

MPWWA



'Building System Safety' *Operators Making it Work*



**Maritime Provinces
Water & Wastewater Association
37th Annual Training Seminar
CEU Value: 1.5**

**April 23rd - 26th, 2017
Halifax Marriott Harbourfront Hotel
Halifax, Nova Scotia**

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Rob Hamilton
MPWWA Chairperson



Kevin Kelloway
Seminar Co-Chairperson



Craig Gerrior
Seminar Co-Chairperson

WELCOME FROM MPWWA CHAIRPERSON

Consider this my personal invitation to you to take in the 37th Annual Maritime Provinces Water and Wastewater Association Training Seminar taking place this year in Halifax and running from April 23rd to April 26th. The Halifax Marriott Harbourfront Hotel will serve as the venue for the annual event which will feature various activities for the MPWWA membership to participate in. Our Seminar Co-Chairs, Craig Gerrior and Kevin Kelloway along with the seminar organizing committee have put together a diverse program based around the seminar theme of 'Building System Safety – Operators Making It Work'.

At the forefront is the Suppliers Equipment Display and Tradeshow, which this year will feature 71 supplier booths exhibiting various "tools of the trade" and technologies that are found in our industry. It's an opportunity for you as the operator to get together and discuss, in person with sales people, issues that relate to your facility. I strongly encourage you to take the time to go through the Tradeshow and talk to the suppliers and maybe create a new contact that might make the operation of your system more efficient, economical or easier to manage. What an opportunity to put a face to the name that you've talked with over the phone!

The more information that you have about the workings of your system, the better you can operate it and to that end, the seminar will again feature a variety of training workshops and tours of local water and wastewater related facilities.

As you read further in this brochure you will find brief descriptions of what the Seminar Committee has lined up for those 4 days in April and I believe that the committee has put together a program that has something for everyone on it.

April is not that far off and I encourage you to register early for this event so you don't miss out on an opportunity to network with others involved in our industry and attend the variety of training workshops that are being offered.

Hoping to see you in April in Halifax.....Cheers!!!

Rob Hamilton
MPWWA Chairperson

MESSAGE FROM THE SEMINAR CO-CHAIRPERSONS

Once again we will be coming together for our 37th Annual Training Seminar in Halifax. This year we have tried to focus on safety and those issues that help integrate safety into our daily operations, both on a personal level as well as from a production stand point.

Our theme this year is 'Building System Safety - Operators Making It Work'. When it comes to working safely and providing safe water services, it all comes down to the operator and what we contribute within the systems we work. There are various workshops scheduled this year which have varying content from mechanical and instrumentation to the numerous capabilities software can provide to maintaining safe water quality.

This years' tradeshow should be very good as well. We were able to secure space for 71 booths. Our commercial suppliers are really looking forward to be able to speak with you all.

We will be holding this year's event at the Halifax Marriott Harbourfront which was very well attended in 2014. That being said, book your room and register early. We hope to see you in the spring of 2017.

Kevin Kelloway and Craig Gerrior
Seminar Co-Chairs

COMPANION PROGRAM

Sunday, April 23rd:

7:00 - 9:00 PM: Registration
7:00 - 10:00 PM: Meet and Greet

Monday, April 24th:

7:30 - 9:00 AM: Registration
8:30 - 9:00 AM: Official Opening, *Halifax Mayor Mike Savage*
9:00 AM - 5:00 PM: Annual Charity Silent Auction in Aid of 'Global Wheelchair Athletics'
9:30 - 11:30 AM: Meet in Lobby for Historical Ghost tour of Halifax
11:30 - 1:00 PM: Keith Brewery with Lunch at Red Stag
1:00 - 3:00 PM: Taste Test at Keith's Brewery
3:00 PM: Return to Hotel

Tuesday, April 25th:

8:00 - 9:30 AM: Annual General Meeting and Breakfast
9:00 AM - 5:00 PM: Annual Charity Silent Auction
9:00 - 12:00 PM: Shopping at Halifax Shopping Center
12:00 - 12:30 PM: Lunch on Your Own
12:30 - Return to Hotel
1:30 - 4:00 PM: Professional Make up Instruction and Gift Exchange
6:00 - 7:00 PM: Reception
7:00 - 10:30 PM: Banquet and Entertainment

Wednesday, April 26th:

9:00 AM - 12:00 PM: On Your Own
12:00 - 1:30 PM: Stay-Till-the-End Luncheon

SEMINAR AGENDA

Sunday, April 23rd

2:00 - 4:00 PM: Board of Directors Meeting
7:00 - 9:00 PM: Delegate Registration
7:00 - 10:00 PM: Meet & Greet

Monday, April 24th

7:30 - 9:00 AM: Delegate Registration
8:30 - 9:00 AM: Official Opening of the Seminar, *Halifax Mayor Mike Savage*
9:00 - 10:00 AM: Keynote Speaker, *Carl Yates*
9:00 AM - 5:00 PM: Annual Charity Silent Auction in aid of '*Global Wheelchair Athletics*'
10:00 - 10:30 AM: Health Break
10:30 AM - 12:00 PM: Discussion, *Dr. E. Kevin Kelloway*
12:00 - 1:00 PM: Lunch
12:00 - 4:30 PM: Equipment and Supply Display (draws and prizes; must be present to win)

Tuesday, April 25th

8:00 - 9:30 AM: Annual General Meeting and Breakfast
9:00 AM - 5:00 PM: Annual Charity Silent Auction
9:30 - 10:30 AM: Choose Workshop A, B, or C - Information on workshop topics is provided on pages 5 and 6
10:30 - 10:45 AM: Health Break
10:45 - 11:45 AM: Choose Workshop D, E or F
12:00 - 1:00 PM: Lunch on Your Own (Board of Director's Meeting/Election of Officers)
1:00 - 4:30 PM: Facility Tours
6:00 - 7:00 PM: Reception
7:00 - 10:30 PM: Banquet and Entertainment – Yuk Yuks

Wednesday, April 26th

8:30 - 9:30 AM: Choose Workshop G, H, or I
9:30 - 10:00 AM: Health Break
10:00 - 11:00 AM: Choose Workshop J, K or L
11:00 AM - 12:00 PM: Check Out Time
12:00 - 1:30 PM: Stay-Till-The-End Luncheon, Closing Speaker, *Representative of NS Environment*, Charity Auction Cheque Presentation

HOW TO REGISTER FOR THE SEMINAR

You can use our ONLINE REGISTRATION and payment option at www.mpwwa.ca
(Click on '2017 Annual Seminar' near top right of page)

OR fax, email or mail a completed registration form to: MPWWA
c/o Clara Shea, Executive Secretary, PO Box 28142, Dartmouth, NS B2W 6E2



Carl Yates

General Manager
Halifax Water



E. Kevin Kelloway, PhD

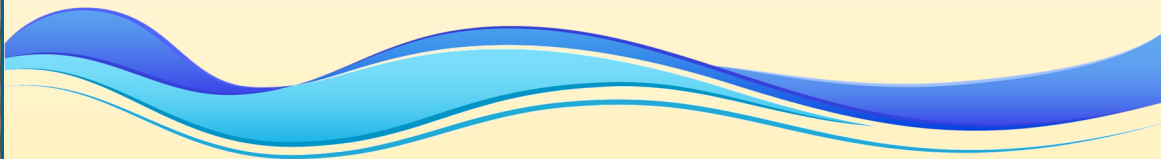
Canada Research Chair in
Occupational Health
Psychology
Professor of Psychology

KEYNOTE SPEAKER

From a review of industry best practice, Halifax Water realized a potential to save money by adopting a seasonal disinfection program for wastewater treatment plants that discharge into a marine environment.

Seasonal disinfection implies that during certain colder periods of the year, disinfection processes utilizing ultraviolet equipment will be turned off. Although the program was conceived on economic terms, Halifax Water had to assess the social and environmental impacts prior to implementing the project.

In order to formally assess the impacts, a pilot program for four plants discharging to Halifax Harbour was approved by NS Environment for a two month period from March to April, 2016. The results were promising with minimal impact to recreational users of the Harbour and minimal impact to the receiving waters environment. As a result, Halifax Water received permission to extend the seasonal disinfection for the four marine discharge plants for the 2016/17 winter season from November to April. The presentation will present the findings of the program and an overview of the approach to balance economic, social, and environmental outcomes.



DISCUSSION

Mental Health in the Workplace: The Three Pillars

One in five Canadians will experience a mental health problem each year. The costs of mental health disorders, both economic and personal, are astronomical and many organizations have started to recognize and respond to mental health issues in the workplace. These issues have gained increasing prominence through the efforts of the Mental Health Commission of Canada and the promulgation of CSA 1003 – a national standard for psychological health and safety in the workplace. In this presentation, I present an evidence-based approach to workplace mental health programs. Specifically, I suggest that such programs must include a focus on prevention, intervention and accommodation.



EQUIPMENT AND SUPPLY SHOW

**Monday April 24th, 2017
12:00 - 4:30 PM**

The Equipment Display at our Annual Seminar is always enjoyed by everyone. It is a fun and informal way for equipment and service providers to meet face-to-face with operators.

Every year brings advancements in the technology available, improvements to equipment and products that we use daily in our work. Plan to spend Monday afternoon touring the 71 booths at the Equipment and Supply Show. This show continues to be the premier equipment show in Atlantic Canada. The 'freebies' are always welcome to us operators as we stroll by all the displays - items such as pens, candies, note pads, bags, and a host of other neat treats. And let's not forget about the great door prizes - all items generously donated by participating suppliers.

The Equipment and Supply Show is a critically important part of our Annual Training Seminar. The registration fees paid by the companies for the booth space help to significantly offset the enormous cost of hosting the seminar. This allows for affordable registration fees for our members.

To thank the many companies who participate in the Equipment and Supply Show, please take some time to meet with as many as you can and show them your appreciation for their continued support. So, please attend the Equipment and Supply Show, have some fun, and "Talk Business."

WHAT MEMBERS HAVE TO SAY

"The Trade Show is a great place to network with vendors and other conference attendees. It gives you the opportunity to see new technologies and products on the market, that you may have only seen online or in a catalog."

~Jeff Rogers, Engineering Technologist, Town of Quispamsis

"One of the most valued outcomes from the MFWWA tradeshow is the relationships we build with attendees over the years. Being able to connect with so many people – from customers, engineers, government officials, students and other suppliers, in such a concentrated time, is a no-brainer from a supplier investment standpoint. Operators specifically give us great insight in what challenges they face day-to-day, that gives us homework to help find ways to make their workload easier!"

~Melanie MacKinnon, Nulantic Water Inc.

FACILITY TOURS

IMPORTANT: Safety footwear is required for all facility tours.



J. Douglas Kline Plant at Pockwock

The J. Douglas Kline Plant at Pockwock, commissioned in 1977, is a direct dual media filtration process. The plant removes iron and manganese from the source water, inactivates and removes bacteria, viruses and protozoa along with the removal of other organics to improve colour, taste and odour. The staff of the water supply plants are all certified operators in conformance with the Nova Scotia Environment Certification Program.



AGAT Laboratories

You've placed and received your order for sample bottles, collected and sent them to the lab, but what happens to them once they reach a high volume commercial laboratory? This tour of AGAT's newly renovated and expanded facility in Dartmouth will give you an opportunity to see what happens behind the scenes following the process of bottle order, receipt of samples, testing of samples to the end result of data delivery to you.



Halifax WWTP

The Halifax wastewater treatment facility (WWTF) is the largest of 15 facilities owned and operated by Halifax Water and officially opened in February 2008. In full operation, the plant was able to meet the objective of greatly improved water quality for the harbour. The Halifax WWTF serves the Halifax area using an Advanced Primary Treatment process, with UV disinfection and a design average flow of 139,900 m³/day.

WORKSHOP TOPICS

Tuesday, April 25th

9:30 - 10:30 AM: Choose Workshop A, B, or C

Workshop A: Water Meters: When to Repair/When to Replace. This workshop will delve into water meters past and future... what the technology was years ago compared to what we are using today. Using examples, a discussion of meter parts now and then will be examined. Leading to the ultimate question - what do the parts cost (two meter suppliers) to buy and what the cost is for a City or Town to repair anything, compared to just remove and replace with new? *Presenter: Tom Cameron, ScotiaTech*

Workshop B: Ballasted Clarifier Technology for CSO Applications. Combined sewer overflows (CSOs) were developed as part of the country's early infrastructure, when cities built combined sewer systems for collecting both wastewater and storm water. During wet weather untreated wastewater may overflow into the nearest body of water causing a significant impact on the environment as well as increasing risks to public health. This workshop will explore a pilot study at a large Midwest wastewater treatment plant. *Presenter: Jared Alder, Evoqua*

Workshop C: SCADA Trending for PM or Troubleshooting. This workshop will look into historical trending graphs and their use in monitoring and managing your system. It will deal with defining both analog and digital graphs along with when and how often they should be examined. The combining of graphs can be a useful tool in searching for anomalies that may exist in your system. The workshop will also point out important reasons why these graphs need to be monitored continuously by operators to optimize the system. *Presenters: Patrick Doiron and Marcel Bélanger, Belanger Electric*

10:45 - 11:45 AM: Choose Workshop D, E or F

Workshop D: Water Loss Control and Pressure Management. Halifax Water has been following the IWA/AWWA Water Loss methodology since 2001, which includes completing an annual water balance, active leak detection using both minimum night flow analysis and acoustic leak detection and pressure management techniques. This presentation will provide an overview of Halifax Water's Water Loss Control Program including minimum night flow analysis using district metered areas, active leak detection using acoustic leak detection equipment and timely and effective water main repairs along with pressure management strategies. This workshop will also utilize case studies showing the benefits of using system data to identify issues and improve the operation of the water system. *Presenter: John Eisnor, Halifax Water*

Workshop E: Chlorine Chemistry. Chlorine has been used to disinfect water since the mid 1800's which has greatly improved public health by reducing water borne diseases. This workshop will discuss chlorine chemistry, prerequisites and possibilities to implement automatic monitoring of the main control parameters of Free Chlorine, Monochloramine, and Total Chlorine by means of colorimetric measuring or Free Chlorine by amperometric measurement method. *Presenter: Randy Turner, Swan Analytical*

Workshop F: Tendances SCADA pour PM ou Dépannage. Apprenez à utiliser des graphes historiques et leurs utilités dans la surveillance et gestion de votre système, les définitions des graphes digital et analogue, quand et comment souvent devrait-on regarder les graphes, la combinaison des graphes pour rechercher des anomalies dans votre système, et les raisons pourquoi la surveillance continue des graphes est importante pour les opérateurs. *Présentateurs: Patrick Doiron et Marcel Bélanger, Belanger Electric*

WORKSHOP TOPICS, continued from Page 5

Wednesday, April 26th

8:30 - 9:30 AM: Choose Workshop G, H or I

Workshop G: *Excavation and Trench Safety Success - From the Water/Wastewater Perspective.* This session will explain how to safely excavate sites including: effective approaches; lessons learned; and key elements and metrics used. Since excavation and trench access are routine for MPWWA members, this session will provide a brief overview of the legal requirements in MPWWA jurisdictions while also highlighting an MPWWA member's 3 year continuous improvement process, beginning with the planning stages and including the follow up auditing to ensure effective implementation. The results and best practices will be discussed and shared with conference participants. The session will be presented by a Canadian Registered Safety Professional (CRSP)[®] and former Occupational Health and Safety Officer with NS Department of Labour. *Presenter: Paul Cormier, C&C Safety & Compliance Service Inc.*

Workshop H: *Safety and Security at Halifax Water.* At Halifax Water management and employees are committed to providing a healthy and safe work environment to prevent occupational illness and injury. With over 450 employees performing various tasks daily to operate and maintain our water, wastewater, and stormwater infrastructure, it is essential that safety is front and center. Owners and operators of water, wastewater, and stormwater infrastructure must also have plans in place to ensure secure and resilient operations. This involves the documentation and exercising of emergency response plans. This presentation will provide an overview of some of the initiatives Halifax Water has taken to enhance and build a safe and resilient organization. *Presenter: Pat Bellemare, Halifax Water*

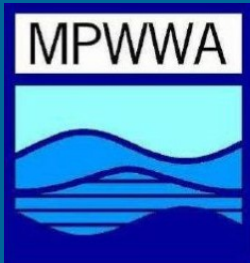
Workshop I: *Use of Innovative Enzymatic Method for the Determination of Coliforms, E.coli, Fecal or Enterococci in Drinking Water, Waste Water and Reuse Water.* To be in compliance with regulations, potable and non-potable water, Utilities and Private Laboratories are required to test for either coliforms, *E.coli*, fecal coliforms or enterococci in potable and non-potable waters after treatment for distribution of potable water and prior to discharge into a body of water for non-potable waters. The presentation will provide an introduction to water microbiology, an introduction of Reuse water and different methods of analysis for the coliform groups. *Presenter: Gil Dichter, IDEXX Labs*

10:00 - 11:00 AM: Choose Workshop J, K, or L

Workshop J: *Emerging Issues with Lead: A Canadian Perspective.* Following the drinking water tragedy in Flint, Michigan, many Canada water utilities are asking questions about appropriate ways to address lead in their system. Lead service lines (LSLs) are still present in Canada and represent a major source of lead in drinking water, however replacement of lead service lines is costly and challenging. NDWAC recommendations are calling for complete removal of lead service lines, however most Canadian utilities are unable to remove the private side. This presentation examines some of the latest information concerning lead occurrence from Canadian systems and will examine corrosion control practices across Canada so that attendees can compare the diversity of issues and practices impacting Canadian utilities. *Presenter: Dr. Graham Gagnon, Dalhousie University*

Workshop K: *Implementing an Effective Fleet Safety Management System.* This session will explain how to implement an effective fleet safety management system through a case study highlighting the importance of overall fleet safety management system performance including: general approaches to planning, best practices, key elements and metrics developed. The session will be presented by a Canadian Registered Safety Professional (CRSP)[®] and former commercial vehicle regulatory training officer with hands-on knowledge in all areas of fleet safety. *Presenter: Paul Cormier, C&C Safety & Compliance Service Inc.*

Workshop L: *Alarm Management and Reliable Architecture Needed for Utility-wide SCADA Systems.* Alarm Management and Reliable Architecture Needed for Utility-wide SCADA Systems. Notifying operations personnel of alarm conditions remains the single most important function of a water and/or wastewater SCADA system; more specifically, SCADA's primary purpose is to facilitate an understanding of alarm condition such that operations personnel can respond efficiently and effectively. This presentation explores the SCADA functionality required to support large-scale alarms management by applying industry standards and good network architecture techniques in utility-wide SCADA buildouts. *Presenter: R. David Spencer, Trihedral*



MEET AND GREET

Sunday evening is a great opportunity to join with other MPWWA seminar delegates to renew friendships and discover new ones while nibbling on a fine selection of hors d'oeuvres and finger foods. It is a time to hear stories and experiences and perhaps even find or provide solutions to operational problems and issues.

ANNUAL GENERAL MEETING & BREAKFAST

This is your Association and the business of the MPWWA needs your participation. Although the Board of Directors deals with much of the day-to-day operations, there are other items that need to be discussed and approved by the General Membership. Along with reports from the various committees on the Board, the election of the Zone Directors will take place. A delicious breakfast buffet is included and, along with the meeting, helps start our day in a healthy and professional way.

BANQUET & ENTERTAINMENT

Prior to the official start of the banquet, a reception will be held starting at 6:00 PM where friends gather and mingle. At 7:00 PM, we sit down to some more great food served at our banquet. Throughout the course of the banquet, tickets on a 50/50 draw will be sold with the winning ticket drawn later in the evening. The Art Bell Award will be presented in recognition of an individual member's service in supporting and developing the goals and ideals of our Association. In an effort to recognize the excellent work that the operators in our Association do, the MPWWA will also award two Operational Excellence Awards, one to an operator in the wastewater discipline (treatment & collection) and one to an operator on the water side (treatment & distribution). There will be a few business-related things to cover. However, following a delicious meal and business, the rest of the evening is dedicated to entertainment by Yuk Yuk's comedians.

STAY-TILL-THE-END LUNCHEON

We've socialized with old friends and made new ones, talked shop, perhaps been on a facility tour, and we've attended informative workshops that will help us in our day-to-day work. We get to hear from the province on issues, programs and initiatives related to water and wastewater that are of importance to us as operators. We will also be holding prize draws and make an official financial presentation to this year's Charity Auction recipient - 'Global Wheelchair Athletes.' Our Stay-Till-the-End Luncheon is a great way to end our Annual Training Seminar, as it is our chance to say "So long, until the next time we meet." The final piece of business that takes place at the luncheon is the awarding of a \$600 cash prize to a member in attendance....thus the term "Stay-Till-The-End". Sure hope you can make it!

ACCOMODATIONS

Halifax Marriott Harbourfront Hotel

(Please ask for the Maritime Provinces Water & Wastewater Association rate: \$159.00 single/double occupancy). Block of rooms available until March 23rd, 2017.

Online hotel booking: Click hotel link on www.mpwwa.ca

Address: 1919 Upper Water Street, Halifax, NS, B3J 3J5

Phone: Hotel (902)-421-1700

Toll Free Room Reservations: 1-(800)-943-6760 (24 hours)

