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THE OFFICIAL PUBLICATION OF THE ATLANTIC CANADA WATER AND WASTEWATER ASSOCIATION

ACWWA Invites Submissions for 2016 Awards Nominations

INSIDE:

- Congratulations to Fuller Award Winner Mark Butler
- Atmospheric Hydroxyl Generating Technology Case Studies

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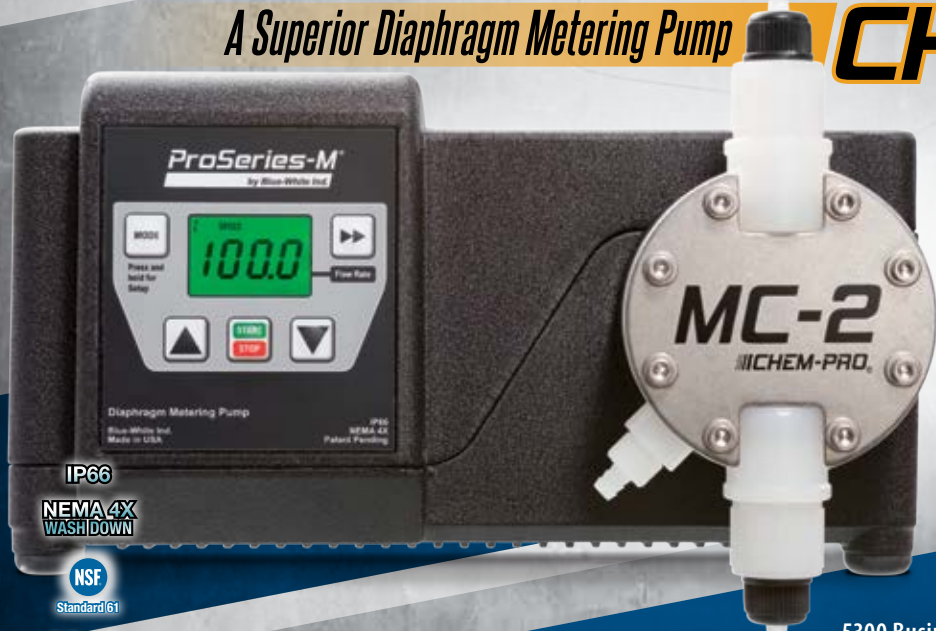
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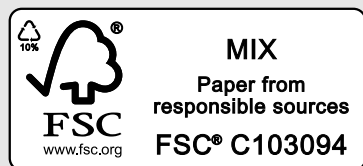


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The value of membership

I hope 2016 has been good to you so far. Please take a moment to enjoy the Spring 2016 edition of our magazine, *Go With the Flow*, one of the great features you receive as a member of the Atlantic Canada Water and Wastewater Association (ACWWA).

Everyone has a different reason for joining ACWWA. For me, 16 years ago as a graduate student, I joined ACWWA through the American Water Works Association (AWWA) to gain access to *Journal AWWA*, a publication that is invaluable to any graduate student in water studies. At the time, I knew nothing

“Not only has ACWWA given me the opportunity to develop professionally and personally, it has also allowed me to give back to the industry.”

about ACWWA or the value that membership would provide me as I started my career in the water industry.

Membership in ACWWA has many features that can benefit everyone in the water and wastewater industry. There are many tangible benefits such as our magazine, *Go With the*

Flow, our Annual Conference and Trade Show, the section library, and all of the educational opportunities to name a few. On top of that are the many benefits you get from AWWA and WEF. However, I think the most value comes from getting involved and participating in Section events and getting to know people in the industry. Whether you are a young professional looking to develop your career, a supplier or consultant promoting your services, or a member wanting to get more involved with the Association, making these types of connections through ACWWA can help you attain your goal.

After completing my graduate studies, I knew where I wanted my career to lead and it took six years for it to become a reality. I firmly believe that this reality was due to my involvement in ACWWA, which allowed me to connect with and get to know the right people so that I was better prepared when the right opportunity arose. Not only has ACWWA given me the opportunity to develop professionally and personally, it has also allowed me to give back to the industry.

For whatever your reason to join ACWWA, I encourage everyone to take full advantage of their membership. Your involvement can help make a valuable difference to the water and wastewater industry in Atlantic Canada as well as help you shape your own career. ☺



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Connecting with peers in the industry

Welcome to the Spring 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.

In January of 2016 I had the opportunity to represent Atlantic Canada at the AWWA Winter Board meetings in San Diego. The Board confirmed Brenda Lennox from the Pacific Northwest Section to serve as the Association's President-Elect for a one-year

term beginning in June 2016 and then as President beginning in June 2017.


Building on the success of the AWWA **Partnership for Safe Water**, the Board announced that a new Partnership for Clean Water program will be launched later this year at ACE 2016 in Chicago. The Partnership for Clean Water is an optimization and recognition program for wastewater utilities. The program is currently under development with an anticipated launch date of the wastewater treatment plant optimization program in June

2016. The Partnership for Clean Water is a parallel program to the Partnership for Safe Water's optimization for drinking water treatment plants and distribution systems, which has been operating successfully since 1995.

AWWA's new philanthropic initiative, **The Water Equation**, continues to gain momentum, and the Board announced the creation of new Association/Section matching operator scholarships with goal of 20 inaugural-year 'One AWWA Operator Scholarships.' The ACWWA Board is now working with AWWA to utilize this initiative to enhance our current scholarship program in Atlantic Canada.

The next big conference opportunity for members is AWWA **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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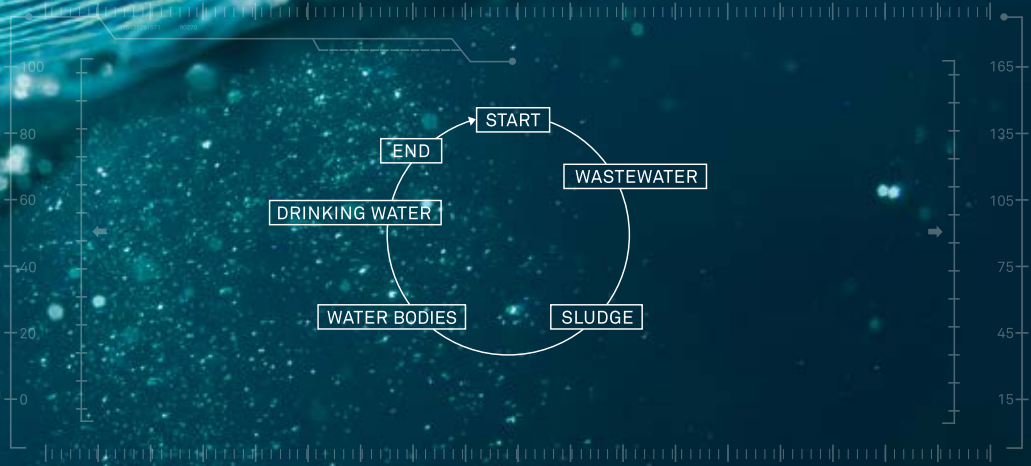
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WEF activities

I hope everyone survived the Atlantic Canada winter with its cold, snowy weather. The wheels continue to turn on the WEF machine with lots of activity. One of the highlights is the WEFMAX conference in March in Florida; this is an opportunity for the WEF associations from all over to get together and share ideas to make their associations better. Some of the sessions this year will relate to public education, developing our Young Professionals chapters, mentoring, alternate revenue sources, and just plain good ideas. We also get updates on the WEF House Of Delegates workgroups, which this year include stormwater, innovative utility

management, value of water, and membership. We will also be holding our semi-annual CAC meeting to discuss all of our Canadian issues. The WEF organization continues to work to make the member associations stronger. Don't forget to renew your membership if it is due; there is great value in being part of WEF.

Each issue I have been trying to put forward something that can be useful to you, the WEF member. This month I will highlight the 'Access Water Knowledge' section of the WEF website, WEF.org. Under this bar, there is a world of information on stormwater, biosolids, climate change, collections systems, energy

& water, infrastructure, membranes and much more. Please take the time to go to WEF.org and check out the valuable info found on this tab of the website.

Please participate in your ACWWA association; our conference this year is in Moncton on Sept. 18 to 21. Also make an effort to attend WEFTEC in New Orleans Sept. 24 to 28; it is something you will not forget. Last year was the largest-ever attendance and highest number of exhibitors and it continues to grow.

I am always available for any questions or input you may have for ACWWA and WEF. My contact info is on our ACWWA website. [🌐](#)

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CWWA – National voice on water and wastewater issues

CWWA continues to advocate on behalf of all Canadian municipalities for water and wastewater infrastructure to be recognized as priorities by the new federal government and by the provinces as we try to get a fair share of the new federal infrastructure funding. Significant infrastructure investment is a priority for the current Liberal federal government and the message has to be delivered that water and wastewater infrastructure projects have as high a priority as other infrastructure projects such as public transportation. CWWA

continues to deliver this most important message on behalf of municipalities.

Related to the infrastructure issue and getting water/wastewater projects identified as priorities, CWWA has been discussing ways it might assist utility leaders to move towards being self-sustaining and help them educate their decision makers on the critical issues of asset management, long-term planning, pricing, etc. This Joint National Project is the initiative of Robert Haller, Executive Director of CWWA. Mr. Haller is currently convening a joint meeting with AWWA, WEF, and

CWWA's regional partners across the country to initiate the project. It will draw upon the tremendous resources and materials already available from WEF and AWWA (and other sources) and will be led by reps from the Canadian Affairs Committee from each – so this will mean an AWWA rep from each Canadian Section and a WEF rep from each Canadian Member Association.

In other national initiatives, the 2nd Canadian Infrastructure Report Card is now out. The report card is the result of an effective collaboration between the Canadian Construction Association (CCA),



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the Canadian Society for Civil Engineering (CSCE), the Canadian Public Works Association (CPWA), and the Federation of Canadian Municipalities (FCM). The Report Card Advisory Board is chaired by the Canadian Network of Asset Managers (CNAM). There has been a lot of work and advocacy since the first infrastructure report card in 2012. Further, the RBC Attitudes report and CWWA Public Attitudes Project show the need to educate the public on the value of water and the infrastructure needs. The following links will direct you to valuable information on these important subjects:

- The Canadian Infrastructure Report card (2012): www.canadainfrastructure.ca/en/index.html
- BCWWA Report: <http://bcwwa.org/industry-news/20-news/bcwwa-news/%201123-13-billion-required-in-bc-for-renewal-of-water-and-wastewater-infrastructure.html>
- RBC Attitudes Survey: www.rbc.com/community-sustainability/environment/rbc-blue-water/water-attitude-study.html
- CWWA: www.cwwa.ca/pdf_files/CWWA_2015_Public_Atitudes-Project_WEB.pdf

CWWA member participation continues to be active within its technical committees. Just recently the CWWA Security Committee has been approved for grant funding for a national project to survey municipalities on security issues. CWWA has signed an agreement with the federal government to conduct the survey with Dalhousie University in conjunction with Public Safety Canada. CWWA members can be expected to be approached in the spring to help with the survey.

“Just recently the CWWA Security Committee has been approved for grant funding for a national project to survey municipalities on security issues.”

MARK YOUR CALENDARS 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
Building on the great success of

the 1st CWWA National Water and Wastewater Conference held in Whistler in fall of 2015, CWWA will focus on utility leadership “on top of” its regular solid technical and networking program. The Toronto event will also include two specialty training workshops on security and one on climate change.

Please visit the conference website: nwwc2016.ca.

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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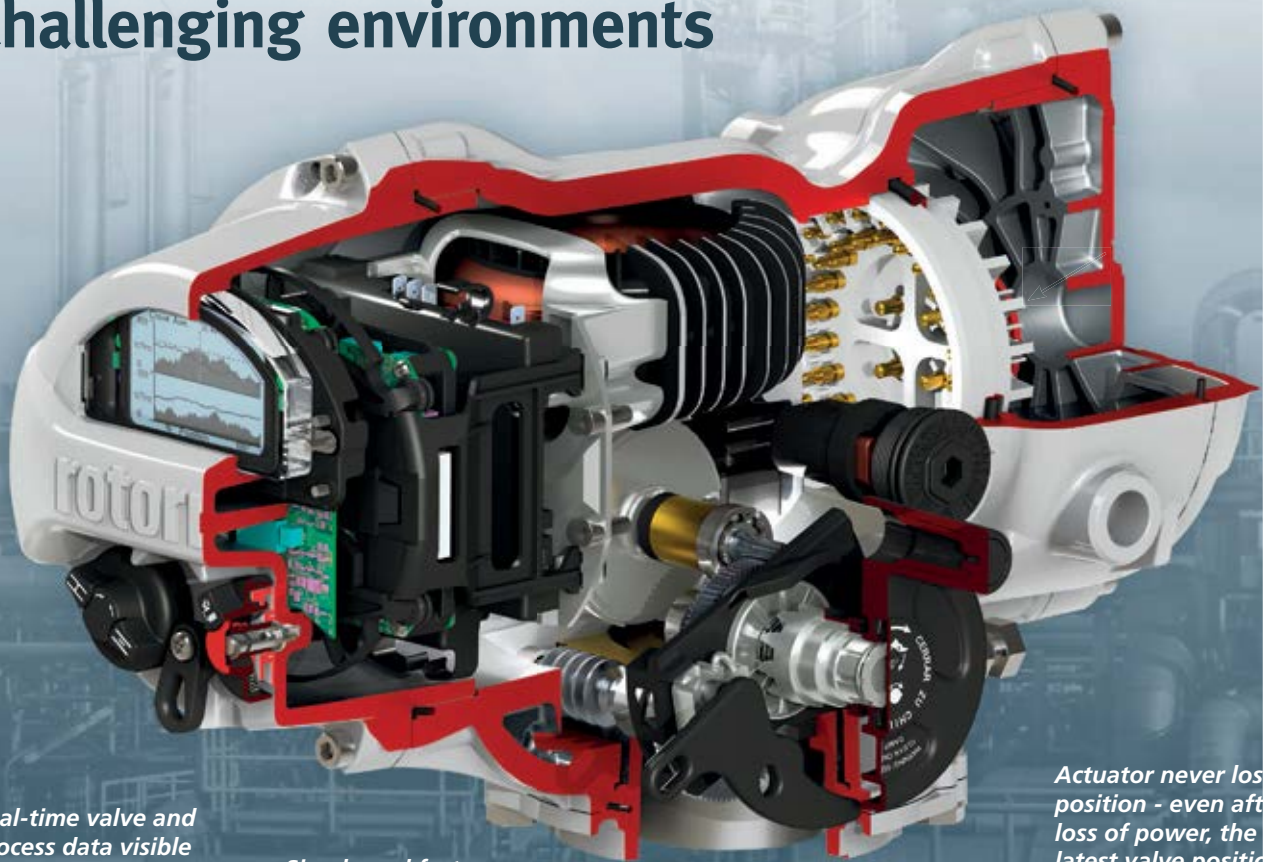
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Winner of the **Silent Hero Award**, Henry Jacque



1. **Job title:**
Superintendent of Public Works, Makkovik.
2. **Who do you work for?**
Makkovik Inuit Government.
3. **Where do you currently live?**
Makkovik Inuit Community, NL.
4. **Where did you grow up?**
Makkovik.
5. **When I'm not working...**
I'm making snowshoes, cutting firewood, and trying to learn how to play my fiddle.
6. **The accomplishment I'm most proud of is...**
Becoming a Class I and Class II Water Distribution Operator.
7. **If you could go on a road trip with any one person (living or dead), who would it be with and where would you go?** I would like to be able to take my son on a caribou hunting trip, one more time.
8. **What is your philosophy on life?**
You will only get out of life what you put into it.
9. **What is the toughest thing about your job?** I really don't find anything tough about my job.
10. **When you were a kid, what did you want to be when you grew up?** When I was a kid, I really wanted to play in a local band; that happened, too.
11. **Last book you read?**
I read parts of *The Lure of the Labrador Wild*.
12. **Last movie you saw?**
The Green Mile.
13. **What music did you listen to this morning?** Country.
14. **Favourite TV show?**
Three's Company.
15. **What was the best gift you ever received?** Our son and daughter.
16. **Not many people know that I...** Try to play the fiddle and guitar some.
17. **What is your greatest luxury?**
Being able to go to my own home after a hard day's work, to home-cooked meals by my wife.
18. **What is your favourite famous quote?** "Do what you do, do well."
19. **Describe your perfect day.**
Heading to my salmon net, and seeing the salmon swimming in the net.
20. **What three objects would you rescue from your burning house?**
I hope my house doesn't burn, but it would be my wife, my dog, and my family photos.
21. **Who is the most influential person in your life?** The most influential person in my life would have to be my dad, Edward Jacque. I learned a lot from Albert Ford, also.
22. **How long have you been a member of ACWWA?** Since 2006. 

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Celebrating our membership

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

Name	Company	
Melissa Kosik		AWWA
Jonathan Loder	Acadia University	AWWA
Ray Ritcey	Halifax Water	AWWA
Shujie Fu		AWWA
John Levandier	J. Levandier Sales Inc.	AWWA
Wayne Manuel	SNC Lavalin Inc.	AWWA
Xudong Ye	Memorial University	AWWA
Matthew O'Leary	Clearwater Seafoods	AWWA
Richard MacEwen	Charlottetown Water & Sewer Utility	AWWA
Jennifer Rocard	Student	WEF
Sarah Ensslin	CBCL Limited	WEF

Here is a snapshot of what our membership looks like:

Membership totals as of February 2016	
AWWA - 415	WEF - 63

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.

Dan Harvey is our winner this quarter! He has won a \$50 gift card to a place of his choosing.

In addition to our contest, AWWA has a new Refer A Member Program. You can find out the full details at www.awwa.org/membership/get-involved/refer-a-member.aspx.



Highlights include:

Recruitment prizes

- Recruit **one** member, receive an **annual commemorative lapel pin.**
- Recruit **two** members, receive a **No Water coaster set.**
- Recruit **three to five** members in a quarter, receive a **\$25 gift card.**
- Recruit **six or more** members in a quarter, receive a **\$50 gift card.**

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<p>Over 80 years Hatch Mott MacDonald</p>	<p>Over 65 years Saint John Water Town of Amherst Water Utility</p>	<p>Over 45 years Michael MacPhee Daryl McLennan American Waterworks Association</p>
<p>Over 40 years Town of Riverview</p>	<p>Over 35 years Charlottetown Water & Sewer Utility Bill Butler Master Meter Inc. Willard D'Eon Halifax Regional Water Commission Bob Funke City of Fredericton SNC Lavalin Inc County of Inverness</p>	<p>Over 30 years Murray Jamer James Bailey Town of Sussex Town of Oromocto Debbie Smith David Crandall Richard Appleby Gerry Isenor Town of Port Hawkesbury</p>
<p>Over 25 years Bill Clair Robert Gardner Roland Richard Basil Mattie Town of Truro Water Utilities Gary Clark Blaine Rooney Kenneth Bartlett Marc Belliveau Keith Phinney Town of Labrador City Prince Edward Island Regulatory Maxwell Mercer John Henwood Stanley Vachal Reid Campbell Judy MacDonald Arnold Knapp Carl Yates Bruce Buchanan Brian Keenan Andre Chenard Richard Armstrong Kevin Kerr Village of Plaster Rock</p>	<p>Over 20 years Town of Mahone Bay Water Utilities James Young Town of Wolfville David Ernst Town Council of Pouch Cove Gerald Noseworthy Village of Tide Head Jeffrey Saunders Town of Parrsboro Town of Sackville Town of New Glasgow Pat Hughes Robert Cass Terrence Boutilier Windsor Water Utility Municipality of East Hants Graham Gagnon Rick Benoit USABlueBook City of Summerside Luc VanHul Neil Thomas Jochen Schroer Jamie Hannam Greg Penney Kenneth Proctor Town of Clarendville Village of Riverside-Albert Water Town of Channel-Port Aux Basques Straub Tadco, Inc.</p>	<p>Over 15 years Ensor Nicholson Geomembrane Technologies, Inc. Stratford Utility Corporation Brendan O'Connell Nicole Taylor Steven Gregory Cape Breton Regional Municipality Ash Chugh Town of Richibucto Mike Abbott Jacques Boissonnault City of Moncton Heidi MacIntosh Thomas Cameron Gagetown Municipal Water District Boris Allard Town of Montague Jack MacDonald John Flewelling Michael Cormier Falmouth Water Utility John Gallant Dean Price Kirby Thompson Municipality of Richmond John Eisnor Todd Richard Ron McIntyre James Warford</p>

Members of ACWWA via WEF

<p>Over 25 years Geoffrey Slater Kevin McGill William Clair Chris Vriezen Bruce Buchanan</p>	<p>Over 20 years Gary Lessard Conrad Allain Robert Chetwynd Reid Campbell Stephen Bliss Rory MacNeil Richard Reid</p>	<p>Over 15 years Kent Morash Mike Abbott Dwayne Doucette Dan Harvey Terry Boutilier</p>
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ACWWA invites submissions for award nominations for 2016

If you know someone who has made a contribution to the water and/or wastewater industry, don't let their efforts go unnoticed. The following awards are eligible for presentation at the ACWWA Conference in Moncton, NB on September 18–20, 2016.

Please note that the deadline for 2016 Award Nomination submissions is May 2, 2016.

NOMINATIONS PROCEDURE

Where applicable, an awards committee has been established for the specific awards. The awards committee shall select the recommended candidate for the award from the nominations received, and shall present the award to the recipients during the ACWWA annual conference.

The recipient of the Fuller Award receives a pin at the ACWWA conference, and the actual Fuller Award is presented at the following AWWA Annual Conference and Exhibition. All other awards are presented at the ACWWA conference.

The deadline for submissions will be **May 2, 2016** for awards to be presented at the **ACWWA Conference in Moncton, NB on September 18–20, 2016**.

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

LIST OF AWARDS (descriptions follow)

Individual awards

- Fuller Award
- Bedell Award
- MacNab Award
- Silent Hero Award
- Laboratory Analyst Award
- Young Professional Award
- Volunteer Recognition Award

Organizational awards

- Burke Award
- Silent Hero Award
- Laboratory Analyst Award
- Young Professional Award
- Volunteer Recognition Award
- Project of the Year

SILENT HERO AWARD

The Silent Hero Award is awarded by ACWWA and may be presented annually to **recognize outstanding contributions of water and wastewater operators** in each of the four Atlantic Canada provinces.

- Four awarded each year – one award each for New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland.

LABORATORY ANALYST AWARD

(nominee must be a WEF member)

The Laboratory Award is awarded by the **Water Environment Federation (WEF)** and recognizes individuals for **outstanding performance, professionalism and contributions to the water quality analysis profession.**

- Member of the Water Environment Federation.
- Candidate must be employed at an educational facility laboratory, industrial, commercial, or municipal laboratory that performs wastewater-related analysis, and must have direct analytical responsibilities.
- Candidates are eligible for this award only once.
- Qualifying criteria may include:
 - Membership and involvement in professional associations. Examples: Water Environment Federation Committees, Standard Methods Joint Task Groups, MA committees, and conferences and conference activities.
 - Outstanding efforts in the area of wastewater and environmental aquatic analyses, including such items as innovative sampling techniques or solutions to a treatment, analytical, or environmental problem.
 - Involvement in community activities or public relations.
 - Presentations at professional conferences, meetings, etc., relevant to water quality analysis.
 - Professional certifications.
 - Continuing education.
 - Contributions that have been beneficial to the nominee's facility.
 - Unusual initiative or performance 'beyond the call of duty.'

FULLER AWARD

(nominee must be an AWWA member)

The George Warren Fuller Award is awarded by the American Water Works Association (AWWA) and may be presented annually to a member of ACWWA for **distinguished service in the water supply field in commemoration of the sound engineering skill, the brilliant diplomatic talent, and the constructive leadership** that characterized the life of George Warren Fuller. The award was established in 1937 in memory of Mr. Fuller who, besides being identified with several important sanitary engineering advances, is given much of the credit for AWWA's development from a social group to its present high standing as a technical organization.

BEDELL AWARD

(nominee must be a WEF member)

The Bedell Award is awarded by the Water Environment Federation (WEF) and may be presented to a member of ACWWA to **acknowledge extraordinary service** to a WEF Member Association. The award is named for Arthur Sidney Bedell, WEF's second president for his long devotion and

service to the New York Sewage and Industrial Wastes Association, now the New York Water Environment Association. He was Chief of the Bureau of Sewage and Waste Disposal of the New York State Department of Health.

- Member of the Water Environment Federation.
- Organizational leadership, administrative service, membership activity, stimulation of technical functions, or similar participation.

MACNAB AWARD

(nominee must be an AWWA or WEF member)

The Ira P MacNab Award is awarded by ACWWA and may be presented annually to a member of the ACWWA for **outstanding service to the water industry** in Atlantic Canada. The award was established in 1957 when the ACWWA was called the Maritime Branch of the Canadian Section AWWA. It is in honour of the late Dr. Ira MacNab, P.Eng., the first president of the Maritime Branch, for his untiring efforts and wise council during our formative years and to recognize his outstanding service and interest in the local water utility field.

BURKE AWARD

(nominee must be a WEF member)

The Burke Award is awarded by the Water Environment Federation (WEF) and recognizes a **municipal or industrial wastewater facility for establishing and maintaining an active and effective safety program**. This award was established in 1982 in honour of George W. Burke, Jr., for his many years of service to both the water environment field and WEF as staff manager of technical services. Mr. Burke was instrumental in developing WEF's annual safety survey and assisting in the production of several safety

training aids and promotional packets. The purpose of this award is to encourage an active and effective safety program in municipal and industrial wastewater facilities.

- Documented and illustrated safety program and safety record of the facility for the preceding calendar year.

VOLUNTEER RECOGNITION AWARD

(nominee must be a WEF or AWWA member)

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

YOUNG PROFESSIONAL AWARD


(nominee must be a WEF or AWWA member)

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

PROJECT OF THE YEAR – ENGINEERING AWARD/ENVIRONMENTAL AWARD

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

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

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

ACWWA AWARD NOMINATION FORM 2016



Nominee's full name: _____

Nominee's title: _____

Nominee's phone & email: _____

Award: _____

Submitted by: _____

Phone: _____

Email: _____

- For individual awards, please provide a short write-up that outlines the contribution of the nominee.
- For project awards, please provide a short write-up that outlines the specifics of the project being nominated and identifies the primary people involved with the project.
- Please fax your nominations to ACWWA at **902-435-7796** or send by email to **contact@acwwa.ca**.

For any questions, please contact:

Clara Shea, Executive Director

Telephone: 902-434-6002 • Email: contact@acwwa.ca • Homepage: www.acwwa.ca

Introducing our new conference attendance grant

Our new **ABEA 'Annual ACWWA Conference Attendance Grant'** is being launched, with the hopes of supporting those unable to participate in the conference due to economic challenges.

ABEA 'Annual ACWWA Conference Attendance Grant' (est. 2016)

The ABEA is a body made up of 40+ members (suppliers) who have, as their joint goals, the desire to:

- Promote understanding and goodwill
- Encourage and stimulate the exchange of ideas
- Acquire and disseminate information
- Provide funding
- Foster relationships amongst members and between associations
- Encourage fair and ethical ventures
- Promote member products/ services

With these goals in mind, the ABEA has challenged itself to establish a platform to continue supporting the ACWWA, and those members who would benefit most from the Annual Conference, but are limited due to economic challenges.

Eligibility: Applicants must be a full-time employee of a utility

located within Atlantic Canada, or an organization that has an interest or supports/maintains the necessary infrastructure to qualify as an ACWWA member.

Review Process: All applications will be reviewed by a committee of volunteers.

Application:

- Résumé (to include, but not limited to, name, business address, contact information – phone, email, and fax)
- Membership record with ACWWA (AWWA/WEF)
- Past participation in the Annual ACWWA Conference
- Status of infrastructure, and expected outcomes from attendance
- Personal goals for attendance
- Financial need (What portion are you looking for the Grant to provide? Explain)

Submit applications via email to:
scotiatech.main@ns.sympatico.ca

Deadline: May 31, 2016

- Confidentiality shall be exercised with regard to all submissions.
- All information must be verifiable.
- Grants are non-transferable, and have no cash value.

- Notification of award shall be by email.
- Recipient(s) must respond/confirm acceptance by July 29, 2016. If acceptance is not confirmed by deadline, grant will be rescinded.
- ABEA reserves the right to suspend the program.

We would also like to remind everyone of the four annual **academic scholarships** available to first-year students whose parents are active members of the ACWWA or ABEA. The deadline is approaching!

We are well into the planning stages for the upcoming ACWWA Annual Conference being held in Moncton, NB – September 18–21, 2016. Golf has been secured at Fox Creek Golf Club, Raglan Road will be entertaining us at the Monday evening Common Hospitality Event, and the Trade Show will boast 74 booths. Put the dates on your calendar.

The call for Abstracts for the **Technical Demonstrations** has been sent out, with a deadline of March 15, 2016. Contact scotiatech.main@ns.sympatico.ca if you have questions. ☺

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.

Source to / à Source

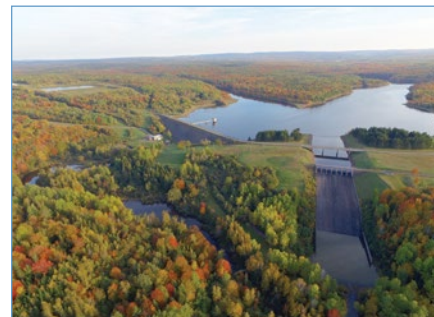
ATLANTIC CANADA WATER & WASTEWATER ASSOCIATION
2016 ACWWA ANNUAL CONFERENCE
DELTA BEAUSEJOUR HOTEL
MONCTON, NEW BRUNSWICK
September 18–21, 2016

By Julie Stokes,
2016 Conference Chair

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, adding lots of new things to the conference program.


We are very pleased to be hosting the Annual Conference in Moncton for the first time. Located in the heart of our beautiful downtown core, 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 (*Reader's Digest*, 2008). We dare you to figure out how your car rolls uphill at the extraordinary Magnetic Hill, or just a short drive away explore 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 at noon. 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's), 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, poster competition, as well as a prize for the stay to the end at the 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 '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 not to miss this year's ACWWA Annual Conference in Moncton. Come reunite with colleagues and friends to share your experiences and expertise, and discuss the many issues and changes we face in the water and wastewater industry. 

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Congratulations to Fuller Award Winner Mark Butler

Mark Butler
Partner, Dillon Consulting Limited

1. **What is your job title?** Partner.
2. **Who do you work for?** Dillon Consulting Limited.
3. **Where do you currently live?** Rothesay, New Brunswick.
4. **Where did you grow up?** Saint John, New Brunswick.
5. **What is the toughest thing about your job?**
Trying to solve infrastructure problems when there is not enough funding for the utilities to construct (or operate) what is needed.

Finish these sentences:

6. **“When I’m not working, I’m...”** Driving kids to the rink, field, gym, etc.
7. **“The accomplishment I’m most proud of is...”**
My ‘participant’ ribbon from mini-tyke soccer when I was five years old.
8. **“When I was a kid, I wanted to be _____ when I grew up.”** A Duke (from Hazard County).
9. **“Not many people know I can...”** Juggle.

What is...

10. **the last book you read?** *Dad is Fat*, by Jim Gaffigan.
11. **the last movie you saw?** *The Godfather*.
12. **your favourite TV show?** *Seinfeld*.
13. **the best gift you have ever received?** My first dog.
14. **the song or story you remember from the radio this morning?** The water problems they are experiencing in Michigan.
15. **the most useless thing you have ever purchased?** Sandpaper from the Dollar Store.
16. **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)?** Besides my family, it would have to be Jerry Seinfeld and it wouldn't matter where we went. 🐶



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	• Bromine	• Dissolved Oxygen	• Peracetic Acid
	• pH/ORP	• Salinity	• Hydrogen Peroxide
	• Temp	• Ammonium	• TDS
	• BOD		

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Contributing our efforts

The ACWWA Young Professionals Committee has several events planned for our young professional members for early 2016. The first event of the year, a bowling night in Halifax in January, drew a number of YPs who proved that they were no strangers to the alleys. Several rounds were played, which gave everyone a chance to join different groups and helped with networking.

The next big event for YPs in 2016 will be the Water For People fundraising event, Well Tapped. YPs are contributing their efforts to the event by selling tickets and volunteering with the organizing committee to help make the night a success for the charity. The event is being held at Garrison Brewery in Halifax, so it will also be a great opportunity for YPs to get out, enjoy a drink, and network with a number of other YPs and experienced professionals.

“The next big event for YPs in 2016 will be the Water For People fundraising event, Well Tapped.”

We have a few other events that are currently in the planning stages for this spring, including our annual speaker series event, which will feature several short water and wastewater presentations, as well as a trivia night. More details will be announced in the coming weeks. I hope to see everyone out! ☺



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Atmospheric hydroxyl generating technology as a solution to odour issues

Two Case Studies

By Martin Slepko, Hydroxyl Environmental, Inc.,
with contributions and permissions from the City of Sarnia and the Region of Durham

City of Sarnia, Devine Street Sewage Pumping Station

In 2011, with a population close to 73,000 people, the City of Sarnia commissioned a new sanitary sewage pumping station (SPS) in the City Works Yard located on Devine Street. Building this new pumping station was made possible through contributions from the City and the Canada Strategic Infrastructure Fund.

In the 1950s, the City's core area sewage collection system was built as a series of combined sewers, designed to convey both storm water and sanitary sewage directly to the St. Clair River, without treatment. Four main trunk sewers were constructed at that time along Exmouth, Devine, Wellington, and Cromwell Streets. Following 1951, the City grew east and the area was designed with separate storm and sanitary sewers, discharging to the combined sewer system in the core area of the city.

An onset of sewer capacity problems began in the late 1950s and early 1960s, and storm relief sewers were built along newer streets in an effort to accommodate increased flows due to civil development. The Riverfront Interceptor Sewer was constructed in 1961, designed to intercept up to three times the average dry weather flow and convey it to the Sarnia Water Pollution Control Centre (WPCC), also newly constructed at that time, on St. Andrew Street. Flows exceeding the interceptor capacity continued to overflow to the St. Clair River. The four original trunk sewers and the Riverfront Interceptor still form the core of the combined sewer system.

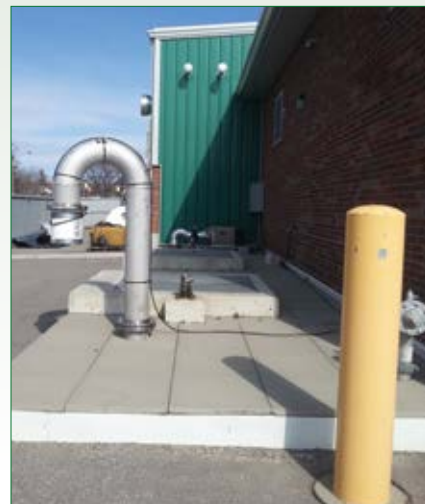
Today, the new SPS receives wastewater from four other existing



Sarnia SPS before any odour control.

pumping stations via a new 1,200 mm gravity interceptor sewer that was installed on Devine Street. A new 600 mm diameter (HDPE) sanitary force main conveys the pumped sanitary flow directly from the SPS to the Sarnia WPCC.

The SPS design incorporates two separate wet wells with a collective operating volume of 56,000 L. Each wet well influent channel is equipped with a channel grinder and a slide gate, installed upstream of each grinder to facilitate wet well isolation and maintenance. The wells are interconnected via a sluice-gated opening in the common wall to provide additional flexibility of use. As the wet well was not mechanically ventilated or heated, portable ventilation equipment and monitoring for hazardous gases and oxygen deficiency is required on entry. For this reason, the area is classified as Class 1, Division 2 and all electrical equipment and appurtenances within the area are rated accordingly.



Sarnia SPS with Odorox® installed.

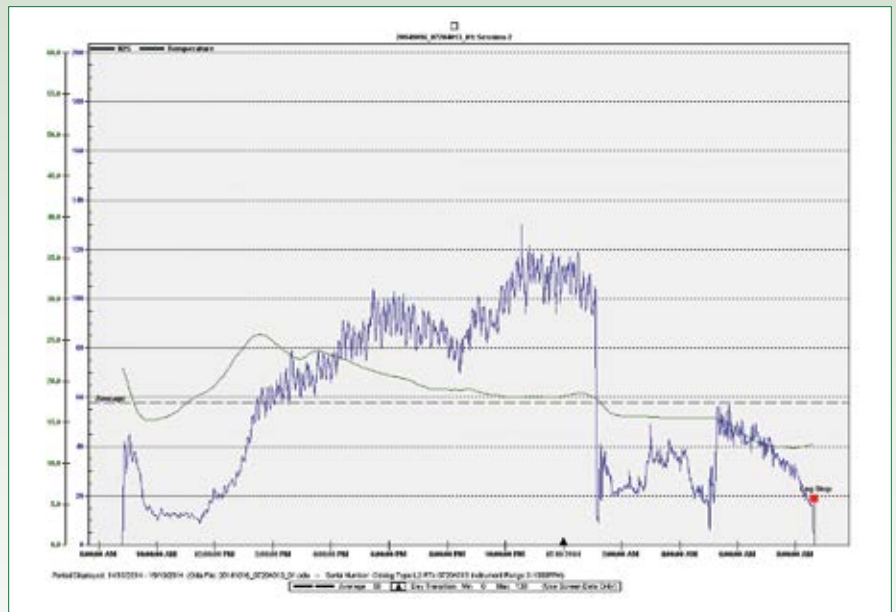
In lieu of mechanical ventilation, the wet well had short, stainless steel 'candy cane' venting pipes. Incorporated in the design were static, 203 mm OD intake and exhaust venting pipes that provided a minimal air exchange. However, as the SPS commenced operation, the City began to receive odour complaints from property owners across the street from the pumping station. In an effort to address a growing number of complaints, much taller vent pipes were installed to provide a solution by natural dispersion.

Before the search began for a viable odour abatement solution, the City hired an environmental air-testing firm to quantitatively establish the levels of fugitive hydrogen sulfide (H₂S). At that point in time, an average of 15 ppm to 30 ppm level was measured. Putting the effect of H₂S concentration into perspective, 2 ppm has been known to cause bronchial constriction in asthmatic individuals while

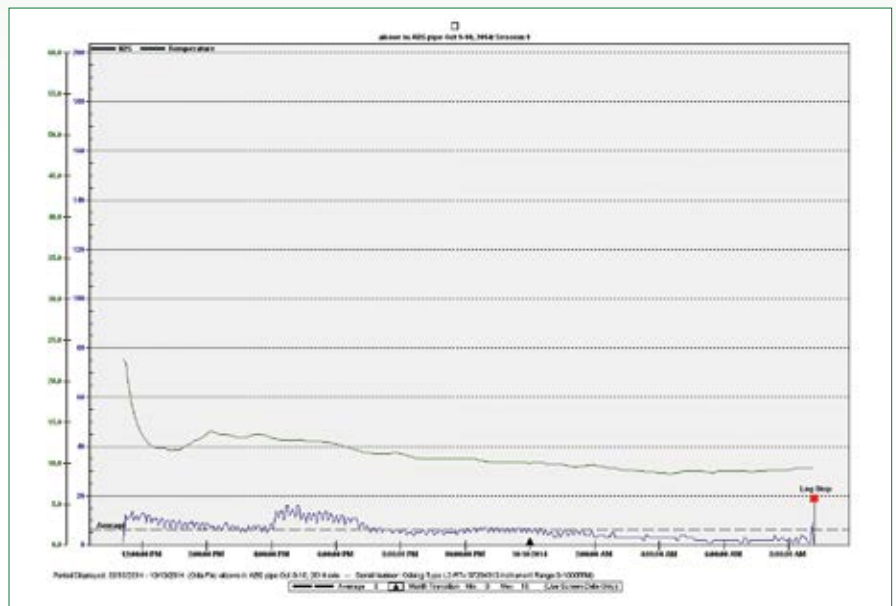
10 ppm to 50 ppm causes headaches, dizziness, nausea, coughing, vomiting, etc. The exposure limits for H₂S, as set out in the Ontario Health and Safety Act, is 10 ppm on a time-weighted average limit, with a 15-ppm short-term exposure limit.

The City of Sarnia learned of atmospheric hydroxyl generation technology as provided by Hydroxyl Environmental under the trade name Odorox® while in attendance at the 2012 Canadian Waste and Recycling Expo in Toronto, Ontario. Sarnia was presented with a recent, successful WWTP case study from the USA. The City found the technology intriguing because it did not require the consumption of traditional odour neutralizing chemicals such as sodium hypochlorite or hydrogen peroxide. As well, it operated with low electrical requirements, and employed a very small footprint. In order to validate the technology for their application, Sarnia paid for a two-month trial of a system and based on a positive outcome, agreed to purchase that system outright upon trial completion.

The Sarnia trial involved locating a single hydroxyl generator outdoors, placed on top of the 340 m³ wet well while injecting hydroxyl-rich air at a rate of 595 m³/hr. into the original intake air vent, which discharges just above the odour source below. The low CFM of hydroxyl-rich airflow blanketing the odour source along with the passive air exchange provided enough retention time to sufficiently neutralize the H₂S such that the exhaust was no longer a nuisance to the neighbouring homes. Hydroxyl production demands are made through automation controls via direct feedback received by a Draeger Polytron 7000 oxidant sensor mounting beneath a shroud on the exhaust pipe, which acts to protect the unit from the outdoor environment. If the measured concentration is below a set-point, it is assumed that the generated hydroxyls are being consumed in reactions with odorous compounds and the device will receive a signal to maintain hydroxyl production. Once the measured oxidant level



H₂S Levels [ppm] in the upper vault without odour abatement.



H₂S Levels [ppm] in the upper vault with the Odorox® units in operation.

is above a set-point, hydroxyl production is stopped, which results in energy savings over an always-on configuration. Since the September 2013 installation, the City no longer receives odour complaints.

Courtice Water Pollution Control Plant (WPCP)

The Courtice WPCP team was experiencing hydrogen sulfide (H₂S) release that was coming from an upper vault located at the property line entry point. Hydrogen sulfide

was finding its way down a hill and was being drawn into the headworks building via an air handler intake. The headwork building houses the plant's screens and grit classifier, as well as blowers and grit slurry pumps located in the building's basement.

The installation of hydroxyl generators to service the upper vault was able to reduce the quantity of H₂S that made its way down into the headworks. The above charts, prepared by the Region of Durham, show the effect the units had on the



Courtice WPCP Chemical Room being treated. Odorox® Induct units servicing chemical room through existing ductwork.



Courtice WPCP Upper Vault. 2 Odorox® units installed within off-the-shelf housing structure

concentration of H₂S in the study area. Based on the success in addressing the H₂S in the headworks, further units were installed on site. Two Odorox® IDU™ units (induct) have been installed onto HVAC air handlers that supply fresh air into the sodium bisulfite and ferrous chloride


chemical storage area and pump rooms. These in-duct units use the fresh air passing across the special multi-frequency, crystal quartz optics, while the HVAC infrastructure distributes the generated atmospheric hydroxyls into the targeted treatment spaces. The Courtice WPCP staff has

noticed a drastic reduction in odour and corrosive contamination within these treatment spaces. Operators going into these rooms no longer suffer from the irritation they had previously experienced in these environments prior to the installation of the hydroxyl generators.


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SOLUTION

ISSUE: Odorous, contaminated air quality at the Newcastle WPCP Headworks building located in the Regional Municipality of Durham.

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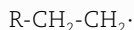
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The Oxidation Process of Atmospheric Hydroxyl Generating Technology

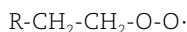
The decomposition of volatile organic and inorganic compounds by hydroxyl radicals involves a complex series of free radical oxidation steps that gradually result in the loss of individual carbon atoms to eventually form carbon dioxide (CO₂).

As efficient oxidants, hydroxyls are driven to regain one electron to restore their very stable valence configuration. The most facile way to accomplish this in an environment rich in VOCs is to abstract a hydrogen atom with its single electron, leaving behind an organic free radical.

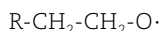
The newly formed organic free radical has an unpaired electron that is initially localized on the carbon atom.



This moiety rapidly reacts with ambient oxygen to form a peroxy free radical in which the free electron is now localized on an oxygen atom.



This species is a powerful oxidant in its own right, and will react with VOCs and inorganic gases. It is more stable than the hydroxyl radical and able to travel further away from the reaction chamber to react with VOCs and microorganisms in the treatment area. Peroxy radicals can also rapidly form oxy radicals in ambient air.




Hydroxyl radicals are also generated throughout the treatment space by continued reactions of intermediate compounds. The free radical transfer reactions essentially 'unzip' carbon chains rapidly.

As long as hydroxyls are continuously formed, both thermodynamic and kinetic factors favour continued oxidation of VOCs. Hydroxyls have a very high oxidation

potential and high reaction rates with most VOCs, characteristics that are well documented in the chemical literature.

In the cascade effect, successive generations of oxidants continue to decompose and dissociate VOC carbon chains. This is driven by the nature of the oxidation process, which introduces oxygen into the carbon chains. In oxygenated VOCs, the

hydrogen atoms near the oxygen atoms are much more reactive because of polarization. Oxygen attracts electrons away from less electronegative atoms and makes them more reactive. As such, hydroxyls next to carbon-bearing oxygen(s) are more readily abstracted by another hydroxyl... and so on until that carbon atom is cleaved from the chain as stable CO₂. 



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Evaluation of firefighting water demand towards rightsizing water mains



The City of Ottawa and the National Research Council Canada are conducting a review of current methods for calculating flows needed to fight fires in urban areas, and the required number and spacing of fire hydrants. Fire flow requirements are higher in many residential areas due to the current trend towards larger structures on smaller properties, with greater exposures to adjacent structures. The sizing of local water mains is driven by two conflicting objectives:

- Provide adequate capacity to fight fires; and
- Minimize water main sizing to avoid excessive water age during periods of low demand.

The study will include a survey of current practices among other leading North American municipalities, and will solicit input from various professional associations. Depending on the results of a first phase of study



Ottawa Fire Services pump water from a hydrant while fighting local fire. Photo Credit: Scott Stilborn/Ottawa Fire Services

and the level of support among collaborating municipal partners, the City of Ottawa may proceed with a second phase involving the development of an alternate approach to fire flow calculations.

We need your input! If you are interested in participating or wish to learn more about the study, please contact Rick Zaporzan at Rick.Zaporzan@nrc-cnrc.gc.ca or 613-990-7249. [📧](#)



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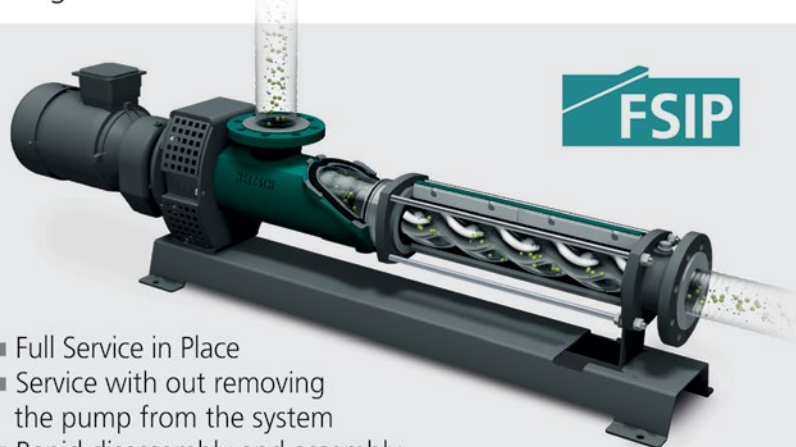
how we can put water centre stage, and keep it there.

For more information, go to <http://www.nwwc2016.ca>.

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AWWA launches online Lead Resource Community

Source: awwa.org


(DENVER) – With the crisis in Flint, Michigan vaulting lead risks into the public consciousness, the American Water Works Association has launched a web-based Lead Resource Community accessible to water professionals, media, and the general public.

The Lead Resource Community, available at www.awwa.org/lead, provides a place for water utilities to gain insight and guidance on lead service lines, the Lead and Copper Rule, corrosion control, and other lead management

issues. It also includes a news feed, public statements, legislative and regulatory developments, and research on lead in water.

“The water community and public health experts have collaborated for many years to reduce lead risks in water, and there is still more work to do,” said AWWA CEO David LaFrance. “The Lead Resource Community brings the latest technical and public policy developments together in one place.”

The Lead Resource Community carries links to upcoming

in-person and online training opportunities, including a May 16 webinar on the upcoming Lead and Copper Rule revisions and professional sessions at AWWA’s Annual Conference and Exposition, June 19–22 in Chicago. It also includes links to reliable lead information from sources such as the U.S. Environmental Protection Agency and the U.S. Centers for Disease Control, as well as AWWA’s own consumer-focused website, DrinkTap.org. 


ACWWA spring course schedule now available

ACWWA provides technical training and education courses as follows:

- Small System seminars (typically one day)
- Management courses (one to two days)
- Education courses (four days) on:
 - o Water Distribution
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General information:

- Courses and workshops vary from 1/2 day to 4 days in length.
- Textbooks and other materials will be sent to the training facility for each registered attendee.
- It is important to register as early as possible as to ensure course materials are ordered.

- Continuing Education Units (CEUs) are provided for successful completion of applicable training programs and seminars.
- The list of ACWWA’s 2016 spring courses and schedule, along with registration information, is now available on our website. Go to www.acwwa.ca/courses/courseschedule.html for details. 



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