

Onsite

ONTARIO ONSITE WASTEWATER ASSOCIATION NEWSLETTER

treatment | technology | innovation | reuse | recycle

FALL/WINTER 2015

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17th Annual OOWA CONFERENCE & TRADE SHOW MARCH 6th – 8th, 2016

AMBASSADOR HOTEL AND CONFERENCE CENTRE
1550 Princess Street, Kingston, ON

PROGRAMS AND OUTREACH UPDATE

This last year has been a very busy one for OOWA. As an engaged member you will have noticed that the Events Committee has delivered a number of successful regional meetings and symposiums throughout the province, more frequent communications through our digital newsletter OnTrack and you will have heard about our new office location in Peterborough.

You will have also noticed that OOWA has been advocating for the adoption of decentralized wastewater treatment systems. Decentralized systems are considered to be communal systems servicing residential developments or commercial sites outside of municipally serviced areas. These systems are proving to have significant benefits to rural communities but they could also have future applications for urban areas as well. As a provincial association monitoring trends on your behalf, OOWA sees that decentralized systems will play a big part in the

future of our industry. This is why OOWA has featured content about decentralized systems in our OnSite and OnTrack publications. It is also why we delivered three decentralized symposiums in Ottawa, Peterborough and London this year. We're trying to get ahead of the curve to help position our members so that they can grow their businesses and take advantage of the coming change in perception that decentralized systems are unproven and risky. The key to bringing about this change is more education.

After all, we all know that treating wastewater onsite is effective, safe and affordable. Whether it's small private systems or larger decentralized systems, they both alleviate the massive cost burden to tax payers of installing traditional big-pipe infrastructure and can allow small municipalities the chance to grow and thrive. *(continued on page 3)*



PRESIDENT'S MESSAGE

IT IS TIME TO "WALK THE TALK" FOR OUR ASSOCIATION.

We represent an opportunity to connect members and communities across the province with each other, our collective knowledge, and new ideas and opportunities. To do this effectively, we have been working to "decentralize" OOWA initiatives and events out to more regional networks of members, allowing for additional direct and local support. OOWA's team has been working hard to provide more "onsite" membership benefit, if you will.

There have been many positive changes to the Association's initiatives, operations, strategic planning and financial management. We are building on the strength and momentum of a growing number of local meetings, workshops and training opportunities. There is drive from within the existing membership to create additional regional networks and to enhance member value through locally organized events with a supported volunteer structure. The value of these ideas, and the energy and organization to see them through are an ongoing priority for OOWA.

We are also collaborating with affiliated organizations such as OASIS for the planning of future conferences and trade shows, in order to bring the best possible value to members and vendors, and for all those in industry.

The most effective way to create meaningful improvements is to communicate and get involved. With OOWA working to provide more opportunities for members to participate in locally, member participation in Committees and Task Groups provide an increasingly beneficial chance to connect with other industry professionals. Committee and Task Group meetings are all conducted by conference call to accommodate flexible participation across the Province. As always, we welcome and encourage your participation.

New initiatives such as the OOWA Young Professionals and the launch of the Development Stream within the Registered Professional Program provide enhanced opportunities for collaboration, leadership development and the ongoing recognition of onsite and decentralized wastewater management as a progressive and meaningful career.

I will take this opportunity to thank and congratulate the OOWA board of directors, all of our committee and task group volunteers and our hard working staff Mike Gibbs and Rachel Robichaud. The association has been progressing and making a difference thanks to your ongoing efforts and leadership.

It has been a very productive fall and early winter for OOWA and our volunteer's members and staff. We have had great success with our regional meetings and symposiums, and are looking forward to more improvements and developments along with our events in 2016. I would like to wish everyone a happy holiday season and all the best for a safe and prosperous new year.

Rick Esselment
President

Onsite
Ontario Onsite Wastewater
Association Newsletter

To submit an article or place an advertisement contact the editor at info@oowa.org. The opinions expressed in this newsletter by contributing authors are not necessarily the opinions of OOWA's Board of Directors or the Association.

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PROGRAMS AND OUTREACH UPDATE

- Continued from page 1 -

We'll be continuing our decentralized discussion at our upcoming 2016 Annual Conference and Trade Show taking place March 6th-8th in Kingston at the Ambassador Hotel and Conference Center.

We'll also be talking about innovation, the need for policy and regulatory change and the importance of collaboration. OOWA's been doing a lot of collaborating lately. We've been working with the Ontario Society of Professional Engineers on our Registered Professional Program, we've been talking with FOCA and OASIS about concerns around septage management and the land application of hauled septage. We've been working with the Bloom Centre to help promote onsite technologies

that improve the bottom line for food and beverage sector businesses and we've been connecting with agencies like WaterTAP too as a way to promote onsite and decentralized technologies and we've been working with service providers to increase our suite of member benefits. Members of our Technical Committee are working with international task groups to address the incessant problem of flushable products while producing definitive technical documents on best practices for filter beds and pump chambers.

Come out to the conference this year to get the big picture. Get inspired about our industry's future and find out how hard your association is working for you. When you've enjoyed the conference, come out to our annual regional meetings taking

place throughout the province. These local events will provide you with the updates and the information you need to improve your business, increase your technical knowledge and meet up with colleagues you've been too busy to see over the course of the season.

We've moved the conference to eastern Ontario this year to connect with our members in that region. We'll miss the waterpark, the casino and the Falls but we promise that there will be a great trade show, great opportunities to connect with friends and a great chance to learn more about where our industry is going.

The onsite and decentralized industry has a bright and promising future - get on board!

Tuesday, January 26th, 2016

Join us for OOWA's 2016
Peterborough Regional Meeting!

OntarioOnsite
WastewaterAssociation

OOWA's 2016 ANNUAL
CONFERENCE & TRADE SHOW



For OOWA's 2016 Conference & Trade Show Registration, please contact:

Rachel Robichaud
OOWA's Operations Coordinator
op-coordinator@oowa.org

Mike Gibbs
OOWA's Outreach Coordinator
outreach@oowa.org

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Register Today!

Sunday March 6, 2016

11:00 am to 7:00 pm Registration Opens
12:00 pm to 6:00 pm Exhibitor Set-up
2:00 pm to 4:00 pm Supplier Presentations
6:00 pm to 7:00 pm Conference Welcome Reception
7:00 pm to 9:00 pm Inter-Provincial Association Panel

Monday March 7, 2016

7:45 am to 8:30 am Breakfast & Registration
8:30 am to 4:30 pm Tradeshow Hours
8:30 am to 8:45 am Opening Remarks - Ed Gardner, KFL&A Public Health
8:45 am to 9:45 am Keynote Address:
Where Onsite & Decentralized Fits in Ontario's Push for Clean Technology" - Alex Gill, ONEIA
A Call to Action to the Wastewater Community:
Is Ontario Missing the Boat on Decentralized Solutions? - Trish Johnson, R.V. Anderson

10:15 am to 10:45 am Tradeshow Break

10:45 am to 11:45 am How to Effectively Manage Your Business Cash Flow
Colin Sprake, Make Your Mark

11:45 am to 1:00 pm Networking Lunch

1:00 pm to 1:40 pm An Integrated Approach to Onsite Treatment for Food Producers: A Case Study
Michael Fagan, Bloom Centre

1:00 pm to 1:40 pm OOWA Best Practices for Pump Chambers and Filter Beds
OOWA Onsite Technical Committee Members

1:40 pm to 2:20 pm The Fetherston Mobile Park: An Ongoing Case Study in Innovation
Wilf Stefen and Gillian Dumencu, Clearford Water Technologies

1:40 pm to 2:20 pm Wastewater Treatment System Research Updates
Kevin Wong, Canadian Water Quality Association

2:20 pm to 2:30 pm Balancing Break

2:30 pm to 3:00 pm Cost Effective Onsite Wastewater Treatment System for Craft Breweries
Andy McKinlay, Premier Tech Aqua

2:30 pm to 3:00 pm Cold Weather Best Practices
Chris James, Waterloo Biofilter

3:00 pm to 3:30 pm Onsite Sewage Program Management in Nova Scotia: A Public-Private Partnership
Leah Boutilier, Nova Scotia Environment

3:00 pm to 3:30 pm Winter Residential Septic System Inspections
Greg Keith, Matrix Home Inspections

3:30 pm to 4:00 pm Clarification of BMEC/BCC Processes and Roles
(TBC), MMAH

3:30 pm to 4:00 pm Case Study: Legumier Du Madawaska Project - Fixed Film Treatment for Industrial Wastewater
Rene Hawkes, Bishop Water Technologies

4:00 pm to 4:30 pm Networking Tradeshow Break

4:30 pm to 5:45 pm OOWA Annual General Meeting
6:30 pm to 7:30 pm Pre-Banquet Reception
7:30 pm to 9:30 pm Banquet Awards Dinner
9:30 pm onwards OOWA Hospitality Sponsored Event

Tuesday March 8, 2016

7:45 am to 8:30 am Breakfast & Registration
8:30 am to 8:45 am Opening Remarks
8:45 am to 9:45 am SORA's Interaction with Industry and Government on Contemporary U.S.Decentralized Wastewater
Gerald Iwan, State Onsite Regulators Alliance
9:45 am to 10:30 am Installation and Design Relationships: Challenges and Solutions
Dave Gustafson, University of Minnesota Water Resource Centre

10:30 am to 10:45 am Tradeshow Break

10:45 am to 11:30 am TBD
Types of Wells for Onsite Installers
Craig Stainton, OGWA

11:30 am to 12:15 pm Aligning Company and Regulator Interests to Increase Acceptance of Onsite Wastewater Systems in Ontario
Lesley Herstein, WaterTAP
Cottage Associations: Your Connection to 250,000 Septic Systems
Terry Rees, FOCA (Federation of Ontario Cottage Associations)

12:15 pm to 12:30 pm Conference Closing Remarks

2016 Conference Schedule

CONFERENCE REGISTRATION DETAILS

The theme for this year's Annual Conference and Trade Show will be "Collaboration". Over the past year, OOWA has partnered with a number of businesses and organizations to increase the value and the reach of our efforts and we want to recognize what we've accomplished with the help of others. As always, the conference agenda will provide a balance of big picture issues with case studies and technical presentations for our installer, contractor, inspector and regulator members.

INDIVIDUAL REGISTRATION

For convenient online registration please go to the 'Eventbrite' website and enter "2016 OOWA Conference and Trade Show" in the search field. You can also go to OOWA's website (www.oowa.org) to check out the options for registration and to download the registration form. Go to our Events tab and then click on "OOWA 17th Annual Conference" (www.oowa.org/eventsmenu/oowa-conference/).

EXHIBITOR REGISTRATION

OOWA's Trade Show continues to be the best place to promote your onsite services and technologies to key industry players. Our organizers continue to take steps to increase traffic on the floor and will be making more time for delegates to visit the show over the course of the event. Get exposure to a large niche audience of wastewater professionals and network with new and potential clients! Exhibitor Registration forms are available only on our "OOWA 17th Annual Conference" webpage: www.oowa.org/eventsmenu/oowa-conference/

TRADE BOOTH PACKAGES

OOWA MEMBERS: \$975 (+HST)
NON-MEMBERS: \$1,175 (+HST)

SPONSORSHIP

OOWA depends on the generosity of our conference sponsors to ensure a quality and memorable conference. Consider contributing to our efforts and be recognized as an industry leader.

Get your company noticed throughout the conference venue, in our conference edition of OnSite and in all of our electronic communications platforms during and after the conference.

Sponsorship Registration forms are available only on our "OOWA 17th Annual Conference" webpage: www.oowa.org/eventsmenu/oowa-conference/

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In 2015 OOWA delivered 4 regional meetings and 3 decentralized symposiums. These events would not have been successful without the sponsorship and support of the following companies and organizations.

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Marie-Christine Bélanger
Premier Tech Aqua

Marie-Christine Bélanger is the current Product Director and Government Relations at Premier Tech Aqua (PTA), a Canadian company and world leader in the Onsite Wastewater Treatment industry. She was first elected as an OOWA director in 2010 and was re-elected in 2011 and 2015. She has chaired the Onsite Technical Committee since 2012 and was the co-chair of the Government Relations Committee from 2010 to 2013. She has accumulated over five years of professional experience as a Project Manager in the development and implementation of decentralized wastewater treatment systems before pursuing a career as Project Development Director at Group Celdex, a firm specializing in the development of integrated Waste Management programs in emerging countries.

Ms. Bélanger joined PTA in 2002. Her functions at PTA have brought her to play key roles on several steering and advisory committees throughout North America, namely with the BNQ, CSA, NOWRA, NSF, local provincial and state organizations, where she has taken part in the development and advancement of industry-wide regulations and standards leading to the protection of the environment and the public health. Ms. Bélanger holds a Physics Engineering degree from Laval University and a Master's degree in Chemical Engineering from L'École Polytechnique de Montreal.



John Desbiens
OOWA Treasurer
Cambium

John Desbiens holds a degree in Civil Engineering from Queen's University, and is a licensed Professional Engineer in Ontario. John began his career at Lakefield Research Limited offering technical consulting expertise to the mining sector. John later lived and worked in Buenos Aires, Argentina while providing environmental management and consulting services throughout South and Central America. In 2006, John facilitated the creation of Cambium Inc. Since that time, in his role as President and CEO at Cambium, the company has expanded its services beyond Environmental to now include Geotechnical, Planning, Building Sciences, and Construction Testing & Inspection with offices in Peterborough, Barrie, and Oshawa.

John is currently the Chair of the Greater Peterborough Innovation Cluster; a Director at Peterborough Economic Development; Vice President of the Peterborough Ultimate League; and a member of the Trent Business Council.



Andy Baurman
OOWA Acting Secretary
RH2O

Andy Bauman was elected to the OOWA Board of Directors in 2015 and has worked on the Registered Professional Program Committee since 2014. Andy has worked within the industry in Technical Sales for RH2O North America since 2008. In this role, Andy has assisted in bringing new technology to the Ontario market as well as exploring partnerships across Canada and into the USA. Prior to joining the industry, Andy has had a diverse career working in the high tech sector, not-for-profit and swimming pool industry. A graduate of Conestoga College's Marketing Program, Andy brings an enthusiastic approach to contributing on the OOWA Board.



Rick Esselment
OOWA President
ESSE Canada

Rick is the President and Founder of ESSE Canada, a decentralized water resource management firm providing solutions for inspection, operations, maintenance, sampling and consulting for drinking water and wastewater treatment systems in Ontario and Nova Scotia.

He is a certified public health inspector, and has worked as a building official and Provincial Offences Officer. He has served on the OOWA Board as Vice President and co-chaired several committees before his current term as President. Rick earned a BSc in Microbiology from the University of Guelph, a BASc in Public Health from Ryerson and a post-graduate diploma in Occupational Health & Safety from McMaster. Rick is an entrepreneur and advocate for innovation in public policy, technology application, market services, finance and business solutions to solve environmental health challenges.



Anne Egan, M.Sc. (Eng.), P.Eng
OOWA Vice President
R.J. Burnside & Assoc.

Anne Egan, M.Sc. (Eng.), P.Eng. is a Professional Engineer and Onsite Wastewater Specialist with the consulting firm of R.J. Burnside & Associates Limited, where she has spent the last thirteen years developing expertise in wastewater system design for Burnside's private sector, public sector, and First Nations clients. She is involved in all project phases, from planning studies to conceptual design, detailed design, procurement of approvals and construction, for residential, institutional, commercial and recreational land uses. Her experience includes all aspects of sewage system design for a wide range of daily flows, including collection and conveyance, various types of treatment, nitrogen and phosphorus removal, constructed wetlands, and disposal systems for subsurface and surface discharge of treated effluent. Anne earned both her B.Sc.E. and M.Sc.(Eng.) in Civil Engineering from Queen's University.



Allan Hazelton,
Great Lakes Clean Water – Limited Partnership (GLCW-LP)

Allan is a graduate of the University of Western Ontario with a BA in Science. He has been an active member of resident associations in the Georgian Bay area championing environmental matters for over 30 years.

He is a sales profession in the high tech solutions marketplace selling Customer Service and Customer Experience solutions to large enterprises. His passion for water quality and environmental matters has led to him joining GLCW-LP to help to bring the WATERCLEANTM system to the marketplace. In his role of Business Development he has led discussion with many of the organization that impact approvals for new technologies like this, including: MOECC, Federal Ministry of Environment, MMAH, OCETA, ETV, LSRCA, municipal governments.

Rick Howden, Core Earthworks Limited (please see page 13)



Trish Johnson, M.A.,
R.V. Anderson Associates Ltd.

Trish Johnson is the Senior Environmental Consultant and Small Solutions Strategic Advisor for RVA. She has worked for over 30 years in public, private and non-profit environmental management focusing on water and wastewater issues. Her specialties include land use impacts on water quality and 'value for money' environmental policies. She does environmental program development and new program implementation for all levels of government.

Based in Ottawa, She currently serves as a Senior Advisor for two small municipalities and has also works extensively for Aboriginal Affairs and Northern Development Canada (AANDC) assessing water and wastewater needs for Canada's First Nations. She is a passionate promoter and advocate for onsite & decentralized servicing solutions and alternative water & wastewater technologies. Trish is seasoned and energizing public speaker and has made over 40 professional presentations on environmental topics in Canada and the US.



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Don Krass
Infiltrator Systems

Don is the Area Sales Manager for Infiltrator Systems, Inc. responsible for sales and distribution of alternative drainfield products, septic tanks, and risers as well as other product segments. Don's territory includes Ontario, Quebec and the 4 Atlantic provinces and is well versed in sales and marketing, government relations, new business development, strategic planning, and consulting. Don has helped grow existing markets and pioneer new ones over his 11 years with Infiltrator Systems.

Don is Past President and Board of Director for the Ontario Onsite Wastewater Association. Don also is an active member of Waste Water Nova Scotia (WWNS) and has delivered educational workshops in that province as well as New Brunswick, P.E.I. and Newfoundland. For the past 6 years he has sat on the Technical Advisory Comity for CSA B65 standard.

Don travels through all provinces and has a vast understanding of each provincial septic market and regulation. His work includes in the field product and procedural training working hands on with the installer community in all the provinces he represents.



Robert Passmore
Fieldstone Engineering Inc

Robert Passmore is a practicing Professional Engineer of Ontario in the field of Environmental Engineering. Robert obtained his undergraduate degree in Engineering from Carleton University in 1997. Robert has been involved with the Ontario Onsite Wastewater Association since 2000 and served as a Board of Director Member for over 10 years. Robert's experience in the onsite wastewater industry extends from individual residential sewage system design to large subdivision designs on individual or communal sewage systems. He brings a solid background in soil science and groundwater mechanics to extensive design and regulatory experience to his many presentations over the past 12 years at the OOWA conference.



Brady Straw, B.Sc.
Waterloo Biofilter Systems Inc.

Brady is on the OOWA Membership Committee and was elected to the Board in 2015. Brady has been in the onsite industry since joining Waterloo Biofilter in 2006. As the lead onsite sewage treatment and disposal designer, Brady assists installers, engineers, and regulators on designs for a range of facilities; from individual houses to communal systems and large commercial facilities. Brady is a graduate of the University of Guelph with a bachelor's degree in Environmental Science (Environmental Economics & Policy).



Gerry Knoop
Denby Environmental Services

Gerry is the owner of a family operated business in Southwestern Ontario. The business has been in his family for the past 35 years with Gerry being actively involved for the 25 of those. His company provides complete septic service to the homeowner with installations, maintenance and sewage hauling. He was elected to OOWA Board of Directors in 2013 and currently volunteers his time on the Membership and Event committees.



Bill Robinson
Robinson Enterprises

Robinson Enterprises was founded in 1990, by Bill Robinson, and is a small privately owned and operated company, specializing in custom home site servicing and septic installations Located in Cookstown Ontario, he services a wide area including Simcoe County, York Region and the GTA. Bill is a second generation licensed septic installer and is certified with Waterloo Biofilter and Bionest. Bill also has vast experience with engineers and landscape architects. Bill has served as Trade Director, on the Board of Directors for the Simcoe County Home Builders since 2007 and has been on OOWA Board of Directors since 2012.



Jane Zima
SimbiH2O

Jane began her career in environmental and water resource management shortly after having graduated from Public Health at Ryerson University which followed studies at the University of Guelph in Nutrition and Psychology. Having completed a practicum at the Simcoe Muskoka District Health Unit, she worked in onsite and decentralized wastewater policy and compliance management for ESSE Canada. Having seen the tremendous opportunity to help advance the onsite and decentralized community she founded SimbiH2O, an innovative drinking water and wastewater management platform designed for service providers, technology manufacturers and rural homeowners. Jane is a dedicated OOWA volunteer, participating and co-chairing on several committees. She is s driven young professional with lofty entrepreneurial goals. In addition to being a passionate promoter for sustainable onsite and decentralized solutions and responsible community growth, she is an advocate for combating climate change and local water and energy resource management.



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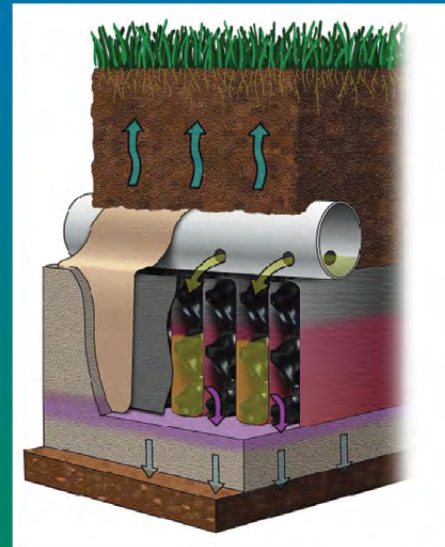
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MEMBER PROFILE

Rick Howden

Core Earthworks

I operate an excavation, site service and septic installation company with my wife Andréa in Campbellville, Ontario. Running our own business has its challenges but over the years we have become an amazing team. We try to separate business and marriage but often find ourselves discussing things while making dinner or brushing our teeth. We have both learned to balance and separate our work and family lives. Andréa can often be heard saying "I work for Rick, not with him". She understands and appreciates what I require from her in the office because I setup all our accounting practices and implemented the software required to track our dealings.

I started Core Earthworks in 2004 when Andréa was pregnant with our first son. I was doing most of the bookkeeping myself so you can only imagine how busy I truly was. A few years later Andréa's father took over the bookkeeping when he retired from his own successful business. At the same time, Andréa left her career as a retail Market Merchant to stay home and raise our two little boys. When Andréa's father started losing his battle with cancer we both started training Andréa to take over in the office and assume her current role of controller. It was the best decision we ever made. This is a family business.

Together we are raising two young boys on our country property. They are learning and understanding the value of a hard day's work and love helping me in the shop. We often inspect our septic system as a family! During the winter we love downhill skiing and snowboarding in Collingwood as well as snowmobiling. Because the rest of the year is so busy, the winter is when we can have the most quality time with our boys. Some of our best memories are from ski trips! During the rest of the year we can be found

playing, swimming and tending to the many requirements a country property demands. I take the boys on an annual deep country canoe trip into Algonquin Park which allows me to be 'off grid' for a wonderful week!

The seeds for this life we have built together were planted many years ago. At the age of 15, I started working for my Grandfather in his successful excavation business in Milton during the summer. I loved being able to make a living while enjoying the outdoors! I attended McMaster University in Hamilton, where I studied science, molecular biology and pharmacology, but I knew in my heart that a life in a laboratory was not for me. After university, I spent a few years at a family business installing and designing septic systems before deciding to start my own. I don't regret the time and energy I put into my university education because I use practical aspects of the curriculum every day. I take pleasure in explaining to my customers the chemistry and physics involved in their septic systems.

Core Earthworks started small but has grown over the years. Starting with just two employees, we have blossomed to 15 over the years. We carry excavators from a 3.5 tonne to a 35 tonne as well as bulldozers and backhoes.

Having a growing business and expanding customer base is not without its challenges. Every employee must be recognized and appreciated. Our customers must be made to feel as they are our priority. With work sites from Kincardine to Oshawa, and from Niagara to Parry Sound, we truly cover all of Southwestern Ontario. Having job sites this far can be a logistical juggling act to ensure quality work, a positive workplace and satisfied clients. These challenges aside, I enjoy the freedom that running my own business affords my family and me.

I have always enjoyed discussing onsite wastewater systems with homeowners. I find that whether my client is a first time user of a private disposal system or a seasoned veteran, they are all curious as to the new technologies available to them. It is always interesting to match



RICK HOWDEN

the best type of septic system with the homeowner, the soil, the land, and the topography of each individual lot.

The bigger commercial systems, along with their increased treatment requirements bring out the scientist in my blood. I enjoy talking to the different manufacturers about specific processes, the flow of the effluent and the end results. It is a good feeling when the positive test results return from a system we have installed. It is an even better feeling when positive results come back from one of those problem systems that needed a little tweaking before we got the results we require!

I believe that we can always improve the design and installation of the onsite treatment systems. New technology, better installation practices and continued education are the path to the future. The Registered Professional Program is an exceptional means to ensure education is a priority for those industry leaders, like us, who aim to constantly provide the best service for their clients.

As a final note, I will leave you with one of our favourite games to play while we are travelling the countryside....find the septic system. I do my best to locate the tankage and disposal areas at any country property we stay at....Be it a campsite with our trailer, ski hill or a romantic getaway like the Millcroft Inn. I love to discuss the system with whoever looks after them if given the opportunity.

MEMBERSHIP BENEFIT UPDATE

OOWA is proud to announce that it has partnered with Peak Benefits Solutions to provide comprehensive employee benefits packages that offer exclusive rates and access to savings not found with any other programs currently available.

Peak Benefit Solutions' goal is to make individual plans rewarding for all OOWA members by delivering quality products with excellent customer service. Peak takes a vastly different approach than many of the other group benefit consultants who just gather quotations and discuss bottom line price. They believe your plan should evolve with your changing needs and objectives. Peak will customize your plan and streamline the implementation and ongoing

processes for owners, administrators and employees. They can back up their recommendations with solid execution and service. With over 30 years of employee benefit expertise the team at Peak Benefit Solutions Inc. will work with you every step of the way as you chart your own path to success.



Please contact Chad Donnelly at 1-877-426-2704 or via email at cdonnelly@peakbenefitsolutions.com for a personal consultation and quote.

Are Your Employees Paying for Long-Term Disability Benefits That May Not Collect?

Chris Zelasko, CEBS, Peak Benefits

Upon setting up a benefits plan, Employers have an option to choose a flat schedule or graded schedule for the benefits plan in order to calculate the eligible long-term disability monthly benefits for their employees if they become disabled.

Flat schedules range from 60% of monthly earnings to 75% of monthly earnings. Typically, the flat amount is 66.67% of monthly earnings. Most Long-term disability plans are set up as non-taxable plans where the employee pays the monthly premium via a payroll deduction. In some cases, this monthly eligible benefit with a flat schedule could be more than the employee is eligible for based on an all source maximum and the tax bracket that the individual is in. This issue only poses a problem for non-taxable long-term disability plans as the taxable plans are adjudicated properly at time of claim based on the employee's tax rate.

Long-term disability plans typically have an 85% all source maximum. This coordination level indicates the maximum amount of income that one can collect from all sources of income while disabled. This coordination level is designed to provide some incentive to return to work as disability benefits should not exceed pre-disability income.

Employers should consider a graded schedule plan over a flat schedule plan when they have some or all employees earning more than \$60,000 annually. Employees with higher earnings pay a greater portion of their income to taxes and with a flat schedule, the all-source maximum can end up lower than their actual long-term disability amount. This creates a gap between their insured benefit amount and the amount they are actually eligible to collect. The last thing the employee wants is to pay for a benefit that they would not be able to collect!

A graded schedule takes into account differences in income and tax rates, and resolves this issue by paying a lower percentage of disability benefits at higher income levels for non-taxable plans.

An example of a typical graded schedule is:

75% of the first \$1251 of monthly income
58% of the next \$3750 of monthly income
48% of the remainder

Ensure that your group long-term disability plan is suitable for your employees and the compensation that they receive. In the event of a claim, the last thing that anyone wants to worry about is ensuring that the correct eligible amount of long-term disability benefits is the one that the employee paid premium for months or years previously.

Join OOWA
www.oowa.org/join

... work in the onsite industry?

Why don't you join the Ontario Onsite Wastewater Association! The onsite industry is at the front line of environmental protection. Only as a team can we build the profile and recognition that our industry deserves. We have discounts for corporate multiple memberships.



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Cottage Communities Express Concern With Septage Management: Where's the Plan?

Terry Rees - Executive Director Federation of Ontario Cottagers' Associations (FOCA)

In the summer of 2015, concerns were heard again from lake associations in central Ontario about the need for safe and adequate management of septage. Specific concerns included whether the lands being used for land application were appropriate, whether site considerations were adequately addressed (setbacks, surface and ground water impacts, etc.) and particularly with the lack of transparency and public notice or information.

For our part, FOCA is anxious to continue to work with the on-site wastewater industry association (OOWA), and the association of haulers (OASIS) in their discussions with Ontario Ministry of Environment and Climate Change (MOECC) and others when it comes to resolving the outstanding concerns and the regulatory approach (and process) to land application of septage. Along with FOCA and our 500+ association members, these groups have a shared and collective interest in the proper installation, management and lifecycle (financial and environmental) of on-site systems.

Currently land application sites are regulated under the EPA and are approved by the MOECC District office, who regulate where, how and when you can dump on a site. Site considerations include sensitive features, overburden, water wells, surface water, slope, depth to the water table (must be >0.9m). Field officers review any proposed site prior to approval, and may set conditions about when or where on the site can be used for land application. Note, if a proposed spreading site is close to a municipal drinking water source (and therefore would constitute a "Significant Drinking Water Threat" under the CWA) a site would not be approved. These land application approvals have terms of 1 or sometimes 3 years. They must then be re-approved on some recurring basis.

Following on the concerns about septic systems and their management outlined in the Walkerton Inquiry, the former Ontario Minister of Environment, Leona Dombrowsky said, "We are taking the time to co-ordinate a number of initiatives that will provide Ontarians the assurances they need to have full confidence that their water is protected and is safe to drink... As part of this initiative, we are integrating our approach to septage management within a comprehensive source protection strategy." (speech to O.A.S.I.S. at Ambassador Hotel in Kingston, November 20, 2004)

Having been intimately involved with the Clean Water Act, and specifically the Trent Conservation Coalition Source Protection Plan over the past 6+ years (which includes much of the Kawartha and Haliburton watersheds), I can tell you the source water protection approach - while significant and in many ways, comprehensive - deals only peripherally with rural water issues, and almost not at all with anything beyond health issues related to municipal water systems.

Despite the politicians' and senior staff commentary discounting land application as a solution, practical and economic rationale seems to have thus far prevailed - e.g. "there's no better option."



The Provincial government has made a number of commitments to ban the land application of untreated septage in the past. In 2002, proposed draft regulations posted on the Environmental Bill of Rights (EBR) registry included the following components:

- An immediate ban on the land application of portable toilet waste.
- A five-year phase out of the issuing of Certificates of Approval for the land application of untreated septage.
- Requirement that municipalities prepare a strategy on how they will manage untreated septage produced within their area.

After a series of public and stakeholder consultations, the Ministry reconsidered their position, or at least the timing of these regulatory changes.

MOECC has in the past asserted that they are "committed to a phase-out of land application of all untreated septage" although this commitment faces insufficient capacity at Ontario's 493 approved municipal wastewater treatment facilities to meet demand, and a lack of suitable treatment technologies for septage.

Technical staff from MOECC and the Ministry of Agriculture and Food have studied treatment technologies in other jurisdictions with a view to developing a workable regulation leading to beneficial reuse (land application) of septage in Ontario, to develop standards for treated septage and determine acceptable methods of septage treatment. The three main methods of septage treatment considered have been lagoon stabilization, lime stabilization, and composting. It is assumed that these three technologies were highlighted because they are all fairly economical, are generally suitable for use in rural areas and do not require high levels of operator expertise.

From a municipal responsibility perspective, there is supposed to be consideration for wastewater; in the Provincial Policy Statement (PPS) 2005 (and 2014; see S. 1.6.6.4, 1.6.6.6) the servicing of septic systems is specifically mentioned. This notwithstanding, it is our understanding that the type

of comprehensive planning around managing wastes from septic systems described in the PPS does not exist in many rural municipalities.

A municipal septage plan could be an important tool and source of information for determining total septage generated currently, future treatment capacity needs, and how those needs will be met. It may be that a more sophisticated approach to managing hauled sewage, increasing regulatory controls and stricter standards will require improved treatment processes, and upgraded or enlarged facilities. Any increases in the costs for haulers to discharge their sewage to these systems will presumably be part of the overall homeowner costs to dispose pump, handle, and truck to an appropriate facility.

Municipalities, other Planning Act approval authorities, developers and haulers should be encouraged to work together to develop municipal septage plans including septage management solutions.

A municipal septage plan could be a useful tool for informing official plan reviews and approval authorities when making decisions on land use applications including:

- the development and review of official plans, comprehensive reviews and official plan amendments, such as for secondary or area plans and settlement area expansions; and
- approval of site-specific development plans, such as those for subdivisions and consents.

A municipal septage plan can also inform and educate residents about the true environmental (and financial) costs of their waste management, and can support environmental assessment requirements for facility expansions or alterations to serviced municipal areas. FOCA looks forward to improving the situation for the full lifecycle aspects of on-site waste water management, along with our members and our industry and government counterparts.

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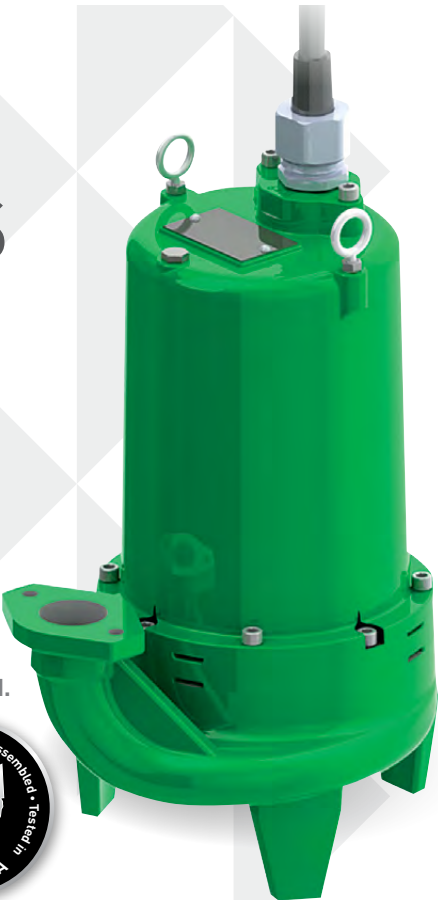
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CROSS COUNTRY CHECK-UP

The onsite and decentralized industry is growing across the country. To increase the opportunity to learn from what's happening in other provinces, OOWA has compiled these brief updates from our affiliated provincial associations.



BC's Onsite Sewage Association Supports the Right to Practice by Practitioners

BC Onsite Sewage Association (BCOSSA) provides education and support to Registered Practitioners who are licensed under BC's professional reliance regulation. The regulation provides that Registered Practitioners can design, install and maintain onsite wastewater systems. Licensed practitioners use standard practice outlined in the BC Sewerage System Standard Practice

Manual (SPM) to construct and maintain onsite systems. They do so independently and typically without inspection by the regulator.

To become a Registered Practitioner one requires up to 180 hours of training and experience. The experience is obtained by working with licensed Practitioners or Engineers.

BCOSSA's role is to provide education and support to the Practitioner and ensure that their right to practice independently is upheld by the licensing body and the government by reviewing and commenting on policy, guidelines and development of the SPM.

In late 2015, a new SPM was introduced, the third since the implementation of the Sewerage System Regulation in 2005. BCOSSA has provided members with assistance and advice on how to use this 300 page document. Additionally, as BCOSSA is BC's only education provider

for licensees in BC, we updated all of our training material offering a full range of training consistent with the SPM version 3.

BCOSSA also provides other services to its members such as standardized site and soil assessment forms, customer contracts, various design worksheets, technical bulletins and a listing of accredited treatment plants.

We also offer an insurance package for errors and omissions, general liability and pollution.

BCOSSA has been a proud supporter of the onsite industry for 20 years and continues to serve and assist our members to construct quality systems and protect the public health and environment.

Visit us at www.bcosa.org

John Rowse, Executive Director,
BC Onsite Sewage Association

ter practitioners and professionals and to engage onsite wastewater members and stakeholders in the development of strong practices that strengthen the industry and ensure safe and effective septage management.

Under its overarching umbrella are four organizations: WCOWMA Onsite Wastewater Management Association of BC, the Alberta Onsite Wastewater Management Association, the Saskatchewan Onsite Wastewater Management Association and the Manitoba Onsite Wastewater Management Association.

BRITISH COLUMBIA

During 2015, British Columbia adopted a new Standard Practice Manual V3. Registered Onsite Wastewater

Practitioners wishing to maintain their stamp were required to participate in update training to learn the new standard and begin implementation of the standard in their day-to-day work.

British Columbia also developed and is in the process of rolling out a new composting toilet standard as part of its alternative technologies available for use within the province.

WCOWMA-BC will be hosting its annual Convention and Trade Show in Kelowna, BC from March 3 – 6, 2016. The theme of the 2016 event is BC's Onsite Industry – The Next Decade. This theme is in recognition of the 10th anniversary since BC went to a self-regulatory model under the 20015 Sewerage System Regulation.

ALBERTA

Alberta too is adopting a new Standard of Practice (SOP) as of December 2015. The new SOP will be released in time for the 2016 installation season. All Certificate of Competency holders wishing to maintain their ability to work in the industry will be required to take an SOP Update workshop.

New to the 2015 Standard of Practice is the adoption under the code of Alberta At-Grade systems. These systems have been in use under a variance process in Alberta for many years. Their effectiveness has been researched by both the University of Calgary and the University of Alberta and based on the outcomes of that research the technology will now be incorporated into the Standard.

Alberta is hosting their 18th annual Convention and Trade Show on February 25 – 27th in Calgary, AB. The Alberta event is the largest onsite wastewater show in Western Canada. This year's theme is Taking Care of Business – Changes in the SOP, Changes in the Industry, Changes to Enforcement. This theme was adopted in light of the release of the new Standard of Practice and

the implementation of Bill 21 under the Safety Codes Act.

Bill 21 will be implemented as of January 1, 2016 and will not only change the management of permitting and inspection in 'open' areas of the province, but also allows for the implementation of administrative penalties for violations under the Private Sewage Regulation and the Standard of Practice.

SASKATCHEWAN

The industry in Saskatchewan still struggle with a lack of a requirement for certification amongst onsite wastewater practitioners in that Province. While over 50% of the known contractors have voluntarily participated in training that is recognized by the Province, those trained contractors are still competing with their untrained counterparts for work in the industry.

There is significant support from the health inspectors within the Province to mandate training and their have been indications from the Ministry that mandated training will soon be required for those working in sensitive areas, such as areas of rapid growth around Saskatoon and Regina.

New this year, is a centralized database managed by the Province that tracks all the permits for onsite wastewater systems.

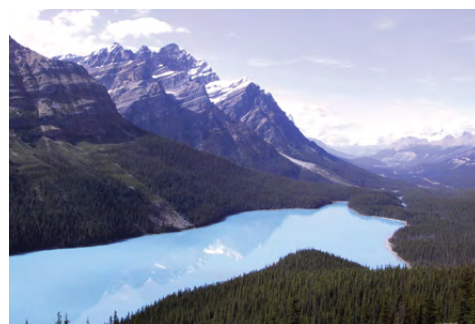
Saskatchewan hosts a one day convention and Annual General Meeting in mid-March each year. This year's event will be held on March 11 in Saskatoon.

MANITOBA

Over the past several years, the onsite wastewater industry in Manitoba has functioned without a driver in the management seat at Manitoba Conservation. That changed early this year with the appointment of Derek Smith as the Wastewater Management Specialist for the Environmental Compliance and Enforcement Branch.

This is very positive for the onsite wastewater industry in the Province as Derek has a strong background in the discipline of onsite wastewater, having worked for several years in that industry in northern British Columbia.

Lesley Desjardins, Executive Director,
Western Canada Wastewater
Management Association



Western Canada Onsite Wastewater Management Association

The Western Canada Onsite Wastewater Management Association is a federally registered not-for-profit organization created to support its provincial chapters in Western Canada in their mandate to educate, train and certify onsite wastewa-



NEWS from Manitoba

Greetings from Manitoba, The Onsite Wastewater Systems Installers of Manitoba Inc. has undergone some exciting changes this past year. In keeping up with modern technology OWSIM Inc. now has a fully functional website www.owsim.com.

To pursue our mandate of installer training/education, we now have

additional training courses to offer and we continually strive to seek out further options for our members. A new course which we are considering running in the new year is a Soils Assessment course; this is in light of the vast types of soils found throughout the province.

OWSIM Inc. was recently approached by the Onsite Installer Magazine (Cole Publishing) to conduct an interview with us. The interview went extremely well and was published in the March 2015 issue.

OWSIM's board and committee members continue to seek benefits for our members that cannot be found individually; as such we have developed partnership programs with several partner members, some partner members have, for example, hosted

luncheons for our members as well as tours of their facilities.

Manitoba Conservation has undergone some changes as well this past year and now has a wastewater management specialist in place. OWSIM Inc. continues to work with this specialist in a close partnership with Manitoba Conservation that has so far brought about several meetings and discussions. It is OWSIM's belief that this type of ongoing liaison will help to maintain the responsible stewardship of the environment by members of the onsite wastewater management industry in Manitoba.

Rudy Hartfiel
Training Facilitator/Office Manager
Onsite System Installers of Manitoba Inc.



L'Association des entreprises spécialisées en eau du Québec

WHAT IS AESEQ?

L'Association des entreprises spécialisées en eau du Québec (AESEQ) – (Québec Association of Water Specialized Enterprises) is a non-profit organization created in 1964. AESEQ is a unique association grouping together construction contractors working in potable water and treatment, process and wastewater markets in all sectors of Québec. They include:

- contractors for groundwater and surface water recovery

- contractors for pumping installation
- contractors in potable water treatment
- contractors for onsite wastewater treatment systems
- equipment suppliers and manufacturers of finished products & primary materials
- consultants

Its members are active in all sectors of water:

- residential sector subject to and not subject to by-laws (less than 6 floors)
- commercial and industrial sectors

In 1985, in order to improve its administrative efficiency and to better defend its cases and special issues, AESEQ officially became affiliated to Association des professionnels de la construction et de l'habitation du Québec (APCHQ). APCHQ presently groups together close to 17,000 contractor members working in the housing and construction industry in Québec.

**ANNUAL CONGRESS
APRIL 14TH, 15TH AND 16TH 2016**
AESEQ is actually working on its annual

Congress which will be held at the new CENTREXPO COGECO in Drummondville on April 15th and 16th 2016. AESEQ is expecting an attendance of roughly 300 representatives of companies of all the decentralized water management industry of Québec.

Seminars will be presented for both fields of activities: potable water end onsite wastewater treatment. Also, the participants will visit the showroom of approximately 60 stands.

On April the 14th, on the eve of the Congress, all the Bureau de normalisation du Québec (BNQ – Québec Bureau of Standards) certified onsite wastewater technologies will present their annual refresh courses to their certified installers.

ANNUAL CONGRESS APRIL 14TH, 15TH AND 16TH 2016

AESEQ has developed training courses for Potable Water Treatment and Onsite Waste Water Treatment.

Daniel Schanck, M.Sc., General Manager

bedrooms as well as small businesses generating only domestic wastewater referred to as "other buildings" having a maximum design flow of 3240 L/d. Its enforcement is delegated to municipal officers.

The Quebec regulation is in many ways different than the prescription of Section 8 of the OBC. The most important difference is clearly the possibility to discharge treated effluent to surface waters and even to ditches when the natural soil is not suitable for infiltration, of course given an adequate level of treatment. Any soil with a T time over 24 min/cm requires a surface discharge. There are therefore certified technologies which achieve complete disinfection and/or phosphorus removal.

Amongst the other differences we note that the soil investigation has to be performed by a professional technologist, engineer or geologist and installers cannot

design septic systems. In Quebec, the term "soil" refers exclusively to the native soil. There is also a hierarchy in the treatment solutions and some treatment processes cannot be utilized if conditions allowed for the use of other type of systems. For example, surface discharge cannot be used if infiltration is possible on the site. External fill cannot be imported to compensate for limited vertical separation. When a higher treatment level is required due to site constraints, manufactured wastewater treatment units has to be considered and must be certified to BNQ certification NQ 3680-910.

It is interesting to point out that as technologist and geologist can perform residential site investigations, septic systems intended for "other buildings" must be designed by an engineer.

For all isolated dwellings above 6 bedrooms, sites where flow rate exceeds

3,240 L/d or other than domestic wastewater is produced, the Q-2,r.22 regulation no longer applies and the jurisdiction falls under Article 32 of the Environment Quality Act (EQA). This is similar to the Environmental Compliance Approval procedure in Ontario. Although, it is relevant to specify that in Québec, for isolated dwellings, the flowrates are determined based on the number of bedrooms only. Other metrics, like for example the squarefootage of the house or the number of water fixtures, are not taken into account. This jurisdiction also includes sewage works for commercial, institutional and communal (CIC) applications. The choice of technology is way larger than for residential applications. The use of conventional wells established and recognized treatment processes such as soil-based systems, sand filters, lagoons, activated sludge, etc. are described in an official Ministry design manual. For

newer technologies, a separate validation process has been developed. Approved technologies Performance Validation Sheets are listed on Ministry's Website. Also, a professional's design must be submitted to the minister for authorization before any work begins.

Information regarding isolated dwellings wastewater treatment systems can be found here:

Québec regulation for isolated dwellings Q-2, r. 22 : www.mddelcc.gouv.qc.ca/eau/eaux-usees/residences-isolees-en.htm

NQ 3690-910 approved systems (French only) : www.bnq.qc.ca/fr/normalisation/environnement/systemes-d-epuration-autonomes-pour-les-residences-isolees.html

Information regarding municipal, commercial, institutional and communal wastewater treatment systems can be found here:

Québec regulation for municipal waste water treatment works ROMAEU : www.mddelcc.gouv.qc.ca/eau/eaux-usees/ouvrages-municipaux/reglement2013.htm

MDDELCC's Conventional Domestic Wastewater Treatment Technologies Study Guide (French only) : www.mddelcc.gouv.qc.ca/eau/eaux-usees/domestique/index.htm

Performance validation sheets for new technologies (French only) : www.mddelcc.gouv.qc.ca/eau/eaux-usees/usees/fiches/fiches.htm

Québec Environment Quality Act (EQA) can be found here (French only) : www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/Q_2/Q2.htm



Nova Scotia

In Nova Scotia, as I expect is the case in many provinces, fall signals a rush to install the last few systems before winter. Everyone is hoping we do not have a repeat of the record snowfalls we were blessed with last winter!

The on-site sewage industry in Nova Scotia will see some major changes in 2016. After two years of consultations, Nova Scotia Environment is moving from an Approval process to a Notification process for a number of activities – including on-site sewage permits. Raising awareness of these and upcoming Regulation changes will be the main focus of discussion during WWNS's upcoming winter regional meetings.

This past April, we were saddened to learn that the Nova Scotia government had cut the Environmental Home Assessment Program (EHAP). This program provided education to home owners about water wells, septic systems and heating oil tanks. It also provided 50% funding, up to a maximum of \$3,000, for lower income home owners to help repair malfunctioning septic systems. The program was always fully utilized and in many cases the funding made a difference in whether or not a repair would be made.

Over the past number of years, Nova Scotia has seen an increase in home buyers asking for inspections of on-site sewage systems during real estate transfers. Requests for guidance from our membership in providing a more comprehensive inspection lead to WWNS hosting two training sessions this past summer; one presented by COWI and the second by Rick Esselment of ESSE Canada – both from Ontario. Currently this is not a regulated activity in Nova Scotia but our hope is that by providing properly trained individuals to the real estate industry that we will be able to standardize procedures and eliminate misinformation.

The same procedure applies for communal, commercial and institutional buildings. Furthermore, every municipality must abide to Regulation complying with municipal waste water treatment works (ROMAEU).

WWNS will be hosting a second annual Septic Pumping Expo on April 08, 2016 in conjunction with our Annual General Meeting. The event was first held in 2015 and provided a great networking opportunity for Septic Pumpers, Portable Restroom Operators and Bed Flushers from across Nova Scotia and a number of other provinces. Attendees at the Expo, held at the Agridome in Truro, viewed an indoor exhibit of trucks, portable restrooms, equipment and products as well as a number of interesting presentations. Anyone who would like to attend the 2016 event or showcase a product is invited to contact the WWNS office at 902-246-2131 or by email at wwns@eastlink.ca.

WWNS continues to develop training materials on an ongoing basis; including producing a number of videos on system installations, bed flushing & homeowner maintenance. A link to our YouTube channel, newsletters and other information can be found on our website at www.wwns.ca.

Gary Cameron, Executive Director, Waste Water Nova Scotia

OOWA Partners with the Ontario Society of Professional Engineers to Boost Professional Development in our Sector

Chan Drepaul, Professional Development & Career Services, Ontario Society of Professional Engineers (OSPE)

OOWA recently began working with the Ontario Society of Professional Engineers (OSPE) to develop a professional development program for specialists in the wastewater sector. OSPE supports, represents, and advances the engineering community's professional and economic interests while promoting engineering excellence for the benefit of the public. Like OOWA, OSPE is a not-for-profit membership association and one of their main jobs is ensuring engineers receive the training they need to perform at their peak.

A primary focus for OOWA is ensuring our members have access to quality education and training across the province. As a result, OOWA has partnered with OSPE to redevelop its Registered Professional Program (RPP) to address the need for ongoing training and continuing education in the industry. As part of this RPP program, OSPE will be providing courses such as:

- Wastewater Process: Terminology and Treatment Methods
- Stormwater and Detention Pond Systems Design
- Waste Supply and Wastewater Treatment
- Sanitary Sewer and Stormwater Drainage Systems Design
- Waste and Wastewater Engineering
- Water Distribution Systems Design
- Fundamentals of Water and Wastewater Unit Processes

- Industrial Wastewater Management and Treatment Methods
- Wastewater Treatment Process Auditing
- Principles of Biological Water Treatment
- Wastewater Treatment Process Auditing: Master Planning for Assets
- Waste Water Treatment Plant Optimization
- Confined Space Entry

These courses are provided for members of both OSPE and OOWA as part of this partnership. The majority of OSPE's technical training courses are available by distance-learning, but many can be offered in a classroom setting for small groups if desired.

The RPP would be of interest to Wastewater Service Technicians, Onsite Installers and Private Inspectors. Attend our free webinar on Thursday, January 21st from 8:30 – 9:30am to find out more about the RPP and how you can benefit from this partnership. Go to OOWA's Events Calendar for the registration link and more information.

On the next page, are a number of course offerings available in the new year that will be of interest to those OOWA members embarking on securing one of the RPP designations.

MANDATORY COURSE	DURATION	START DATE	LOCATION	COST
Workplace Hazardous Materials Information System (WHMIS) for Workers 2015	1 Hr	11-Jan-16	eLearning Module	OSPE Members: \$10 Non-Members: \$10
Wastewater Process: Terminology & Treatment Methods (1.8 CEU's) *	8 Weeks	11-Jan-16	Distance-Learning	OSPE Members: \$1,295 Non-Members: \$1,420
Applying the 2015 Canadian Electrical Code to your Work	1 Day	18-Jan-16	Brampton	OSPE Members: \$295 Non-Members: \$370
Confined Space Entry (0.5 CEU's)	1 Day	8-Feb-16	Hamilton	OSPE Members: \$260 Non-Members: \$335
Workplace Hazardous Materials Information System (WHMIS) for Workers 2015	1 Hr	7-Mar-16	eLearning Module	OSPE Members: \$10 Non-Members: \$10


*Course not mandatory for the Residuals Hauler designation.

GENERAL INTEREST COURSES FOR THE OOWA COMMUNITY AT LARGE	DURATION	START DATE	LOCATION	COST
AutoCAD 3D Civil Fundamentals	3 Days	19-Jan-16	Vaughan	OSPE Members: \$995 Non-Members: \$1,145
PM100 Project Management Essentials (14 PDU's)	2 Days	20-Jan-16	Toronto	OSPE Members: \$495 Non-Members: \$620
Delivering Presentations 101	2 Days	TBD	Mississauga	Please contact John at jmoudakis@ospe.on.ca for more information

Check out OSPE's 'Events' webpage to get additional course content information and to register for any of these courses.

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Submitted by K.C. Craig Stainton, Executive Director, OGWA



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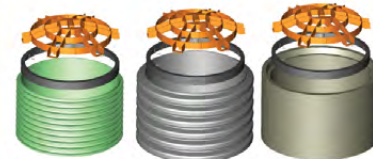
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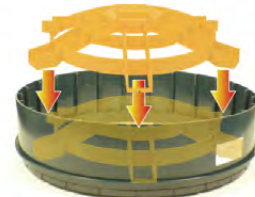


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Ontario Regulation 903 under the Ontario Water Resources Act governs the actions of Licenced Water Well Technicians in Ontario.

Provision was made in Ont. Reg. 903 stating that it is a qualification of renewing the licence that the applicant must have successfully completed continuing education courses approved by the Director that consist of a total of at least 21 hours of instruction in the period that ends on the date the application is submitted in a 3 year cycle.

Initially, these courses were provided by the Drilling Program at Sir Sanford Fleming College in Lindsay but as time ensued it became apparent that providing these courses via the OGWA Regional meetings would provide a benefit to our members.

Since then it has been the aim of the OGWA to provide Director approved 7 hour courses each year at our Regional Meetings, carried out over seven locations throughout the Province over the fall and winter of the year. The meetings follow the same agenda and are sponsored by members of the Manufacturers and Suppliers Division of the OGWA. The day is structured for training, information gathering, and industry dialogue while obtaining Continuing Education Credits (CECs).

While initially not necessarily popular, the Licenced Well Technicians in Ontario, especially members of the OGWA, have come to embrace this process. They have learned there is great value available in further discussion and translation of the legislation, mentoring, and discussion of emerging issues and technologies. Guest speakers conducting seminars and discussions around ESA, safety requirements, and regulations from

the Ministry of Labour, among others, have added more to the learning curve these meetings provide. The publishing of Best Management Practices by the Ministry of Environment & Climate Change has enhanced the discussion and understanding of the Regulation. The final part of each day is reserved for an MOECC official to discuss current Ministry business, direction, emerging changes to regulation and to answer questions posed by the attendees who perhaps have encountered situations where they are not sure of procedures required to comply with the Regulation.

Members of the OGWA have learned all too well (pun intended) that they must never stop learning and improving their craft, protecting and promoting ground water resources, and enhancing the value of their services. Current climate

changes have helped to refocus the value of ground water and the constant improvement required of those who provide it to be good stewards. The pumping of water and waste water in the municipal sector has been identified as one of the greatest single costs faced by municipalities today. Private water wells can be operated at a fraction of the cost with no need for costly infrastructure and, with this in mind, we consistently endeavour to improve our craft and prove sustainability.

Required education for licencing purposes aside, the OGWA will be providing additional learning possibilities in the future with focus on all aspects of running a successful enterprise in the current business environment.

Never stop learning.



OGWA Regional Training Meeting, Walkerton, March 20, 2012
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PHOTO CREDIT: Anne Gammage, OGWA Office Manager

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9 Devastating Cyber Security Mistakes

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According to the National Small Business Association (NSBA), cyber-attacks cost small businesses an average of more than \$20,000 per attack in 2014, more than double the cost of an attack in 2013. Nearly half of those surveyed have experienced a cyber-attack. It is not a matter of if your business will be targeted but when. **Understanding some of the most common mistakes will help you discover your system's vulnerabilities and develop a plan to make your business more secure.**

1. "We really didn't understand the risks."

Attacks come in many forms, such as viruses, malware, cyber extortion and data theft. Cyber extortionists hold information or systems hostage in exchange for payment. Data thieves will steal client information for use in identity theft rings or other criminal activity. Leaving client data unprotected is particularly bad for business. While losing a customer's data would likely mean losing their business, depending on the nature of the loss, the client may also seek damages from you in court.

2. "We all had the same password."

Your business is only as secure as your weakest password. Passwords such as 1234 or password leave access to your network wide open. Passwords should include numbers, letters and special characters. Never share or use company-wide passwords. Do not use your name or birthday as part of your password as these may be easily accessible online. You should also require password updates at least every 90 days.

3. "We didn't know how to set up security tools and utilities."

Protect your network with a firewall, which will block any unauthorized access. Use a virtual private network (VPN) to secure your network. Use encryption software to protect data traveling outside of your network. Install antivirus programs on all computers and update them frequently to prevent the latest viruses and malware.

4. "We didn't install the security update."

You should complete software updates in a timely manner. Hackers are constantly looking for software vulnerabilities. Software developers, in turn, create updates to fix those vulnerabilities. Failing to update your software is like leaving your door wide open to cyber criminals. 5. "We didn't protect our smartphones." For many small business owners and employees, the smartphone is a vital piece of workplace equipment. It is important to treat security on your smartphone as you would on a desktop at work. Use encryption software, follow password policies, install updates and backup your data.

6. "Our data wasn't backed up."

It is vital that you back up your data. Having an offsite backup service will help shorten recovery time from a cyber-attack or other IT disaster. Consult a trusted IT professional about the best options for your business. There are now a number of cloud based backup services that can sync your data on a daily basis. This will speed up the recovery process if your

data is damaged or corrupted as a result of an attack.

7. "We didn't have a cyber security policy."

A cyber security plan should set clear and concise ground rules for your employees and managers. The FCC offers a helpful online tool that allows you to develop a customized cyber security plan for your small business. You can access the FCC Small Biz Cyber Planner 2.0 at www.fcc.gov/cyberplanner. Once you have a policy you will need to audit the workplace for compliance on a regular basis.

8. "Our employees don't know about our cyber security policy."

Once you have a plan in place you must pass that knowledge on to your employees. Provide them with a copy of your cyber security policy and have them sign an acknowledgement that they received, read and understand the policy. Make sure employees feel comfortable reporting potential vulnerabilities and asking questions.

9. "We didn't know cyber security insurance was available."

Not everyone needs cyber security insurance but it may be worth investigating depending on your business. Review our previous article on cyber security insurance to learn more.



JOIN AN OOWA COMMITTEE!

Want to really make an impact in the industry?

Why not contribute to our collective efforts in getting onsite and decentralized recognized as viable and critical rural infrastructure? OOWA is looking for enthusiastic and engaged individuals to help move the industry forward.

Contact Mike Gibbs to find out how to join our ranks!
outreach@oowa.org



THE MILLION-DOLLAR OUTHOUSE

A mile-long sewer pipe extension to serve a remote bathroom in Minnesota shows we're not doing enough to promote effective onsite wastewater treatment

By Jim Kneiszel

This material is extracted from the full article appearing in the November 2015 issue of Onsite Installer magazine, published by COLE Publishing Inc., www.onsiteinstaller.com. It is reprinted by permission.

An almost unbelievable tale illustrates the folly of blindly believing the big pipe of municipal sewer is the appropriate answer to any wastewater challenge.

Some folks complained about the condition of an outhouse on a peninsula jutting into a small lake heading toward the Voyageurs National Park in northern Minnesota. The outhouse emits a foul odor on the hottest day of the summer and no one would describe it as "comfortable" restroom accommodations. But officials from the state's Department of Natural Resources have said it's not creating any environmental hazards.

It is one of 1,500 outhouses at DNR boat landings across Minnesota, with all but 10 of them being what is often described as pit toilets. This one is pumped once a year for \$250 to take away 150 to 250 gallons of waste, according to the DNR. Most people might recommend constructing a nicer pit toilet or placing a portable restroom at the launch site and call it a day.

But not Minnesota's state Legislature. Through various appropriations, the state authorized running sewer pipe 1.1 miles to the site and approved a plan to spend \$300,000 to build a bathroom with flush toilets and running water.

On its face, this story seems ludicrous. Who would spend an estimated \$1.3 million to replace a pit toilet handling a few hundred gallons of waste per summer with a bathroom utilizing flush toilets? Supporters of the expenditure argue it will help the environment; opponents call it a boondoggle and part of a bigger plan to expand municipal sewers to a sparsely populated recreational area. They say the few seasonal homes in the Crane Lake area can't support a public sewer and that the high infrastructure costs will become a

vast financial burden on users.

QUESTIONABLE DECISION

University of Minnesota onsite expert Sara Heger, in a report by the Minneapolis Star-Tribune, called the decision to run the sewer pipe to the outhouse "backwards." A trusted leader in the installer community, Heger was critical of beginning construction of the sewer line based on property record studies that indicated a high percentage of failing systems in the area not based on a physical inspection of septic systems.

"A very expensive pipe is going out there for a very small amount of water," Heger told the newspaper.

Opponents including Brent Bystrom agree. A civil engineer in the Twin Cities, Bystrom's elderly parents live on Crane Lake and someday they may be forced to hook up to the municipal sewer line. Bystrom contends these remote homeowners stand to face large connection fees and monthly service fees of \$80 to \$100, when existing or updated septic systems would serve them more economically.

The concept of the municipal sewer line seems so carefree and easy to homeowners. Flush the toilet and someone somewhere down the line takes care of your waste. ... When you hear about a potential sewer extension project, urge property owners and lawmakers to crunch the numbers and consider individual onsite or cluster systems when it makes sense.

"I tried to fight it, not because of my parents but because it's the wrong thing for the community," Bystrom told me. "Because they will have to manage it, and eventually it will drive the community into bankruptcy."

Bystrom says the numbers just don't support the public sewer option. The area is more than four hours north of

Minneapolis-St. Paul, and he says most people don't want to drive that far to a second home. He contends there are less than 300 properties in the sewer district, and only a small percentage have hooked up voluntarily to date. He estimates the area only has about 60 year-round residents. Bystrom believes Crane Lake is like many small communities where individual onsite systems should have been chosen as the answer.

"The goal is to put as many residents as they can into the wastewater treatment facility to bring additional flow as well as revenue," Bystrom says. "They oversized it for development and the development hasn't taken place. ...Now it's an albatross. If they'd provided the proper guidance, most people would look at the cost-benefit analysis and say individual systems would be the wise thing to do."

A DISCLAIMER

I'm sure the Crane Lake Water and Sanitary District story is more complex than I'm letting on in this brief retelling. I'm sure plenty of local and state political maneuvering was involved in the outcome. Given the opportunity, proponents could try to justify the

costly sewer line extension to a rustic outhouse. Interested parties could – and probably will – accuse me of oversimplifying the issue.

I'm not here to drill down into a local issue of importance to a small northwoods community or to Minnesota taxpayers. Rather, this microissue points to a macrochallenge we have in the onsite

industry. What can we do to persuade officials who make wastewater funding decisions to give fair consideration to decentralized treatment options? The Crane Lake example tells me we have a lot of communications work to do.

WE MUST:

Share the good news about advanced onsite technology.

Decentralized wastewater treatment advances have been coming at a blistering pace in recent years. Today's systems are more effective, more reliable, easier to install and more cost-effective. A wide variety of technologies open up properties for development that were previously thought to be too small or contain too poor of a soil profile to support building. These messages need to reach property owners disgruntled over being told their aging systems (which, by the way, have often performed well beyond expectations) need replacement and bureaucrats who relentlessly promote municipal sewer extensions.

Preach operations, maintenance and thorough inspections.

Much of the criticism of onsite systems can be traced not to the technology or the system installer, but to a failure on the part of owners to provide adequate maintenance. A bury-it-and-forget-about-it mentality must be changed for the onsite industry to reach its full potential. System owners must be convinced to pursue maintenance contracts and follow the reasonable usage guidelines set forth by qualified installers. Sure, systems can perform better and create a cleaner environment, but this doesn't happen when owners ignore their needs or test them beyond their limits. Always go the extra mile in customer education and support efforts to require periodic system inspections.

Discourage a sewer-is-always-best attitude.

The concept of the municipal sewer line seems so carefree and easy to homeowners. Flush the toilet and someone somewhere down the line takes

care of your waste. City, town and county officials don't readily consider efficiency in the wastewater treatment equation. In smaller communities, the cost to build the infrastructure and operate a treatment plant is shared by fewer users. And homeowners have a tendency to give more weight to the cost of hookup and forget that those high monthly and quarterly sewer bills keep coming. When you hear about a potential sewer extension project, urge property owners and lawmakers to crunch the numbers and consider individual onsite or cluster systems when it makes sense.

TAKE A STAND

Do you face an uphill battle convincing folks about the value of individual wastewater systems or cluster systems to serve neighborhoods in your area? What lessons have you learned that can help other installers get the onsite message across to a distracted or disinterested public? Drop me a line and I'll share your thoughts in a future column.



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FUELING INNOVATION IN THE ONSITE AND DECENTRALIZED WASTEWATER SECTOR

There are a growing number of economic development initiatives throughout Ontario that are working to accelerate innovation and the business development opportunities associated with the growing demand for water and wastewater treatment technologies. The following article is the first in a series that will showcase the efforts of organizations who are providing support and incentives to grow the water and wastewater sector in their respective regions.

Tomorrow's Water Technology Today

By Cara Walsh,
Corporate Communications
Coordinator, Peterborough
Economic Development

Ontario is a global water technology hub with over 900 companies and the institutions, incubators and innovative startups to make a lasting impact on how we solve the world's future water problems.

The Government of Ontario has identified several water issues in Ontario that immediately translate into business opportunities, such as:

- Aging Infrastructure (Ontario's water infrastructure is estimated to require \$35 billion for capital renewal, deferred maintenance and future growth)
- Severe weather events
- Population Growth and Urbanization
- Emerging Contaminants
- Industrial use

Peterborough & the Kawartha is a microcosm of Ontario's growing water tech industry. The opportunities translate into opportunities to create jobs and innovative solutions to the world's water problems. The region is home to a burgeoning water technology supply chain comprised of more than 20 organizations, including the Trent University Water Quality Centre, the Ontario Onsite Wastewater Association, and innovative startups.

Founded three years ago in Peterborough, Aclarus is a company

that treats water and wastewater using ozone. Originally focused on the residential market, Aclarus has since branched out, creating innovative solutions for cottage, agriculture, industrial and wastewater applications.

In a recent study conducted at the City of Peterborough's Wastewater Treatment Plant, Aclarus partnered with McGill University in order to remove emerging contaminants of concern – including illicit drugs, steroids and estrogen – with their ozone water treatment system.

This system has proved highly effective, removing between 89-95% of all contaminants of concern. The process for treating water with ozone is an effective, affordable and efficient water treatment method. "Ozone is an all-natural disinfectant" said John Gillis, of Aclarus "It is 300 times stronger than chlorine and works 3000 times faster." The result? Clean water and wastewater outputs with limited by-products, and a process that is more environmentally and economically sustainable.

What is next for wastewater innovation? Research being completed by Trent University, in the Chemistry Department and Environmental & Resource Sciences Program, Dr. Céline Guéguen is creating new technologies and techniques in order to service the needs of industry to have affordable, reliable and self-sustainable systems. There is an excellent opportunity for collaboration between the university and private enterprise with a newly founded research and development company, Noble Purification. Noble is on a mission to transform the wastewater treatment industry with the Euglena

Biofiltration™ system. This system is inspired by nature and employs algae blooms to absorb minerals, heavy metals and other pollutants from wastewater. These techniques can also be applied to the treatment of domestic wastewater. Noble Purification Inc. was founded in September 2013 in Peterborough, Ontario under the leadership of international award winner, Adam Noble, and PhD, Andressa Lacerda. Noble has created a patented wastewater treatment technology with the use of the algae, the FiltraCELL System™.

On November 24th, Trent University signed a memorandum of understanding with the City of Peterborough to move forward with the creation of the Trent Research and Innovation Park. This 85-acre development on the campus' East Bank will contribute to leading-edge research while providing new opportunities for entrepreneurs and business alike. The focus areas include water and environmental science, sustainable agriculture, biomaterials and DNA/forensic science. Businesses at this new development would have access to the award-winning faculty, researchers, students and world-class research facilities at Trent University.

Startups and small businesses can access additional information about the Peterborough region's water technology sector and Peterborough Economic Development's business support services on our website at www.peterboroughed.ca or contacting us at info@gpaedc.on.ca or following us on Twitter @PtboEcDev.

TIPS TO AVOID THE DEEP FREEZE

When you're working in a cold climate, be sure to adequately insulate pipes, tanks and system access points to prevent costly and inconvenient emergency onsite service calls

By Jim Anderson and David Gustafson

This material is extracted from the full article appearing in the November 2015 issue of Onsite Installer magazine, published by COLE Publishing Inc., www.onsiteinstaller.com. It is reprinted by permission.

In cold weather areas like the Upper Midwest where we live, there are often situations where the piping and tanks need to be protected from freezing. For supply pipes from the house to the septic tank and the tank to the drainfield, the best protection from freezing is to install the pipes properly, on the correct slope and with proper bedding to eliminate differential settling. The key to remember: The only thing in the pipe between use discharges is air. If there is standing water because of a slight bow in the piping, this is an area that will be subject to freezing and plugging.

In municipal sewer systems, freezing is prevented by placing pipes below the normal frost depth, which can be as much as 6 to 8 feet deep. This does not work for our onsite systems that we want to keep as shallow as possible to provide the best treatment. If the piping is going to run under a driveway or walkway of any kind, it should be insulated. Any traffic over the area will drive the frost deeper, increasing the potential for freezing.

We have two methods for insulating pipe in this climate. The first is to purchase insulated pipe, usually a pipe within a pipe with foam insulation filling the void. The second is to install foam sheets rated for underground use over the top of the pipe as it is laid in the excavated trench. In addition to providing insulation, the first method will increase pipe rigidity, helping to prevent settling and low spots in the pipe where freezing could occur.

DEEP SOIL COVER

One of the most effective tactics to insulate any sewage tank is having at least 2 feet of soil cover over the tank with an established grass vegetation. However, with our emphasis on keeping systems shallow and providing ready access for operation and maintenance, we see an increasing need to insulate

We see an increasing need to insulate tanks to maintain temperatures that will allow active digestion of the wastewater to occur. This is true for septic tanks but is even more important for ATUs and media filters contained in tanks.

tanks to maintain temperatures that will allow active digestion of the wastewater to occur. This is true for septic tanks but is even more important for ATUs and media filters contained in tanks.

To address this issue in tanks sitting less than 2 feet below final grade, Minnesota requires the lid, maintenance hole covers and risers have an insulation value of R10. All insulating materials must be water-resistant and suitable for burial. Tank walls, lids and risers may be insulated.

To insulate the sides and the top of the tank, insulation board can be placed in those areas prior to backfilling. Flexible insulation board can be wrapped around the riser; if the riser is placed after the fact over a smaller tank opening, a piece of flexible insulation can be placed inside the riser above the smaller tank opening.

ADDED PROTECTION

As mentioned, the best insulation would be 2 feet of soil cover over the top of the tank. Many of our installers are still worried, though, because a typical bury depth to avoid frost would be 4 feet. This would force the system deeper and be counter to our objectives to keep the system as shallow as possible. So, they will generally insulate the tank lid with foam insulation to make sure the tank is protected. Most of the heat loss would be out of the top of the tank, so this gives an added measure of protection. Some spray-on insulation products add to the R-value, but also provide additional sealant for seams that are coated. This is not a fix for bad installation practices or damage to tank access, however. The installer must use good materials and seal the seams and openings properly for an effective job. This means there must be no loose-

fitting manholes, broken inspection pipes or unsealed conduit entering the tank that would allow cold air to enter.

Usage can also be a factor in determining whether a tank needs to be insulated. If it is at a seasonal residence where the system is not used during the winter, insulation can actually delay tank warm-up in the spring. Our thoughts are that these places often work toward year-round usage, so be cautious making that assumption. In general, if the top is 2 feet or more below grade, insulation over the tank is not necessary. But remember, the risers and riser lids do need insulation. If the depth is less than 2 feet, the tank should be insulated.

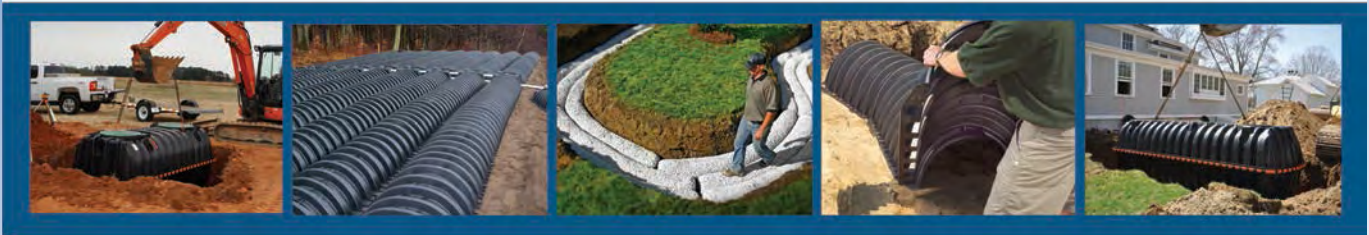


In colder climates, be sure to provide adequate cover to properly insulate onsite system pipes against freezing.
PHOTO CREDIT: Jim Anderson

Jim Anderson, Ph.D., and David Gustafson, P.E., are connected with the University of Minnesota onsite wastewater treatment education program. David is extension onsite sewage treatment educator. Jim is former director of the university's Water Resources Center and is now an emeritus professor, as well as education program coordinator for the National Association of Wastewater Technicians. Readers are welcome to submit questions or article suggestions to Jim and David. Write to ander045@umn.edu.



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