

Onsite

ONTARIO ONSITE WASTEWATER ASSOCIATION NEWSLETTER
Education | Engagement | Leadership

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Updated Standard for Septic Tanks Aims to Increase Safety

By: Don Krauss, Infiltrator Water Technologies

The National Standard of Canada updates the standard for design, materials and manufacturing requirements for prefabricated septic tanks and sewage holding tanks known as B66 on a 5-year cycle. The newest edition of B66-21 has now been published after going through the typical update, review, public review, and committee consultation process.

For many years there has been discussion and debate focused on the safety surrounding the access openings on septic tanks and holding tanks. Fatalities have been recorded in multiple states and provinces over the years due to loosely fitted or open tank lids in both public and private decentralized wastewater systems.

One of the major changes to the CSA B66 standard is the mandatory requirement for secondary safety screens in all septic and holding tanks with access openings over 8 inches/200mm in diameter that are brought to the surface. This is a big change for the standard that will have an impact on everything from cost of materials and septic system installations to the pump out procedure of tanks fitted with these devices.



The standard – now published and available for purchase through the CSA Group, is clear in its wording that the intent is that the installation of safety devices is part of B66 compliance and reads as follows...

CSA B66:21 – Latest Edition published October 2021

4.2.6 Access openings

4.2.6.3 Risers

When risers above the tank access opening are provided, the manufacturer shall construct the tank in such a way that all joints between the tank access opening and the risers, as well as between all riser sections, are watertight. All access openings (which are meant to be removed) over chambers with an opening greater than 200 mm in diameter, where there is a risk of accidental entry, shall have a secondary safety device that can withstand 91 kg of dead load.

Note: See Clause 4.1.3 for requirements for joints made on-site

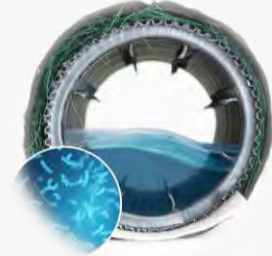
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President's Message

Engagement is one of the areas of focus in OOWA's 2020-2025 strategic plan. Through engagement we want to "Build new relationships with other organizations to augment the association's outreach efforts to the general public and industry professionals. Sustain existing partnerships with government to provide industry expertise and guidance for sound policy and consistent regulation." With isolation and distancing (literally and figuratively) prevalent during the pandemic, the importance of engaging with others is more important than ever. The last few months has seen many initiatives moving this area of focus forward.

Joining with the Western Canada Onsite Wastewater Management Association, OOWA once again had an active social media presence during Septic Awareness week, posting informative tips and recommendations for industry professionals and homeowners.

Also during Septic Awareness week, we held our second stand-alone virtual Part 8 panel discussion. These events bring together all member types to hear perspectives from three industry professionals from around the province. Let us know if you have topics you would like to hear discussed in future panels.

Continuing our efforts into the online environment, members of OOWA's Onsite Technical Committee developed a webinar based on our Sand Filter guidance document and have partnered with Ontario Building Official Association chapters to deliver it to their members across the province. A similar initiative to develop and present content for home inspector groups is in the works.

The External Relations Committee is meeting regularly with the MECP Environment, Conservation and Parks (MECP), working to improve the consistency and clarity of Environmental Compliance Approvals (ECA). Only available to OOWA members, the MECP recently hosted a demonstration of its online portal for the submission of environmental permissions, specifically ECA's.

The External Relations Committee also continues to solicit engagement with the Ministry of Municipal Affairs and Housing to discuss future updates to Part 8 Sewage System of the Ontario Building Code and how that fits in with the Ministries focus on harmonization with the national code, of which sewage systems are not a part of. We are pushing to ensure sewage systems are not forgotten while other areas of the Code are harmonized.

You may have also seen the new video that OOWA produced that introduces the association to the public and to non-members as part of our public outreach efforts and member recruitment strategy. Our committees are working together to develop more online content such as a Sewage System 101 video for municipalities across the province to distribute to their residents. We understand that virtual aspects are here to stay as an outreach tool and we plan to provide our members with more choice in the future.

Lastly, we are excited for our 2022 Annual Convention and Expo which is being held both in-person and virtually in our first ever hybrid event. We will be returning to Deerpark Resort in Huntsville from Sunday February 27th to Tuesday March 1st. Stay tuned to our website, social media platforms, and monthly email communications for registration details and for information on sponsorships, exhibiting, and presenting.

We hope that you will join us in Huntsville and we look forward to connecting with you once again.

Sincerely,

Brady Straw, President

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Installers Corner

Bill Dainty, Headwater Construction



Recently, OOWA reached out to one of our installer members to hear from them what they think the three most technical issues are that contractors are dealing with and how, in their opinion, they could be addressed. We also asked them if they had any advice for contractors who may be new to septs and what they felt their association might consider doing to help improve the industry. Not to let them off the hook too lightly, we also picked their brain about when and why they would go with a trench bed or filter bed. Thanks to Bill Dainty of Headwaters Construction for taking a stab at our questions. Here's what he had to say:

Part 1 - Three Most Technical Issues

1. Interpretation of Soil Conditions

Improper interpretation of soil conditions can potentially result in a bed failure. Interpretation problems can include:

- Incorrect interpretation of the high-water table elevation that could occur during spring conditions or wet weather events and which could result in flooding/breakout of the leaching bed;
- Not identifying low permeability soil layers resulting from old septic systems still in the ground or historic fill placement that could result in groundwater mounding and flooding/breakout of the leaching bed; and
- Difficulty in reliably estimating soil percolation rate in high variability soil conditions because of historic fill placement or geological inconsistencies.

2. Float Tree/Timer Settings

- The setting of the float/timer systems need to be easier to calculate and set-up in the field.

- The On/Off float for demand systems should be clamped with a set amount of cord to control the travel height (distance between on and off). The height is a function of 75% of the pipe volume in the bed and the cross-sectional area of the septic tank.
- The timer settings are typically based on a controlled amount of water (dose) being sent to the bed. The dose rate should be determined from the pump operating curve with consideration to the discharge pipe characteristics (friction losses caused by size, material type, bends, fittings).

3. Complex Designs

Sometimes sites will include various design issues that are not considered in the OBC or training manuals. These can include:

- Variable grading, retaining walls;
- Multiple beds;
- Complex flow balancing;
- Complex soil conditions; and
- Commercial operations or home based businesses with variable water quality.

Part 2 – How Might These be Addressed

1. Soil Conditions

- Obtain training on soils investigation techniques.
- Try and obtain information on wet conditions where possible. For existing homes, the owners know if their sump pumps are running at different times of year (if at all). Look for indications of regular or historic wet areas nearby. Leave pits open or install temporary wells to measure water levels if water flow into the pit is observed.
- The depth of the test pits is important to ensure that all layers of concern can be identified. Removal of historic beds should be a consideration.
- Removal of unpredictable (possibly uncompacted) fill should be considered rather than trying to design the system in it.

2. Float Tree/Timer Settings

The problems associated with this item can be resolved by the development of a spreadsheet to make it easy for an installer to quickly look-up the float tree heights or timer settings by entering design information from the drawing with supporting pump, float tree and tank specifications.

3. Complex Designs

It is important for installers to develop a relationship with one, or more, Engineering firm(s) who are qualified in septic system design and permitting.

Part 3 – Advice to Contractors Wanting to Make a go of Installing Septic Systems

1. Form a relationship with one or more Engineering companies. Hire them to either prepare designs or review your designs for the first jobs of each system type.
2. Obtain training from as many suppliers as possible. This training is free and includes many tips and tricks learned from their many years of experience.
3. Ask suppliers to come out to site to inspect your system. This is a free service they provide and will help you improve your installation methods.
4. Follow the design. Trying to save money by putting in less or substandard materials could result in system failure but will also hurt your reputation with building inspectors.
5. Become an active member of OOWA to stay up to date on relevant industry information.

Part 4 – Most Impactful Thing OOWA Could do to Improve the Industry

Homeowners being permitted to build their own septic system is a problem. It indicates that anyone can build a septic system with no experience or training. It also takes work away from qualified contractors. OOWA's lobbying to address this issue would improve the industry as a whole.

Part 5 – Filter Bed or Trench Bed

This question is highly dependent on site conditions, soil conditions and flow rates. Generally speaking, we typically use trench bed systems up to a T-time of 15-20 min/cm. The materials for the trench systems are of similar costs but do not require as much soil disposal. We try and avoid dealing with off-site haulage wherever possible.

Above a T-time of 15-20 min/cm we often find that the trench based systems get to be too long and will not fit in the available area.

Virtual Part 8

PANEL DISCUSSION

Excerpt Series

TOPIC Advanced treatment as an option for challenging sites

We asked our panelists a few questions around this topic including: Should the clearance distances be less for advanced treatment systems? Do you agree with this approach?



KEVIN WARNER
Cambium Inc



BRAD SMALE
Township of Norwich



If we're just focusing on lakefront or waterfront development, advanced treatment systems are geared for the reduction of BOD, TSS and nitrogen-nitrate so that's overall feneral water quality. When worrying about lake quality, phosphorus is a parameter of concern and advanced treatment systems themselves do not do anything for phosphorus treatment, so in those cases you would still want that increased setback. That being said, there are advanced treatment systems on the market that are geared specifically for phosphorus treatment and I think in those cases you could probably justify a reduced set back to the lake if you are looking at the treatment of phosphorus.

I generally agree with everybody else in that I don't see the downside necessarily to having a double standard essentially for other treatment units as opposed to conventional treatment. Other than when they fail. That is something that all systems do universally in my experience. They eventually fail or they begin to fail and when that happens systems that are maybe not adequately performing on a year round basis that are advanced treat systems are going to end up with an issue of a more direct impact on those watersheds and those sources of water. There is some risk mitigation to consider when you are considering reducing those setbacks.



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For the period of July 23, 2021 to November 25, 2021

New Members:

Jonathan Abraham, Tamarack North Ltd.
Robert Aspinall, Town of Caledon, Building Services Division
Xuanye Bai, University of Waterloo
Spencer Barkey, Town of Caledon, Building Services Division
Brady Campbell, Municipality of Chatham-Kent
Scott Crowe, Town of Caledon, Building Services Division
Nina Dandreamatteo, Town of Bracebridge
Gaetano De Pasqua, Town of Caledon, Building Services Division
Phil Erb, The Rideau Group
Andrew Hartholt, Township of Puslinch
Tomasz Kojlo, Town of Caledon, Building Services Division
Douglas Krysko, RJBurnside
Lawrence Lee, Town of Caledon, Building Services Division
Paisley McDowell, EnVision Consultants Ltd
Shawn Merriman, Town of Prescott
Ryan Morgan, Township of South Frontenac
Jason Rogers, The Rideau Group
Trae Scott, Scott's Excavating & Landscapes
Bryn Shapperd, Town of Caledon, Building Services Division
Jason Snell, Town of Caledon, Building Services Division
Mark Sraga, Town of Caledon, Building Services Division
Dennis Summers, Allto Construction Services Ltd.
Elizabeth Tersigni-Orefice, City of Brampton
Jason Thompson, Town of Caledon, Building Services Division
Peter Thomson, City of Brampton
Mandy Tsang, Town of Caledon, Building Services Division
Bhagyesh Vamja, University of Guelph
Mike Varty, EnVision Consultants Ltd
Agata Walencykiewicz, Town of Caledon, Building Services Division
Shawn Walters, Town of Caledon, Building Services Division
Angie Zmija, Township of Puslinch

Renewed Members

Larry Acchione, Allto Construction Services Ltd.
Nick Acchione, Allto Construction Services Ltd.
Alexandra Anderson, Camping In Ontario/OPCA
Felipe Araque, BNA Inc (Bergmann North America)
Randy Armstrong, Armstrong Pumping Ltd
J.P. Babineau, Allto Construction Services Ltd.
Richard Barg, Xylem Inc. - Goulds Water Technology
Andrew Beck, GM BluePlan Engineering Limited
Chris Beeg, Township of South Frontenac
Lars Bergmann, BNA Inc (Bergmann North America)
Tom Berriault, Township of South Frontenac
Doug Bingham, Newmarket Precast
Roddy Bolivar, Make-Way Environmental Technologies Inc.
Randy Brown, Randy Brown Excavating
Ryan Brown, Randy Brown Excavating
Brent Bunker, AAAA Sanitation
Gary Cameron, Waste Water Nova Scotia
Carolyn Chan, GM BluePlan Engineering
Mike Crain, Arnott Brothers Construction
Derek Demaine, Aqueous Operational Services
Gary Deppe, Polylok
Lesley Desjardins, Alberta Onsite Wastewater Mgmt Assoc.
Dave Dobinson, Dave Dobinson Excavating Inc
Stewart Dolstra, Cambium Inc
John Doner, Wescor Wastewater & Environmental Systems Corp.
Matt Doyle, Township of South Frontenac
Bill Drury, Drumax Construction
Cliff Eborall, Walters Custom Works Inc
Matt Farrell, Township of Huron-Kinloss
Graham Fisher, Haddad Geotechnical
Dan Friesen, Exact Septics Inc
Maggie Grierson, GM BluePlan
Rudy Hartfiel, OWSIM
Jeremy Hein, Groundwork Engineering Limited
Geoff Henderson, Henderson Excavating
James Hotchkies, Enereau Systems Group Inc.

New & Renewed Members Listing

For the period of July 23, 2021 to November 25, 2021

Ben Hyland , Strik Baldinelli Moniz Ltd	Richard Raison , R R Equipment Rental
Daniel Kern , HomeWorks Inspection Services	Terry Rees , FOCA - Federation of Ontario Cottage Assoc.
Dean Kerr , Willis Kerr Contracting	Ian Robinson , BNA Inc (Bergmann North America)
Randy Knight , Glen Knight Septic Service	Leroy Robinson , BNA Inc (Bergmann North America)
Don Krauss , Infiltrator Water Technologies	Rebecca Roy , Township of South Frontenac
Douglas Krysko , RJBurnside	Brian Shepherd , George Burnett Ltd.
Perry Leifso , Interpump Supply Ltd.	Brad Smale , Township Of Norwich
Jeremy Lightheart , WMI & Associates	Craig Stainton , Ontario Ground Water Association
Miles MacCormack , BNA Inc (Bergmann North America)	Dennis Summers , Allto Construction Services Ltd.
Tom MacIntyre , Thunderbolt Contracting Ltd.	Jeremy Tracey , Cambium Inc
Hamed Mahdavi , Unit Precast	Numair Uppal , OASIS
Scott McMullen , Verge Insurance Group (OOWA Insurance)	Rebecca Walker , LDS Consultants Inc.
Stephen Morash , WMI & Associates	Mathew Walters , Walters Custom Works Inc
Ryan Morgan , Township of South Frontenac	Kevin Warner , Cambium Inc
Archie Mulder , The Rideau Group	Ryan Weddel , Newmarket Precast Concrete Products Ltd.
Grant Parkinson , GM BluePlan Engineering	
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OOWA has redeveloped the Registered Professional Program (RPP) to include an 'In-Development Stream' that addresses the needs of ongoing training and continuing education demands from our members. OOWA Professional Designations include: Wastewater Service Technician, Designer, Installer, Private or Regulatory Inspector, Residuals Hauler, Project & Administrative Professional and Technical Sales Consultant.



OOWA collaborates with other associations in communicating to government with one united voice on issues that are of mutual concern to our industries. OOWA is proud to inform our members know that you can access membership rates for events and resources provided by our association partners:



- The Ontario Association of Septic Industry Service
- The Ontario Building Officials Association
- The Ontario Ground Water Association

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A FEW OF OUR BRANDS



Meet OOWA's Staff

Kelly Andrews

Name: Kelly Andrews

Title: Operations Coordinator

Job Duties Summary: Since mid-March 2017 I have been working alongside Mike to assist the amazing committee and board volunteers in serving our members and providing them with valuable resources, networking opportunities, and an Association that advocates on their behalf. As the Operations Coordinator I work behind the scenes on the logistics of event planning, website maintenance, membership processing, supporting the Treasurer in bookkeeping and budgeting, and all other Administrative functions. Mike and I work together to bring the ideas germinated at committee and board discussions to fruition.

Past Experience: I spent almost all of my twenties in Toronto working for a woman who owned three small businesses. My official title was "Office Manager" but given the variety of businesses, my focus was mostly "other duties as assigned". You need someone to figure out how to work that AV equipment? Kelly will do it. Need someone to organize and host a graduation ceremony? Kelly will do it. Need someone to learn how to format and finalize real-time transcripts? Kelly will do it. When I started working alongside the accountant my interest in bookkeeping really took hold so I went back to school part-time earning my Accounting Certificate from Sheridan College. Once I moved back to Peterborough, I experimented with some other avenues including strapping on a tool belt to work as a carpenter's assistant and joining an audit team to conduct annual reviews of Municipalities across the province.

How did you get to OOWA: In what can only be described as happenstance! I was looking on Indeed for a friend when I saw the job posting for OOWA. As I read on, I realized that it was not the type of position my friend would be looking for, but instead it sounded like the exact position that I had been working toward. I applied right then and am incredibly thankful for the chain of events that led me here.

What do you do outside of work: My three year old daughter, husband and I enjoy outdoor activities, camping and exploring together. Post-covid we hope to start exploring further than our own Province! We just bought our forever home so I am always busy organizing, puttering, crafting up home decor, doing yard work and all other "nesting" type activities. I am enrolled in continuing education courses to work toward a couple of certificates through Durham College so I spend a few evenings per week focusing on my assignments. I also volunteer for the Peterborough Chapter of the Huntington Society of Canada as their Treasurer.





Mike Gibbs

Name: Mike Gibbs

Title: Outreach Coordinator

Job Duties Summary: My role with OOWA is to communicate to the membership about the association's activities and to support the work of OOWA's working committees and its board of directors. I also connect with members about renewals, OBC information inquiries, and licensing information requests. In addition, I work to represent OOWA to the public and to our stakeholder partner organizations.

Past Experience: Before coming to OOWA I spent time working in the outdoor education industry facilitating group experiences into backcountry environments in northern Ontario and Belize. Though I loved being able to work in the great outdoors making sure that my clients had exciting and safe experiences, the seasonal nature of these jobs made establishing a stable lifestyle challenging. After settling in Peterborough, I joined an environmental non-government organization to develop educational resources for individual waterfront property owners and cottage associations about sound shoreline management. It was in this role that I learned a great deal about septic systems and how important they are as a piece of rural infrastructure.

How did you get to OOWA: In all my conversations with cottagers about how to protect the water quality of their lakes, onsite sewage systems always factored in as a big part of the overall picture. I began to learn more about how they functioned, all the necessary steps of proper maintenance and operation and how they were regulated. I was always curious about the contrast between how little most property owners knew about these systems and how important they were to the functionality of their homes. When the outreach coordinator position became available with OOWA shortly after the association's office relocation to Peterborough, I applied and was fortunate to be offered the position.

What do you do outside of work: I continue to get to the great outdoors with my family whenever we get the chance. We are avid paddlers doing annual trips in Killarney, out on Georgian Bay, the Kawartha Highlands and other parts of northern Ontario. The highlight of our adventures to date has been an eight-day sea kayaking trip in Gwaii Haanas National Park Reserve and Haida Heritage Site. When not landscaping my backyard, I help out with my son's baseball team and lace up my skates in the winter to help as a trainer on his hockey team. My wife's family have a cottage just north of Peterborough where we escape to in the summer to cool off, reconnect and recharge.

5 Tips For Maintaining Excavator Undercarriages

Save money and downtime by ensuring undercarriage components get proper treatment

Onsite Installer Magazine

By Dustin Johnson | August 09, 2021

When servicing excavators, most inspections focus on the hydraulics, boom arm, and cab controls as they are the heart of the machine's functions. Yet the undercarriage is the true foundation of the machine, allowing 360-degree movement over grass, mud, sand, snow, and rocky terrain. Maintaining this important area ensures that the excavator can stay productive throughout the day.

Here are some undercarriage maintenance tips so that you avoid excavator malfunctions and costly repairs.

1. Keep it clean

With the undercarriage constantly caked in mud, the debris begins to prematurely wear down gears, rollers, and other metal parts. Also, having the machine lug around that extra weight causes the components to work harder while reducing the machine's fuel economy.

Start by prewashing the tracks or tires before moving on to scrub off the accumulated grease. Then pressure wash the undercarriage and give it a final rinse.

2. Inspect carefully

The main areas to focus your inspection on are the track components, drive mechanisms, and the rock guards. Look for excessive wear on sprockets, rollers, bolts, and idlers. You also want to get a good look under the undercarriage to spot any oil leakage from cracked seals.

3. Adjust track tension

Track tension may need to be adjusted when working with different operators and road surfaces. You also should have the tension adjusted when servicing and replacing the old track. Tighten the track based on the manufacturer's specifications and the operator's experience. If the track is constantly going loose, this problem may indicate a cylinder leak on the track adjuster.

4. Grease bearings and fittings

An excavator requires grease to keep components moving freely, to adjust the track tension, and to act as a barrier against dirt. There are several grease points on an excavator, and the manufacturer's manual will provide details on what requires lubrication and how much to apply.

5. Remove worn parts quickly

Avoid leaving a worn part in place just to complete a task. Even if you are nearing the end of a project, that worn part could malfunction and cause an accident or further damage the excavator. Change out high-wear components (idler, sprockets, rollers) when noticing any excessive wear or damage.

Keep your maintenance schedule and repair log up to date regarding any service done on the excavator. This process ensures that all inspections and repairs have been performed correctly and allows you to spot anomalies where certain parts are wearing down faster than others. These anomalies could be an indicator that the operator needs additional equipment training or the type of replacement parts you have been purchasing may be of lesser quality.

This article first appeared online at OnsiteInstaller.com on Aug. 9, 2021, published by COLE Publishing, Three Lakes, Wis. It is reprinted by permission.

MEMBER PROFILE

Anne Egan M.Sc. (Eng.), P.Eng.

Name of Business: R.J. Burnside & Associates Limited

Owners: Employee Owned

Services/Mandate: Burnside is a progressive Canadian and International engineering and environmental consulting company providing services to the public, private, aboriginal and international market sectors since 1970. Our Onsite Wastewater Team provides services to all of these market sectors.

Service Area: Burnside operates out of ten offices across Canada, primarily located in southern and central Ontario. Our Onsite Wastewater Team provides services throughout Ontario.

Number of Years in Role: 20 years

What got you started in the onsite wastewater industry?

I became interested in water quality issues during high school, but it was during my studies at Queen's University that I really became interested in the wastewater aspects of civil engineering. I was fortunate to have a professor and advisor who was an advocate of onsite and small communal treatment systems, and I became involved with a communal onsite wastewater treatment system as part of my Masters research. This solidified my passion for small wastewater treatment systems. I have been very fortunate to be provided the opportunities at R.J. Burnside & Associates to hone my skills and continue in this field of work.

Give us one reason/secret for your success.

I don't think there is any one thing that can make a person successful, I think it comes from a combination of hard work and dedication, and being challenged and supported by those around you. It also helps that I am geeky enthusiastic about sewage systems!

What was the most challenging onsite job you worked on or participated in?

There have been many challenging projects over the years. Those who have worked with me know that I love a technical challenge to come up with design solutions for difficult sites, but the projects that stand out as the most challenging for me have



ANNE EGAN, M.Sc. (Eng.), P.Eng.
Manager, Onsite Wastewater

often involved challenges with other people, either a difficult or demanding client, colleague or regulator. These situations really force you to exercise patience and self-control; I have found the most valuable lessons learned are the ones that have taught me how to successfully work with others and offer solutions.

If you could change one thing about the onsite/decentralized industry, what would it be?

While our industry has advanced significantly over the last number of years, I think we still suffer from a legacy perception problem, that onsite and decentralized solutions will never stack up to the big pipe, when we in the industry know differently. We need to keep working hard to change perceptions, to continue our quest to have onsite and communal solutions embraced as a viable, sustainable and cost-effective. This has to come from a multi-pronged approach, through better regulations, better education of professionals and the public, more consistent approaches to regulation and enforcement, and more consistent application of solutions across the industry.

Where do you see the onsite industry going?

Traditional approaches to infrastructure are being consistently challenged by economic factors, as well as climate change, and there is a need to rethink how we are providing servicing in Ontario. As an industry, I see us continuing to work toward a robust combination of regulation, design, installation, and ongoing maintenance and management of our onsite infrastructure to position ourselves as part of the solution in this changing landscape of servicing options. We need to move forward, away from the days of wastewater "disposal" (i.e. make it go away), towards integrated water treatment, reuse and management strategies.

Waterloo's Phosphorus Removal Technology Opens the Doors for Dream Cottage Development

*Geanine Zuliani,
Waterloo Biofilter Systems*

Their small, seasonal cottage on the shores of Lake Huron had been in the family for years, but it was time to rebuild to meet modern comforts. When R.J. Burnside & Associates Ltd., reviewed the site, it was clear from the start that the owners would either need to purchase more property to allow for a subsurface leaching bed; or they would need to secure an Environmental Compliance Approval (ECA) for surface discharge to the lake.

Site Challenges

- Very small lot with little useable space
- Existing holding tank is too small to support higher flows from new building plans
- Lake Huron to the West and ravine to the South
- Steep slope, rendering most of the property unsuitable for building

The Design

From previous experience, R.J. Burnside & Associates Ltd. knew that the Ministry of the Environment, Conservation, and Parks (MECP) would require an advanced treatment unit, nitrification, phosphorus removal, and disinfection to treat the sewage prior to surface discharge. They contacted Waterloo Biofilter to discuss treatment unit options for the small space and find a solution. After comparison with other treatment options, Burnside selected the Waterloo EC-P™ phosphorus removal technology in combination with a below grade Waterloo Biofilter foam filter medium treatment unit, and ultraviolet disinfection, all controlled by a Waterloo Smart Panel.

The Waterloo EC-P™ Phosphorus removal device is suspended within the liquid layer of the septic tank and can even be retrofitted into an existing septic system. It has simple maintenance requirements, low operational costs, and there is no chemical addition requirements or sludge management issues. The Waterloo EC-P™ is a patented technology that uses low energy electrochemistry to add iron to the septic tank. Insoluble iron-phosphate minerals are formed which crystallize on the Biofilter foam media (or sand or soil when used with a conventional septic system), permanently removing the phosphorus from the natural environment.



Septic Tank access where EC-P unit is suspended

Why Remove Phosphorus?

In most freshwater lakes the limiting nutrient for algal growth is phosphorus. When excess phosphorus enters a lake ecosystem the result can be algae blooms. Not only can this excess algal growth be a nuisance, interfering with human activities such as swimming, boating, and fishing, but some forms of blue-green algae or cyanobacteria produce toxins that are harmful to humans and wildlife.

Furthermore, when algae blooms die, they sink to the bottom of the lake and decay, using up precious oxygen that fish and other aquatic organisms need to survive.

Phosphorus is one of the nutrients naturally found in human wastewaters. Septic systems located near lakeshores and tributaries can be a significant source of phosphorus loading to our lakes.

Operational Results

The ECA for this system requires samples of treated effluent be collected and analyzed monthly during the operational season of May to October. This system was installed in 2019. The effluent limits and corresponding in-situ effluent averages from the 2020 and 2021 operating years are outlined in the table below.

Effluent Parameter	Effluent Limit	2020-2021 Average Effluent Results
cBOD5	15.0 mg/L	4.3 mg/L
TSS	15.0 mg/L	8.6 mg/L
TP	0.5 mg/L	0.3 mg/L
TAN	5.0 mg/L	1.8 mg/L
E. Coli	100* organisms/100mL	26* organisms/100mL
pH	6.0-9.5	8.22

*Geomean

This treatment system has operated very well in its early stages and all ECA effluent limits are being met. In some cases, meeting all effluents shortly after start-up on a seasonal system can prove to be challenging. However, expert design, materials, installation, and maintenance have proven that successful, seasonal advanced wastewater treatment is possible.

"I selected Waterloo as it was the most simple and passive option possible to meet the stringent objectives and limits set by the MECP based on the small, difficult lot size and homeowners building plans. Homeowners tend to install and then forget; this system has lower ongoing maintenance and costs and was the best option."

- Anne Egan, M.Sc.(Eng.), P.Eng.

This system has operated as designed which means there are no impacts to the environment including the ravine, lake, and all its inhabitants. The homeowners were able to build and can continue to enjoy their dream cottage for years to come!

For more information, please visit www.waterloo-biofilter.com; or contact us at info@waterloo-biofilter.com or 519-856-0757.

Understanding What Motivates Your Workers

Following these simple management principles will help you get the most out of your employees

By Ken Wysocky

Pumper Magazine | September 09, 2020

The Greek philosopher Heraclitus once observed that the only thing that is constant is change. That's particularly true in today's business world, and it'll become even more so in the years ahead, as an estimated 85 million baby boomers begin to either retire or take on reduced job roles, paving the way for a seismic shift in managerial ranks.

In other words, get ready for a lot of new managers in workplaces nationwide, says Kirk Lawrence, a program director of executive development at the University of North Carolina Kenan-Flagler Business School.

With those facts in mind, Lawrence — who has more than 35 years' experience in leading both large and small organizations — says it's more important than ever to make sure managers know how to effectively lead and communicate. That's no small challenge, he says, noting that while many companies recognize there's a causal relationship between developing strong leaders and organizational success, most also concede they're not doing enough in terms of succession planning.

"The challenge is that it takes a heavy investment in time, people and money," he says.

"(Preparing managers) is a particularly timely topic for organizations interested in maintaining continuity — retaining the people who know your culture and strategies."

For new managers who may find themselves on their own, Lawrence has developed five solid tips to consider as they embrace their new leadership role. The tips focus less on technical proficiencies and more on the human and emotional "soft skills" that truly set good managers apart.

"You have to understand people and what motivates them — how to get the most out of them," he says. "Even in a small company with only 10 or 15 people, each individual responds differently to challenges, stress and incentives, and if you don't understand the human aspects of all that, you kind of miss the boat."

1. Be a good follower.

Unless you're a workplace unicorn — that special, gifted person who's a born leader — most leadership skills stem from experience gleaned while working your way

up through an organization. As such, learning how to follow is invaluable to eventually becoming a manager.

"You've got to learn what it's like to be in the trenches and get exposure to good and less-than-good leadership styles," Lawrence says. "If you learn what it's like to be a worker bee, you learn good managerial skills as a result."

And as counterintuitive as it may seem, experience with a bad leader can be just as valuable as the alternative.

"You're a far better leader from being exposed to bad management, because you learn a lot about how not to treat people," Lawrence says.

Related: Gaining Control Over the Fear That Is a Hindrance to Business Success

In addition, he points out that people who are good followers (he calls it the practice of "followership") pick up five essential skills from doing so: awareness, diplomacy, courage, collaboration and critical thinking.

2. Listen and learn.

Eager to make their mark, many new managers start out with the proverbial rush to judgment — a scorched-earth makeover of prior practices and processes.

"They jump to conclusions and question everything done by the previous manager, as well as criticize that manager," Lawrence says.

His advice? Slow down and listen — you just might learn something by not trying to move the needle too quickly. Ask people what worked well and what didn't. And never forget that 85% of learning is acquired by listening.

"If you take a step back and assess the playing field you're on, you may find that you have good ideas, but the timing may not be right to implement them," he says.

"Don't destroy the village while trying to save it by being too rash or questioning the competency of the person you replaced. You never know: That person might again be your boss or could even be a potential client. Be judicious with your comments and assessments."

Related: How Leaders Can Improve Workplace Communication

As you take in the lay of the land, it's also important to figure out which employees you can trust — find out who's credible and who's not. And that's something that can be gleaned from listening.

3. Practice the ethic of reciprocity.

This bit of advice could easily fall under the "everything I needed to know in life I learned in kindergarten" category. It's also known as the golden rule: Treat others as you'd have them treat you. That's an essential policy for managers, who should understand that a promotion to a position of authority doesn't automatically guarantee the support of your employees.

"If you treat people with respect and dignity and give them a sense of validation, you can get them to do things that are difficult and distasteful," Lawrence says. "It doesn't work all the time, but as a rule, it's a pretty good principle."

4. Don't confuse likability with respect.

This is especially true for managers who are promoted from within and end up leading the same people with whom they were sharing jokes at the water cooler before the promotion.

"Too many new managers want to be the cool person," Lawrence says. "They think that if their employees like them, they'll be able to make things happen. But it doesn't always work out that way."

"You can never forget you're in a supervisory position. And if something goes south, they're going to be out to save their own skins. You gain respect for your ability to be a good leader. If they know you'll always be fair and listen to them, they'll have the confidence to trust you when things don't go well."

At times, every manager has to make unpopular decisions, and they're tougher to make if you're always out socializing with your direct reports and trying to be their best friend. But if you've built a culture of respect for your team, you can make those decisions and still maintain their trust.

"It's OK to go and have a beer with your team," Lawrence says. "But remember that you're the boss — you have to maintain a little separation."

5. You're defined by your integrity.

Whatever you do, don't compromise your integrity.

Organizations that honor ethics and integrity experience less employee turnover, more engaged workers and higher levels of customer satisfaction, Lawrence says.

"Compromising integrity is a slippery slope," he says. "Once you fudge a number or are dishonest with a client, it becomes easier to do it again. And at the end of the day, everyone wants to do business with someone whose word is their bond."

This article first appeared online at Pumper.com on Sept. 9, 2020, published by COLE Publishing, Three Lakes, Wis. It is reprinted by permission.



In rural Ontario, FOCA is the voice of
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MEMBER PROFILE

Martin Burger *M.Eng., P.Eng.*

Name of Business: Groundwork Engineering Limited

Owner: Martin Burger

Services: Onsite Wastewater Treatment Systems, Geotechnical Engineering, Civil Engineering, Site Development, Project Management

Service Area: Southeastern Ontario

Number of Years in Operation: 9 years

What got you started in the onsite wastewater industry?

After I retired from the Canadian Armed Forces where I served as a Military Engineering Officer, I designed and installed septic systems as a project manager with a heavy civil construction company in Kingston. It was here that I gained valuable experience in the installation process as we constructed large commercial systems as well as designed and installed early tertiary systems. We also managed a depot for Premier Tech EcoFlo.

I feel there needs to be a better way to treat sewage to ensure that effluent will not contaminate surface or ground water.

Give us one reason/secret for your success.

I am always open to learning new things and I attempt to instill the same attitude in my team. I am optimistic that a solution to a problem is always achievable. My team completes detailed site investigations and assessments of the existing conditions to gain an understanding of the problem. We strive to maintain open lines of communication between all parties. This allows us to remain responsive to the desires of the client while balancing them with technical limitations, site constraints and regulations.

What was the most challenging onsite job you worked on or participated in?

I would say it was as an Engineering Officer with 1 Combat Engineering Regiment or working for the engineering design team while deployed in operational theatres. Our role included establishing base camp infrastructure for approximately 500 people. Wastewater treatment was an



MARTIN BURGER *M.ENG., P.ENG.*
President, Groundwork Engineering

essential requirement yet had to be carried out with limited resources, equipment and experienced local contractors. Often there were transportation issues getting materials. Recently it has been most difficult to get existing systems to comply with the ECA requirements to achieve treatment target levels for effluent limits. Retrofitting an existing system and getting Ministry approval is also very challenging.

If you could change one thing about the onsite/decentralized industry, what would it be?

I would like to see a formula for Municipal Responsibility Agreements developed that is easy to understand and apply so that municipalities, regulators and developers within a small village or communal setting can establish onsite wastewater treatment systems. There needs to be cooperation, communication and education to help municipalities ease their fears about taking on MRAs. I believe a team of municipal, technical, legal and regulatory officials should get together to develop a template MRA. There needs to be modernization of MECP guidelines and a timelier, responsive approval process.

Where do you see the onsite industry going?

The industry will grow as people move out of cities. I believe there will be pressure to ensure there is proper maintenance and management of existing systems. There is an increasing demand for housing and a desire for densification in rural areas and villages. We will require creative solutions to develop more communal systems. This is where the need for a clear formula for Municipal Responsibility Agreements comes in.

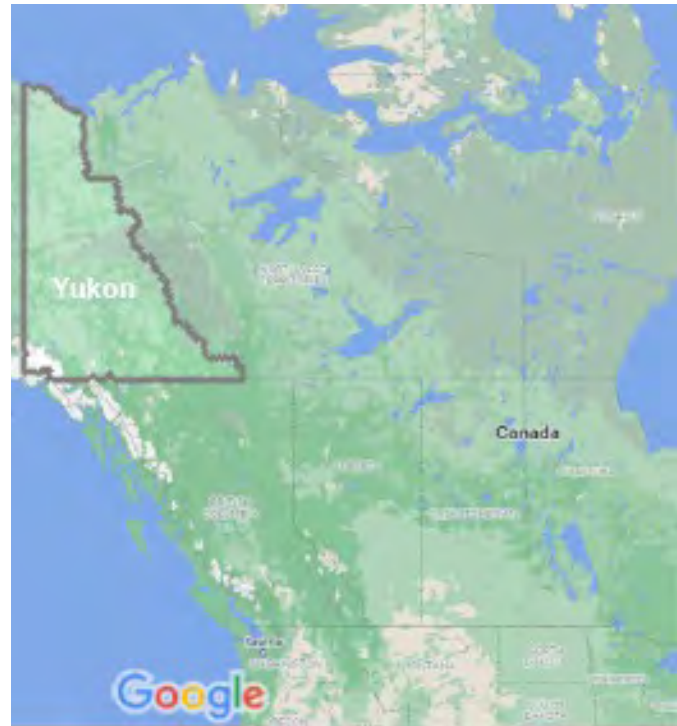
Changes also need to be made to the Ontario Building Code to include nutrient removal.

Logistics in Managing a Remote Mining Site

Clearford Water Systems

Although there is some overlap, mining water treatment is unlike most sectors in the water and wastewater industry. At the core of water and wastewater treatment operations, there is compliance, engineering, and operations & maintenance. However, when referring to water operations at a remote mining site, there are additional logistics to be considered. Key elements included travel and accommodations, remote and local staffing, wildlife, extreme climates, emergency plans, and much more. Logistics in managing a remote mining site are challenging and when the complexity of adhering to the ever-changing COVID-19 public health measures are factored in, a dynamic multi-tiered project management plan is required.

Situated along the northwest corner of Canada's continental mainland, the Yukon has a population of approximately 43,000. Throughout the pandemic, the tightknit community had significant restrictions on who was permitted to travel into the western territory and for what reason. Through our research, it became apparent that entering the Yukon, although for essential services, would require meeting more regulations than travelling to other provinces in Canada.



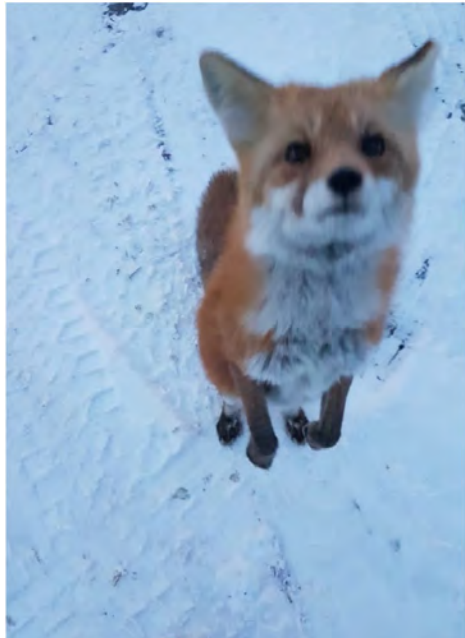
Essential service travel measures

Deemed an essential service, Clearford did its due diligence to identify the necessary travel measures to enter Whitehorse, the capital of the territory, and assembled a local and remote team to ensure proper water management services were provided in a timely manner to operate the mobile water treatment system.

The majority of this preparation occurred during lockdown which, at the time, resulted in a mandated two week quarantine for those entering the Yukon, even for essential service providers. Shortly before commissioning of the plant, the COVID-19 vaccine rolled out and the quarantine requirement for vaccinated travellers arriving in the Yukon was lifted.

With approximately two days of travel from Ontario to the Yukon, the mine site management company requested all vaccinated travelers to provide proof of a negative COVID-19 test within 48 hours of arriving on-site. Clearford found a local on-site testing clinic that offered optimal turnaround test result time.

"It was encouraging to continually check off tick boxes on our travel action item list," said Clearford's VP of Business Development, Andrew Vitaterna. "From multiple flights and long driving hours to rental trucks, meals and accommodations, there was a lot of research conducted to ensure our operators were well taken care of," Mr. Vitaterna expressed.



Extreme climate considerations

While on-site, there were several other factors that came into play when operating at a remote site. It was common to have a furry “friend” try to make a companion out of one of our operators. Although the mining site was only 3km away from where our operators resided, it was not advised to walk the road with the various roaming wildlife including bears, moose, foxes, wood bison, and more.

In addition to curious wildlife, extreme climates were accounted for when discussing the safety of our operations team and satisfying the operational plan and timeline. With July being the hottest, and also the wettest, month of the year in the Yukon, and winter starting early, there were many new and unusual considerations regarding the safety of staff and operational objectives.

Torrential downpour

Excessive rain became a new safety hazard when everything was drenched and muddy. Although the site was designed for run off to exit the compound, the amount of consecutive rainy days caused pooling and soft ground making slips a constant hazard.

Everything goes a little slower than normal when there are consecutive days of torrential rainstorms. It was difficult to check for leaks in the lines and the Sodium Bicarbonat bags had to be kept dry by using tarps and building a shelter over the skids of bags. Unfortunately, some rainstorms were too heavy and damaged the shelter prompting a reconstruction by our team.

Long Arid Summer Days

Heat waves made for an arid summer and more responsibilities added to our daily site visit. Equipment over heating was a possibility in addition to light sensitive chemicals needing to be covered with tarps to prevent deterioration during days that can last 24 hours.

Some heat challenges can cause a domino effect. One example being high heat resulted in chemical off gassing and the lids to the chemical totes had to open to release the pressure. Off gassing in the chemical lines could lead to a pump losing prime and had to be checked constantly. Lack of proper chemical doses could result in low water quality and ultimately increase fouling of the membranes or even damage to the reverse osmosis (RO) membranes.

Each trailer had its own cooling and heating system, if the air conditioner failed the trailer would heat up and the temperature monitoring system would shut down the equipment to prevent damage. Fortunately, the air conditioners did not fail.

“Heat stroke is always an issue; hot, sweaty, and thirsty,” commented Clearford’s Account Manager, Tina Albert. “In these arid environments, dust covers everything. It was either dust or mud, take your pick. I choose dust,” Ms. Albert concluded.

A 7 month long winter made for a relatively short operational season compared to our seasonal sites in Ontario. Typically, decommissioning seasonal plants occurs during brisk fall days when the leaves are turning. However, in a location where majority of the year sees snow, it calls for an earlier decommission and even then, you are faced with some cold, icy nights.

Mobile mine water treatment system

The urgency to mitigate environmental damage at the retired mining site was a critical component in getting our licensed operators, account manager, and engineers safely to the site for commissioning and operating season.

A mobile water treatment system is optimal for remote areas which often include mining sites. The containerized treatment system can begin producing reliable water within a period as short as 4 hours. With a maximum achievable discharge rate objective, Clearford’s operating team worked around the clock to meet stringent discharge requirements and water quality responsibilities.



Joining local and remote operators

Assembling a qualified team did happen by chance, communications and various recruitment strategies based around mining management logistics built the strong, diverse team that Clearford deployed for this project.

In addition to providing safe water and environmental stewardship, Clearford supported community involvement by hiring first nations and local operators to operate the water treatment system. Hiring local staff improved our site knowledge and reduced the mobilization timeframe, and pairing local operators with mining experience operators allowed Clearford to weave together a seamless team.

Opening the tap to remote mining water operations further expands Clearford's diverse profile of communities and geographic regions we serve.

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Communal Wastewater Servicing - Part of the New Normal?

By Kathryn Stasiuk Riddell, P.Eng.
Rural Development Engineer, WSP

The Province is Pro-Communal

In Ontario, a new Provincial Policy Statement (PPS) was released in 2020, and its sections outlining planning for sewage and water services have some seemingly minor changes- however these changes could signify a large adjustment to the approach for rural municipal planners within the province for sewage and water servicing.

In the new PPS, one of the main changes to sewage and water services planning is that **“private communal sewage services and private communal water services are the preferred form of servicing for multi-unit/lot development to support protection of the environment and minimize potential risks to human health and safety”**, wherever municipal sewage services and municipal water services are not available (Ontario Ministry of Municipal Affairs and Housing, 2020). In the previous PPS from 2014, the communal approach to sewage and water services (where municipal service was unavailable) was something that “may” be allowed. (Ontario Ministry of Municipal Affairs and Housing, 2014) With a move from merely being allowable to being **preferred**, municipalities in Ontario are encouraged to capitalize on the carbon footprint reduction and improved development density that can be brought by many of these communal options for wastewater and water servicing. These systems are managed long-term and maintained through Municipal Responsibility Agreements between the municipality and the developer. (Ontario Ministry of the Environment, Conservation and Parks, 2016)

Communal Options for Water and Wastewater

Some unique technical opportunities are available for communal or “decentralized” servicing, one of which is biogas capture (including from collection and reuse of organic kitchen waste and sewage in a biogas digester) as a form of renewable energy. Using renewable energies onsite such as solar power can provide the energy needed to power pumps for irrigation disposal systems (GIZ, 2019) or onsite chlorine disinfection systems for sewage disposal, for example. (Philipp Otter, 2020) The various environmental benefits and reuse strategies born of communal servicing will impact the way people living in smaller or more rural communities interact with their natural world and live their daily lives.

Communal servicing options for sewage treatment are specific to the receiver of the sewage (dispersal

method/location). Treatment system manufacturers for decentralized systems add new technologies, stages, engineered media, and advancements in sewage treatment to their designs with each passing year. Treatment can continue within dispersal systems such as leaching beds, engineered wetlands, lagoons, sub-surface drip irrigation, or spray irrigation. Leaching beds offer the benefit of passive treatment as effluent migrates from the distribution pipes into the shallow and unsaturated subsurface, with the help of some microbial activity and oxygen. Land-surface (irrigation) disposal is where wastewater is first treated and collected in a pumping chamber and then delivered to different engineered irrigation zones either as a sub-surface drip irrigation or as land application. (Jarrett PhD, 2008) This has been a successful way for the Feynan Ecolodge in Jordan to reuse wastewater to water planted native trees onsite. (GIZ, 2019)

As it requires less treatment, greywater (such as that produced by showers, laundry facilities, and sinks) “can be used very easily for landscape or irrigation purposes.” (Raut, 2019)

Another onsite wastewater disposal method is into surface water (streams and lakes, etc.), similar to our big-pipe counterparts. Treated wastewater is discharged into nearby surface water bodies at the end of its treatment cycle – but we should be wary of Contaminants of Emerging Concern (CECs) such as pharmaceuticals and whether our treatment is able to remove these problem particles from the effluent stream prior to entering surface water bodies. Surface water disposal requires more treatment upfront (particularly disinfection) than other disposal methods due to the risk to the receiver.

A further option for treatment and disposal is engineered (or constructed) wetlands. Wetland ecosystems are the most [biologically] productive water purification system in the world” (Chilibeck, 2018) Engineered wetlands can provide secondary wastewater treatment - though due to their open environment should incorporate ecological concerns in their design and subsequent downstream monitoring. The vegetation in these wetlands, as well as the microorganisms, filter and break down contaminants in the water for reuse. Engineered wetlands can “eliminate the need for mechanical equipment such as blowers, pumps and rotating equipment” - (Chilibeck, 2018) in some design scenarios.

So, what communal system would work best for your application? The answer depends on a lot of factors, but particularly your native soils. Sub-surface dispersal can be prohibitively expensive at a property requiring high flows and with laterally and/or vertically expansive clay deposits. Strategies that involve two or more of these systems are in use around the world to optimize on sites with varied or restricted conditions. When they are effectively used and maintained, onsite communal wastewater treatment, dispersal and/or disposal systems offer communities a way to sustain themselves safely and efficiently.

Communal Benefits for Developers

Estate residential developers will continue to construct gorgeous mansions across rolling drumlins in the GTA's "commutershed" – but these options do not serve the average home buyer. And where density is your target as a developer, you should consider the benefits of isolating your wastewater plume in centralized areas of the development and isolating your water supply wells on a different portion of the development. Checkering retired agricultural lots with well after septic, well after septic – the closer the lots, the higher the risk is for nitrate contamination from the neighbouring septic system - (though this does depend on soil conditions, well depths, and pre-development nitrate presence in the regional aquifers as well).

Decentralized water and wastewater servicing for new developments can offer a unique set of opportunities to best utilize the land available - with various technical options to choose from and opportunities to reduce carbon footprint and reuse water - and other - resources on site. Communal systems can be designed in modular and phased methods to reflect the long-term growth of Canada's communities: "allowing to expand the coverage of wastewater management to other areas as peri-urban, or growing areas not currently connected into the main system of the urban area." (Diana Bernal, 2021) They can provide safe and sustainable water and wastewater management to the populations they service, and they can help to protect Canada's natural resources, too.

A recent case study from Brazil indicated that communal "cluster" systems were seen to have a cost reduction for more closely set properties (with dwellings less than 76 metres apart) versus individual onsite sewage and water systems per lot, provided that a minimum number of contributors used the systems regularly. (Tonetti, 2021) This may indicate to us that where developers want

density, they may want to consider cluster or communal systems. But for the cost benefit to be realized by developers, we need to address the elephant in the room.

We Need to Learn to Share

The changeover to decentralized water and wastewater servicing is a shift in both logistics and mindset, and it will require "collaboration between the government, owners, and service providers to verify and enforce compliance to protect the environment and public health." (Trish Johnson, 2017) Where existing municipal infrastructure has been optimized and further means of treatment and dispersal are still needed in outlying communities, communal servicing options provide a chance to move forward in a cost-effective way, bringing together important stake holders to the decision-making table, while still protecting Canada's natural resources. So why is it not the norm?

Where a developer chooses to pay for the infrastructure required to service a community, a Municipal Responsibility Agreement often comes into place to allow the Township to take over responsibility for the community's wastewater infrastructure from the developer. Municipalities appear hesitant to overtake this infrastructure – how can the municipality ensure that the developer constructed and maintained the system to their standards? And will there be enough budget set aside to support the continued maintenance and operation of the system for years to come?

These questions are valid for the municipal budget, but they aren't encouraging for developers. If status quo is either (A), the municipality pays to construct centralized wastewater treatment plants with surface disposal and developers are only required to construct conveyance and collection infrastructure and agree to a water/sewer main extension, or (B) the developer pays for the construction of onsite water and wastewater servicing, which the property owner then purchases immediately, you could forgive the developer for not selecting option (C). This option is where the developer provides the required capital to construct wastewater collection, conveyance, treatment and dispersal infrastructure, only to require further funding provided to the Township before they can move onto their next project.

Do municipal responsibility agreements consider the value that developers provide in constructing this communal infrastructure? Will these agreements discourage the kind of development that could bring community-style living and make the dream of owning a home (tiny or not) attainable?

Communal Wastewater Servicing - Part of the New Normal?

Or will Canadian developers and planners be able to come together to realize that decentralization may be the new way? And not just for water and wastewater infrastructure – for renewable energy generation, storage, and distribution as well.

It's no secret to OOWA members that rural living is officially "in" right now. But if we aren't asking the right questions about how we develop rural Ontario, we will miss out on opportunities to save money and best utilize our natural resources. We may also miss out on the opportunity to build the thriving communities that we all want to live in.

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Updated Standard for Septic Tanks Aims to Increase Safety

Story continued from front cover

The question is now – how long will it take the regulatory process to catch up? Because the new edition of the standard was just recently released, this change is not yet well known and it would be reasonable to say that it may catch the MMAH and most of the regulatory community by surprise, and not just here in Ontario. The Ontario Building Code references the CSA B66 standard by name several times throughout Sections 8.2.2.2. and 8.2.2.3. The CSA Group technical advisory committee responsible for adopting this edition of B66 did not even have a single response on this change from the public review process. It is very likely that there will not be a migration of this new requirement until the 2022 season begins and it will probably be phased in over the season. The implementation may be faster if it is deemed a public health and safety update – which it should be.

Reaching out to other provinces who reference B66 in their regulation and technical guidelines regarding onsite wastewater systems, the response has been the same. Most are just receiving the updated standard now and, in most provinces, the regulatory review process will take place over the winter months resulting in a possible spring adoption.

Going forward we will see safety devices as standard equipment in septic tank and holding tank installations – that's a fact. But what of onsite and decentralized wastewater systems and holding tanks that are already out there? Will we see this requirement become retroactive? Will regulation language include existing access openings or upgrades to tanks already installed that did not have surface access points? If so, how will they be policed? How will principal authorities ensure that this public safety regulatory update is enforced? We will see how this unfolds in 2022 and how ready, the industry is. Most manufacturers of risers and riser components have had a solution for this for many years already.



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Rob's World

By Robert A. Passmore, B.Eng.

Does Membership Really Have Its Privileges?

I recently had an opportunity to review the membership numbers for the Ontario Onsite Wastewater Association (OOWA) from its inception in 1999 through to the end of 2003. Unfortunately as February 2004, membership numbers have not increased as significantly as the Association has aspired to. This should not only be alarming to me, but should concern all members.

OOWA was formed based on the principles of improving the on-site wastewater industry through self improvement, knowledge and good workmanship. OOWA quickly became a common thread to many of our industry's practitioners who shared a common vision for the industry, and as a result, a network of professionalism began to grow. This begs the question: How can our membership be stagnating around the year 2001 numbers when there are over 5,000 licensed installers and over 1,000 regulators, specialized design engineers and academics in the on-site wastewater industry?

Looking closely at this issue, two likely scenarios for this overall situation emerge: either the bulk of the on-site industry simply doesn't agree with what OOWA stands for, or the on-site community is completely unaware of OOWA's existence. If the bulk of the industry doesn't agree with what OOWA stands for, then let us openly debate the issues. By becoming a member of OOWA, it does not mean that you need to completely agree with the organization's current direction. In fact, the opposite is true; becoming a member of OOWA allows you to participate in the direction of the organization. If one hopes for change without becoming involved in the process, one cannot expect change to occur.

If the bulk of the industry is unaware of OOWA then we can rectify this. Each and every member must actively promote OOWA in their respective areas to make their clients aware of the organization. It has been demonstrated in several instances that installers who promoted their membership in OOWA, had clients utilize their services over non membership

competitors. The reason for this was made quite clear to the installers: the clients clearly understood that the installer, by being part of OOWA, were working to better themselves and their trade and that is more important than the same or lower price by a non-member. This particular scenario, while factual, is the exception not the norm. It is up to the OOWA members to promote their organization.

What this all boils down to is this: becoming a member of OOWA must be seen as being more than just paying a membership fee and getting some newsletters and discounts on various conferences. Members have to begin to see that belonging to OOWA is an opportunity; an opportunity to help promote their industry, raising the standard of acceptance and good workmanship to new levels. By becoming actively involved in their organization in whatever way they can, members will feel more connected to OOWA. This connection will inevitably yield substantial benefits over their competition and will attract like minded people, be it colleagues or clients.

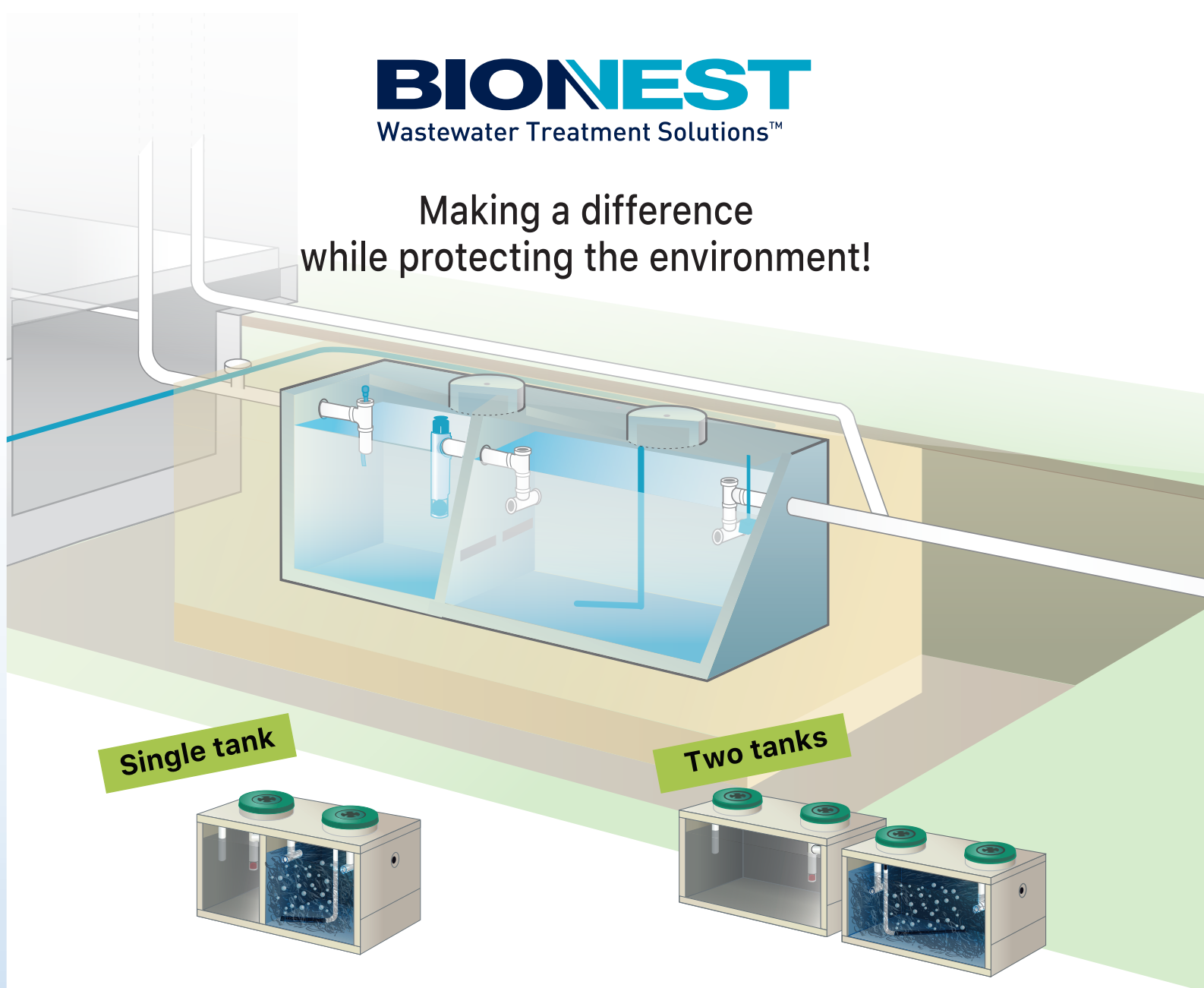
As participation grows and standards are raised, OOWA will be seen as a legitimate stakeholder in the on-site sewage system industry and gain lobbying power. This power will allow us to affect real changes to the current regulation and make this industry truly great. This is how the National Onsite Wastewater and Recycling Association (NOWRA) has achieved its success. NOWRA only acted as the instrument for which those in the on-site industry could focus their efforts to gain lobbying power. As a result they are seeing positive change in their industry.

So to answer my original question: Does membership really have its privileges? Yes, it most certainly does. The power for positive change in this industry lies with the people. The only thing standing in the way of OOWA realizing its' full potential is YOU.

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