

FALL 2013

GO with THE FLOW

THE OFFICIAL PUBLICATION OF THE ATLANTIC CANADA WATER AND WASTEWATER ASSOCIATION

66th ACWWA Annual Conference



Fredericton, NB • Sept. 29 to Oct. 1

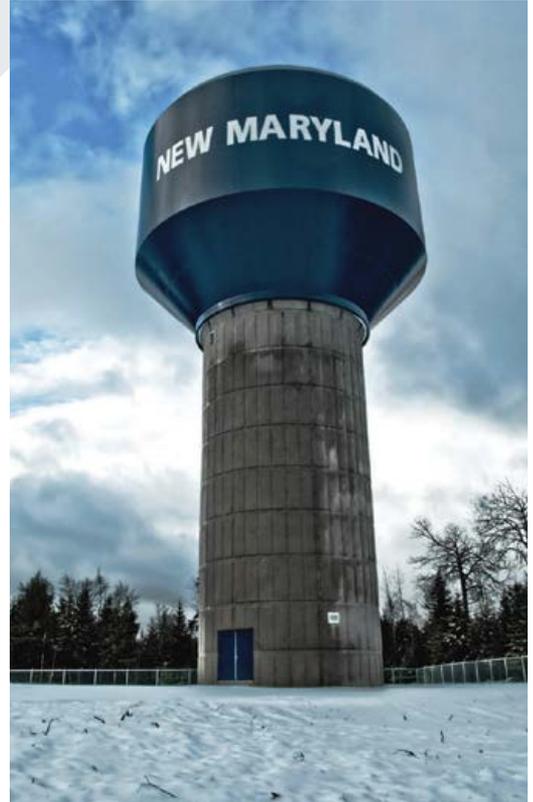
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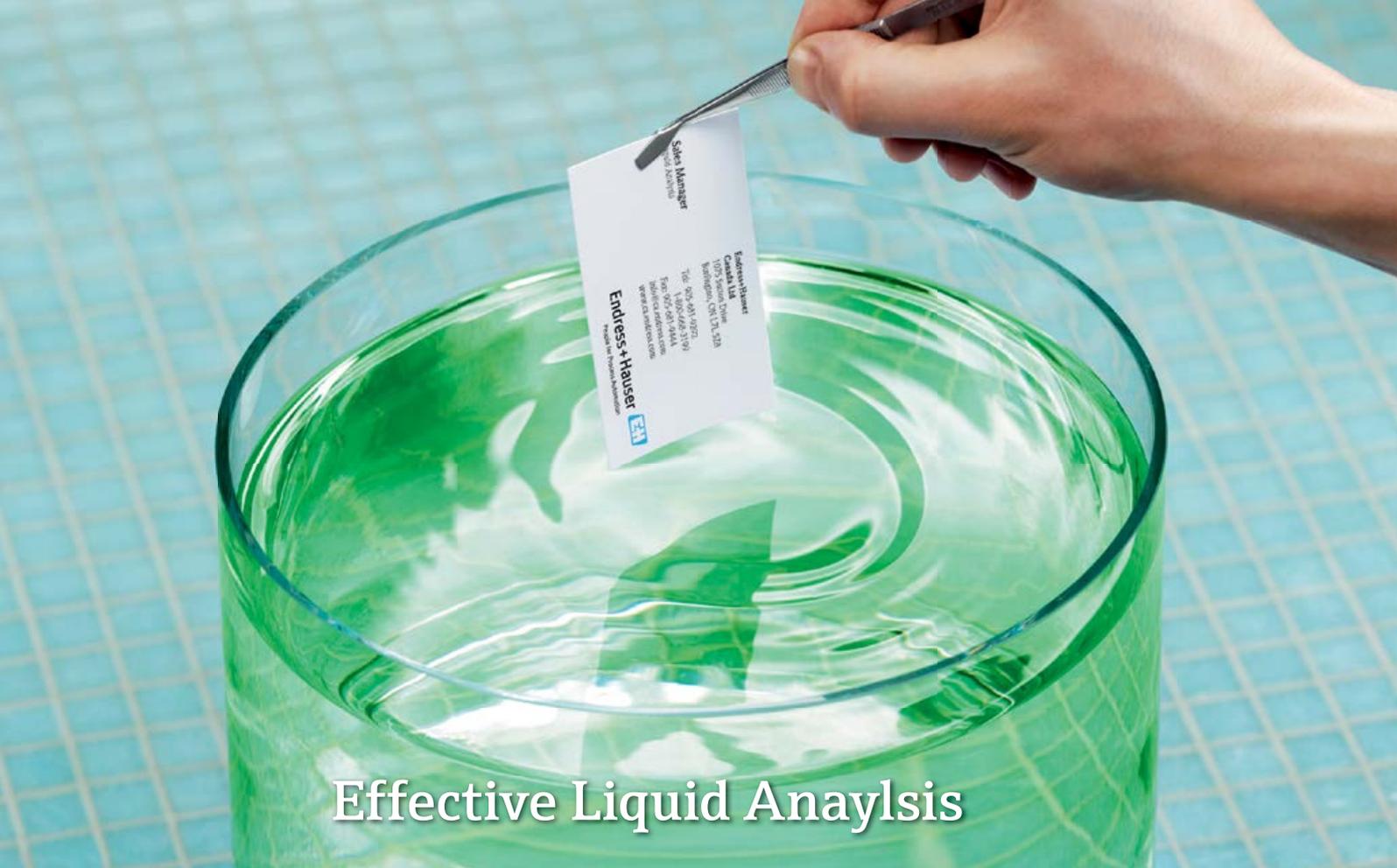
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Healthy number of members critical to our progression

Greetings and welcome back from your summer holidays. I take this opportunity, on behalf of the board of the ACWWA to welcome you to our Fall 2013 edition of *Go With The Flow* magazine. This issue continues to see the advancement of our new format. As always, we welcome your comments (contact@acwwa.ca).

It is now September, with everyone easing back into your regular work load after the summer vacation period. Now is the time to jump on those outstanding issues and make good use of the remaining construction season and the rest of the year. We hope that many of you (most of you!) will make the time to join us at the ACWWA Conference in Fredericton from September 29- October 1, 2013.

This year's organizing committee has select asset management as the theme. Asset management practices continue to be important tools as utility operators seek to extend the life of their infrastructure and strategically manage their capital spending. Personally, I am looking forward to the local experience with asset management during the roundtable discussion moderated by Dr. Guy Félio with representatives from Fredericton, Moncton, Halifax Water and RV Anderson. I trust you are already registered and took advantage of the early bid draw (August 2) or the \$100 discount before September 1. With three concurrent technical sessions, Top Ops, water taste test, site tours and our largest trade show to date, there should be plenty of choices to suit your specific interests.

Meanwhile, your ACWWA board has been busy planning the autumn program. We have a full calendar of 13 educational and certification preparedness courses between September and December. Please visit the webpage for more information (acwwa.ca).

Our Executive Director attended the AWWA section staff summit in Denver in July. As always, Clara found her time very productive by learning what other sections are doing and how to improve the offerings of the ACWWA. Member engagement was a major theme. Look to see some new ideas introduced at this year's trade show to keep both delegates and presenters engaged. The trade show is a valuable networking and educational opportunity for our members. We will see an increase to 72 booths in Fredericton, up from our typical 60. Please take the time to visit the trade show to learn about the latest products and services. I guarantee you will walk away with some new information that will directly help you with your job this year.

As we continue to grow as a section, we continually need volunteers to get involved on the committee level. Drop by the booth at the conference, get in touch with a current board member or contact Clara if you want to get involved. Committees currently seeking members include Government Affairs, Education, Newsletter, Membership, Water For People and Young Professionals. The ACWWA is fortunate to have a healthy number of young members. This is critical to the progression and development

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of the association. The ACWWA board includes seven directors and seven executive members. Directors are responsible for one to three committees. As committee chairs and directors complete their terms, we need a healthy supply of replacement candidates coming, which are ideally

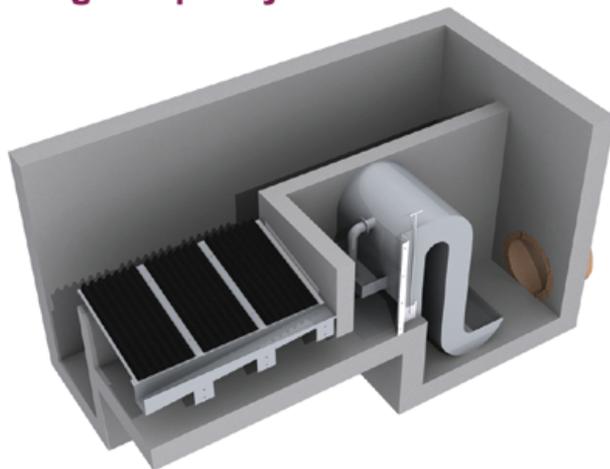
our engaged committee members. Volunteering for the ACWWA is an excellent way to enhance your career through the educational, management and networking opportunities. Preference is given to executive candidates with previous committee or director experience. Go

get involved now – with the ACWWA and your local water industry.

Your feedback is important information as the board plans for the year ahead. Please complete the member surveys or the section office with any questions or comments. We look forward to hearing from you. 🌊



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New strategic plan

AWWA hosted a very successful ACE'13 this year in Denver Colorado. AWWA made several changes to the conference, which seemed to be well received by most of the delegates.

One change that everyone seemed to enjoy was the Opening General Section seating. OGS attendees were encouraged to sit in rows assigned to their section. Sections were given signs to wave to identify themselves and many sections, including Atlantic Canada, wore hats or clothing to clearly represent their geographic corner of our water industry community. Atlantic Canada filled its assigned section and was fittingly decked out in sou'wester hats adorned with the ACWWA logo. My impression is that most people who participated enjoyed the camaraderie the section seating created. Special thanks to John Eisnor for coordinating the seating for Atlantic Canada.

Atlantic Canada was represented at ACE in several other ways as well. Ramona Doyle of Charlottetown presented her poster in the Fresh Ideas competition and the Halifax Water team competed in Top Ops. John Eisnor picked up a membership retention award on behalf of the section office and several other papers and posters were given by our ACWWA members.

ACE attendance was up this year to well over 10,000. There were also changes made to the way technical program was organized to make it easier to follow technical topics. These changes, along with the wonderful weather in Denver made for a very positive buzz around

the conference. ACE remains the premier water conference in the world. ACE'14 will be in Boston next year, almost in our own back yard. If you have not been to ACE recently, 2014 may be a great opportunity to reacquaint yourself with everything that ACE offers.

This year, the AWWA Board of Directors unanimously approved a new strategic plan. The strategic plan will guide the organizations business plan and initiatives over the next 3 to 5 years. While the four strategic goals are largely the same as the previous plan, there is a new vision and mission statement. The new vision and mission along with some other subtle changes reflect 5 key decisions made during the strategic planning process. In summary, these decisions were:

- The sections are a key business partner.
- Utilities are key members and are critical to AWWA's vitality.
- AWWA is more than just drinking water, we offer total water solutions.
- AWWA's offerings inform water practice worldwide. We will a global perspective.
- The plan is for the Association and the Sections.

I invite you to go to the AWWA web site and check out the new strategic plan. Space does not permit me to go into the possibilities for what it means here but look forward to our visiting officer, Charlie Anderson to talk about it in Fredericton. I will talk more about it in the next issue of Go with the Flow. 

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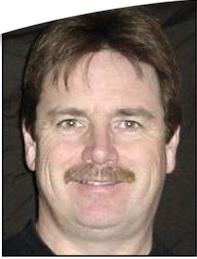
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WEF starting free seminars

Hope everybody is having a great summer out there. We continue to strive to get new membership, once again I urge municipalities and cities to pick up a couple of utility memberships, just email me and I will send the form and information.

With the departure of Jeff Eger, executive director of WEF, the search will begin for his replacement.

Just a reminder on WEFTEC 2013 in Chicago, if you have not booked your rooms please do so right away. You can get the WEFTEC mobile app at WEF.org.

Speaking of conferences, our ACWWA conference committee has a super conference planned in Fredericton in October with lots of great stuff for water/wastewater in the agenda. Sign up now.

Some great news on training, WEF is starting free training seminars called the Drivers Ed For Energy

Roadmap. The first one you missed, it ran through July for five weeks but there will be more to come. At the end of the series you will be able to complete a test and the passing score will possibly qualify you for CEU's, I have to confirm with DOE if this will include Canada. Will let you know but in any case the knowledge in the important part.

Please make sure you use the WEF.org website, there is so much good information and training tools on there, it helps you get the best out of your WEF membership.

A bit of sad news in our water/wastewater community, a good friend and business associate of Sansom Equipment and ACWWA passed away in June, Michel Boyer of Gorman Rupp pumps. Michel spent countless hours training our Atlantic Canada operators for ACWWA, MPWWA and Sansom and he will be sadly missed, he was 55 years old. 



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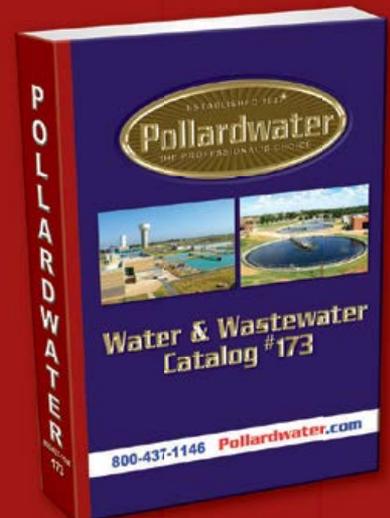
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CWWA to showcase innovation and new technologies to the municipal utility sector

CWWA continues to be very active and busy during 2013 and it is my pleasure to provide a short update on some of the key activities underway.

CWWA is excited to present the *Canadian Energy and Water Efficiency Conference* scheduled to be held in Calgary on October 17-19, 2013. The conference will be focussed on the “*Nexus between Water and Energy*”. Our new Energy and Water Efficiency Committee is working closely with the Canadian National Water Efficiency Network to coordinate a national dialogue on the relationship between water efficiency strategies and potential energy savings. An expert keynote panel featuring Mary-Ann Dickenson, Executive Director of the Alliance for Water Efficiency, Michael Harcourt, Chair and CEO of Quality Urban Energy Systems of Tomorrow and Geoff Riggs with IBM as project manager will provide short presentations and stimulate discussion and debate. The major goal of the conference is to showcase innovation and technologies to the municipal sector. The schedule and information on the conference is available on the CWWA website.

CWWA, in partnership with CAWQ (Canadian Association of Water Quality), recently hosted in March of this year the very successful National Wastewater Management Conference in Hamilton, Ontario. Over 250 delegates attended the two and a half day conference with very interesting presentations. This was a first attempt for both associations to organize and host this type of conference partnership and I am convinced that this partnership will continue in the future.

In June, CWWA and the City of Calgary hosted two major ISO Technical Committees. The two events included the ISO TC 251 *Asset Management* meeting and the ISO TC 253 *Wastewater Reuse for Irrigation* meeting. The meetings were attended by experts from around the world and each meeting included a one day workshop open to the general membership who wanted to take advantage of the opportunity to take in presentations from the global experts. I had the privilege to attend the meetings and want to take this opportunity to thank Calgary for their significant assistance provided to the delegates. All participating members at the meeting expressed their deep gratitude with the efforts of the City of Calgary, the Western Canada Water Association (WCW) and the Canadian Water and Wastewater Association (CWWA),

to carry out and conduct the meetings in Calgary even though a dramatic flood had severely disrupted many services in the City of Calgary.

Other CWWA activities and news:

Building Partnerships – A Stronger Voice

CWWA continues to examine ways to improve and strengthen the national voice of Canada’s water sector. Representatives from all Member Associations (ACWWA, RE, OWWA, WEAO, WCW, BCWWA) met to continue discussions on what role CWWA could hold to assist and enable the stronger water voice across the country. More work continues to define the concept and determine how to make the vision a reality. A preliminary Business Plan has been prepared to produce an educational booklet outlining the issues around infrastructure renewal. A final proposal will be brought before the regional partners. CWWA continues to partner with the Canadian Association for Water Quality (CAWQ) and serves as the Canadian National Congress (CNC) and the Governing Member of the International Water Association (IWA) in Canada.

CWWA Board – Mid-Year Spring Meeting

The CWWA Board held its mid-year Board meetings in Charlottetown during May. As with many associations, there are the tedious tasks of reviewing policies and governance processes. The Board then set their minds to the Strategic Plan developed by staff. Among our major goals for the remainder of the year is the introduction of a new electronic Bulletin and work on a national level educational project in conjunction with our regional partners across the country.

The Board also focussed on the review of the corporate by-laws. CWWA is required to submit registration papers under the new Canada Not-For-Profit Corporations Act. As part of this process CWWA must ensure that its by-laws are compliant with the new act. A task group of the Board is working on a draft.

CWWA wants to improve communication

CWWA is changing the way it communicates with its members. The Associations’ membership management, our events and email communications will now be managed more efficiently and integrated into one source.

Upcoming Events 2013

Canadian Energy and Water Efficiency Conference

October 16-18, 2013 at the The Westin in Calgary, AB.

Window on Ottawa

The dates for this year's Window on Ottawa event will be November 28 & 29 at the Delta Ottawa City Center. Again this year two full-day workshops on Security and on Climate Change will precede the Window on the 27th.

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 site at www.cwwa.ca



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Winner of the **Silent Hero Award**, Terry Nelson



- 1. What is your Job Title?** Day Operator at Lake Major Water treatment plant in Dartmouth Nova Scotia.
- 2. Who do you work for?** Halifax Water.
- 3. Where do you currently live?** I live in Waverley Nova Scotia.
- 4. Where did you grow up?** I grew up in Sackville Nova Scotia just a few miles from my present home.
- 5. When I am not working...** I'm busy working on renovations to the house or enjoying the great outdoors.
- 6. The accomplishment I am most proud of...** I'm most proud of my kids and the great adults they have become.
- 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?** Definitely my wife would be the best person to go on a road trip with, we enjoy long drives along the coast with the ocean view.
- 8. What is your philosophy on life?** Don't sweat over the small problems...everything will work out in the end, life is too short to worry all the time.
- 9. Toughest thing about your job?** Being on call is the toughest part of the job, calls come in at all hours and you have to be ready to go at a moments notice.
- 10. When you were a kid, what did you want to be when you grew up?** I always enjoyed cars and thought I would be a auto Mechanic like my father, but my experience with cars has helped me with the work I do now.
- 11. Last book you read?** History book on world war 2.
- 12. Last movie you saw?** I don't go to the movie theaters

- much but i do have a lot of war movies at home...Tears of the sun was the last one I watched.
- 13. What music did you listen to this morning?** I always listen to Country music in the mornings
- 14. Favorite TV show?** I always look forward to Hell's Kitchen every week.
- 15. What was the best gift you ever received?** A car when I graduated High School, it wasn't pretty but it was mine
- 16. What's the most useless thing you ever purchased?** I would say the Ab Rocker exercise machine, used it about 5 times and sold it.
- 17. Not many people know that I...** am a Handgun safety instructor for my local gun club.
- 18. What is your greatest luxury?** My Jeep. I could make due with something more fuel efficient, but it would'nt be as fun.
- 19. What is your favorite famous quote?** Git er done!
- 20. Describe your perfect day.** A quiet day in the woods during Deer hunting season.
- 21. What three objects would you rescue from your burning house?** My photo albums, firearms and my Jeep keys.
- 22. What Section would you most like to visit, and why?** I have never been to Newfoundland.
- 23. Who is the most influential person in your life?** My father, he is my role model and has taught me the important things in life.
- 24. What is your ideal vehicle?** I'm driving it now...My jeep.
- 25. How long have you been a member of ACWWA?** I fall under the Halifax water corperate membership and have worked with Halifax water for 24 years. 



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Activated sludge overview

Rick Marshall, CEO METC Group, Inc.

In the activated sludge process, microorganisms are mixed with wastewater and reproduce by using the organic matter as food. The end products are new bacterial cells, carbon dioxide and water. As they grow and

be mixed by aeration, the individual bacteria stick together (flocculate) to form heavier clumps that settle out in a gravity secondary clarifier.

Success in an activated sludge system means producing good quality

sludge. This requires good floc formation with good cell density and a few filamentous bacteria to provide good size and shape for the biological floc. Proper biological flocs will then easily separate from the water and produce a clarified effluent. These biological flocs separate from the water by settling out and thickening in a gravity clarifier and then are either returned back to the aeration basin (RAS – Return Activated sludge) or wasted (WAS – Waste Activated Sludge) from the system.

Operators of activated sludge systems perform key process control tests that help assess sludge quality. These process control tests include: Settrometer, oxygen uptake, clarifier sludge blankets and microscopic evaluations. They will also monitor key growth pressures such as MLSS (Mixed Liquor Suspended Solids), Dissolved Oxygen residuals, temperature, pH and nutrient residuals (ammonia, nitrate, orthophosphate). Finally they will make key process calculations such as F/M Ratio (Food-to-Mass), MCRT (Mean Cell Residence Time), Sludge Inventory and Clarifier Sludge Detention Time.

Poor sludge quality is a result of poor floc formation. Poor sludge quality typically produces elevated final effluent TSS because of: slow settling and poor compaction resulting in high sludge blankets; poor floc formation causing high effluent turbidity; or foaming.

Sludge quality problems can be grouped into non-filamentous and filamentous problems. Examples of non-filamentous problems include: pin floc, dispersed growth, denitrification, zoogloal bulking, toxicity and foaming.

Filamentous problems are from excessive growths of filamentous bacteria that cause a settling problem or foaming problem. They can grow because of: low dissolved oxygen (D.O.), nutrient deficiency, septicity/organic acids, low F/M, greases/oils and low pH. Low pH actually results in the growth of fungi, which are not filamentous bacteria but can still cause sludge settling problems. ☺

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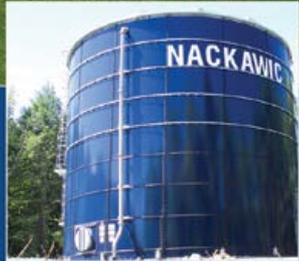
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**Everybody come out
to Fredericton for the 66th
ACWWA Annual Conference**

September 29 to October 1



'PROTECT YOUR ASSETS' in Fredericton: REGISTER NOW!

Scott Grasman, 2013 ACWWA Annual Conference Chair

The time is drawing near for the 66th Annual Conference of the Atlantic Canada Water & Wastewater Association in Fredericton.

Your conference committee is hard at work to ensure all who attend enjoy a first class water and wastewater conference experience. A complete registration package was included in the last issue of *Go with the Flow*, but you can also find the registration form, along with the most up to date conference information, on the conference page of the ACWWA website (www.acwwa.ca). Registration has been brisk, and the conference hotels are nearly full, so don't delay if you have yet to register.

The theme of this year's conference is '**PROTECT YOUR ASSETS: Managing Your Infrastructure Needs**', and we are very pleased with the high quality technical program consisting of 33 papers that is sure to be informative, and educational. In keeping with this year's theme, we are placing some focus on the challenges associated with managing infrastructure assets, and the roundtable discussion of industry experts is a 'must attend' event for anyone who has an interest in the sustainable renewal of water and wastewater infrastructure assets. Our Keynote Speaker, Dr. Guy Felio, will moderate this roundtable discussion. New to this year's conference technical program are two 'offsite technical sessions', which will be of special interest to water and wastewater system operators. Learn on site about the operation of water and wastewater treatment plants.

Other conference program highlights include the Top Ops water and wastewater operators' competitions, the annual Atlantic Branch Equipment Association's tradeshow, the Water for People Fun Run/Walk & Silent Auction, and the inaugural "Best of the Best"

tap water taste test event, which will showcase some of Atlantic Canada's best municipal tap water. Look for this event within the tradeshow, which will be the largest tradeshow in ACWWA Conference history, featuring a huge array of suppliers and industry experts from companies across the spectrum of the water and wastewater industry that will show you the latest in technological innovations and products.

There is high value in having good friends and contacts to assist you when help at work is needed, and this year's conference aims to encourage the renewal of friendships, and the making of new ones, with quality networking opportunities at events like the annual ACWWA golf tournament, a Young Professionals mixer, the ever popular ABEA Hospitality Night, and the centerpiece Down East Feast and Entertainment featuring Jimmy Flynn to close out the conference. We guarantee you won't leave hungry. An excellent Companion's Program has been developed that will allow your conference companion to enjoy some of Fredericton's many cultural (and culinary) attributes.

Further details of all conference events can be found in the conference brochure, available online at www.acwwa.ca.

As a member of the water and wastewater industry, if you can attend only one conference this year, the ACWWA Annual Conference in Fredericton is an excellent choice to fulfill your educational, technical, and professional needs.

Questions? Contact Scott Grasman at (506) 460-2749, or by email at scott.grasman@fredericton.ca.

Mark your calendars for September 29 – October 1. High quality conference events and hospitality await. Do not delay; please register today. We cannot wait to see you in Fredericton!



Conference Schedule HIGHLIGHTS

Sunday , September 29	
8:30 a.m.	ACWWA Board Meeting
12:00 p.m – 6:00 p.m.	Golf at Fredericton Golf Club (*Tee times 12:00p.m.- 2:00p.m.)
12:00 – 5:00 p.m. 7:00 – 9:30 p.m.	Registration Desk (Located at Fredericton Convention Centre)
5:30 p.m. – 7:30 p.m.	Young Professionals Mixer
8:00 p.m. – 11:00 p.m.	ACWWA Meet & Greet Reception (Crowne Plaza Hotel)

Monday , September 30	
TBA	Water for People Silent Auction
7:00 a.m. – 7:45 a.m.	Water For People Fun Walk/ Run
8:00 a.m. – 4:30 p.m.	Registration Desk
8:00 a.m. – 8:30 a.m.	“Pick up” Breakfast
8:30 a.m. – 9:30 a.m.	Conference Opening & Awards Ceremony
9:30 a.m. - 10:00 a.m.	Keynote Speaker: Dr. Guy Felio
10:00 a.m. – 10:15 a.m.	Nutrition Break
10:15 a.m. – 11:45 a.m.	Roundtable Discussion: Infrastructure Asset Management
10:15 a.m. – 11:45 a.m.	Technical Sessions
11:45 a.m. – 12:00 p.m.	Waterworks Club
12:00 p.m.	ACWWA Annual General Meeting Luncheon
2:00 p.m. – 3:30 p.m.	Technical Sessions
3:30 p.m. – 5:00 p.m.	Top Ops Competitions
5:00 p.m. – 8:30 p.m.	Dine Around Town on Your Own
8:30 p.m.	ABEA Hospitality Reception



Tuesday, October 1	
7:30 a.m. – 8:45 a.m.	ACWWA Awards Breakfast and Presentations
8:30 a.m. – 12:00 p.m.	Registration Desk
8:45 a.m. – 10:15 a.m.	Technical Sessions
10:15 a.m. – 10:30 a.m.	Nutrition Break
10:30 a.m. – 12:00 p.m.	Technical Sessions
12:00 p.m. – 4:30 p.m.	Trade Show and Lunch
2:00 p.m. – 3:00 p.m.	ACWWA Board Meeting
3:30 p.m. – 4:30 p.m.	“Best of the Best” Tap Water Taste Test (within Trade Show)
6:30 p.m. – 7:30 p.m.	Waterworks Club / Down East Night Reception
7:30 p.m.	Down East Feast- Meal & Entertainment

Wednesday, October 2	
9:00 a.m. – 10:00 a.m.	*Tours of Water Treatment Plant or Wastewater Treatment Plant *Busses leave Convention Centre at 8:45 a.m.





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The Treatment Plant Optimization Program is open to surface water filtration plants of all sizes and process configurations and is focused on reducing treated water turbidity to protect public health. The Distribution System Optimization Program is open to any water utility that applies a distribution system disinfectant and is focused on evaluating and optimizing distribution system performance based on a variety of parameters, including disinfectant residual. Low annual subscriber fees are based on population served and cost utility customers

less than a penny per year, while providing a measureable improvement in drinking water quality.

Partnership utilities receive public recognition as they progress through the program's phases and reach optimization milestones, demonstrating their commitment to improving water quality and protecting public health. Join the more than 220 Partnership utilities that participate in and benefit from the Partnership for Safe Water's utility optimization programs. To learn more, visit www.awwa.org/partnership or contact the Partnership at 303-347-6169. 



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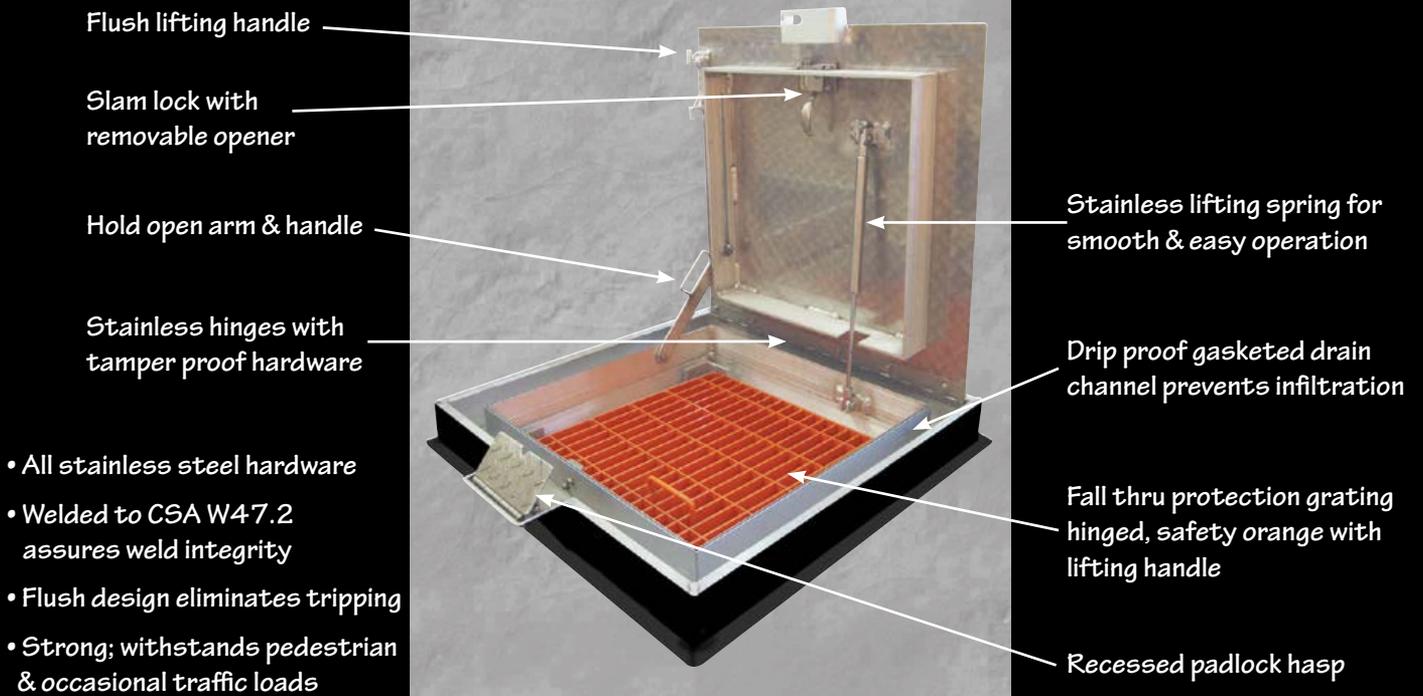
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Advanced Drinking Water Systems: Small-Scale Solutions for Rural Communities, Newfoundland

Mike Chaulk, CBCL Limited

Describe the project.

The project is both a technical solution to a water treatment challenge and an implementation program for efficient construction of a standardized rural water treatment package. Potable Water Dispensing Units (PWDUs), or water kiosks, are a unique way of providing treated municipal water from a single point source where users collect drinking water from a dispensing station. PWDUs provide high quality treated water, in a controlled environment, in small and rural communities where chronic water quality issues are present. Many such communities exist in Newfoundland and Labrador, where existing water supplies and distribution systems are not capable of consistently providing water meeting applicable standards and guidelines. The vast majority of these systems utilize surface water as a source, and following disinfection with chlorine, disinfection byproducts, discoloration, and turbidity issues can be present.

The current standardized PWDU design was developed following extensive review of previously existing systems, community needs, geographical considerations, and operational considerations. A standard treatment process using prefiltration, ozonation, activated carbon, reverse osmosis, and UV disinfection was developed. The treatment solution is intended to be fully capable of treating water from any existing municipal source, to a quality equivalent to bottled water (the alternative in many cases). A standard building design was developed, including a separate dispensing area for public access and dispensing taps. The building and treatment system are constructed within a community in an area where a service connection to an existing

watermain is established to provide raw water. A single manufacturer of the treatment systems was selected by means of a competitive RFP process, and the buildings are built individually by construction contract among different communities.

To date, 8 PWDUs have been constructed across the province and 5 more have been approved and are in development. The existing systems are all identical in appearance but are used on source water of varying quality. Treated water quality has been excellent and community acceptance is growing. In communities where PWDUs are constructed the existing water supply and distribution infrastructure remains as is following the construction of a PWDU.

Describe the project team.

The project team initially included technical design staff from CBCL Limited (Halifax, NS and St. John's, NL); the NL Department of Environment and Conservation; and the NL Department of Municipal Affairs. Following design of the treatment process the project team grew to include Fay Environmental, the treatment system manufacturer.

Where there significant challenges?

Yes. Challenges exist on several fronts; financial - maintaining a design which is affordable both in capital and O&M; technical - designing a solution which is capable of treating the most challenging source while not being overly complex for areas where treatment burdens are reduced; and logistical - maintaining coordinated efforts among the project team and developing a method of construction which is practical for the market and construction conditions existing in rural areas of NL.

What were the successes?

The principal success has been the construction and commissioning of the first systems, proving the concept, and receiving positive feedback from the system users. In some communities with newly constructed PWDUs, residents of adjacent communities travel to collect water. We have completed followup visits to all constructed systems several months after completion and continue to get other feedback. Requests for new systems continue to be received by the province, demonstrating that the program is an attractive solution.

How was the project funded?

The initial project, which included several phases, was funded by the province of NL. When constructed, individual systems are cost shared between the province of NL and the participating community. 



Update on blue green algae

by Heather Fraser
Natural Resource Program Coordinator
City of Moncton



Moncton is experiencing a bloom again this year and the Irishtown Reservoir in the Irishtown Nature Park in Moncton NB has been closed to recreation from July 24th, 2013 onward.

The City of Moncton continues to explore and research the effects and causes of blue green algae in their waterways.

They were granted permission for the second year in a row from Department of Environment to test a product called Phoslock in the Irishtown reservoir.

In this trial it is hoped to track positive results as the City did last year in controlling and stopping the re-occurrence of the algae.

Unfortunately our algae is concentrated in the sediments so as the summer temperatures warm the algae resurfaces and grows with just the right conditions and the bloom occurs again.

The Phoslock caps the algae in the sediment and stops the resurfacing from year to year, breaks the cycle.

It is hoped that this second trial will move the direction forward to be able to test next summer in the Cities back up water supply at McLaughlin Reservoir and help move the bar towards finding a solution for drinking water supplies in NB. ☺

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ACWWA Membership

Membership in ACWWA has been holding steady during the first half of 2013. We currently have 501 AWWA members and 123 WEF members. As always we are looking to steadily grow our membership. If you know of anyone that should be a member, encourage them to join.

During this year's AWWA ACE2013 conference and exposition held in Denver, ACWWA's Executive Director, Clara Shea was the recipient of AWWA's Ambassadors Award. The purpose of this award is to provide national recognition for an outstanding membership recruiter. Congratulations Clara!

This year's AWWA Membership Challenge will focus on retaining first year members. The goal is for sections to retain 67% of the new members that joined in 2012. For ACWWA our goal is for 21 of the 32 new members that joined in 2012 to renew their membership in 2013. If we achieve this, ACWWA will receive 10% of our AWWA dues revenue as a bonus. To date we have retained seven of the 21 members that we require.

WEF Utility Partnership Program

In an effort to make membership in WEF easier for utilities, WEF has introduced a new Utility Partnership Program. The WEF Utility Partnership Program is designed to allow utilities to join WEF and their local WEF Member Association while creating a comprehensive membership package for designated employees.

Utilities can consolidate all members within their organization onto one account and have the flexibility to tailor the appropriate value packages based on the designated employees' needs.

The key benefits of the Utility Partnership Program include:

- It is fully customizable, based on the needs of each utility.
- All WEF members at the utility will be enrolled, with synchronized begin and end dates, on one invoice, for an easy one-time per year payment.
- All current WEF members at the utility will retain their original membership number, credit for all years of membership, and remain a full-voting WEF member.
- All employees at the utility will be eligible for membership registration rates at WEFTEC and will be eligible to register for a WEFTEC exhibition-only pass at no charge.
- It includes a special no charge membership for Public Officials designated by the Utility.
- Up to five new WEF members can be added by the utility each year, at no charge for the first year of membership.
- The utility will be eligible for distributor pricing on all WEF products and services.
- Utility Partnership members will be eligible for special discounted registration for other WEF Conferences and events.

New ACWWA Members

Name	Company
Eric Dube	City of Dieppe
Tony Gallant	City of Summerside
Joel Landers	City of Saint John
Steve McCormick	Inversa System
John Pearson	Town of Middleton
Christopher Potvin	SNC Lavalin

If you would like more information on joining the WEF Utility Partnership Program please visit www.wef.org or contact the ACWWA office at (902) 434-6002.

The ACWWA Membership Team is looking for enthusiastic individuals who enjoy meeting new members. If you enjoy speaking to people on the telephone and want to get involved with ACWWA, please contact John Eisnor at johne@halifaxwater.ca or (902) 490-1930. 

ACWWA Photo Contest

Congratulations to our 2nd Annual Photo Contest winner. This year's theme was Sewage Lift Stations in disguise. Members were encouraged to take some photos of hidden lift stations.



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- opportunities to use biosolids and residuals in solving environmental and land management challenges such as greenhouse gas mitigation, **disturbed land reclamation** and improvement of water resources.
- advancements in **integrated resource recovery** technologies.
- current biosolids and residuals **research, policies and legislation**.
- the state of knowledge regarding **emerging constituents** and biosolids & residuals quality.

Call for Abstracts!

The Canadian Biosolids and Residuals Conference provides an excellent opportunity to present case studies, technological advances, research and best practices on a host of subjects related to municipal wastewater biosolids, industrial residuals, drinking/industrial water treatment residuals, ash, and other residuals.

We are inviting the submission of abstracts on the following subjects:

- **Biosolids and Residuals Quality**
- **Education and Outreach**
- **Emerging Issues and Opportunities**
- **Integrated Resource Recovery**
- **Management and Beneficial Use**
- **Policies, Regulations and Best Management Practices**
- **Uniquely Canadian Successes and Challenges**

The deadline for submitting an abstract is **November 29, 2013**.

Check out the BCWWA website at www.bcwwa.org for more information on submitting your abstract and the conference!

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MEMBERSPOTLIGHT

Craig Walker Chair of 2012 ACWWA Fall Conference

- 1. What is your Job Title?** Currently I am the Manager of the City of Charlottetown's Water and Sewer Utility.
- 2. Who do you work for?** My responsibilities are to the residents, Council of the City of Charlottetown and to the staff of the Water and Sewer Utility.
- 3. Where do you currently live?** I live in Charlottetown, PEI.
- 4. Where did you grow up?** Although not born on PEI, I have lived in Charlottetown since entering grade 7 in 1971. Prior to 1971 I also enjoyed years growing up in Riverview, New Brunswick, Wolfville, Nova Scotia, and Ottawa, Ontario.
- 5. Toughest thing about your job?** I find the toughest part of my job is the balance between the efficient operations of a utility and the expectations of today's customers and elected representatives.
- 6. When I am not working...** enjoying time with my granddaughter or working around the house or relaxing at the cottage.
- 7. The accomplishment I am most proud of...** raising and being a role model for two great sons.
- 8. When you were a kid, what did you want to be when you grew up?** I wanted to be like my father when I grew up.
- 9. Not many people know I can....**weld and perform machine work.
- 10. Last book you read?** Blind written by Lee Childs (4th in the Jack Reacher novels).
- 11. Last movie you saw?** Daybreakers, picking my way through Netflix.
- 12. Favorite TV show?** I watch far too much TV for my good. I would have to say Nature of Things.
- 13. What was the best gift you ever received?** My granddaughter.
- 14. Your guilty pleasure?** Relaxing at the cottage, on a hammock, watching fishing boats go to sea and return.
- 15. The most useless thing you've ever purchased?** An engine stand. Purchased more than 10 years ago and has yet to see an engine.
- 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?** With Carroll Shelby driving the Pan-American Highway, in a 1967 AC Cobra. 🏁

The winner of the Canadian Stockholm Junior Water Prize to compete at the International Final in Sweden



Hannah Landry of Hants East Rural High School, Nova Scotia, Canada will be travelling to Stockholm, Sweden, to present *Eggshells: Simple, Practical, Cost Efficient Remedy to Address Cadmium Pollution*, the winning project of the Canadian Stockholm Junior Water Prize to the jury of the international competition at the World Water Week in Stockholm, 1-6 September, 2013.

The international Stockholm Junior Water Prize (SJWP) final will be held during the 2013 World Water Week in Stockholm, September 1-6, the leading annual meeting place for the planet's most urgent water-related issues. Competing projects will be on display at the World Water Week exhibition hall at the Stockholm International Fair, where each finalist will be interviewed by a jury of international water experts.

The national winners will be joined by other winners from a total of 30 competing nations.

Over 30 countries around the globe arrange national competitions where thousands of young students participant with hopes of earning the chance to represent their nation at the International Final of the Stockholm Junior Water Prize in Stockholm.

The Canadian winner was selected from projects at the 2013 Canada Wide Science Fair held in Lethbridge Alberta May 11- 18, 2013. Three finalists were selected to prepare papers to determine the final winner. The other two finalist teams were Lucas Oyeniran and Joshua MacDonald, Triple E: The Cattail Way! Widdifield Secondary School, North Bay, Ontario, and Ankur Shahi, Kraft Lignin: A Novel Solution to Oil Spill Recovery using Industrial Waste, Sir Winston Churchill C.V.I., Thunder Bay, Ontario.

Eggshells: Simple, Practical, Cost Efficient Remedy to Address Cadmium Pollution – Hannah carried out studies to determine which of six breeds of chicken eggshells most efficiently filtered cadmium out of drinking water to ultimately develop a filtration device for use in areas where cadmium pollution is a major concern.

About the SJWP

The competition is open to young people between 15-20 years of age, who have conducted water-related projects focusing on local, regional, national or global topics of environmental, scientific, social or technological importance. As a result of the competitions, thousands of young people around the world develop personal interests, undertake academic study, and often pursue careers in the water or environmental fields. The winner receives an award of USD 5000, and a custom-made blue crystal sculpture crafted by Swedish glass artisans. The Stockholm International Water Institute administers the competition.

For more information please visit the Canadian Stockholm Junior Water Prize website at <http://www.sjwp.ca> (note the site is currently being redesigned) or <http://www.siwi.org/prizes/stockholmjuniorwaterprize/> 

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Exploring Solutions for Sustainable Rural Drinking Water Systems in Newfoundland and Labrador

Sarah Minnes

In March 2013 a 14-month research project was launched that aims to find solutions and better understand the challenges to improving drinking water quality in rural Newfoundland and Labrador (NL). This project is led by Dr. Kelly Vodden from the Environmental Policy Institute at the Grenfell Campus- Memorial

University, in partnership with Municipalities Newfoundland and Labrador (MNL) and Professional Municipal Administrators (PMA). This interdisciplinary research addresses knowledge gaps related to drinking water systems in NL by providing a current and comprehensive picture of drinking water issues in small



Project team members at their booth at the MNL Symposium in May, 2013. From left to right: Sarah Minnes, Candice Ramalho, Kelly Vodden and Jeana MacLeod.

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communities from a multitude of angles. This is being done by drawing from current and past research and existing sources at federal, provincial and municipal levels, as well as research from other jurisdictions. Dialogue with stakeholders is also a key component of the research.

A major focus of this project is to identify the types of risks and challenges influencing drinking water quality and availability in rural areas, with a particular emphasis on communities of 1,000 residents or less in NL. There are four major components of this research study: source water quality and quantity; municipal water treatment and distribution; policy and governance; and public perception, awareness and demand.

A drinking water survey directed towards municipal and local service district administrators is currently underway. Another survey created specifically for water operators will be released in September 2013. The surveys will be followed up with several in-depth case studies throughout NL. The final report for this project will be released in summer 2014, following a series of regional consultations throughout the province.

Funding support for this project has been given by the Harris Centre – RBC Water Research and Outreach Fund. For more information contact Sarah Minnes (project coordinator): sminnes@grenfell.mun.ca. Also please visit the project's website for more information and updates on the research: <http://nlwater.ruralresilience.ca/>

Changes to Nova Scotia's on-site sewage technical guidelines

Nova Scotia has updated its technical guidelines for on-site sewage disposal systems. Targeted consultations were performed in January and February 2013 with Nova Scotia Environment Staff and the On-site Sewage Industry on proposed changes to the *Nova Scotia On-site Sewage Disposal Systems Technical Guidelines*.

An updated version of the *Technical Guidelines* is now posted to the Nova Scotia Environment website and available for purchase through your local Nova Scotia Environment Office. <http://www.gov.ns.ca/nse/wastewater/sewagedisposalguide.asp>

A *Summary of Changes* document was prepared to outline the changes.

This document summarizes the **finalized changes** including justification based on the comments that were raised during the consultation period. The summary document can be found on the Nova Scotia Wastewater Society website at www.wwns.ca. 

AWWA-CAC/Canadian Affairs Committee Who are we??

By Roland Richard P.Eng., FEC ACWWA – Director Government Relations

Having just started my second term as one of the two ACWWA representatives on the AWWA-CAC committee I thought it would be a good idea to prepare a short article to briefly explain to the membership **“Who we are and what we are all about”** for inclusion in our new *Go with the Flow* magazine. A brief and general overview is presented.

The *Canadian Affairs Committee (CAC)* is a committee of the American Water Works Association (AWWA) reporting to the AWWA Executive Committee. CAC is comprised of the five AWWA directors and five representatives from the five Canadian sections of AWWA. The committee also has three liaison members, one each from AWWA's Water Utility Council (WUC), AWWA's Executive Committee (EC), and the Canadian Water and Wastewater Association (CWWA).

Your CAC members from ACWWA include Reid Campbell, AWWA Director, and myself ACWWA Director of Government Relations.

In support of the AWWA Strategic Plan the CAC has as its Mission:

- *Identify issues of Canadian wide importance and promote these issues to AWWA Canadian Sections, CWWA and other Canadian organizations.*
 - *Carry out activities to promote collaboration among members and Canadian Sections*
 - *Promote and support AWWA activities in Canada*
- In order to help the CAC achieve its mission several Guiding Principles are followed including:
- *Advocate for AWWA in Canada by promoting AWWA's strategic initiatives and programs*
 - *Present a unified voice in AWWA and Canadian issues*
 - *Be the recognizes voice in AWWA on Canadian issues*
 - *Strive to ensure that Canadian members and Canadian sections have reasonably equivalent access to AWWA products and services*
 - *Work to eliminate barriers real or perceived, to full participation of Canadian sections and members in AWWA.*

The following are few of the most visible examples of some of the

initiatives undertaken by the CAC for the members:

- Promote a strong Canada wide voice for water by working with WEF MA's, AWWA and CWWA.
- Host regular Canadian Sections Summits to determine the priorities of Canadian Sections. The first such Summit was held in 2013 and the second Summit is scheduled for Calgary in November 2013.
- Host the Canadian Water Forum (CWF) annually at ACE. This is always a very successful event enjoyed by all attending.
- Facilitate ongoing support of the Canadian National Cross Connection Control (CCC) coordination and the National CCC Manual.
- Support Canadian participation in ACE and other educational events.
- Other initiatives, etc.

Hopefully the above will help acquaint you with the AWWA –CAC / Canadian Affairs Committee, its role and ACWWA involvement.

Wishing you all a great summer. 

YP Update

By Greg McCann ACWWA YP Representative

The ACWWA Young Professionals group (Usually referred to as YP's) are engineers, researchers, technical sales people, and managers getting their start in the water and

wastewater industry. The goal of the group is to provide these young professionals with fun networking and volunteer opportunities to enhance their budding careers.

Congratulations to YP's Meghan Woscynski and Megan Kot for their recent successes at the international and national level. Meghan Woscynski

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was published in the March issue of American Society of Civil Engineers (ASCE) Magazine. Meghan submitted her work on studying the influence of chlorine and chloramines on lead release in copper pipe rigs. Megan Kot recently finished second at the 2013 Canadian Water Network - Connecting Water Resources Event. Megan presented her poster entitled 'A new regulatory approach: Impacts of Alberta's drinking water safety plan requirement on small communities.'

On April 30, YP's toured the Clow Canada manufacturing facility and the Eastern Wastewater Treatment Facility, both located in Saint John, New Brunswick. The tours were very insightful. Efficient and operator friendly manufacturing processes were observed at the Clow Facility, and the wastewater facility offered viewing of modern equipment,

construction challenges and discussion of how the facility would achieve new wastewater guidelines.

Clow Canada continues a long tradition of manufacturing quality products for water systems. The company history can be traced back to the mid 1800's and the T. McAvity and Sons company. Originally a wholesale and dry goods dealer, the firm progressed to manufacturing various brass and iron ship components before making the first McAvity Fire Hydrant in 1903. Innovation paired with lean manufacturing enables Clow Canada to provide quality made in Canada products. Thank you to Mike Duguay of Clow Canada.

The City of Saint John's Eastern Wastewater Treatment Facility is the cornerstone of the \$100 million dollar harbour cleanup project. Completed in late 2011, the project required

receiving water analysis, various environmental permits, construction of an outfall 1.1 km into tidal waters, and construction around an existing treatment facility. The activated sludge facility receives an average daily flow of 35 million liters per day with a peak daily flow of 80 million liters per day. At the 2012 ACWWA conference, the Eastern Wastewater Treatment Facility was named project of the year for municipalities with a population greater than 25,000. Thank you to Graham Huddleston of Saint John Water.

Blue Thursdays have been happening monthly in Halifax, the Facebook page is up and running. These socials are not limited to YPs so please come out and meet the next wave of professionals. Check out the Facebook page or email Matt Follett (Matthew.Follett@snclavalin.com) for more details. 

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Partnership for Safe Water Open to Canadian Utilities

Reid Campbell, AWWA Director

This past spring, AWWA executed a new agreement with the Partnership for Safe Water, and with that agreement, the Partnership is now open to Canadian Utilities for membership. The Partnership, for almost twenty years, has been a key utility benefit that leading utilities have used internally to promote continuous improvement in filtration practice and more recently distribution system operations, and to let their customers know that their water provider is among the best.

Historically, Canadian utilities have been barred from joining the partnership, not through specific intent, but as an unintended consequence of the governance structure established among the six founding partners. Aside from AWWA, the other partners are all exclusive to the US. Thanks to the efforts of the Canadian Affairs Committee; AWWA Executive Director, David LaFrance; Partnership for Safe Water Steering Committee Chair, Robert Cheng; and

AWWA staff, Barbara Martin and Gary Sullivan; the Partnership is now open for business in Canada. Halifax Water became the first non-Quebec Canadian member in May. (The Quebec Section of AWWA has had a special agreement to operate the Partnership in French in Quebec).

This is a tremendous opportunity for Canadian Utilities. There are two fundamental programs, one for surface water treatment plants for filtration performance and a more recent program for distribution system operations. Any utility with a distribution system, including groundwater systems, can join the distribution program. Currently, 200 utilities, 400 water treatment plants and 125 distribution systems are part of the program

The Partnership consists of four phases, which allows utilities to take it on in manageable chunks and advance at their own pace. The four phases are Commitment, Baseline Data Gathering, Self-Assessment Completion and Fully Optimized System. The latter two phases contain a peer review

component so that utilities can gain from the experience of those colleagues that have gone before them. There is also an award program conducted at ACE. There are four levels of awards designed to mark the utility's progress through the Partnership and to demonstrate their progress to their customers and governing boards.

Every utility member in Atlantic Canada should check out the Partnership and consider whether it is right for them. The Partnership works for all sizes of utilities with the smallest current member serving a population of 500. Subscription fees are reasonable and are based on the size of the system. Utilities who operate in French can join the program operated by the Quebec section and receive guidance documents and training materials in French.

For more information, check out the program on the AWWA web site under Resources and Tools or contact Partnership Manager, Barbara Martin at bmartin@awwa.org. 

Statistics Canada - 2013 Survey of Drinking Water Plants

In the winter of 2014 Statistics Canada will be conducting the Survey of Drinking Water Plants. This survey is a census of public drinking water plants serving communities of 300 or more people. The survey results will produce a national portrait of treatment processes and costs, and source water quality across Canada, for facilities that range from ones with complex treatment processes to basic groundwater well supplies

that provide minimal or no treatment. These data will be used to track the state of source water stocks and treatment on a regional basis and will also be used in the development of environmental accounts and indicators.

Drinking water plant operators will be contacted by phone in November of 2013 to verify contact name and address. The survey will be mailed out in January 2014 and we encourage all utilities that receive the survey to complete it as best and as soon as

possible and return it to Statistics Canada. More information about the survey can be found at <http://www.statcan.gc.ca/cgi-bin/imdb/p2SV.pl?Function=getSurvey&S-DDS=5149&lang=en&db=imdb&adm=8&dis=2>

Specific enquires about this survey should be directed to Environment Accounts and Statistics Division, Statistics Canada, Ottawa, Ontario, K1A 0T6 or by email to environ@statcan.gc.ca. 

2013 Window on Ottawa

Roland P. Richard, P.Eng., FEC, ACWWA - CWWA Director

This year's event will be held November 27-29, 2013 at the Delta Ottawa City Center.

The Window is CWWA's core event, offering municipal managers an opportunity to hear about federal initiatives from the senior government officials working on these programs.

A key advantage to attending the Window is that it not only

allows delegates an opportunity to hear about these programs first hand, but also allows them to raise regional and national concerns.

The CWWA's Annual General Meeting is always hosted in conjunction with the Window on Ottawa. This is an excellent opportunity for members to hear about CWWA activities for the past year and priorities for the future.

Again this year two full –day workshops on Security and on climate Change will precede the Window meetings.

I encourage you all to attend this most important networking opportunity with other water and wastewater professionals from across Canada.

Visit the CWWA website for the complete details: www.cwwa.ca. 

Operator's Corner

1. A test used to determine if water is undersaturated or supersaturated with Calcium Carbonate is?
2. What is another name for diatomaceous earth filters?
3. What is the specific gravity of a liquid weighting 62.4 lbs per cubic foot?
4. What is the term that describes that curved surface of a column of liquid in a small tube such a pipette or the neck of a volumetric flask?
5. What does QA/QC refer to in laboratory operation?

- Answers**
1. Marble Test
 2. Pre-coat filters
 3. One
 4. Meniscus
 5. Quality assurance and Quality control



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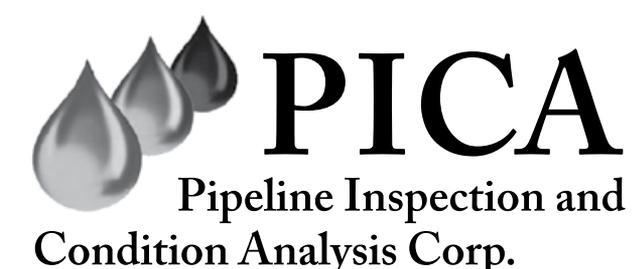


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