to join us at this year's ACWWA Annual Conference in Moncton. Come reunite with colleagues and friends to share your experiences, and expertise as well as discuss the many issues and challenges we face in the water and wastewater industry.

Julie Stokes

2016 Conference Chair



Message from the ACWWA Chair

On behalf of the Board of the Atlantic Canada Water and Wastewater Association, I invite you to attend our 67th Annual Conference to be held in Moncton, New Brunswick, September 18–21, 2016 at the Delta Beauséjour Hotel. The annual conference is the marquee event for the Association.

This year's theme is *Source to/à Source* and highlights the importance of ensuring we as water professionals are providing safe water to our customers but at the same time making sure we are returning clean water back to the environment. The theme also reflects on ACWWA being a joint AWWA Section and WEF Member Association.

The local organizing committee has been working hard to put together a top-notch technical program and lots of networking and social events that will connect you with other water professionals. Make sure to mark your calendars and make plans to attend the premiere event of ACWWA.

See you in Moncton. John Eisnor 2016 ACWWA Chair



Keynote Speaker Martin Latulippe

Social entrepreneur, award-winning philanthropist and bestselling leadership author, Martin Latulippe uses keynotes and seminars as a platform to inspire and empower companies and individual contributors to build a world-class mindset, embrace change and achieve breakthrough performance.

Martin is a rare bilingual hybrid of business performance strategist, inspirational speaker and human potential expert. His ability to move audiences to take action with his quick wit, brilliant insights and wildly entertaining storytelling sets him apart.

Sliced in the neck by a hockey skate while playing at the World University Championships in 2001 as Team Canada captain, Martin nevertheless led his team to a silver medal victory.

Since then, he has dedicated his life to helping individuals, teams, and organizations create and master transformational thinking.

Martin already had the privilege of sharing the stage with some of the greatest in the world, Sir Richard Branson, Gen. Rick Hillier, Jack Canfield, Lt. Gen. Romeo Dallaire, Clara Hughes, Amanda Lang, Kevin O'Leary, Robert Herjavec, and Haley Wickenheiser, just to name a few.

Inspirational Speaker

Martin is one of the most in-demand bilingual inspirational speakers in Canada. He has taught hundreds of organizations strategies in leadership, change management, inspiration, and peak performance. Audiences are blown away by Martin's wisdom and life-touching stories.



AWWA Representative

Aurel Arndt

Treasurer (2016–2020) American Water Works Association



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Aurel Arndt has been actively involved in AWWA and Section leadership for over 30 years, and in advocacy and water utility matters for decades. He has served on multiple occasions as a spokesperson for the Association and Section. He was Chair of AWWA's Water Utility Council from 2012–2016. Recently retired, he served over 40 years at the Lehigh County Water Authority.

Aurel was named as Lehigh County Authority's first CEO in 2013. In the financial arena, Aurel has served as Chief Financial Officer of Lehigh County Authority from 1984 to 2012, and again in 2015. He has also been appointed by three PA Governors as a member of the Pennsylvania Municipal Retirement Board, which he chaired for eight years, PennVenst, PA's Clean Water and Drinking Water State Revolving Loan Program and the Governor's Local Government Advisory Committee, respectively.

He has been recognized by several organizations for his volunteerism, support, and commitment to excellence. He has served on the Boards of multiple organizations, including the Government Finance Officers Association of United States and Canada, and currently is a member of EPA's Environmental Finance Advisory Board.

Aurel will serve a four-year term as AWWA's Treasurer beginning at the conclusion of the 2016 Annual Conference & Exposition. He holds an MBA from Lehigh University and a Bachelor of Science Degree from Usinus College.



WEF Representative

Jenny Hartfelder

Vice President Water Environment Federation (WEF)



Jenny Hartfelder is the 2015-2016 Vice President for the Water Environment Federation (WEF), an international organization of water quality professionals headquartered in Alexandria, Va. Jenny is currently a Vice President with MWH and serves as a National Campaign Manager out of Denver, Colo. In this role, she provides strategic planning and leadership for the business development activities for the water sector across the United States. She also serves as a project manager and design engineer on numerous water and wastewater projects including master plans, preliminary and detailed designs, and engineering services during construction.

A WEF member since 1997, Jenny has held multiple leadership and committee roles within the Federation. She has served on the Stockholm Junior Water Prize (SJWP) Committee and the Public Communications and Outreach Committee for many years, chairing the SJWP Committee. Jenny also has served in the House of Delegates as the Speaker of the House, Chair of the Ways and Means Workgroup, and as a member of several HOD workgroups and committees. She is a member of the Select Society of Sanitary Sludge Shovelers and a recipient of the Arthur Sidney Bedell Award.

Also an active member of the Rocky Mountain Water Environment Association, Jenny chaired several committees including Public Education, Nominations, Awards, and the Joint Annual Conference Committees, and has moved through the MA officer chairs serving as the President in 2006–2007.

Jenny is a registered professional engineer in the states of Colorado and Washington and is certified by the Project Management Institute (PMI) as a Project Management Professional (PMP). She received a B.S. in Civil Engineering in 1990 from Michigan Technological University, and an M.S. in Civil Engineering in 2002 from the University of Colorado – Denver.



CWWA Representative

Robert Haller Executive Director CWWA



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

With a Geography degree from Carleton and an MPA from Western, he now serves as the spokesperson for the Canadian water sector at the national level. He admits he relies heavily on his many members for their expertise and support, especially on technical matters of treatment methods. Robert's interests lean more toward the utility management issues and facilitating national dialogue and information sharing.

Robert served as a municipal advisor to the most recent RBC Public Attitudes Survey and represented the water and wastewater sector as an advisor to the Canadian Infrastructure Report Card. Robert recently coauthored "Public Attitudes 2015" as a starting point for public education plans around infrastructure. The CWWA is now leading a national project, with their provincial partners, to develop tools to support utility leaders on issues around asset management and infrastructure renewal.

Conference Highlights

Sunday, September 18, 2016			
12 p.m. (noon)	ABEA Golf tournament at Fox Creek Golf Club		
5 p.m.–7 p.m.	Young Professionals Mixer – Gusto Italian Grill & Bar		
7:30 p.m.	Meet and Greet reception including water tower building competition		

Monday, September 19, 2016

8:30 a.m.	Conference Opening Fuller/Bedell/MacNab Awards ceremony Keynote Speaker Martin Latulippe
10 a.m.–11:30 p.m.	Technical Sessions
12 p.m. (noon)	Annual General Meeting Luncheon
1:30 p.m.–3 p.m.	Technical Sessions
3:30 p.m.	Top Ops Competitions (Water & Wastewater)
5 p.m.	Water For People fun run/walk
5 p.m.	Dine on your own — Enjoy the restaurants of downtown Moncton
9 p.m.	ABEA Hospitality Night at McSweeney's with Raglan Road Band

Tuesday, September 20, 2016			
7:30 a.m.	Pick-up breakfast available (buffet style)		
8 a.m.	ACWWA Best of the Best Taste Test		
9 a.m.–1 p.m.	ACWWA / ABEA Tradeshow / Luncheon		
1:30 p.m4:30 p.m.	Technical Sessions		
6:30 p.m.	Down East Feast and Entertainment		
8 a.m.	Awards Breakfast		
9:30 a.m.–10:30 a.m.	Technical Sessions		

2016 ABEA Annual Golf Tournament 'Fox Creek Golf Club consistently delivers a golf experience you will never forget.'

Join us for our annual golf event: September 18, 2016

Sponsored by the ABEA and its individual members

Tee times commence at 12 p.m. (noon), with a crossover format. Price \$70 +tax (green fees and shared cart).

Put your team together, or let us place you with a group. All ability levels welcome. Rental clubs are available for an additional fee (arrangements to be made directly with the course).

Each hole of this championship-calibre course presents new challenges with breathtaking views. The unique rippled layout of the course – complete with tee boxes, fairways and greens – are augmented with bentgrass.

Unwind while you explore the spectacular scenery and radiant greenery of the Fox Creek Golf Club, located in the heart of the city of Dieppe, New Brunswick.

Since the official opening in 2005, Fox Creek Golf Club has been recognized not only for of its architectural and

natural beauty, but also for its renowned world-class hospitality and its highly competitive cost/quality ratio. An exclusive design by renowned Canadian architect Graham Cooke, this 18-hole course has quickly become a must for golf enthusiasts from around the world.

Please note: Only those registered by August 1, 2016 will be guaranteed 'swag.'

200 rue du Golf Street Dieppe, New Brunswick (506) 859-4653 foxcreekgolfclub.ca



Technical Program

Monday, September 19				
	10-10:30 a.m.	10:30-11 a.m.	11-11:30 a.m.	
TECHNICAL SESSION: A1 SHEDIAC A	Understanding Lead Issues in Distribution Systems Graham Gagnon, Dalhousie University	CBRM Amalgamation: Benefits to Water Quality Devin MacAskill, CBRM	Optimizing Biological Filtration: A Pilot Scale Study at JD Kline Water Treatment Plant Leili Abkar, Dalhousie University	
TECHNICAL SESSION: A2 SHEDIAC B	Applying a Water Safety Plan Approach to Small Systems in Atlantic Canada Kaycie Lane, Dalhousie University*	Partnerships in Community Education and Engagement Joyce Babin, CBRM	Water For People Canada: You Can Make a Difference Peter Hanlon	
TECHNICAL SESSION: A3 SHEDIAC C	StormTech Chambers - Stormwater Management Eric Landry, ADS Canada	Development and Implementation of Regulated Storm Water Rates Cathie O'Toole, Halifax Water	Climate Change Driven Flood Risk in Municipalities Hanz Arisz, R.V. Anderson Associaties Ltd.	
TECHNICAL TOUR	Moncton Water Treatment Facility			

	1:30-2 p.m.	2-2:30 p.m.	2:30-3 p.m.
TECHNICAL SESSION: B1 SHEDIAC A	CBRM - Dam Safety Management Plan Anthony Mazzocca, CBRM	Saltwater Intrusion Risk Evaluation for Municipal Water Supplies Parrish Arnott, Dillon Consulting Ltd.	Ecosystem-based Management of CBRM Water Supplies Anthony Mazzocca, CBRM
TECHNICAL SESSION B2 SHEDIAC B	Asset Management of Critical Valves John Eisnor, Halifax Water	Administration of Water Main Failure Repairs Involving Total Loss of Pressure Scott Grasman, City of Fredericton	Managing the Longest PCCP Transmission Main in Canada to a Low Risk of Failure Reid McDougall, Pure Technologies Ltd.
TECHNICAL SESSION: B3 SHEDIAC C	Arcadia Avenue/Amirault Street Reconstruction Angèle Spencer, City of Dieppe	PVC Innovative Solutions in Municipal Infrastructure Rowena Patenaude, Royal Building Products [*]	City of Moncton Project for the Preliminary Design of Hall's Creek Wheeler Blvd. Sanitary Sewer Separation Lisa Grasse and Richard Gabbey, Crandall Engineering
TECHNICAL TOUR	TransAqua Wastewater Treatment	: Facility	

Tuesday, September 20

	1:15-1:45 p.m	1:45-2:15 p.m.	2:15-2:45 p.m.
TECHNICAL	Impact of Lake Recovery on	Freshwater Mussels and	A Case Study to Evaluate
SESSION: C1	Drinking Water Supplies:	Potable Water Supplies:	Discharge Impacts and
SHEDIAC A	Implications for Treatment	A Mutually Beneficial	Atmospheric Deposition on a
	Lindsay Anderson,	Relationship	Drinking water Supply
	Dalhousie University	Anthony Mazzocca, CBRM	Michael Brophy,
			Dalhousie University
TECHNICAL	Upgrading Lagoons for	Optimisation du Lagunage	Cold Climate Nitrification:
SESSION: C2	Phosphorus & Nitrogen Removal:	du Quartier Nord de la	Removing Ammonia
SHEDIAC B	Lessons from Sundridge, Ontario	Ville de Sackville	from Frigid Lagoons
	Martin Hildebrand,	Royata Sidibe,	Martin Hildebrand,
	Nelson Environmental Inc.	Veolia Water Canada*	Nelson Environmental Inc.
HANDS-ON TECHNICAL DEMONSTRATION LOCATION TO BE DETERMINED			
City of Fredricton demonstration on the Insert-a-Valve technology			

Tuesday, September 20 (continued)				
	3-3:30 p.m.	3:30-4 p.m.	4-4:30 p.m.	
TECHNICAL SESSION: D1 SHEDIAC A	Community Sewers and Treatment Systems: Information for Citizens and City Leaders Kirk Wimber and Ken Reardon, Orenco Sytems	A Utility's Greatest Asset: The Human Infrastructure Daryl Burke, EXP Services Inc.	Legumier Du Madawaska Biocord Upgrade Project Kevin Shiell, Scotia Tech	
TECHNICAL SESSION: D2 SHEDIAC B	CBRM and Wastewater Regulations: The Reality of it Matt Viva, CBRM	Laboratory Quality Assurance and Quality Control Lori Arbeau, Veolia Water Canada	An Overview of Environment and Climate Chage Canada's Environmental Emergency Regulations Gerard Chisholm, Environment and Climate Change Canada	
TECHNICAL SESSION: D3 SHEDIAC C	Development of an Accessible Inclined Orientation UV System Brian Topp, Xylem Water Solutions	Non-Contact UV Disinfection: A Comparison and Review of the Technology and Application Rick McIntyre, Enaqua	AWWA C500, is this Enough Specification Detail to Ensure you Get the Valve you Expect? Jeff Jensen, Mueller Canada	

Wednesday, September 21				
	9:30-10 a.m.	10-10:30 a.m.	10:30-11 a.m.	
TECHNICAL SESSION: E1 SHEDIAC A	Collaborative Solutions in GIS using ArcGIS Online: The Halifax Water Experience Lucie Kendell, Halifax Water	Big Data, Big Confusion Mike Grossman, Scotia Tech	Critical Success Factors Influencing Small-scale Municipal Construction Project Performance in Eastern Canada Serge Dupuis, Université de Moncton	
TECHNICAL SESSION: E2 SHEDIAC B	Wireless Mesh Networks: Water Distribution System Wireless Acoustic Logging Amyn Bhimani, Hetek Solutions	Smart Cities Approach to Permanent Leak Detection on Large and Small Diameter Water Mains Stewart Day, Echologics Engineering Inc.	Linking Communities with Trenchless Technologies Gerald Bauer, Stantec Consulting Ltd.	
TECHNICAL SESSION: E3 SHEDIAC C	O&M Consideration for Pressure Sewer Systems Keith McHale, Environment One Corp.	In-line Forcemain Condition Assessment: Halifax, Ottawa and Kingston Case Studies Cameron White, Pure Technologies Ltd.	Establishing a Preventative Maintenance Program Brandon Talbot, CBRM	

*Fresh Ideas presenters are a first time Young Professional participant at the ACWWA section conference presenting a water-related topic, and will 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 2017) in Philadelphia, Pennsylvania, representing the Young Professionals of ACWWA. Along with complimentary conference registration provided by the ACE 2017 organizing committee, ACWWA will provide the winner with a stipend to assist with travel costs to the conference.

9th Annual ABEA Common Hospitality Reception



A Warm Maritime Welcome

The Atlantic Branch Equipment Association cordially invites all ACWWA Conference Delegates and attending members to join us for an evening of music, mingling, and munchies at McSweeney's (700 Main Street, Moncton) on Monday, September 19, 2016.

This multi-level venue offers ample opportunity to enjoy the music, or share in a lively conversation with friends and colleagues.

Festivities begin at 9 p.m., with music supplied by Raglan Road. Jason Martell, Gary Gosse, and a kitchen party just waiting to happen.

A wonderful opportunity to meet and greet your ABEA Equipment Suppliers, old friends, and introduce yourself to someone new.

Please remember your **delegate badge** for admittance to this ABEA member sponsored premiere/private event.

2016 ACWWA / Atlantic Branch Equipment Association Tradeshow

The 2016 Trade Show will be held Tuesday morning, September 20, 2016, beginning at 9 a.m., featuring 74 booths in the main Delta Beauséjour Hotel ballroom and foyer area.

This popular event provides the equipment suppliers an opportunity to showcase their products and services, and delegates the opportunity to network with both participants and colleagues.

Prepare to be introduced to the latest technologies and services available to the water and wastewater industry. The Trade Show will offer a lunch, as well as the ABEA attendee gift – where we strive to support our local artisans. Allow the time to explore and engage. There is something for everyone.

Current ABEA Board

Past-President – Mike Duguay President – Rowena Patenaude Vice-President – Steve Philpott Sr. Director – Kyle Gracie Jr. Director – Neil Dowding Sec./Treasurer – Dylan Takacs Director at Large – Catherine Cameron Contact information for our members, and applications for our Scholarship and Grant Program can be found at www.abea.biz.

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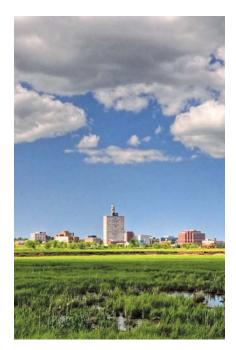
- Infrastructure Asset Management
- Water Treatment and Distribution
- Wastewater Collection and Treatment
- Stormwater Management
- Hydraulic Structures
- Municipal Engineering
- Survey & GIS

 Halifax: 1801 Hollis Street
 t. 902-210-6787

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 t. 506-451-0055

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CALGARY EDMONTON NORTH VANCOUVER VICTORIA WHITEHORSE KELOWNA DETROIT



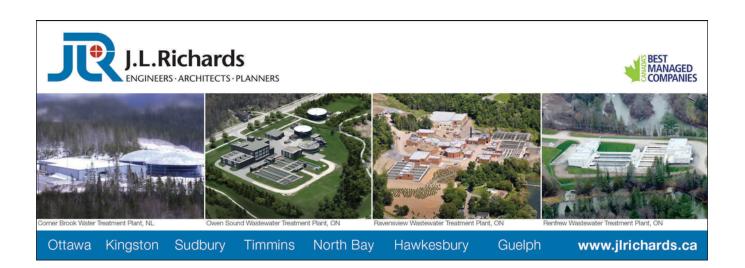
2015/16 ABEA Host Suppliers

We would like to take this opportunity to acknowledge and say thank you to the many suppliers who support the Atlantic Branch Equipment Association and its many endeavours.

ADS AGAT Laboratories Anthrafilter Aqua Data Atlantic Aqua Rehab Canada Inc. Armour Valve Ltd. Armtec Atlantic Purification Systems Ltd. Avensys Bibby Ste-Croix **BioMAXX** Wastewater Solutions Birksco-Aqualoader Cambridge Brass Campbell's Concrete Canada Pipe Chemline Plastics Clow Canada Coastal Controls Concord Supply Containment Solutions EEP Technical Solutions Emco Waterworks Ford Meter Box GAME Consultants Greatario Storage Systems Harmsco Filtration Hetek Ipex Inc. ISCO Canada Inc. Itron Canada Inc.

KSB Canada Kemtag Enterprises Ltd. Marathon Fluid Systems Ltd. Maritime Infrastructure Technologies McLennan Sales Mueller Canada Natpro Neptune Technology Group Nulantic Novatech Analytical Solutions Omnitech Opus DaytonKnight Consultants Ltd. ProMinent Pure Technologies The Panel Shop Rahn Plastics Royal Pipe Systems Sansom Equipment Scotia Tech Sensus SIGMA Corp. Soleno Star Pipe Canada Inc. Sulzer Pumps Wastewater Canada Inc. **TEKK** Controls Univar Canada Urecon Veolia Water Solutions & Technologies Wolseley Xylem

Please join us for the annual Common Hospitality Event, golf at Fox Creek Golf Club and the Tuesday morning trade show taking place at the ACWWA Annual Conference in Moncton, NB, September 18–21, 2016.



2016 ACWWA Companions Program

Welcome to Moncton! Equally as beautiful from the downtown core to the people's joie de vivre

Moncton is also one of the country's fastest growing cities, and a community steeped in history, as well as a city on the rise – Resurgo!

2016 ABEA Annual Golf Tournament | Meet and Greet

For golf enthusiasts attending the conference, our annual event will begin at the **Fox Creek Golf Club** in Dieppe on Sunday at 12 p.m. (noon) with a crossover start.

The Meet and Greet will be held Sunday evening where you will have the opportunity to catch up with past acquaintances and introduce yourself to new attendees.

Magnetic Hill Winery Luncheon

Monday, we will have our luncheon at the famed **Magnetic Hill Winery** – transportation will take us to the Winery and upon completion we will offer a drop off at either **Champlain Place** shopping centre or **Delta Beauséjour Hotel**. (For those seeking retail therapy, shopping is noted as one of the 67 awesome things to do in Greater Moncton.)

Magnetic Hill Winery, in Moncton, New Brunswick pulls in wine lovers from all over the world. As you swirl, sniff, sip, and savour a delicious range of award-winning fruit and grape wines you'll discover why lovers of good wines are drawn to Magnetic Hill for more than the optical illusion of cars rolling uphill without power. Your complimentary tasting of these unique anti-oxidant rich wines will leave you knowing exactly what's in your bottle and how to serve it. www.magnetichillwinery.com

ABEA Common Hospitality Event

Monday evening is a "dine on your own" experience. Upon the completion of your meal, you are invited to join delegates and host suppliers at the ABEA Common Hospitality Event being held at McSweeney's. Doors open at 9 p.m.

Gastro Tour

Tuesday, we will be picked up in the Delta Beauséjour Hotel lobby for our walking Gastro Tour: **Taste This – Goute Ça! Moncton's culinary treasure hunt**. Mmmmm! From delicate five-star dining to hearty pub grub, this walking tour takes a healthy bite out of the downtown's epicurious offerings. www.tastetthis.com/escapade

FUN FACT

Each glass of Magnetic Hill wine contains a quarter of a pound of fruit.

Easily add a serving of fruit to your meals with one glass of fruit wine!



ACWWA Conference Registration

PART 1 - CONFERENCE ATTENDEE GENERAL INFORMATION				
FIRST NAME	LAST NAME	ORGANIZATION		
MAILING ADDRESS	I	I	CITY	
PROVINCE	COUNTRY	POSTAL CODE	AWWA MEMBERSHIP NUMBER	
PHONE	FAX		WEF MEMBERSHIP NUMBER	
REGISTERED COMPANION/SPOUSE		EMAIL ADDRESS		
SECTOR 🗆 Utility 🗆 Supplier 🗆 Contractor 🗆 Consultant 🗆 Student 🗆 Academic 🗆 Regulator 🗆 Other				

PART 2 - DELEGATE REGISTRATION					
Full Conference Delegate – Includes All Meals On or Before August 26, 2016	□ Member – \$475	🗆 Non-Member – \$525	\$		
Full Conference Delegate – Includes All Meals After August 26, 2016	□ Member – \$575	🗆 Non-Member – \$625	\$		
Companion/Spouse Program – Includes All Meals	□ Member/Non-Me	ember – \$250	\$		
Student (Includes Meet & Greet, Lunches, Awards Breakfast and Trade Show)	□ Member/Non-Me	ember – \$100	\$		
Monday Full Day Pass (Includes AGM Lunch and ABEA Hospitality Reception)	□ Member – \$250	🗆 Non-Member – \$275	\$		
Tuesday Full Day Pass (Includes Trade Show & Lunch and Down East Feast)	□ Member – \$250	🗖 Non-Member – \$275	\$		
Tuesday 1/2 Day Trade Show Pass (Includes Trade Show Lunch)	□ Member – \$125	🗆 Non-Member – \$150	\$		
Register before August 5 and be entered for the early bird draw Part 2 - 5			\$		
DELEGATE MEALS & ACTIVITIES NOT INCLUDED WITH REGISTRATION					
Sunday, September 18 Please indicate attendance by checking box			x		
Golf (transportation not included) Shirt: S_M_L_XL_XXL_ @\$70=		\$			
Technical Tour – Turtle Creek Water Treatment Facility			\$		
Technical Tour – TransAqua Wastewater Treatment Facility			\$		
Tuesday, September 20					
Down East Feast – Included in Delegate/Companion Registration Fees Additional Tickets@ \$85=			\$		
Please indicate meal choice for Down East Feast for Delegate/Companion Lobster Chicken Beef					
Please describe any dietary restrictions or other special needs you may have Part 2 - Subtotal			\$		

PART 3 – TRADE SHOW BOOTH RENTAL & EXHIBITOR REGISTRATION					
Booth Rental (Max 3 Booths & 2 People/Booth)	ABEA Member:@ \$500	Non-Member: \$ booths @ \$850			
EXHIBITOR'S NAME	EXHIBITOR'S NAME	EXHIBITOR'S NAME			
EXHIBITOR'S NAME	EXHIBITOR'S NAME	EXHIBITOR'S NAME			
Extra Booth Exhibitor Registration (includes Meet & Greet, ABEA Hospitality Reception and Trade Show Lunch)	ABEA Member:@ \$75	Non-Member:@ \$100	\$		
EXHIBITOR'S NAME	EXHIBITOR'S NAME	EXHIBITOR'S NAME			
Part 3 - Subtotal \$					

EXHIBITOR MEALS & ACTIVITIES NOT INCLUDED WITH REGISTRATION

Sunday, September 18					
Golf (transportation not included) Shirt: S_M_L_XL_XXL_		@\$70=	\$		
Technical Tour – Turtle Creek Water Treatment Facility		@\$15=	\$		
Technical Tour – TransAqua Wastewater Treatment Facility		@\$15=	\$		
Exhibitor Booth registration does not include the full conference or meals. T	o attend full conference, regist	er as a Delegat	e in Part 2		
Monday, September 19					
Pick-up Breakfast Exhibitor@ \$30=		\$			
Annual General Meeting Luncheon Exhibitor@ \$40=			\$		
Tuesday, September 20					
Down East Feast	Exhibitor @ \$85=		\$		
Please indicate meal choice for Down East Feast	Lobster Chicken	Beef			
Wednesday, September 21					
Awards Breakfast	Exhibitor @ \$30=		\$		
Please describe any dietary restrictions or other special needs you may have	Pai	rt 3 - Subtotal	\$		

PART 4 - TOP OPS COMPETITION REGISTRATION					
Top Ops Team Registration 🗆 Water 🖾 Wastewater Team @ \$50 \$					
To complete team registration contact Trent Brewer a	Part 4 - Subtotal	\$			

PART 5 – FEES	
Subtotal	\$
Life Members deduct \$100.00	\$
PLEASE NOTEON AND AFTER JULY 1, 2016 HST WILL BE 15% BEFORE July 1, 2016 HST is 13% (869 924 910 RT2)	\$
Water For People Fun Run/Walk@\$25	\$
Total Amount Due	\$

PART 6 - PAYMENT OPTIONS				
Choose payment method. Complete as ap	ppropriate.			
🗆 Cheque	🗆 Money Order	🗆 Visa	□ Master card	
Please make cheque or money order paya	ble to "ACWWA Conference", Box 28142, Da	artmouth, NS B2W 6E2		
CARD HOLDER NAME				
CARD NUMBER EXPIRY				
SIGNATURE				
Fax: 902-435-7796 EMAIL ADDRESSS EMAIL ADDRESSS				
WHEN PAYING WITH A CREDIT CARD AN EMAIL ADDRESS IS REQUIRED FOR A RECEIPT TO BE ISSUED				

Conference Information Full conference has a 1.5 CEU value.

Trade Show Information

Each booth measures 8' x 10' in the main ballroom and 6' x 10' in the hallway/lobby. Booth selection will be online and first come first serve. ABEA members will have exclusive access for one week prior to general public. Contact the ABEA to learn more about becoming an ABEA member, Cathy Cameron at scotiatech.main@ns.sympatico.ca. For trade show questions contact Cathy Cameron at scotiatech.main@ns.sympatico.ca.

Booth registrations must be paid with Visa or Mastercard at time of booth selection in order to confirm registration

ACWWA Delegate Cancellation Policy

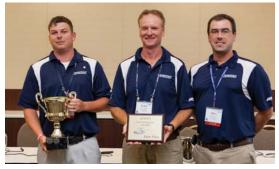
Cancellations must be received in writing, on company letterhead, and faxed, mailed or emailed to the ACWWA Office. Phone cancellations are not accepted. All cancellations postmarked/fax-dated 14 days in advance of the conference start date will receive a full refund, minus a 10% administrative fee.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

ACWWA Tradeshow Cancellation Policy - Payment Options

Cancellations must be received in writing, on company letterhead, and faxed, mailed or emailed to the ACWWA Office. Phone cancellations are not accepted. All cancellations postmarked/fax-dated 31 days in advance of the conference start date will receive a full refund, minus a 10% administrative fee. Cancellations between 14 and 30 days of the conference start will receive a 50% refund. Cancellations less than 14 days in advance of conference will not be refunded. Please note that substitute registrants are welcome. Fax requests for substitutions or cancellations to (902) 435-7796 or email to contact@acwwa.ca.

Top Ops Competition

Are your operators the best of the best? What better way to show them off but to enter a team in the ever-popular Top Ops competition. Entering its 12th year at the ACWWA Annual Conference, teams will once again go head to head to test their knowledge and get in on the fun in a fast paced, "Reach for the Top" style contest for water and wastewater operators.



Spectators should expect to see some of Atlantic Canada's best water and wastewater operators "match wits" as they compete in the Top Ops championship. If you have ever sat in the audience watching the competition and surprised yourself by knowing a lot of the answers to the questions or maybe you just want to test your knowledge against your peers, why not enter a team in this year's competition?

New this year will be a revised format where teams will answer questions using a white board. This will replace the traditional buzzer system, and take speed out of the equation in terms of teams answering questions. So if you know the answers, you will earn points! We are excited to

see how this change will add to the competition. Look for some very close and competitive results!

For further information, or to register a team in either the water or wastewater Top Ops Competition, please contact Trent Brewer at *trent.brewer@fredericton.ca* or at (506) 460-2066.

ACWWA Best of the Best Taste Test

Fun Event

What does the "Best of the Best" water taste like, one may ask? Like absolutely nothing. That is what our judges will be looking for when they taste some of what we believe as water purveyors to be some of the best drinking water that we provide our customers every day.

Atlantic Canadian Municipal Utilities are invited to submit a water sample to be judged by a panel of media and water professionals. Samples will be judged on the appearance, odour, taste and overall impression. The competition will take place at the Awards Breakfast before the ABEA Tradeshow on Tuesday September 20, 2016. The first place winner will have the opportunity to represent ACWWA at the AWWA Annual Conference and Exposition (ACE) "Best of the Best" Taste Test in Philadelphia in 2017.

Come and find out who has the best tasting water in Atlantic Canada!

Entry forms, rules, and judging criteria are available on the ACWWA Conference website at *www.acwwa.ca*. **Entry forms are due by September 9, 2016**. For more information, please contact Rick Bennett at (506) 386-0120 or *richard.bennett@veolia.com*.

Young Professionals Mixer

Please join us at Gusto Italian Grill & Bar from 5–7 p.m., for our Young Professionals (YP) event!

Both young and mature professionals are encouraged to drop in for some snacks, refreshments, and conversation with newer members in our industry. This is a wonderful opportunity to meet and support our future water and wastewater leaders.

Gusto is located just around the corner from Delta Beauséjour Hotel at 130 Westmorland Street.



Safe Water for Everyone

Water For People – Canada (1995) is a charitable, nonprofit, international humanitarian organization dedicated to the development and delivery of clean, safe water in developing nations.

Each year, at the Annual ACWWA Conference, funds are raised through various activities to assist with the many projects. On average the Atlantic Chapter raises approximately \$20,000 annually.

Activities include the Well Tapped Brewery Tour, which was held at the Garrison Brewery in Halifax and the Annual Softball Tournament held in Dartmouth.

The 69th Annual ACWWA Conference will host the ever-popular Silent Auction, which is open throughout the Conference, closing prior to the Down East Feast on Tuesday evening.

During the Sunday evening Meet and Greet we will be creating a fundraising activity around the friendly Greatario Water Tower Building competition.



Tuesday evening will see the auctioning off of the opportunity to be first and second tables to the buffet table for service – mmmmm...

The 5 km Fun Run/Walk will be held on Monday at 5 p.m. along the Boardwalk of the picturesque Peticodiac River, where you may be fortunate enough to see the famous Tidal Bore.

We look forward to seeing all of the attendees at the Conference, and being able to share our passion for such a worthy cause – and thank those who have supported our charity and its past activities.

Down East Feast Entertainment



Canadian Comedy Award nominated comedian and podcaster, **Julien Dionne,** has been touring Canada and parts of the US, since 2006. Originally from Scoudouc, New Brunswick, Julien now calls Toronto home – having spent two years in New York City cutting his teeth and honing his craft alongside some of the best comedians in the world.

His comedy has been heard on XM/Sirius Radio and CBC Radio. Julien was a performer at JFL42 (Just for Laughs-Toronto), the Hubcap Comedy Festival in Moncton, The New York City Frigid Fringe Festival, and every major comedy club from Victoria, BC to St. John's, Newfoundland. Julien can be heard twice weekly as host of the popular, "The Julien Dionne Comedy Hour Podcast" every Tuesday and Friday.



Big Bad Party Band (formerly BBMB/ Big Bad Marty Band) is known as one of the premiere Maritime cover/corporate bands. The band thrives on delivering a product beyond your expectations. They are a very high-tempo, high-energy, and fun band to enjoy live.

Every show is a new show! With an up-to-date set list, they will make you want to dance. Featuring a wide variety of music from Stevie Wonder and CCR to Bruno Mars and Pitbull. A true Top 40 band!





Technical Tours

City of Moncton Water Treatment Facility

In 1998 Veolia Water was contracted to design-build and operate a surface water treatment plant that would address a myriad of water quality problems facing the tri-community of Moncton, Dieppe and Riverview. Following facility completion, VW Canada began a 20-year agreement to operate, maintain and manage (O&M) this sophisticated facility. The facility features Trident® filters to ensure the highest quality drinking water for Moncton's customers. With a daily average flow total of 48,150 m³ over the last 10 years of service, Veolia has achieved just shy of 300,000,000 m3 of treated potable water since the commissioning in October 1999 without ever having a finished water sample test positive for coliform bacteria.





TransAqua Wastewater Treatment Facility

TransAqua' s infrastructure consists of a large Sewage Collection System with associated pumping stations, one Main Pumping Station, the central Wastewater Treatment Facility located at outhouse point in Riverview and a Composting Facility located on a separate property.

Detail design is under way to upgrade the current Chemically Assisted Process to an Advanced Biological Removal Treatment. TransAqua operates a wide variety of systems from screening, grit removal, septage receiving, blowers, circular clarifiers, chemical feed systems, centrifuges, lime stabilization system in addition to the impressive deep pumping station capable of moving 264,000 cubic meters per day.

The tour will be provided by senior technical personnel of TransAqua who will be able to present various approaches being taken to upgrade, expand and modernize this large facility.

You will also be able observe an operating BNR pilot plant that was used to evaluate the biological process as well as a working small scale geothermal wastewater heat recovery system being used to determine potential for full scale integration.





Conference Hotel Information

The conference will be held at the Delta Beauséjour Hotel located at 750 Main Street in Moncton, NB





Set in the tranquil Petitcodiac River Valley, the Delta Beauséjour Hotel invites you to experience the best of all worlds – energetic downtown Moncton, as well as the celebrated natural attractions of New Brunswick. Located at the geographic center of the Maritimes, close to Shediac Bay and Hopewell Rocks, this contemporary hotel has earned a distinction for award-winning cuisine, superior conference facilities, and entertainment options. Sleek, spacious guest rooms with views of the city or river provide a delightful private space for relaxation and productive work, including Club rooms with access to the lounge and its continental breakfast and evening appetizers. Dine in-room, or experience the culinary creations and four Diamond service of the Windjammer. For casual fare, visit TRIIIO Restaurant or our Bar Le Café. Luxuriate in our Casablanca Spa, or join the nonstop action of our indoor waterslide and game room.

A special conference room rate of \$169 plus taxes per night is in place until **August 18**. Reservations can be made at 1-844-496-8551 or on the web at *www.acwwa.ca/ conferences/2016conf.html*

Please reserve your room by August 18 to receive the special conference rate. Be sure to tell the hotel reservation desk that you are in the **ACWWA block rate**.

What's New for ACWWA 2016

Water Tower Building Competition

First in Atlantic Canada – this year the old favourites will be back, with the addition of the inaugural "Greatario Water Tower Building Competition" during the Sunday evening Meet and Greet. This activity will allow participants the opportunity to better understand how, in this environment of fiscal restraint, utilities manage to solve problems with creative solutions... it will bring out the "Mr(s). Fix-it" in all of us.

The activity will consist of teams of three given identical materials, with the goal being: to build a tower able to

balance an 8 oz (250 ml) container of water for 30 seconds. Who will build the tallest, the most creative, the most entertaining? Not only will your ingenuity be challenged, but you may meet a new friend as well.

Down East Feast

The best lobster in town

Not only will the lobster be the best in town on Tuesday evening, but the entertainment will leave you wanting more; with a \$300 prize being awarded to a lucky recipient by the evening's presenting sponsor – will it be you?





What pump reliability really means

Having worked in the water industry for more than 30 years, Geoff Slater knows that when pumps don't work properly it costs time and money. Sometimes a lot. In his current role as Wastewater Treatment Manager with the Municipality of the County of Colchester in Nova Scotia, Canada, Slater is responsible for 34 pump stations serving 36,000 people. He now deals exclusively with Xylem for pumps, monitoring equipment and service.

"In all my years of working with Xylem and Flygt, I've found the products to be dependable and long lasting, while the service at all the branches has been both consistent and reliable," says Slater. "This is why, in my last two positions, I have sourced all my pumps and pump-related products exclusively from Xylem."

Before taking up his current role with the Municipality of the County of Colchester, Geoff Slater spent five years working as Manager for Environmental Operations in the Public Utilities Commission for the City of Sault Ste. Marie in Ontario. Prior to that, he had held various roles in Operations with water and wastewater companies across the Province of Ontario.

Over the years, Slater has come into contact with a wide range of Xylem products, from Flygt wet and dry well submersible pumps, Flygt submersible mixers, Flygt dry pit submersible pumps, Flygt jet aerators, Flygt Variable Frequency Drives (VFDs) and monitoring equipment, as well as Sanitaire air diffusers.

"If you look at the pump market, Xylem really sets the standard. Every major city in Canada has a Flygt distributor who is responsible for sales and rentals and, perhaps most importantly, for service and maintenance," says Slater.

"For me, it makes a huge difference that, when a problem does arise, I deal directly with a representative of the manufacturer," he continues. "My contact from Xylem is not only based nearby, he also has a far greater stake in me and is therefore more inclined to try to solve my problem. This makes a huge difference compared with dealing with a distributor who has to take my question all the way back to the manufacturer."



Mr. Geoff Slater, Wastewater Treatment Manager, Municipality of the County of Colchester, Nova Scotia.

"In all my years of working with Xylem and Flygt, I've found the products to be dependable and long lasting, while the service at all the branches has been both consistent and reliable."

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Water supply forum launches in midst of multiple water crises

FluksAqua enables pros to ask/answer important infrastructure questions

Toronto, ON – March 15, 2016 – **FluksAqua**, a free, practical and moderated Q&A forum specifically designed for operators of drinking water distribution, water, and wastewater treatment plants, is online and actively answering important peer-to-peer technical questions from water professionals.

"Between lead in Flint Michigan's pipes and general anxiety about the safety of North America's drinking water system, we've launched at a significant time," said Hubert Colas, President Americas, of FluksAqua. "Our forum is designed to provide peer-to-peer advice for water and wastewater professionals to solve their most challenging technical and industry issues."

The FluksAqua Forum is also an excellent way for media to connect with knowledgeable water system operators across North America.

Many of the questions to professionals on the forum have centered on highly technical water management issues such as:

- After catalytic decarbonation with caustic soda, has anyone experienced microsand residue in the filters?
- Does anyone have experience with weak base anion exchange for Chromium 6 removal?
- Can you recommend a reliable pump for 24/7 (3m³/h) milk of lime dosing?

Questions also include many wastewater, water, and treatment plant operations/industry issues such as:

- Is operator certification needed to ensure professionalism or just another administrative fee for community coffers?
- Wet wipes (baby wipes) are clogging our adaptive N-impeller – what can we do?
- What are your biggest pump related gripes about your operations?
- Are there ways to fund infrastructure projects other than requesting the municipality to divert more tax money?

The **FluksAqua Forum** (available at https://www.fluksaqua.com/en/qa/) is uniquely 'searchable' so that water

professionals can review the full string of conversation about a specific topic or concern. It is also anonymous so that water professionals can obtain exceptional peer-to-peer advice without disclosing which system they are working to improve.

About FluksAqua

FluksAqua is a new online community created by a dedicated group of water and wastewater professionals to facilitate a constant and interactive flow of information between operators and professionals on issues of water safety, infrastructure, conservation, and operational improvements.



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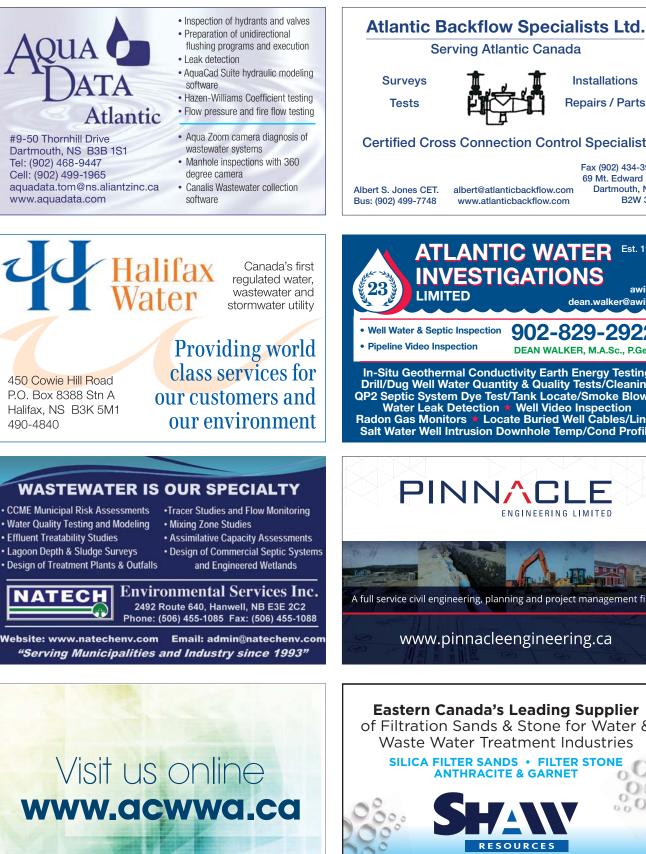
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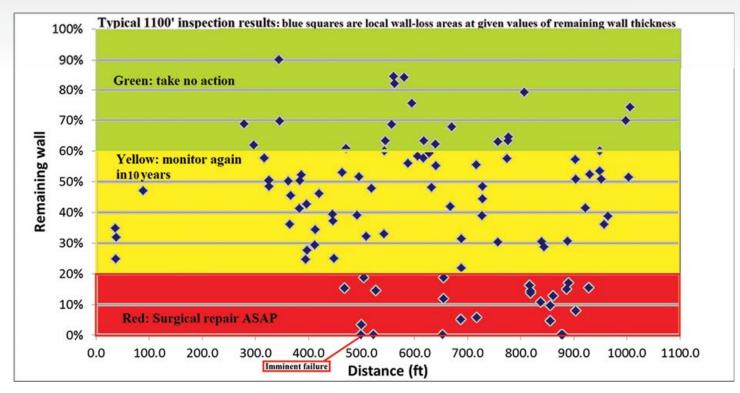
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