MPWWA

Growing Our Industry

Environment, Technology, Your Future

Maritime Provinces Water & Wastewater Association
40th Annual Training Seminar

May 18th and 19th, 2021
Hosted Virtually by Modest Tree on the Distantly Platform

A MESSAGE FROM THE MPWWA CHAIRPERSON, JERRY VILLARD

Look at what your MPWWA Board is bringing you this year! After COVID hit last year in March causing everything to shut down and the cancellation of our 2020 Annual Seminar. We had hoped to see you this year, unfortunately that wasn't possible, so we wanted to offer members some training and have embarked on our first Virtual Seminar. The Board has put much work into this and continues to work on it.

Nicola Anderson from CBRM is Seminar Chairperson for this year and will be keeping thing rolling. We will be providing information to you as we continue to receive it. Hope everyone will be able to Join us for some workshops and presentations each morning and take advantage of the Tradeshow component in the afternoon. For registration see our website, mpwwa.ca.

Jerry Villard, MPWWA Chairperson

A MESSAGE FROM THE SEMINAR CHAIRPERSON, NICOLA ANDERSON

On behalf of MPWWA as seminar chair, I would like to invite maritime operators and industry professionals to the 40th annual MPWWA training seminar and equipment trade show. This year's seminar will be hosted virtually for the first time on the Modest Tree Distantly platform.

Water and wastewater operators in the maritime provinces provide an essential service to the communities they serve and are key to their growth. Operators attending the virtual seminar this year can benefit from presentations focusing on the theme "Growing our Industry - Environment, Technology, Your Future". Operators can benefit from presentations focusing on notable infrastructure projects, preparing for climate change, new or improved equipment and technology in the industry and growing as an operator as times change by learning new things and sharing the experience of others.

I hope this year's seminar will provide a great learning experience as we get used to the new virtual world we live in.

Nicola Anderson, 2021 Seminar Chair

HOW TO REGISTER FOR THE SEMINAR

Register and pay online at mpwwa.ca
Or
Fax, email or mail a completed registration form to: MPWWA c/o Clara Shea, Executive Secretary, PO Box 28142, Dartmouth, NS, B2W 6E2
Fax (902)434-8859 Email: contact@mpwwa.ca

SEMINAR SCHEDULE

Tuesday , May 18th

8:30 am – 8:35 am	Opening – Sponsorship
8:35 am – 9:05 am	Updates and Incorporation of Climate Resilience into the Atlantic Canada Water and Wastewater Design Guidelines. Amy Winchester from CBCL
9:05 am – 9:35 am	A – Boltless Restraint Systems for Ductile Iron Pipes Canada Pipe—Martin Phinney B – Wastewater Pumping System with Integrated Intelligence Xylem – Luc-Rejean Lepine
9:35 am – 10:05 am	A – Increase Capacities, Sustain your Environment using Biological Technology Bio Pro Distribution – Colin Brushett B – Maintaining Water Quality in Distribution with Automatic Flushing Omni Tech – Jody Malo and Darren McMullen
10:05 – 10:35 am	A – How VFDs helped improve UV Disinfection on a Wastewater Treatment Application Sansom – Dave Galbraith B – Budget Friendly Solutions for Remote Process Management IWAKI America – Tim Elliott
10:35 – 10:45 am	Break
10:45 – 12:15 pm	Virtual Tradeshow

Wednesday, May 19th

8:30 am – 8:35 am	Opening– Sponsorship
8:35 am – 9:05 am	Annual General Meeting
9:05 am – 9:35 am	A - Manage What You Measure: How data and technology are preparing utilities for the future Iconix – Colin Middaugh B – Hydrogen Sulfide (H2S) in Sewer Systems: Corrosion and Odor Control – Case Studies using Odalog Hetek – Todd Cranston
9:35 am – 10:05 am	A – Paperless Data Collection City of Moncton – Julie Stokes B –Wastewater Lagoon Sludge Surveys: Data-Driven Decision Making for Lagoons Hydrasurvey – Andrew Ambrocichuk
10:05 – 10:35 am	A – Design and Implementation of Lead Sampling Program for Drinking Water and Corrosion Control Monitoring Programs AGAT—James MacDonald B – Wastewater Pumping System with Integrated Intelligence (French) Xylem - Luc-Rejean Lepine
10:35 – 10:45 am	Break
10:45 – 12:15 pm	Virtual Tradeshow

Simpler times at past seminars

How will the virtual seminar and tradeshow work?

Members of the Maritimes Provinces Water & Wastewater Association who register for the virtual seminar will receive an invitation to attend by email. They can then create an account and profile on the highly secure Distantly platform. The dashboard will show information about each event. Simply click on the event to join. Once you have joined a session you will be able to enjoy the presentation, view the profile of the speaker and have the ability to ask questions.

The seminar will begin with the Opening Presentation on Day 1. Delegates will be able to view three presentations each day. Two choices of presentations will run concurrently in each time slot, choose the one you are most interested in!

The Annual General Meeting will be held on Day 2 and election of MPWWA board members will also take place during the AGM. If you are interested in submitting your name to be a zone representative on the MPWWA Board of Directors, please email Clara at contact@mpwwa.ca before the AGM to have your name put forth.

The virtual trade show will run from 10:45 until 12:15. Delegates can view supplier information, videos and links to the products and technologies being featured. Delegates can interact with suppliers by private message or by booking virtual meetings through the Distantly platform.

While the seminar events will take place during the morning, you will have access to the platform to connect with suppliers and other attendees throughout the full day.

Check out our host Modest Tree by visiting their website at:

modest tree

www.modesttree.com

OPENING PRESENTATION
Tuesday, May 18th, 8:35 am to 9:05 pm

Updates and Incorporation of Climate Resilience into the Atlantic Canada Water and Wastewater Design Guidelines.
Amy Winchester, CBCL

ACWWA has recognized the effects of climate change on existing and future water and wastewater infrastructure, and in late 2018, secured funding to incorporate the consideration of climate resilient infrastructure into the updates of the existing "Water Supply Guidelines (2004)" and "Wastewater Guidelines (2006)". The presentation will provide background information on development of the project, outline the major components of the project, define climate resilient infrastructure, provide examples of global climate change events, and provide examples of recent climate related impacts on water and wastewater infrastructure in Atlantic Canada. The presentation will also discuss some of the proposed changes to both Guidelines based on the latest drafts.

Amy Winchester, M.A.Sc., P.Eng., Senior Chemical Engineer

Ms. Winchester has over 18 years' experience as a Process/Environmental Engineer. Amy is a Registered Professional Engineer working for the Saint John office of CBCL Limited. She received her undergraduate degree in Chemical Engineering from the University of New Brunswick and then went on to obtain her Master's of Applied Science degree in Chemical/Environmental Engineering from the University of Ottawa. Since starting with the firm in 2004, Amy has worked on a diverse range of projects including water distribution master planning and modelling, asset management, climate change risk assessments, and environmental assessments. For more than 10 years, Amy has managed many multi-discipline engineering and environmental projects. She has taken several courses while working on her Infrastructure Resilience Professional designation, including: Asset Management for Engineers, PIEVC Infrastructure Vulnerability and Risk Assessment, and Understanding the Changing Legal Climate: Climate Law in Canada for Engineers.

PRESENTATIONS

Tuesday, May 18th
9:05 am – 9:35 am
Presentation A – Boltless Restraint Systems for Ductile Iron Pipes
Martin Phinney, P.Eng, Canada Pipe Company ULC

Martin Phinney from Canada Pipe will be discussing two boltless restraint systems for new Ductile Iron Pipes. The Sure Stop 350® Gasket and the TR Flex® integrally-cast restraint joint pipe. Comparing both products and how to choose the proper restraining method depending on the application for new Ductile Iron water mains.

PRESENTATIONS

Tuesday, May 18th
9:05 am – 9:35 am
Presentation B - Wastewater Pumping System with Integrated Intelligence
Mr. Luc-Rejean Lepine, P.Eng.
Senior Market Development Manager for Monitoring & Controls at Xylem Canada

Aging infrastructure, global urbanization, increasing energy costs and the need for sustainable solutions make cost reduction and reliability a priority in wastewater pumping. Small wastewater pumps can be given a new level of functionality and intelligence by integrating advanced software functions and state-of-the-art hardware into a conventional submersible design. Sensing the operating conditions and the environment, these pumps can adapt the pumping performance in real time, making smart decisions and providing feedback to the operator. Attractive customer benefits and significant OpEx and CapEx savings can be achieved at the end user and specifier levels. This paper will give the audience an understanding of the breakthrough technology available as well as the substantial and tangible benefits of integrated intelligent wastewater pumping through proven installation case stories.
Small wastewater pumps are commonly found in duplex wastewater pump stations in sewage collection systems at municipalities and private operators. Pump station design code ensuring adequate capacity for peak flow situations often leads to a significant oversizing of the pumps resulting in excessive energy usage and unnecessarily high equipment wear.
By employing an increased level of component integration it is possible to add intelligent electronic hardware and specialty software inside the shell of a submersible wastewater pump. This technological breakthrough delivers many valuable pump system functions and customer values resulting in OpEx and CapEx savings.
Installation case stories will be presented substantiating the significant benefits of asset management, trouble free pumping with built-in algorithms for sump/pipe cleaning and clog detection/auto-reverse pump cleaning; energy savings with IE4 motor efficiency and energy minimizing algorithms and hydraulic design; and reduction in total investment with a compact, integrated design eliminating the need for traditional cabinets components such as motor protection, soft starters, variable frequency drives and climate control equipment.

Presenter:

Mr. Luc-Rejean Lepine, P.Eng.
Senior Market Development Manager for Monitoring & Controls at Xylem Canada
luc-rejean.lepine@xylem.com

Degree in Engineering from the Quebec University in Montreal. I worked for a few years as an Automation Design Engineer for wastewater pumping systems, as an Inside Sales Supervisor for the region of Montreal, as a Market Manager for Aftermarket & Services business and as a Technical & Training Manager within the Xylem Water Solutions company. I have participated in various projects such as implantation of the ISO 9000 Quality Standards, and Kaizen events for companies "Lean" processes. I also have a Value Based Six Sigma "Green Belt" certificate from the University of Michigan College of Engineering. I am currently the Monitoring & Control Senior Market Development Manager with the Xylem Canada and I assist all of our Sales Locations to provide our customers with solutions to their water and wastewater challenges.

PRESENTATIONS

Tuesday, May 18th

9:35 am – 10:05 am

Presentation A – Increase Capacities, Sustain your Environment, using Biological Technology

Colin Brushett, Waste to Go Canada, Bio Pro Distributions Ltd.

This presentation will focus on how biological technology can increase current wastewater infrastructure capacity, effectiveness and ensure safe environmental release. The future of wastewater infrastructure will rely on municipal budgets of which are in short order as of late. From an environmentally responsible point of view, we should ensure we are safely using our infrastructure on hand and find ways to increase their effectiveness, capacity, and reliability where possible. Using biological technology, we can increase the life of mechanicals, lagoons and help sustain and improve a healthy and environmentally friendly method of wastewater treatment.

What is the technology behind Biological Treatment?

We will attempt to inform operators on the technology used in biological treatment. We'll cover what biological treatment consists of and how they are best applied. We'll also cover why some components are more effective than others, we will uncover some of the taboos and myths surrounding biological treatment. We will explain the risks to infrastructure, mechanics and operator safety regarding treatment, as well as how it affects the environment, we live in.
What are the Benefits of Biological Treatment?

Quick highlight on Operator Safety and how biological treatment can eliminate the risks of chemicals and other potential bodily harms. Environmental benefits of safe effluent release, increased capacity for current infrastructure and creating a sustainable future. We will also explain the cost savings by comparing biological treatment to mechanical cleaning and/or infrastructure additions. The last part of this section will cover the performance benefits of reducing grease, sludge, ammonia, hydrogen sulfide and corrosion.

Biological Treatment and Expected Outcomes

This section will explain what to expect in the field when biologically treating different areas of wastewater treatment infrastructure. Operators will be educated in the points of application and walk away with an understanding of what the results should be when treating correctly.

Case Study
Our case study commenced in August for 2018 and is still ongoing. We will share an in-depth comparison of before and after lagoon testing by a third-party company. Sonar sludge imaging and technical numbers will be presented and explained to all in attendance. We will explain how these results are possible using biological treatment and what benefits are to be gained by using this approach.

Question Period

We believe this presentation topic will be beneficial to Operators and to the Municipalities they serve. Many Operators we have spoken to us over the years have reservations about biological treatment due to lack of knowledge and industry taboos. The case study can now prove that excellent results are possible in their own backyard and there is no need to look at data from other worldly environments that provide weather conditions that are not realistic to the Maritimes. We hope our session will enlighten those in attendance.

PRESENTATIONS

Tuesday, May 18th

9:35 am – 10:05 am

Presentation B – Maintaining Water Quality in Distribution with Automatic Flushing

Darren McMullen and Jody Malo, Omnitech Inc.

With the advent of stricter regulations on water quality monitoring in distribution systems as well as with the discharge of chlorinated water into open waterways, new approaches and technologies are needed to ensure the safety of our drinking water systems. The use of permanent bleeders or manual hydrant flushing to maintain water quality levels at dead-end watermains is not an optimal solution. By utilizing permanent automatic-flushing systems with sampling and dechlorination, water quality is assured along with reducing the amount of non-revenue water wasted from non-automated systems. Manually flushing water in order to maintain water quality can be a significant waste of water and dramatically increase the non-revenue water when we are all trying to reduce. Automatic-flushing systems offered reduce labour costs, water wastage, and ensures proper dechlorination of the discharge water. Using Bluetooth controllers, they can easily be programmed for optimum operation minimizing the impact to local residents while maintaining an even and consistent disinfection level. This presentation will cover the benefits of automatic-flushing over permanent bleeders and manual flushing programs as well as present the various options for automatic flushers.

PRESENTATIONS

Tuesday, May 18th
10:05 am – 10:35 am
Presentation A – How VFDs helped improve UV Disinfection on a Wastewater Treatment Application
Dave Galbraith, Sansom Equipment Ltd.

A small WWTP recently installed a non-contact UV System to replace an out-of-date Chlorine System.
After the water passes through the clarifier, it fills a small lift station wet well that uses float switches to turn the pump(s) on and off based on the water level.

The pumps are operated by full voltage 208VAC starters. When the pump starts, the water rushes through the UV System at full speed with little time for UV Contact to create an effective disinfection. The pumps would only run for aprox one minute every 15-45 minutes based on the time-of-day usage.

This would also have the UV System empty of water for extended periods of time when the pump was not running. This was a waste of energy and created additional unwanted heat in the equipment.
Sansom was asked to come up with a cost-effective solution. We will present how VFDs saved the day.

Dave Galbraith, CSP

Dave has more than 30 years of experience in Electrical Industry as an Industrial Electrician Journeyman who specialized in custom control systems, motor controls, automation, instrumentation, variable speed drives and motors. Dave has extensive experience in design and fabrication of PLC and motor control panels, troubleshooting, commissioning, field service and support. Dave has worked throughout Atlantic Canada (NS, NB, PEI, NFLD and Labrador) in Municipal, HVAC, Food Processing, Paper Mills, Sawmills, Mining, Power Plants, Fish Plants, etc. Dave was the local Agent Rep for ABB Drives and Motors in Atlantic Canada for 10 years before relocating to the Alberta Oil Sands in 2008 to work as an Electrician for a short term until the economy slowed down.

Upon returning to NS, he worked a term contract as an Instructor for the NSCC in Halifax in the Electrical Apprenticeship Department before coming to work with Sansom Equipment in Feb 2010… one of Dave's customers for 18 previous years.

Dave is presently the Electrical, Instrumentation & Drives Manager for Sansom Equipment Limited and travels throughout Atlantic Canada supporting all four Sansom branches.

PRESENTATIONS

Tuesday, May 18th
10:05 am – 10:35 am
Presentation B – Budget Friendly Solutions for Remote Process Management
Tim Elliott, P. Eng, Walchem, IWAKI America

In today's world, the ability to remotely monitor & control your water treatment processes is more important than ever. In this presentation, we will introduce Walchem Fluent – a new cloud-based water treatment management tool. We'll review how Fluent incorporates process automation, IoT, remote monitoring & control, and data visualization tools to elevate operators' ability to perform their jobs efficiently & effectively from anywhere.

Simple to set-up and use, and available at no additional lifetime cost, Fluent is available with any internet-connected Walchem controllers. We'll cover a wide range of control solutions that can fit the needs of your application; whether you are automating a process for the first time, looking to expand your remote monitoring capabilities, or supplementing an existing control system.

Presentation Overview
Introduction
Pairing Walchem Fluent with Walchem Controllers
Customer & Facilities Management
Process Monitoring & Control
Data Management & Visualizations
Alarms & Custom Alarm Notifications
Team & User Management

PRESENTATIONS

Wednesday, May 19th
9:05 am – 9:35 am
Presentation A – A - Manage What You Measure: How data and technology are preparing utilities for the future
Iconix – Colin Middaugh

Abstract: Technology change is part of our everyday lives and cannot be avoided. However, water utilities typically have been slow to adapt to new technology. With the rapid changes in technology - how will this affect your water utilities operation, and how will it prepare your utility for the future? And as technology put more data into the hand of utilities, the challenge that utilities now face is what to do with all that information, especially in the face of water conservation and sustainability pushes in many parts of the world.

The presentation will provide tips and information on the following topics:

- Electronic Meters
- Remote Flow Restriction Valves
- Fixed Network Technology
- Network as a Service
- Software as a Service
- Advanced Data Analytics
- District Metering
- Non-Revenue Water
- Consumer Engagement Tools
- Metering as a Service
- Questions and Answers

As a Manager, Utility Solutions for Badger Meter, Colin Middaugh collaborates with utilities and municipalities to not only determine their metering needs and challenges but also to develop and implement tailored, creative solutions. Furthermore, Colin interfaces with the entire utility sales arm of Badger Meter, including Account Managers and distributors, in expanding the presence of the Badger Meter product and service offering.

Colin received his bachelor's degree in Business Management from D'Youville College in Buffalo, New York. Before joining Badger Meter in January 2018, Colin worked in various roles for Verizon, such as Advanced Solution Architect and Client Partner for Mobile Solutions. During his career at Verizon, beginning in 2005, Colin championed the onboarding and management of Smart Building and Smart Grid IoT (Internet of Things) resale customers. He also assisted with multiple IoT project implementations for both local governments and private networks. In addition, Colin was instrumental in the market strategy and onboarding of a multinational telematics provider into the Verizon Partnership Program.

With his extensive telecommunications background, Colin brings a wealth of experience and knowledge on Smart City deployments and IoT solutions to both the customers of Badger Meter and the water industry at large.

PRESENTATIONS

Wednesday, May 19th
9:05 am – 9:35 am
Presentation B – Hydrogen Sulfide (H2S) in Sewer Systems: Corrosion and Odor Control – Case Studies using Odalog
Todd Cranston, Hetek Solutions Inc.

The buildup of sulfide in sewer systems and subsequent emission of hydrogen sulfide (H2S) can cause sewer corrosion and sewer odor-related problems.

The OdaLog L2 was designed specifically for the wastewater industry, based on valuable input and feedback from plants, equipment and chemical suppliers and industry consultants. Typical applications include locating and monitoring the source of Hydrogen Sulfide gas emissions at pump and lift stations, collection systems, and receiving manholes.

The presentation will involve case studies where Odalog loggers were used to determine the source of the odor and prove the effectiveness of hydrogen sulfide reduction strategies that have been implemented.

The primary objective in all cases, was to control odor emissions to a point they were no longer a cause of concern, in turn helping the environment and reducing potential costs, resulting from subsequent corrosion. Odalog L2 loggers were a significant contributor in the success of these projects.

PRESENTATIONS

Wednesday, May 19th

9:35 am – 10:05 am

Presentation A – Paperless Data Collection

Julie Stokes, CET, City of Moncton

The City of Moncton, New Brunswick distributes drinking water to approximately 125,000 residents which include two neighboring municipalities, Town of Riverview and City of Dieppe. With a small workforce and a growing municipality, the department continues to try to advance process improvements in order to be more efficient while providing the same level of service.

The City has had asset management (AM) software in place since 1999. In water and Wastewater, every asset is accounted for and all work completed to assets is tracked with a work order. All assets are also geographically shown in our GIS software as an additional tool to staff.

The City of Moncton is fully metered having over 23,000 customers and has had Advance Metering Infrastructure (AMI) in place since 2005. In 2016, the Meter Transmitting Units (MTU's) began failing 5-6 years ahead of their expected failures. The City had begun a replacement program internally in efforts to save costs as batteries were anticipated to be good until 2023. When failures escalated to a point where it could no longer be handled with existing staff, a contractor was hired to replace 11,000 residential meters/MTU. This meant that 11,000 work orders would have to be created in our AM software as well as 11,000 assets had to be updated. This could not be accomplished with our existing one admin staff. After meeting with the IT department, a solution was found using web services that saw the creation of work orders and asset updates from the contractor's software automatically being conducted daily. This meant that now admin staff time was spent doing QA/QC over 22,000 entries which was sustainable. The automation eliminated 22,000 pieces of paper that had to be processed with data entry. Once this was accomplished, it made us realize the power of the tools that we had on hand.

Moncton uses both ESRI ArcGIS as well as Infor asset management software. With the ESRI license comes certain applications like Survey 1, 2, 3, Workforce and Collector. Last fall, when time permitted, staff started looking at processes that could be improved using our ESRI tools available with current licensing. During Covid due to only essential services being conducted, certain staff was re-assigned to process improvements having more time available.

Water and wastewater staff now have access to many different forms digitally such as daily hazard assessments, daily preventative maintenance for vehicles, chlorine residuals (bi-weekly), valve maintenance inspections, hydrant inspection, and the list keeps growing as now we have committed to keep the process improvements using these tools an on-going effort. ESRI Tools are also now being used to help us track valve closures so that incidents are prevented (watermain breaks, replacement projects etc.). We are also able to assign valve maintenance and hydrant maintenance and see progress as supervisors. Staff is also able to see where others are working to avoid working in the same area. This used to be done with maps on the wall. Through our valve maintenance and hydrant maintenance program, we have also eliminated calling in defective assets for work order assignment via what we call a service request. Now defects are tracked in GIS, making work assignment for repairs very easy for supervisors.

Many of the processes put in place have eliminated data entry on the admin side, which has saved time and eliminates data entry errors. A few of these new improvements were regulatory items where a database is required such as hazard assessments and chlorine residual data. Now the information is all logged digitally and accessible at any given time. The ability to use filters with the data is very beneficial to assign work after, or to sort based on values, employees etc.…A dashboard has also been created for supervisors to have an overview of all projects. Supervisors can quickly view progress or see deficiencies in preventative maintenance.

Our presentation will look at a few projects to show how you can sometimes use the tools at hand without realizing and implementing great process improvements.

PRESENTATIONS

Wednesday, May 19th
9:35 am – 10:05 am
Presentation B – Wastewater Lagoon Sludge Surveys: Data-Driven Decision Making for Lagoons
Andrew Ambrocichuk, P. Eng., CEO, Hydrasurvey Ltd.

As the environmental risk of aging wastewater lagoon infrastructure across Canada increases, so do the costs of dredging and upgrading these pieces of critical infrastructure. Many municipalities enter these capital-intensive projects with very little information of what lies below the surface of their lagoon leaving them susceptible to huge cost overruns and project delays.

Advances in technology have dramatically improved the way in which lagoon sludge surveys provide actionable data. Sludge surveying used to be a slow and costly process to develop a single, inaccurate deliverable. Hydrasurvey's comprehensive lagoon sludge survey is an affordable, efficient tool that provides multiple accurate datasets designed to provide operators, managers and engineers with the data they need to:

- Determine whether dredging or desludging is necessary or forecast when it might be required several years in the future.
- Plan and budget for dredging and desludging when it is necessary.
- Decide on the most cost effective and environmentally sustainable method of sludge disposal.
- Monitor lagoon dredging to ensure their projects are completed on time and within budget.
- Assess treatment system performance and mitigate risk during the design phase for system retrofits.
- Identify damaged subsurface infrastructure.

Hydrasurvey's comprehensive lagoon sludge surveys combine elements of hydrographic surveying, GNSS surveying, environmental science and engineering to deliver unbiased data that is designed specifically to ensure the success of lagoon projects.

PRESENTATIONS

Wednesday, May 19th
10:05 am – 10:35 am
Presentation A – Design and Implementation of Lead Sampling Program for Drinking Water and Corrosion Control Monitoring Programs, James MacDonald, M.Sc., AGAT Laboratories

Lead exposure is known to impact individuals in many ways – direct impacts include neurological and cardiovascular issues, while evidence exists to show indirect impacts include reduced economic earning potential as adults. The 2019 changes in Health Canada's Lead in Drinking Water Guideline reflect this increased knowledge base and improved evaluation of risk. These new guidelines for drinking water and pipe corrosion employ specific sampling and analysis protocols designed to evaluate the risk as well as allow the user to determine the potential source of the lead - whether these are from internal plumbing, lead service lines, or from source. These protocols represent a change over previous practice, and have created a need for different sampling programs based on the metal(s) of concern. This presentation will discuss these changes in the context of how to implement and carry out the sampling process to ensure adherence with the current approach and help answer questions that may have arisen up as municipalities incorporated these changes into their own sampling programs.

James MacDonald is the Technical Services Manager for AGAT Laboratories in Atlantic Canada. He received his B.Sc. (Hons) from Saint Francis Xavier University and a M.Sc. from Queen's University, and has over thirty years of experience in the Environmental Laboratory and Environmental Services sectors. James has held laboratory positions in Laboratory Management, Quality Assurance as well as method development. James is familiar with all laboratory operations particularly trace analysis and the Atlantic RBCA Hydrocarbon Methodology. Of particular interest is petroleum hydrocarbon forensics, having established hydrocarbon forensic programs different laboratories and has worked with clients across North America to solve complex issues. In his role James provides support and expertise to industry clients, academic partners and regulatory bodies to continue to develop AGAT Laboratories' presence in the testing market.

PRESENTATIONS

Wednesday, May 19th
10:05 am – 10:35 am
Presentation B – Pompes d'eaux usées avec intelligence intégrée
Mr. Luc-Rejean Lepine, P.Eng.

La prochaine percée de l'industrie de pompage

Les infrastructures vieillissantes, l'urbanisation, l'augmentation des coûts énergétiques et la nécessité de solutions durables font de la réduction des coûts et de la fiabilité une priorité dans le pompage des eaux usées. Les petites pompes d'eaux usées peuvent être dotées d'un nouveau niveau de fonctionnalité et d'intelligence en intégrant des fonctions logicielles avancées et du matériel de pointe dans une conception submersible classique. Ressentant les conditions de fonctionnement et son environnement, ces pompes peuvent adapter le rendement de pompage en temps réel, prendre des décisions futées et fournir la rétroaction nécessaire à l'opérateur. Des avantages intéressant pour les clients et des économies d'OPEX et de CAPEX importantes peuvent être réalisés au niveau de l'utilisateur et de celui qui en fait la recommandation. Ce document donnera à l'auditoire une compréhension de la technologie révolutionnaire disponible ainsi que les avantages substantiels et tangibles de pompage d'eaux usées intelligentes intégrées grâce à des témoignages et des cas d'installation éprouvée.
Les petites pompes d'égout se retrouvent couramment dans les stations de pompage d'eaux usées duplex des réseaux de collecte d'eaux usées dans les municipalités et chez les exploitants privés. Les standards de conception de postes de pompages d'eaux usées assurant une capacité suffisante pour les situations de débit de pointe résultent souvent à un surdimensionnement important des pompes entraînant une consommation d'énergie excessive et une usure inutilement élevée de l'équipement.
En employant un niveau accru d'intégration des composants, il est possible d'ajouter des composants électroniques intelligents et des logiciels spécialisés à l'intérieur de la pompe d'eaux usées submersibles. Cette percée technologique offre de précieuses fonctions de pompage et des avantages clients résultant en des économies d'OPEX et de CAPEX. Des témoignage et des installation typiques seront présentées afin d'appuyer les importants avantages en ce qui a trait à la gestion efficace des actifs; au pompage sans souci grâce aux algorithmes intégrés pour le nettoyage des puisards/conduites et la détection de colmatage avec séquence de nettoyage automatique; aux économies d'énergie grâce à un moteur haute efficacité IE4 et algorithmes de minimisation de l'énergie et la conception hydraulique; et la réduction de l'investissement total grâce à une conception compacte et intégrées éliminant le besoin de composants traditionnel de cabinet de contrôle tels que les protections de moteurs, les démarreurs progressifs, les entraînements a fréquence variable et équipements de contrôle de température

MPWWA BOARD OF DIRECTORS

The Board of Directors of the MPWWA is an elected administrative body. It includes four provincial Department of Environment representatives and one federal representative.

The provinces are divided into 12 zones, each having one representative. Each Atlantic province has one director at large and DND and First Nations are also represented.

Zone 1: Nicolas Legere (NB counties of Madawaska, Victoria, Restigouche & Gloucester)
Zone 2: Troy Atkinson, MPWWA Vice Chair (NB counties of Kent, Northumberland, Westmorland & Albert)
Zone 3: Jeff Rogers, Training Coordinator (NB counties of Kings, Saint John & Charlotte)
Zone 4: Rick Larlee, Treasurer, Webmaster, Trade Show Coordinator, (NB counties of Sunbury, York, Queens & Carleton)
Zone 5: Scott MacEachern (NS counties of Yarmouth, Shelburne, Queens & Lunenburg)
Zone 6: Bill Cannon (NS counties of Digby, Annapolis, Kings & Hants)
Zone 7: Kevin Kelloway (Halifax Regional Municipality)
Zone 8: Nicola Anderson, 2021 Seminar Chair, Secretary (Cape Breton)
Zone 9: Jerry Villard, Chairperson (The Province of Prince Edward Island)
Zone 10: Corbin Stevens (NS Counties of Cumberland, Colchester, Antigonish Guysborough and Pictou)
Zone 11: Mark Francis (NB & PE Director-at-Large, First Nations)
Zone 12: Tim Henman (NS & NL Director-at-Large, DND)
Clara Shea: Executive Secretary
Rob Hamilton: Past Chair
Paul Klaamas, Environment Canada
Matthew Trueman, GNB
Deneen Spracklin, Gov't NL and Labrador
Krysta Montreuil, NSE
Ben Lanigan, Gov't Prince Edward Island
Andre Van der Velden, Commercial Rep
Melanie MacKinnon, Commercial Rep

PRESENTATIONS

Wednesday, May 19th
10:05 am – 10:35 am
Presentation B – Pompes d'eaux usées avec intelligence intégrée
Mr. Luc-Rejean Lepine, P.Eng.

Les infrastructures vieillissantes, l'urbanisation, l'augmentation des coûts énergétiques et la nécessité de solutions durables font de la réduction des coûts et de la fiabilité une priorité dans le pompage des eaux usées. Les petites pompes d'eaux usées peuvent être dotées d'un nouveau niveau de fonctionnalité et d'intelligence en intégrant des fonctions logicielles avancées et du matériel de pointe dans une conception submersible classique. Ressentant les conditions de fonctionnement et son environnement, ces pompes peuvent adapter le rendement de pompage en temps réel, prendre des décisions futées et fournir la rétroaction nécessaire à l'opérateur. Des avantages intéressant pour les clients et des économies d'OPEX et de CAPEX importantes peuvent être réalisés au niveau de l'utilisateur et de celui qui en fait la recommandation. Ce document donnera à l'auditoire une compréhension de la technologie révolutionnaire disponible ainsi que les avantages substantiels et tangibles de pompage d'eaux usées intelligentes intégrées grâce à des témoignages et des cas d'installation éprouvée.

Les petites pompes d'égout se retrouvent couramment dans les stations de pompage d'eaux usées duplex des réseaux de collecte d'eaux usées dans les municipalités et chez les exploitants privés. Les standards de conception de postes de pompages d'eaux usées assurant une capacité suffisante pour les situations de débit de pointe résultent souvent à un surdimensionnement important des pompes entraînant une consommation d'énergie excessive et une usure inutilement élevée de l'équipement.

En employant un niveau accru d'intégration des composants, il est possible d'ajouter des composants électroniques intelligents et des logiciels spécialisés à l'intérieur de la pompe d'eaux usées submersibles. Cette percée technologique offre de précieuses fonctions de pompage et des avantages clients résultant en des économies d'OPEX et de CAPEX.

Des témoignage et des installation typiques seront présentées afin d'appuyer les importants avantages en ce qui a trait à la gestion efficace des actifs; au pompage sans souci grâce aux algorithmes intégrés pour le nettoyage des puisards/conduites et la détection de colmatage avec séquence de nettoyage automatique; aux économies d'énergie grâce à un moteur haute efficacité IE4 et algorithmes de minimisation de l'énergie et la conception hydraulique; et la réduction de l'investissement total grâce à une conception compacte et intégrées éliminant le besoin de composants traditionnel de cabinet de contrôle tels que les protections de moteurs, les démarreurs progressifs, les entraînements a fréquence variable et équipements de contrôle de température

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