



# Onsite

## NEWSLETTER

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## Ontario's Hauled Sewage Industry: Facing Challenges and Building Solutions

By: Numair Uppal, Executive Director of OASIS

The Ontario Association of Sewage Industry Services (OASIS) represents professionals and businesses across Ontario dedicated to the safe and environmentally responsible collection, transport, and disposal of sewage from septic systems. Our members perform a critical service to thousands of communities where homes and businesses are not connected to municipal sewer systems. Yet, despite the essential nature of this work, the hauled sewage industry is facing increasingly significant challenges—particularly in securing proper and accessible disposal sites for the hauled waste.



Figure 1: A septic truck services a rural Ontario property. Thousands of homes and businesses across the province rely on septic systems, making proper disposal infrastructure essential for public health and environmental protection.

Photo Credit:  
 Call of the Wild Sanitation

### Growing Challenges with Disposal Site Accessibility

Across the province, more and more municipalities are closing existing hauled sewage disposal sites or imposing restrictive conditions that make them inaccessible to haulers. In some cases, municipalities are unwilling to accept hauled sewage altogether. These challenges are compounded by the fact that in many rural and even suburban communities, the vast majority of residents and businesses rely entirely on septic systems. Without accessible and affordable disposal sites, haulers are left with longer travel times, higher costs, and in some areas, no legal disposal option at all. This threatens not only the viability of their businesses but also the proper and sanitary management of sewage, which is vital for protecting public health and the environment.

Continued on page 4



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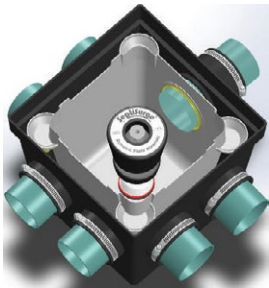
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## Land Acknowledgement

The Ontario Onsite Wastewater Association (OOWA) represents members from across the Province of Ontario and beyond. We respectfully acknowledge that Ontario's lands and waters are the traditional territories of many First Nations, including the Anishnaabeg, Cree, Haudenosaunee, Huron-Wendat, Mississauga, Odawa, and Petun.

Our office in Nogojiwanong, or Peterborough, Ontario, is on the traditional territory of the Treaty 20 Michi Saagiig and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations.

OOWA acknowledges that the First Nations have been and continue to be the stewards and caretakers of these lands and waters in perpetuity, and that they continue to maintain this responsibility to ensure their health and integrity for generations to come.

As onsite wastewater professionals, we have a role in protecting our waterways and human health by following industry best practices and promoting the regular maintenance of onsite wastewater systems.



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President’s Message

**Wow, it sure has been a hot summer!** I remember thinking back in early June that it hadn’t been very warm yet but that sure changed in a big way once summer officially started on June 20. With that in mind, I hope this message finds you cool, hydrated and enjoying a productive season in the onsite wastewater industry.

As President of the Association, I want to take a moment to give you an update on what OOWA has been up to so far this year and share a few important reminders.

Since my last newsletter update, we hosted our very successful conference in Ottawa from March 30 to April 1. It was great to see everyone, reconnect, and learn some new things along the way. If you didn’t see the conference summary package it was sent out via email on May 22, 2025, and can be found in “Latest News” section on our website.

We are well under way with planning for the 2026 conference in Niagara Falls, so be sure to save the dates: March 8 to 10 at the Sheraton Fallsview.

Our new Membership Coordinator, Tiffany Daskewich, joined us just after the Ottawa conference and has been hard at work reaching out to you, our members. If you have any questions or need information about your membership, you can reach Tiffany at [membership@oowa.org](mailto:membership@oowa.org).

Here are some of the things that we’ve accomplished so far this year:

- Presented our Municipal Responsibility Agreement FAQ document to the Frontenac Municipal Services Corporation.
- Hosted our Permit Application Review course in Peterborough, ON.
- Hosted a virtual meeting with our provincial counterparts from across Canada to share ideas and collaborate on a national level.
- Attended a Coroner’s Review meeting in Toronto regarding the tragic death of a Toddler in a Northumberland County septic tank in May 2023. We provided recommendations to help prevent such tragedies in the future.
- Regular meetings with Ministry of Housing staff to represent our members.
- Advising on updates to Part 8 Building Code exam questions.



Here are some of the things that we are working toward:

- Attending the OBOA (Ontario Building Officials Association) and NOWRA (National Onsite Wastewater Recycling Association) conferences.
- Septic Awareness Week: September 15–18, 2025.
- OOWA’s inaugural golf tournament: September 19, 2025, at Harbourview Golf Club in Gilford, Ontario.
- Host member courses and training sessions.
- Updating OOWA’s strategic plan.

Of course, these are just a few of the many initiatives we’ve been working on for you, our members. Be sure to keep an eye on your inbox on the first of each month for our OnTrack E-Bulletins to stay up to date.

Thanks for staying connected, staying engaged, and for everything you do to support a strong and safe onsite wastewater industry in Ontario. Enjoy the rest of your summer, and we’ll see you out there.

Bill Goodale, President



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## Ontario's Hauled Sewage Industry: Facing Challenges and Building Solutions

*Figure 2: A septic truck pumps waste at a private disposal site. The licensed lagoon is a vital part of safe and compliant sewage management in rural Ontario.  
Photo Credit: Call of the Wild Sanitation*

*Continued from Front Cover*

### OASIS in Action: Advocacy and Outreach to Municipalities

OASIS recognizes how urgent this issue has become, and we have been actively working on behalf of our members and the public to address these challenges. Over the past several months, OASIS representatives have attended numerous municipal council meetings across Ontario to speak directly with regulators, councillors, and staff about the importance of maintaining disposal sites for hauled sewage. At these meetings, we have been educating councils on proper disposal practices and reminding them of the critical role these sites play in their communities.

Many councils and municipal staff are surprised to learn just how many properties in their jurisdictions rely on septic systems. When the majority of a municipality is on septic, it is essential that the municipality also provides for proper and compliant disposal of the waste that comes from those systems. Failing to provide these services risks improper disposal, increased illegal dumping, and ultimately, harm to the local environment. OASIS continues to reinforce this message at every opportunity, offering our expertise to help municipalities find solutions that work for both the community and haulers.

### Understanding Ontario Regulation 347

At the same time, OASIS has also been supporting and educating our members on their obligations and opportunities under Ontario Regulation 347. This regulation governs the management of “municipal waste,” which includes hauled sewage. We have been helping members better understand the definition of municipal waste as it applies to their operations, and what is required of them to transport, handle, and dispose of this material in compliance with the law.

### Dispelling Myths About Private Disposal Sites

A key point of confusion that we often encounter—both among members and municipalities—is around the development of private disposal sites. Specifically, many believe that if a hauler wishes to construct their own on-site disposal facility, they must rezone their property from agricultural to commercial use before they can even apply for an Environmental Compliance

Approval (ECA) from the Ministry of the Environment, Conservation and Parks (MECP). OASIS has been working hard to dispel this misconception. We have been educating councils that the rezoning of an agricultural property to commercial use is not required simply because an ECA application is being submitted for a private disposal site. Many haulers operate their businesses on agricultural lands and can continue to do so while applying for and obtaining the necessary ECA for a disposal facility. By providing councils with this information, we aim to remove unnecessary barriers and resistance to private disposal solutions that are properly designed, permitted, and environmentally responsible.

### Partnering with Haulers to Overcome Municipal Barriers

For haulers who are encountering resistance or lack of

understanding from their municipal council, OASIS is here to help. **If you are having trouble with your municipality regarding access to disposal sites, or if there are misunderstandings about the requirements for private facilities, we encourage you to reach out to us.** OASIS is more than willing to attend your next council meeting, alongside you, to present to council and the public about the importance of this issue and to educate them on best practices, legal obligations, and the options available to their community.

We recognize that the challenges our industry faces are complex and often misunderstood by the public and even decision-makers. But together—with education, collaboration, and a focus on sustainable solutions—we can continue to serve Ontario's communities safely, efficiently, and in full compliance with environmental standards.



### About the Author

Numair Uppal is Executive Director of the Ontario Association of Sewage Industry Services (OASIS), where he oversees operations, finances, and strategic direction. He represents member interests, liaises with government agencies to ensure compliance with evolving industry standards, and leads certified training programs for waste management professionals. Bringing technical expertise and regulatory insight, Numair is dedicated to advancing safe and sustainable sewage management across Ontario's hauled sewage sector.



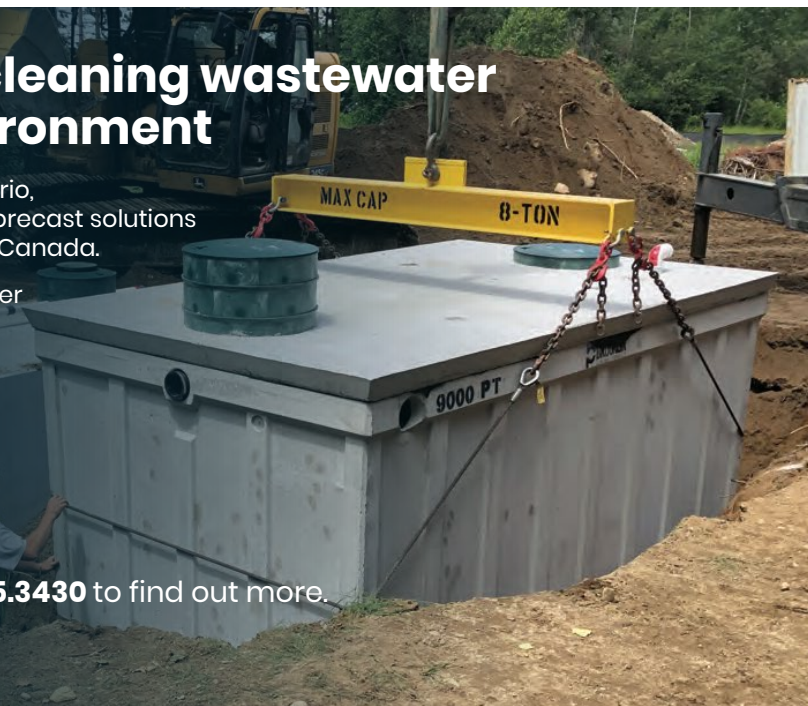
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# Helpful Tips for Recently Qualified and Registered Sewage System Installers

By Danielle Ward, Adam Bros Construction and Tiffany Daskewich, OOWA Membership Coordinator

So, you’ve completed your Part 8 exam—congratulations! You’re now one step closer to beginning your career in Ontario’s onsite wastewater industry. But what comes next?

After passing the exam, your first step is to register your company as a “firm” in the QuARTS system. This process includes obtaining a **firm BCIN (Building Code Identification Number)**. If your company is already registered as a firm, you’ll need to ask your administrator to add you as a **qualified individual** under the existing firm profile.

To help you get started on the right foot, here are some practical tips for new installers:



Photo Credit: Adams Brothers Construction



## Tips for Getting Started

### Become and remain a member of OOWA

Your OOWA membership gives you access to up-to-date information, professional development, and a network of experienced peers. Maintaining your membership year after year keeps you connected to Ontario’s leading industry association.

### Connect with suppliers

Begin building relationships with local suppliers, including those who provide piping, treatment units, pumps, tanks, and other onsite wastewater system components. Developing these connections early will help you understand product options, availability, pricing, and delivery timelines, ensuring you have access to the materials you’ll need for your projects.

### Contact aggregate suppliers

Reach out to agri-supply companies for pricing information—this will help you prepare accurate job quotes.

### Stay up to date on code changes

Regulations change often. Make it a habit to check for updates so you remain compliant and

informed. Consider subscribing to resources like the [codenews.ca](https://www.codenews.ca) mailing list to receive the latest code changes and industry updates directly to your inbox.

### Continue your education

OOWA offers industry-specific training courses throughout the year, and we promote relevant training from other organizations. Lifelong learning is key to growing your expertise.

### Understand local requirements

Contact your local municipality or conservation authority. They may have region-specific requirements or inspection procedures that differ from the standard Ontario Building Code.

### Get familiar with application forms

Obtain blank copies of septic permit applications from municipalities where you plan to work. These forms can vary by region. Stay tuned to OOWA’s communications for the release of Standardized Permit Application Forms.

### Know your limits

Your Part 8 qualification allows you to design systems for your own company to install. If you plan to design systems for others to install, you’ll need to complete a separate Designer course.

### Review your insurance coverage

Talk to your company’s insurance provider to ensure you have the correct type and amount of coverage for installing septic systems.

### Broaden your knowledge

Attend manufacturer training sessions for treatment systems. The more systems you’re qualified to install, the more value you bring to clients.



Starting out as an installer can feel overwhelming, but you’re not alone. OOWA is here to support you as you grow your skills, expand your network, and build a successful career in the onsite wastewater industry.

For more resources and training opportunities, visit [www.oowa.org](https://www.oowa.org).



## COLLABORATION OVERCOMES EXTREME CHALLENGES

### YMCA CAMP KITCHIKEWANA: A CASE STUDY

This story is about 5 businesses, one non-profit and a federal agency who all came together to ensure that a kids camp will continue to provide traditional summer camp programming well into the future. Camp Kitchikewana is run and administered by the YMCA Muskoka Simcoe and is located on Beausoleil Island which comprises Parks Canada's Georgian Bay Island National Park. To grow and to improve the level of service and comfort of the camp, the YMCA needed to repair and increase the capacity of its septic system. As John White will relate in his story below, this installation was far from normal and was only made possible by the efforts of the following individuals and organizations:

- Rob Armstrong, CEO and David Grass VP, Facility Development & Asset Management of YMCA Muskoka Simcoe who saw the potential for a creative solution and had the vision to see it through the myriad of the physical and regulatory challenges
- John and Trevor White of White Contracting and Barging who transported all of the supplies, excavated and installed the system by using approved alternatives to the many site limitations
- Eric Gunnell, P.Eng. and Lynn Mcllwaine, C.E.T. and Senior Engineering Technologist at Gunnell Engineering who developed the innovative system design and plans

- John Roy and the Bionest Wastewater Treatment Solutions team who provided the wastewater treatment system technology
- The staff at Near North Suppliers who provided many of the materials used in the installation
- Ben Lowry and Doug Herd of the Monteith Building Group who worked under exceptional winter circumstances and strict site limitations to construct and expand the existing camp kitchen into a more modern facility capable of feeding more kids
- Parks Canada staff responsible for the Georgian Bay Islands National Park who provided the necessary approvals to the proposed system design and installation challenges

This project will make a significant difference in the lives of thousands of kids and will contribute to the financial well-being of the Muskoka/Simcoe branch of the YMCA. By valuing the future of the camp and by understanding the functionality of the technology, all the partners in this project have demonstrated the capabilities of the onsite industry's innovation and the power of collaboration. The result of all this effort is countless summer camp memories made possible by the creative individuals who make their living in the onsite wastewater industry.

*A special thanks to Bill Robinson, OOWA Board Member and owner/operator of Robinson Enterprises, for bringing this project to our attention and who felt that it was an important one to share. Share your story with us! Contact Mike Gibbs at 1-855-905-6692 ext. 101.*

### THE CASE STUDY

*By John White*

In July of 2014, we were contacted by the staff at YMCA Camp Kitchikewana on Beausoleil Island to investigate an onsite system failure and to provide an estimate of value to effect repairs. Upon inspection, we quickly arrived at the realization that the required system was going to surpass the 10,000 litre per day category.

The ongoing education system here at White Contracting & Barging, paired with knowledge gained from OOWA presentations, OBOA members and advanced treatment seminars, allowed us to quickly determine

that the Solution to this issue would be best attained by a team. We chose to enlist the technical support of Gunnell Engineering Ltd.

The experience gained by White Contracting & Barging working on National Park sites previously, enabled us to understand some of the physical constraints which would impact the design requirements, as well as the actual implementation of the systems. The Team at Gunnell Engineering Ltd. as able to work with us in designing a set of systems to handle; not only the domestic waste from the numerous

sleeping cabins, but also for the kitchen replacement which was not yet under construction. The new kitchen facility prepares approximately 250-300 meals per service – 3 times daily. As it happens, we were a part of the solution team for Monteith Building Group out of Orillia, charged with scheduling and coordinating the kitchen renovation to ensure on-time completion, Once again, site constrains in the form of limited permitable use of space was our greatest physical hurdle.

*(continued on next page)*

### YMCA CASE STUDY CONTINUED

As part of our YMCA solution, Gunnell Engineering Ltd specified Bionest Wastewater Treatment & Solutions product for sludge retention and pre-treatment of high strength kitchen waste. From this point – we implemented 2 – two compartment septic tanks feeding Bio Reactors prior to the drainage field. As the Tankage was being installed for the kitchen (approx.. 160,000L combined), we had the support of Gunnell Engineering Ltd., as well as Bionest Wastewater Treatment & Solution, which was confidence inspiring, as this is an much more intense treatment unit than our typical residential install.

Our installation team was greeted on site by the exceptionally supportive staff of David Grass and the YMCA Group... go figure... repair a kitchen and bathroom setup for 200 (plus) people... and they love you! Our Team was also greeted by several "local residents", in the form of Massassauga Rattle Snakes, and Turtles – generating several NEW

Challenges and opportunities... The snakes and Turtles CLEARLY did not understand, nor were they bothered, that the limitations of movement of Heavy Equipment was much more difficult and time consuming when they exercised their "right of way" and we were forced to find alternate route s and "work arounds".

We were also aware that our project site was atop of 26m of clean native sand and what makes the native soil depth uniformityrelative is that limited space became paramount as a safety issue: it was prone to cave-ins, necessitating off site removal of approximately 80m3 and therefore additional equipment and barging.

And final factor, the site was located in an area with the highest concentration of Native Artifacts on the Island; this being of particular interest to our local community, not only it's historical significance, but for its local ancestry, as even some of our own team members have ancestors buried on Beausoleil Island National Park. Parks Canada staff had undertaken explorations prior to our commencement and First Nations People

held a ceremony to provide their blessing and approval to proceed.

At this point, all systems are operational and our combined forces are generating a long term maintenance schedule & agreement including monitoring of effluent quality levels.

White Contracting & Barging and our partners in this project, are very proud to have worked with the YMCA of Simcoe Muskoka in going above and beyond the bare essentials in their waste treatment choices to help reduce the negative impact on the environment. In choosing as advanced treatment unit for a facility of this type, where funding is not always relatively available, I would commend YMCA for the example they are setting for our children in proactive protection of our environment and our natural resources.

Thanks to all the efforts of those involved for the creative solutions that ensured that this project was a success.



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## YMCA INSTALLATION: TECH SPECS ON BIONEST SEWAGE TREATMENT SYSTEM

By Lynn McIlwaine, C.E.T. Senior Engineering Technologist, Gunnell Engineering

- Project is located on an island. All sewage treatment system material was required to be transported to the island by barge. Once on the island mobility of material i.e. tanks, sand, stone, pipe had to be transported to each sewage system location by use of low impact construction equipment to minimize disruption to existing access routes. Due to mobility limitations on the island plastic tanks were used. This made it easier for tank movement however; more tanks were required due to limited size of plastic tanks.
- Project is located on Parks Canada property therefore construction of the replacement sewage systems could only occur in areas already disturbed, due to presence of potential archaeological relics and antiquities. Continuous watch for artifacts was necessary. Tree removal or damage to trees or undisturbed areas was not permitted.
- Challenge of designing a sewage treatment system to fit into the same footprint of original sewage treatment system to meet current standards.
- A Bionest sewage treatment system discharging to an inground filter bed was chosen to services staff cabins and a Wellness Centre with a daily design sewage flow of 4,000 L / day.
- A Bionest sewage treatment system, was chosen to service the new kitchen with a daily design sewage flow of 6,000 L / day, complete with the BCM 3000 pre-treatment unit and a sludge storage tank to treat the restaurant strength sewage to residential strength prior to discharging through two Bionest Reactor tanks (in parallel) to an inground absorption trench septic field equipped with Infiltrator Quick 4 Equalizer 36 Chambers.
- Limited staging area for equipment, sewage treatment materials and excavated material.
- Construction area constraints required sewage treatment disposal fields to be constructed first, followed by tank installation.



Photos By: David Grass, Vice President, Facility Development & Asset Management, YMCA of Simcoe/Muskoka.



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OOWA members receive discounted airport parking in Toronto with Park' N Fly. To access the discount, you *must* prebook through the website or app using code 1120400 at checkout. This benefit includes access to the Park'N Fly Rewards Program, Aeroplan points, and mobile app features.



The OOWA Insurance Plan is administered by SeptiGuard, a company within the Verge Group. Coverage includes: General Liability, Pollution/ Environmental, Impairment/ Underground tank policies, Contractors Equipment, Barging and Waterborne Risks, Professional Liability for inspectors, designers etc., Vehicle/ Fleet coverage and Discount Home and Auto rates. Contact Scott Mullen: 905-688-9170 ext. 132 or email at: [mcmullen@vergeinsurance.com](mailto:mcmullen@vergeinsurance.com)



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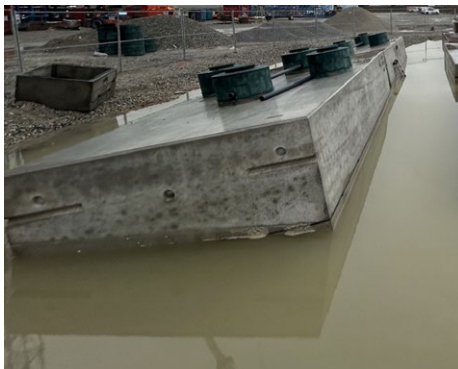


OOWA collaborates with other associations in communicating to government with one united voice on issues that are of mutual concern to our industries. OOWA is proud to inform our members that you can access membership rates for events and resources provided by our association partners, including the Ontario Association of Septic Industry Service, the Ontario Building Officials Association, and the Ontario Ground Water Association.



## Tank Buoyancy Considerations

When designing tanks that may be subject to seasonally high groundwater conditions, it is critical to conduct a buoyancy analysis and determine whether additional anchoring is needed to prevent the tanks from floating. This can also be an issue during construction if the tanks are not fully backfilled and are subjected to buoyant forces. Planning ahead for tank anchoring is the best way to prevent costly damage and rework associated with floating tanks.



**Figure 1: Floating Tanks Due to Flooding of Excavation**

To evaluate tank buoyancy, we need to know:

- What are the tank dimensions (outside length, width and total height)?
- How much of the tank will be submerged under the seasonally high water table conditions?
- What is the depth of soil cover over the tank?
- What is the mass of the tank?
- What is the required or desired factor of safety against uplift?

In a worst-case condition, tanks should be assumed empty and the weight of the liquid in the tank does not contribute to the resisting forces when evaluating potential buoyancy. In the following simplified analysis, one can calculate the buoyant force and the resisting forces on the tank to evaluate the potential for buoyancy.

$$BF = L \times W \times H_{sub} \times \text{density of water (9.81 kN/m}^3\text{)}$$

**Where:** BF = Buoyant Force (in kN)

L = length of tank (m)

W = Width of tank (m)

$H_{sub}$  = Submerged Height of the Tank (m)

The resisting force can be calculated using the weight of the empty tank and the weight of the soil above the tank.

$$RF = \text{Weight of Empty Tank} + \text{Weight of Soil Above Tank (kN)}$$

**Where:** RF = Resisting Force (in kN)

$$\text{Weight of Empty Tank (in kN)} = \text{Mass (in kg)} \times 9.81/1000$$

$$\text{Weight of Soil Over Tank (in kN)} = \text{Volume (in m}^3\text{)} \times \text{Density of soil (in kN/m}^3\text{)}$$

Determine the Factor of Safety (FS) by dividing the resisting force by the buoyant force:

$$FS = RF \div BF$$

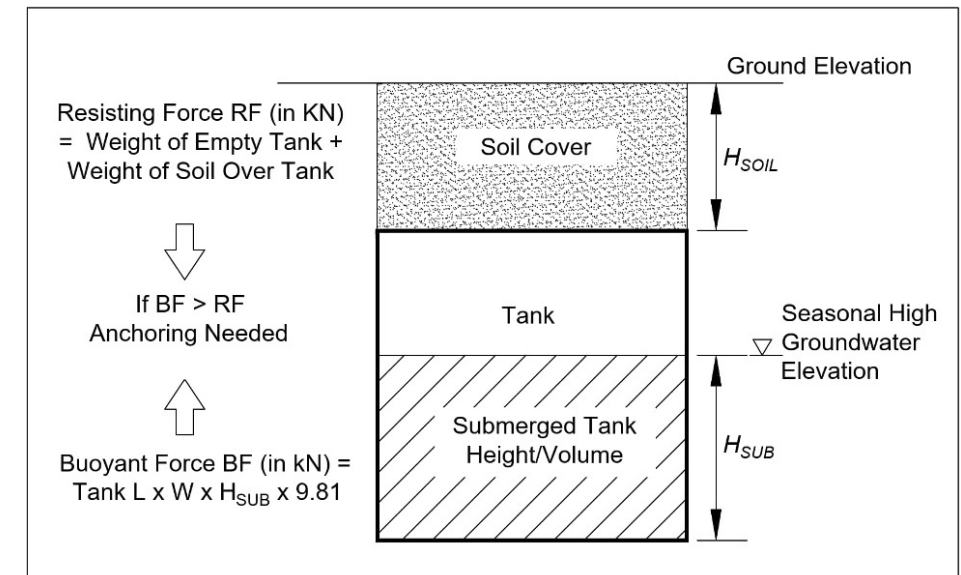
Compare the result to the required or desired factor of safety, which may be determined by a particular design criteria or specification, or by the engineer responsible for the analysis.

**Figure 2: Tank Diagram**

If the Factor of Safety is less than 1.0, this means that the buoyant force is greater than the resisting force, and the tank has the potential to float. In these cases, there are several methods that can be considered to counteract the buoyant forces, such as:

- Is it possible to reduce the buoyant force by raising the elevation of the tank to reduce the submerged height?
- Is it possible to increase the resisting force by increasing the depth of soil cover, considering a heavy construction tank?
- Consider using a low profile tank which can help minimize the submerged depth and increase the mass of soil in the resisting force calculation.

If these measures do not sufficiently counteract the buoyant force, the tank typically requires additional anchoring measures to provide the necessary resisting force. Common methods for tank anchoring can include the use of a concrete ballast slab, anti-floatation flange, or concrete deadman anchors. Site specific factors may influence the analysis and the potential solutions, so it is recommended to consult a professional engineer and the tank manufacturer to determine the best solution for your project.



**Figure 3: Prefabricated Lift Station with Concrete Ballast**



**Figure 4: Anchoring Using Concrete Deadman Anchors**



We welcome members to contribute their own "Onsite Bites" to the newsletter.

If you are interested in submitting a topic, please contact Kelly Andrews at [executivedirector@oowa.org](mailto:executivedirector@oowa.org).



# OOWA Members Who Joined or Renewed Their Membership

Between the Dates of March 01, 2025 and July 29, 2025

### New Members

- Nelson Abreu
- Rob Alatsas
- Chris Anderson, JAC Mechanical
- Josh Arts
- Olyvia Bakker, Fieldscape
- Graeme Berndt
- Adam Blagden, Proxcavation Inc
- Sandy Bos, BOS Environmental Consulting
- Rob Botrie, Rob Botrie Corporation
- Emma Breton, Glen Knight Septic Service
- Jeff Brett, MNT Consulting Group Inc.
- Aiden Carroll
- Jeremy Caton, Cutting Edge Property Maintenance
- Paul Chartrand
- Mikael Chav-Gregoire
- Mackenzie Clarke
- Michelle Cooper, Waterloo Biofilter Systems Inc
- Jessica Corrigan, Mississippi Rideau Septic System Office
- Tiffany Daskewich, Ontario Onsite Wastewater Association
- Marek Dennhardt
- Jesse Duchesne
- Robert Fallowfield
- Jessica Foo
- Andre Gaucher, Goulet Septic Pumping & Design
- Daniel Gaucher, Goulet Septic Pumping & Design
- Etienne Gaudette, Soluo
- Jim Geddis
- Yousef Ghasemi
- Paul Grewal
- Jesse Hagar
- Lyndsay Harness, Clarington Septic Repair
- Todd Harrell, Prinsco Inc.
- Ryan Hendricks
- Lloyd Hicks
- Catharinus Hoeflaken
- Andrew Hole, Hole Landscaping Incorporated
- Justin Hoskin
- Ian Hutcheson, Pinchin Ltd.

- Togay In
- Brett Jackson
- Masood Janali
- Creedence Jones
- Adam Jonkman
- Atif Ali Khan, York University
- Robert King
- David Kokelj, King Excavation and Septic
- Jordan Kuipers, Kuipers Construction
- Brian Lafreniere, Supreme General Contracting Inc.
- Jacques Lajoie
- Devin Lake, Jp2g Consultants Inc.
- Mike Lamesse
- Gavin Landriault
- Real Landriault
- Aurelio Malavenda
- Dustin Maleganeas, Lake of Bays Septic Services
- Alex Marcantonio
- Steve Marechal
- Stephen Martin
- Robert McDaid
- Skye Melo
- Jarod Milko, Sturgeon Industries
- Alexander Moroni
- Dan Naujokaitis
- Lorena Petrini
- Gavin Ramseyer
- Martina Saller, Paul Saller Excavating Inc.
- Angelo Seminara
- Brad Snippe
- Mike Swaerdens
- Brandon Tavares
- Dale Thompson
- Jason Turpin
- Anthony Van Looyen
- Daniel Vernooy
- Matthew Vickers-Lavoie, Fusion Septic
- Kristian Vincent, Paradise Construction
- Theresa Visser, Waterloo Biofilter Systems Inc
- James Waffle, Township of South Frontenac
- Kyle Wentzell
- Chris Whalen, Whalen & Sons Septic Transfer

- Jesse Woodward, 1324519 Ontario Inc.
- Amanda Yeryk, Clearford Water Systems Inc

### Renewed Members

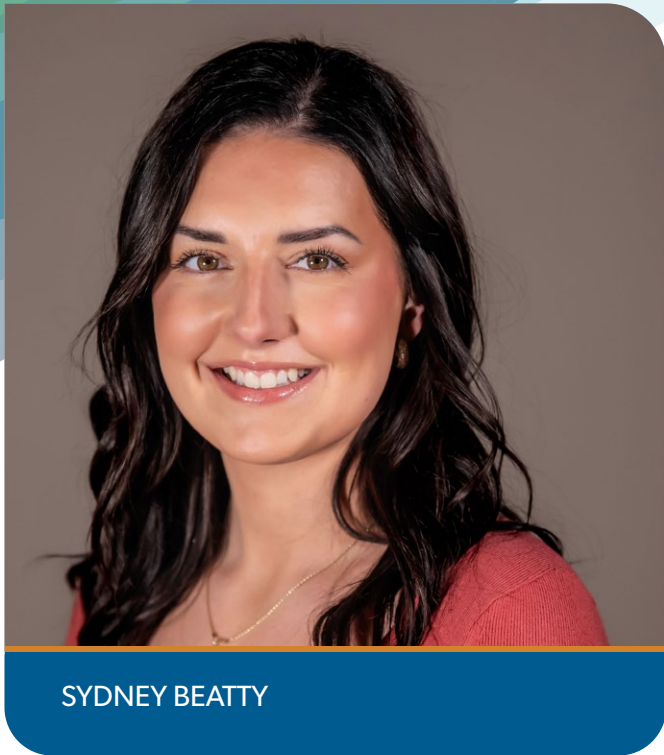
- David Adams, Adams Brothers Construction
- Robert Adzija, John Roberts Signature Homes
- Charles Alexander, C & A Custom Designs Inc.
- Rob Almond, Fitzmaurice Bros. Carpentry
- Brandon Aubin, WSP / Golder
- Sarah Baltare, Municipality of Chatham-Kent
- Mark Barber, BSI Septic Solutions
- James Barnes, Geo Barnes & Sons Ltd
- Marie-Christine Bélanger, Premier Tech Water & Environment
- Dave Bell, B M Ross & Associates
- Brad Billings, Billings Construction
- Ryan Bos, Bos Engineering & Environmental Services Inc.
- Art Bos, Bos Engineering & Environmental Services Inc.
- Brent Bunker, AAAA Sanitation
- Brenda Burrows-Rabb, Rabb Construction Ltd
- Brian Campbell, Wyevale Concrete Products Limited
- Patrick Casey, Total Site Services Inc.
- Jake Cassidy, Clearlite Excavating
- Louie Chiarappa, Hernandez Sanitation Services
- Kevin Cooney, Cooney Construction & Landscaping Ltd.
- Kyler Coulson, Coulson Bros Scow Service
- Lisa Courtney, B M Ross & Associates
- David Cousens, Kinburn Plumbing & Heating
- Ron Cousins, Cousins and Johnson Inc
- William Dainty, Headwaters Construction Ltd.
- Giovanni De Lio, York University
- Robert DeAcetis, Deson Construction
- Drew Deduro, .
- Dash Delarosbel, Temagami Barge Limited
- Lisa Dolderman, Pioneer Septic Solutions Inc
- Ryan Dolderman, Pioneer Septic Solutions Inc
- Kevin Dolderman, Pioneer Septic Solutions Inc
- Wyatt Dolderman, Pioneer Septic Solutions Inc
- John Doner, Metropolitan Pump Co. Limited
- Johnny D’Orazio, G&G Septic Solutions
- Keith Dunn, Plumbing Dunn right

- Cliff Eborall, Walters Custom Works Inc
- Mike Eisses, Eisses Bros. Excavating
- Nick Eisses, Eisses Bros. Excavating
- Fritz Enzlin, Norfolk County
- Dwaine Fisher, Fisher Excavating and Grading Inc.
- Jillian Fitzmaurice, Jillian’s Septic Design
- Ray Foster, Bionest
- Bob Garner, R.J. Burnside & Associates Limited
- Timothy Gentles, City of Belleville
- Clayton Gilbert, Gilbert & Son Construction Inc
- Jack Gilbert, Gilbert & Son Construction Inc
- Caitlin Goodale, Niagara Region
- Mark Goodman, Pump My Tank Inc
- Adrian Greco, Greenwood Excavating
- Riley Greer, Paul Greer & Son’s Exc Ltd.
- Liam Hand, Coulson Bros Scow Service
- Seth Harder, Tamarack North Ltd
- Charles Harper, Howard Campbell & Sons
- Kirk Hastings, Onsite Septic Solutions
- Frick Heilingbrunner, Township of Cavan Monaghan
- Gary Hendy, GAMAN Consultants Inc.
- Brian Hong, BJH Engineering Ltd
- Lauren Hood, Township of Cavan Monaghan
- Rick Howden, Core Earthworks Limited
- Ian Hutcheson, Pinchin Ltd.
- Dean Hutchison, Leary Excavating & Septic Systems
- Aaron Jantzi, Rhino Excavation
- Kirk Johnstone, Northumberland County
- Nathan Jones, Jones Contracting and Building Service
- Greg Krukowski, Countryside Excavation Inc
- Joe Kuipers, City of Belleville
- Lloyd Laidman, Intuitive Water Systems Inc
- Phillip Lappan, City of Quinte West
- Nathan Latchford, MacGregor Concrete Products
- Peter Libicz, Home Inspection Right Away
- Joy Lindsay, Township of Ashfield-Colborne-Wawanosh
- Tyler Lodder, Pelican Excavating
- Greg Loeb, Jones Contracting and Building

- Service
- Trish Luty, Ontario Ground Water Association
- Glenda MacAskill, Waste Water Nova Scotia
- Shawn MacDonald, Waterloo Biofilter Systems Inc
- Thomas Mahon, Mahon Drainage
- Matthew Malloy, Pioneer Septic Solutions Inc
- Chad Mann, Lloyd Collins Construction Ltd.
- Jacob Maragh, Safe Sewage Systems Consulting Inc.
- Cathy Marcellus, Wyevale Concrete Products Limited
- Dylan Martin, MXC Excavating Inc
- Samantha Martin, Cromar Environmental
- Tom Matthews, Northumberland County
- Stefan Mayirou, Seamless Building
- Lucas McCallum, Groundwork Engineering Limited
- Norm Medley, P. Medley and Sons, Ltd
- Rafael Merante, Town of Innisfil
- Dominic Mercier, Enviro-Step Technologies
- Wayne Moore, Cottage Country Environmental Services
- Stephen Morash, WMI & Associates
- Cody Morden, Charles Morden Construction Inc.
- Ricardo Moreira, High Edge Group Inc.
- Kevin Morris, C.F. Crozier & Associates Inc.
- John Moudakis, JM Consulting
- Adam Nayler, Northumberland County
- Phil Nelson
- Bill Ormsby, Premier Tech Aqua
- Steve Ott, Ottawa Valley Home Inspections
- Doug Post, D.F.Post Contracting Inc.
- Nick Preikschas, GRIT Engineering Inc
- Arlene Quinn, Stoughton Septic
- Laura Reavie, Skootamatta Environmental Consulting Inc
- Derek Roberts, Derek Roberts Excavating Ltd.
- Darryl Robins, Darryl M. Robins Consulting Inc.
- Paul Saffioti, Colron LTD
- Frank Salaris, Insight360 Home Inspections
- Rob Sanna, Boyd Brothers Concrete
- Monique Sauve, South Nation Conservation
- Jason Schoenfeld, Boyd Brothers Concrete

- Dylan Seeley, Seeley Group Inc.
- Brian Shepherd, George Burnett Ltd.
- Kathleen Shepherd, Township of Cavan Monaghan
- Robin Smith, Robin Smith Engineering
- Benoit Soucisse, 613WETT
- Jason Stephens, Stephens Excavating
- Bruce Stowe, Roth North America
- Jackie Strauss, Summit Water O/A Interpump Supply Ltd.
- Ryan Streicher, OnGrade Inc.
- David Thompson, Barnboard Construction Group
- Barrett Tinney, Tinney’s Septic Service & Construction
- Michael Tinney, Tinney’s Septic Service & Construction
- Brendon Underwood, Underwood Construction Ltd.
- Numair Uppal, OASIS
- Mark Van Alstine, Herns Sand & Gravel
- Peter Vanderboom, Alpha Excavation
- Theresa Visser, Waterloo Biofilter Systems Inc
- Andrew Vitaterna, Clearford Water Systems Inc
- Dawn Weber, Dawn J Weber
- Dave Whidden, Waubaushene Septic & Landscaping
- John Yantha, Yantha Backhoe & Trucking Ltd.





SYDNEY BEATTY

## MEMBER Profile Questionnaire

### Sydney Beatty

Groundwork Engineering Limited

**Name of Organization:** Groundwork Engineering Limited

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

**Services/Mandate:** Onsite Wastewater Treatment Systems, Stormwater Management, Site Development, Soil Investigations, Project Management

**Service Area:** Groundwork Engineering Limited is based in Kingston, Ontario. We offer civil and geotechnical engineering services throughout Southeast Ontario. Our service area boundary includes Cornwall, Ottawa, Bancroft, and Port Hope

**Number of Years in Role:** Three years

#### What got you started in the onsite wastewater industry?

I graduated from St. Lawrence College in 2022 and completed a four-week placement at Groundwork Engineering, where I was later hired as a Junior Civil Engineering Technologist. I started with residential septic system design, which quickly expanded to include commercial systems for sites like campgrounds. This hands-on experience sparked my interest in onsite wastewater. I was introduced to OOWA through a colleague, further deepening my involvement in the industry.

#### Give us one reason/secret for your success.

Success comes from consistent effort, curiosity, and a commitment to growth. It's built through small, steady actions over time. Show up, take initiative, and keep learning.

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

The majority of the projects we work on now involve complex sites, often with large structures and limited space for subsurface disposal. Many of these sites have rough terrain and shallow bedrock, adding to the challenge. We must carefully consider environmental factors, local regulations, and long-term maintenance while ensuring the system functions effectively. Each project requires creative problem-solving and careful planning to overcome these site constraints and deliver a reliable, sustainable solution.

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

If I could change one thing about the onsite/decentralized industry it would be increasing public awareness of its importance. Many people don't realize how vital onsite systems are for protecting water quality and supporting sustainable development, especially in rural areas. More education and outreach could lead to better system care, stronger policy support, and encourage greater investment in innovation.

#### Where do you see the onsite industry going?

I see the industry moving toward more sustainable solutions. With advancements in technology, systems will become easier to monitor and maintain. There will be a stronger focus on reducing both environmental impacts and energy consumption. As regulations become more standardized, the industry will become more efficient, providing better solutions for rural areas and supporting sustainable development.



Magazine - Environmental Science & Engineering Magazine, Page 52

### Rethinking Milking Centre Wash Water for On-Farm Septic Systems

[See original article](#)

By Bassim E. Abbassi and Tyler Figliuzzi

*This article first appeared online at ESEMag.com in June 2025. It is reprinted by permission.*

In the dairy industry, where rigorous hygiene protocols underpin milk quality and food safety, the management of milking centre wash water (MCWW) has emerged as a quiet but pressing concern.

Every milking centre, whether part of a small family farm or a larger operation, relies on water- and chemical-intensive cleaning processes to sanitize pipelines and milking equipment after each session. What's left behind is MCWW, which is a complex wastewater stream that contains residual milk solids, detergents, acid rinses, and elevated nutrient loads.

While MCWW is a byproduct of responsible sanitation, its disposal poses significant challenges, particularly for farms that rely on on-site septic systems and lack access to wastewater treatment infrastructure. Septic systems are designed to treat domestic sewage, not the concentrated organic and nutrient loads found in MCWW. Yet, provincial regulations governing its management remain inconsistent, leaving many producers navigating a gray zone without clear or practical guidance.

At the University of Guelph's School of Engineering, our recent research aimed to close this gap. Through fieldwork across 18 dairy farms and in-depth sampling at six representative sites, we identified two straightforward, cost-effective strategies to improve MCWW compatibility with septic systems, and strategies that can empower farms to meet environmental and regulatory expectations without resorting to costly infrastructure upgrades.

Bulk milk tanks at the Ontario Dairy Research Centre (ODRC). Samples were taken from 18 dairy farms, including the ODRC, an innovative facility owned by the Government of Ontario and managed by the University of Guelph. Results will help producers remain compliant with regulations while maintaining cost-effective wastewater management practices.

#### A Conflicting Regulatory Landscape

Ontario's regulatory framework for MCWW straddles two key documents: Ontario Regulation 267/03 under the Nutrient Management Act, 2002 (NMA) and the Ontario Building Code, 1992 (OBC). [Continued on next page](#)



# Rethinking Milking Centre Wash Water for On-Farm Septic Systems

Continued from previous page

The NMA permits the use of on-farm septic systems for treating MCWW, provided that the systems meet OBC performance standards by separating the first rinse of the washing process.

However, this permissive stance is complicated by the OBC’s recognition that MCWW is often not equivalent to typical domestic sewage. Elevated concentrations of biochemical oxygen demand (BOD), total suspended solids (TSS), fats, oils and grease (FOG), total nitrogen (TN), and total phosphorus (TP) make this waste stream significantly more challenging to treat biologically.

This regulatory mismatch creates confusion, particularly for small and mid-sized farms seeking to remain compliant, while maintaining cost-effective waste management practices. Without targeted technical guidance or explicit thresholds for MCWW, producers are left to interpret whether their existing systems are suitable, or require modification. In practice, many septic systems risk overload, premature failure, or environmental discharge violations due to the unmitigated strength of this effluent.

## Environmental and Operational Risks

The implications of poorly managed MCWW are multifaceted. From an environmental perspective, nutrient-rich discharges can contribute to eutrophication in surface waters, promoting algal blooms and reducing oxygen availability for aquatic life. On the farm, a compromised septic system can result in frequent maintenance issues, backups, and costly repairs, with potential regulatory penalties if untreated effluent reaches the environment.

Economically, the stakes are high. Ontario’s dairy industry generates more than \$2.3 billion annually in farm cash receipts. For producers operating on tight margins, especially in rural regions, unplanned system upgrades or fines can have outsized financial impacts.

## Understanding the Composition of MCWW

To understand how MCWW challenges conventional septic systems, it’s essential to examine its origin. The cleaning cycle in a typical milking operation involves four main stages:

- Pre-rinsing flushes out residual milk from the system.
- Detergent washing uses alkaline cleaners to remove fats and proteins.

- Acid rinsing prevents scale buildup and sanitizes pipelines.
- Sanitizer rinsing ensures microbiological safety prior to the next milking.

Each of these stages contributes specific contaminants. Pre-rinse carries milk solids rich in organic matter, elevating the BOD and TSS. The acid rinse, depending on its formulation, may introduce significant loads of nitrogen and phosphorus compounds.

Our field data revealed wide variations in contaminant profiles between farms, depending on product selection, cleaning frequency, water use efficiency, and system design. This variability underscores the need for targeted interventions tailored to actual wastewater characteristics, rather than assuming uniformity across farms.

## Two Key Strategies For Septic System Compatibility

*Our study identified two critical, actionable changes that can significantly reduce the contaminant load of MCWW, making it more amenable to treatment in standard septic systems.*

One of the most influential variables affecting MCWW quality is the choice of acid rinse product. Farms using cleaners formulated with phosphoric acid or nitric acid consistently exhibited high concentrations of TP and TN in their effluent. In some instances, TN exceeded 100 mg/L, and reactive phosphorus levels approached 390 mg/L, values well beyond the treatment capacity of typical septic systems.

By contrast, farms that used sulfuric acid-based cleaners, without added phosphorus or nitrogen, showed significantly lower nutrient concentrations. Switching to low-nutrient or nutrient-free acid rinses is an effective and low-cost method to reduce septic system loading.

A less commonly adopted but equally impactful practice is the use of a compressed air rinse prior to the pre-rinse stage. This step pushes residual milk from the pipeline back into the bulk tank, before any water is introduced. This keeps high-strength organic material out of the wastewater entirely.

The results are substantial. In one comparison between two farms milking Guernsey cows (noted for high butter fat content), the farm using an air rinse reported a 61% reduction in BOD and a 76% decrease in TSS relative to the farm that did not. These reductions also led to a notable decrease in FOG.

On average, farms using air rinses consistently approached or met the OBC’s benchmark of 300 mg/L BOD, an important threshold for septic viability. For farmers looking to treat their MCWW using an on-site septic system, adopting an air rinse can also eliminate the need to separate the first rinse. This intervention requires modest investment in hardware but delivers outsized returns in terms of effluent quality and system performance.

## Recommendations For Producers

Based on our findings, dairy producers who wish to continue using septic systems for MCWW should consider implementing the following best practices.

- Avoid acid cleaners containing phosphoric or nitric acid. Transition to sulfuric acid-based formulations with low or no nutrient content to minimize TN and TP in effluent.
- Install a compressed air rinse step. This upstream intervention significantly reduces the organic load, helping farms stay within septic system treatment thresholds.

These changes are both technically feasible and economically accessible, requiring minimal disruption to existing operations.



## A Call For Regulatory Alignment

Beyond on-farm practices, our research underscores the need for coherence between regulatory frameworks. As it stands, the permissive language of the NMA does not align with the performance-based constraints of the OBC. This disconnect places the onus on farmers to interpret and reconcile regulatory ambiguity, often without adequate support or technical guidance.

Policymakers should consider updating both documents to reflect current scientific understanding of MCWW characteristics and treatment potential. This might include developing clear effluent thresholds, promoting proven best practices, and supporting producer education.

## Toward Sustainable Wastewater Management

Milking centre wash water is an unavoidable byproduct of modern dairy production. But, with informed practices and regulatory clarity, it need not be a liability. By adopting simple but effective strategies, such as switching acid products and adding an air rinse, farms can significantly improve wastewater compatibility with septic systems.

At the same time, aligning policy with science will be key to ensuring that Ontario’s dairy sector remains both productive and environmentally responsible. Our research provides a practical starting point, one that we hope contributes to more sustainable and streamlined wastewater management for the future of farming in the province.

## About the Author

Bassim E. Abbassi is Director of the Ontario Rural Wastewater Centre, School of Engineering at the University of Guelph.

Tyler Figliuzzi is a MSc graduate of the School of Engineering at the University of Guelph,

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Email: tfigliuz@uoguelph.ca





## Ground-Level Insight: How Installer Feedback Sparked a New Advisory Group

Installers make up a significant and growing portion of OOWA's membership. As a direct result of feedback gathered through recent member surveys, OOWA has officially launched an Installer Advisory Group to better serve their needs. To those who took the time to share your insights, we thank you. Your voices are helping to shape the direction of this group, and it's clear there's a strong interest in creating more installer-focused content, training, and resources.

Recent surveys offered valuable insight into what education, training and resources members need most from their association. A common theme was the desire for more specific, job-focused content. Many respondents highlighted the need for practical guidance documents covering topics such as installing pump lines (e.g., insulation, check valves, pump chamber setup). Others emphasized a gap in tools that could support day-to-day work, like homeowner application guides or pump-sizing spreadsheets. Training was also a top priority, particularly hands-on education in site design and preparation - calculations, worksheets, & scenario-based examples. Installers expressed interest in learning "tips and tricks" for installation, troubleshooting failed systems, and estimating or quoting jobs. **This feedback is essential for growth and improvement.** It not only validates the creation of the Installer Advisory Group but also provides a roadmap for the types of tools, content, and training OOWA should prioritize going forward.

By participating in our surveys, you help your Association identify strengths, address challenges, and make informed

decisions. Honest feedback fosters transparency, drives innovation, and ensures services that meet real-world needs.

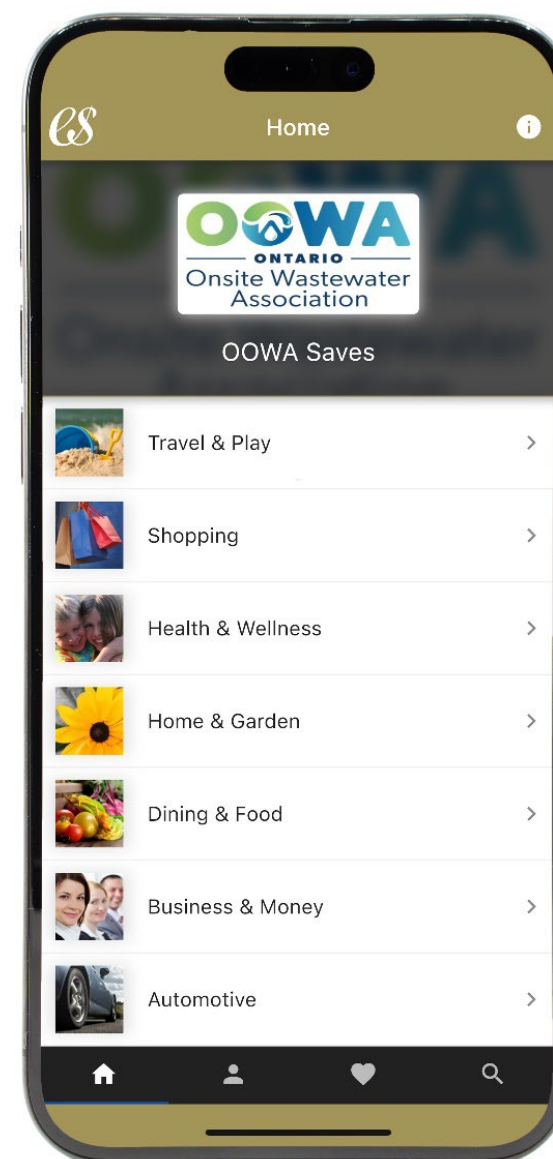
We encourage you to participate in our **"Identifying Training Gaps for Onsite Installers"** survey by scanning the QR code with your mobile, or clicking on it, to be taken to the form. The first meeting of the Installer Advisory Group was held on June 20, 2025. Members in attendance included Danielle Ward (Chair), Paul Bruinsma, Dan Friesen, and Adam Mageean, supported by OOWA staff Kelly Andrews and Tiffany Daskewich. Discussions focused on the group's goals, including improving installer outreach, creating instructional videos, and potentially building mentorship and job-shadowing opportunities. Suggestions for content included how to install effluent filters, how to lay pipe properly, working in high groundwater conditions and installing septic tanks with elevation planning in mind.

We're excited about the momentum this group is generating. At the July 25, 2025, meeting, members brought forward a range of ideas and began prioritizing key topics to focus on moving forward. With continued input from the installer community, this group is well on its way to becoming a valuable resource for installers across Ontario.

If you are interested in joining this committee, please contact Kelly Andrews via email at [executivedirector@oowa.org](mailto:executivedirector@oowa.org).



## Discounts on Your Smart Phone for OOWA Members



Download the OOWA version of the ESM App to save on everyday purchases from hundreds of businesses including national chain retailers, service and travel providers.

To get the ESM App, go to your app store (Google or Apple). When you first download the ESM App, you will be asked for the "organization code" for OOWA. It's: oowa

For complete details, view the [OOWA Welcome Letter](#)



## Krista Duke

### Operations Coordinator

#### Job Duties Summary:

In my role at OOWA, I manage a range of administrative responsibilities, including organizing meetings, taking minutes, supporting communications, and coordinating events—from Board meetings to our Annual Convention and everything in between. Event planning is by far my favourite part of the job. I love bringing people together and creating opportunities for connection and fun, and I’m grateful that I get to do that through the events we host.

#### How Did I Get to OOWA?

Back in 2018, I was hired as the Operations Coordinator at OOWA to cover Kelly’s maternity leave for 13 months. When my contract ended, I followed a passion of mine—sharing the joy of plant-based eating—by launching my own plant-based prepared meals service. The timing happened to coincide with the start of the COVID-19 pandemic. For four years, I poured my heart into the business and truly loved what I was doing. But over time, the weight of being a one-woman show and running everything on my own began to take its toll. I started casually browsing job boards, curious about what opportunities might be out there. That’s when my husband suggested I check if OOWA was hiring—and, as luck would have it, they were! Even more surprising, the role was the very same one I had held before. I assumed Kelly had moved on, but was thrilled to learn she was still there—and had been promoted!

#### What do I do outside of work?

I’m a full-time working mom to a spirited 5-year-old—so hobbies often take a back seat! But when I do carve out a bit of free time, you’ll usually find me lost in a good book or planning the next gathering for my monthly book club. I love to cook, especially in the summer and fall when our garden is in full bloom (tomato season is my absolute favourite!). I’m also passionate about exploring Canada—most often the stunning Rocky Mountains—but we’re about to head out on our third family adventure to beautiful Prince Edward Island.



## Tiffany Daskewich

### Membership Coordinator

#### Job Duties Summary:

I joined OOWA just after the convention in Ottawa, and while there is a lot to learn in this industry, I am using my past knowledge to help achieve social media goals within the organization. I am also using my previous connections with other businesses to help bring more benefits to our members. I will be the direct contact for the members, and I will be recruiting more members to help build our membership as a whole. I will be looking after the communications moving forward for OOWA. I am new to the industry; however, I have lived most of my life with a septic system and have some basic knowledge however I look forward to learning more in-depth from our members and other education sessions.

#### Past Experience

I was a member engagement coordinator for the Peterborough Downtown Business Improvement Area, and before that, I worked at a branding company called Ricart as the sales and marketing manager. From both my roles previously, I feel that it has provided me with the experience that I bring to OOWA to help obtain goals within the organization. I also bring a great deal of knowledge from working on different boards through my volunteer experience. I have helped an organization change over from an operational board to a governance board and rework the structure of the organization, as OOWA has recently done. I am currently on the Women’s Business Network of Peterborough board as the publicity director. I am also a member of the Peterborough Business Social Club. I am currently a nominee for the Luminary Awards through the Peterborough Chamber of Commerce for the Barrier Buster Employee. I have also recently been asked to speak at this year’s Peterborough International Women’s Day Event and an upcoming stakeholder event with the PRHC Hospital Foundation.



#### How did you get to OOWA:

I found a posting for the Membership Coordinator role here on a job site, and after looking at the organization’s website and LinkedIn page, I felt like it was worth throwing my hat in the ring and finding out more. The biggest driving factor for me was that OOWA is a non-profit organization. I wanted to be a part of an organization where I could help bring change, and I love working with different people, as I am a social butterfly.



# OOWA Organizational Structure

We are excited to share an important update about the evolution of our association. As part of our ongoing efforts to strengthen our operations and better serve our members, we have implemented a new organizational structure designed to improve efficiency, enhance communication, and support our continued growth.

Going forward, our staff team will include three key roles:

### Executive Director

The Executive Director will oversee the strategic direction and overall management of the association, ensuring alignment with our mission and long-term goals.

### Operations Coordinator

The Operations Coordinator will manage the day-to-day logistics, systems, and internal processes that keep our association running smoothly.

### Membership Coordinator

The Membership Coordinator will focus on member engagement, recruitment, and support—ensuring every member feels connected, valued, and heard.

### Board of Directors

Our dedicated Board of Directors continues to act as the responsible governance body operating the Association. Our Executive Director reports directly to the Executive Board Members.

This new structure allows us to be more responsive to your needs and positions us to deliver even greater value to our community. Each of these roles is integral to our commitment to building a vibrant, inclusive, and forward-looking association.

We appreciate your continued support as we move into this exciting next chapter. If you have any questions or feedback, please don't hesitate to reach out to us at [info@oowa.org](mailto:info@oowa.org).



### Kelly Andrews

#### Executive Director

[executivedirector@oowa.org](mailto:executivedirector@oowa.org)

Contact Kelly for inquiries related to:

- Strategic partnerships
- Policy advocacy
- Overall strategic direction
- Financial management



### Krista Duke

#### Operations Coordinator

[op-coordinator@oowa.org](mailto:op-coordinator@oowa.org)

Contact Krista for inquiries related to:

- Meeting coordination and minutes
- Event planning and coordination
- General administrative support



### Tiffany Daskewich

#### Membership Coordinator

[membership@oowa.org](mailto:membership@oowa.org)

Contact Tiffany for inquiries related to:

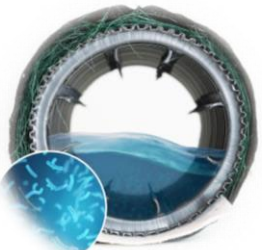
- All member-related inquiries, including benefits and programs
- Social media
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# Meet OOWA's 2025-2026 Newest Board Members

We are grateful to our outgoing Boad members, **Arlene Quinn of Stoughton Septic** and **Brady Straw of Waterloo Biofilter Systems**. Arlene served on the OOWA board for three years and contributed to conversation from her experience as both an installer and a regulator. Brady served on the board for 10 years between 2015 and 2024. After his first year on the board, Brady joined the Executive Committee as Vice President and remained on the Executive for the next nine years, becoming President in 2020. As a testament to his dedication, Brady remains involved in the Association as our Membership Committee Chair. We are incredibly grateful for their hard work and dedication towards the organization.

Each year OOWA holds elections for our Volunteer Board of Directors. This takes place at our Annual General Meeting, held at the Annual Convention & Expo. Attendance and voting was available both in-person or online.

OOWA's Board Of Directors is pleased to welcome Dan Friesen, ESI Group, and welcome back Kathleen Shepherd, Township of Cavan Monaghan to the board.



**Dan Friesen**  
Director of Business,  
Development & Septic Services  
ESI Group



**Kathleen Shepherd**  
Inspector  
Township of Cavan Monaghan

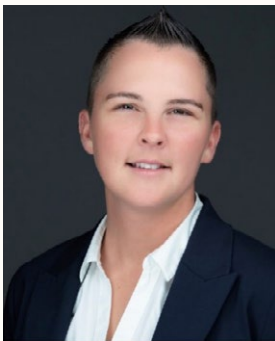
OOWA's Board Of Directors would like to thank the Executive Committee members for their continued dedication to ensuring smooth operations on behalf of the board.



**President**  
**Bill Goodale**  
Tatham Engineering



**Vice President**  
**Katherine Rentsch**  
Corzier Consulting  
Engineers



**Treasurer**  
**Danielle Ward**  
Adams Brothers  
Construction



**Secretary**  
**Brenda Burrows-Rabb**  
Rabb Construction

The board of directors is always interested in hearing from our members. If there is something you would like to share with any of our volunteers, contact the office and we will connect you.

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prosperous summer  
season!*

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## Permit Review Course Recap

OOWA hosted its first-ever Permit Review course on May 26th, 2025, in Peterborough, and the response was overwhelmingly positive. Designed for those who have completed the Part 8 Exam, this one-day course drew a mix of regulators, installers, and designers from across the different regions.

This course was developed in response to feedback we've received from previous member surveys. You asked for more educational opportunities, and we heard you. OOWA is proud to deliver relevant and hands-on training that supports the growth and knowledge of our professional community.

Led by Eric Kohlsmith, Part 8 CBO from the Rideau Valley Conservation Authority, the course provided in-depth training on regulatory requirements for onsite sewage systems under the Ontario Building Code. Participants praised both the structure and content of the session, which blended technical instruction with real-world context.

The attendees appreciated the use of real-life examples, which sparked valuable group discussions and brought practical understanding.

### “ What Participants Said:

*“Knowledgeable instructor, clear information presented, real-world scenarios used.”*

*“The real-life examples and discussions were very helpful.”*

*“Experience talking—great way to learn.”*

### “ On Instructor Eric Kohlsmith:

*“Very knowledgeable and friendly.”*

*“Well-spoken, clear & concise.”*

*“Helpful and open to discussion.”*

### “ On OOWA Staff:

*“Accommodating, helpful, & friendly.”*

*“Pleasant & organized!”*

*“Very good and informative.”*

When asked if they would recommend the course, the answer was not only a yes, but one attendee remarked:

*“This is an ideal course for anyone entering the Part 8 world.”*

OOWA is proud to offer high-quality training opportunities that directly support the professional development of our industry.

Our next Permit Application Review Course is scheduled for **Wednesday, October 29, 2025**, in **Perth, Ontario**. This one-day course will once again be led by Eric Kohlsmith, Part 8 CBO with the Rideau Valley Conservation Authority.

**Registration is now open—visit [www.oowa.org/events](http://www.oowa.org/events) for details and to secure your spot.**

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# Overcome These Pitfalls of Vacation Rental System Design

This article first appeared online at [OnsiteInstaller.com](https://www.onsiteinstaller.com) in October 2023, published by COLE Publishing, Three Lakes, Wis. It is reprinted by permission.

[See original article](#)

## Get honest answers from your clients about maximum occupancy and seasonal usage before you start ordering tanks and mapping out dispersal areas

By Sara Heger

October 2023



An example of a flow equalization panel from SJE Rhombus that can be helpful at monitoring and adjusting flow in vacation rental home onsite systems. (Photos courtesy of Sara Heger)

U.S. short-term rental supply hit record highs in 2022. That means more of your customers may be renting out their vacation homes either part time or full time. Vacation home rental can create numerous challenges that can be addressed during the design and installation of a new septic system for the property. If these issues are not dealt with, the performance and life expectancy of the system may be negatively impacted. Unaware property owners could irreparably damage their system if these issues are not addressed. During design and installation of a new system that serves a vacation home, you need to consider the overall hydraulic load, peak load and usage concerns.

### 1. Overall hydraulic loading

**Problems:** When you are designing and installing a new system in a location where rentals are common, the first question to ask your clients is how they plan to use their property. Some cabins, cottages and vacation homes are used on a very limited basis, while others are heavily used.

Homes rented through one of the online vacation rental services will often be fully occupied during peak periods, which can vary based on the location. You must get honest answers from the owner regarding how many beds are in the home as many times occupancy will exceed the typical assumption of two people per bedroom. Vacation home rentals often have multiple beds per bedroom, pull-out sofas, futons, air mattresses and occasionally a bunk house. It is common to find a four-bedroom home advertised to sleep 10, 16 or even 20 people! With high flows, septic tanks are more likely to have turbulent conditions decreasing settling and causing downstream components to deal with more solids.

### Solutions:

- For the design flow: Add 50 gallons per person to the occupancy beyond two people per bedroom. If the vacation home is being rented, gathering existing flow data is a great idea to verify average and peak flows. The owners may also consider limiting the occupancy to match the design flow.
- For septic tank capacity — take the calculated design flow and multiply by three to determine septic tank capacity.

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- Add a large effluent screen to catch solids and add an alarm to notify when cleaning is needed.
- Be sure to use calculated design flow (or flow equalized design flow) for sizing any advanced pretreatment or the soil treatment area.

### 2. Peak loading

**Problems:** Peak loading can be an issue with any vacation or second home. And it is even more likely with those used as rentals. Large peak flows tend to happen on days when one family leaves and the next arrives. On these days the entire home is typically cleaned and all the towels and bedding being laundered. Remember

that state code values for bedrooms are to be viewed as a peak flow that should not be exceeded on any given day and that average flows should be less than 70% of these values for system longevity.

### Solutions:

- Discuss management options with the owner — would they consider having double sets of towels and sheets and laundering them offsite? Would they lower the allowed number of occupants?
- Include timed dosing with the treatment system designs that include a pump. Timed dosing configurations include an adjustable timer that controls pump rest interval and runtime to spread out the application of wastewater over time versus how it is generated in a typical home or other facility. This will not help prior to the septic tank but it will help downstream components perform better.

### Related: Climate Impact on System Performance: Key Design Considerations

Utilizing timed dosing instead of demand dosing mitigates variations or peaks in wastewater flow. Peak flows from the dwelling are stored and then dosed to subsequent components evenly throughout the day. Usually, the flow for one day is equalized over a 24-hour period, but it can be done for longer periods of time, especially if peak flows last for longer than one full day. For this to be accomplished, the tank must be large enough to handle these flows. The pump tank capacity for a single-family residence using flow equalization should be at least two times the daily design flow.

### 3. Usage

**Problems:** Large groups gathering in vacation homes often lead to large meals being prepared, creating extra food waste entering the system — and larger volume of food waste if a garbage disposal is present. In addition, commonly people renting vacation homes are not aware of

the do's and don'ts of what should go down the drain with septic systems. This can result in many inappropriate items being flushed down toilets and washed down drains.

### Solutions:

- Discuss management options with the owner. Removing the garbage disposal may sound extreme but is a very effective way to decrease the loading to the system. Use and provide biodegradable cleaning products, as well as soaps at sinks and for laundry that will also lessen the load to the septic system. Be sure all cleaners and sanitizers used in the home do not contain "quats" (ammonium chloride is the active ingredient) as these strong sanitizers are very hard on the needed beneficial bacteria in septic systems.
- Provide educational materials — the U.S. Environmental Protection Agency has great flyers developed for rental properties that can be provided prior to check-in, and then hung up or placed in kitchens and bathrooms. Search online for EPA Septic Smart Educational Materials.
- If it is an existing vacation home, sample the effluent from the septic tank and compare it to normal septic tank effluent levels. If they are higher than normal, up-size components based on these elevated levels. Increasing the septic tank size and adding an effluent screen will help to decrease these levels but advanced pretreatment may also be needed.

### The Bottom Line

Not every vacation home rental is the same, so during the design process we must discuss with the owner how the property will be used and discuss how those decisions will impact the septic system design and longevity. During the design process, the operation and maintenance frequency may need to be adjusted to deal with higher loading and usage issues that may arise for long-term system performance and longevity.

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CHRIS WHALEN  
WHALEN & SONS SEPTIC TRANSFER

# MEMBER Profile Questionnaire

**Chris Whalen**

*Whalen & Sons Septic Transfer*

**Owners:** Chris Whalen, owner/operator

**Services/Mandate:** Septic tank pumping

**Service Area:** Hastings, Lennox & Addington, and Prince Edward Counties, Ontario

**Number of Years in Role:** ~ 1

**What got you started in the onsite wastewater industry?**

I wanted to be my own boss in something that would be different, yet challenging after 16 years in commercial HVAC-R trade. The goal of building a business and an asset for myself and my family is the driving force behind the creation of Whalen & Sons Septic Transfer.

**Give us one reason/secret for your success.**

We’ve just begun writing our success story. Keeping it simple is key: Be accessible to customers, focus on our operation and deliver the highest level of workmanship, with the highest level of customer service, at the lowest possible price.

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

It’s not the physically demanding jobs that stick with you, it’s the mentally, and emotionally taxing ones. Customers in less fortunate situations that are in less than ideal living situations grapple with the expense of owning a septic system and can’t find, or are refused service by other contractors. I have customers from all walks of life and all demographics. We treat everyone with respect and take great satisfaction in customers that turn into friends.

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

The inconsistency, and the ever increasing costs associated with different municipalities. We do not utilize lagoons, or spreading sites. We use waste water treatment facility dump stations 100%. Navigating logistics to and from six different facilities and the range of fees associated with those municipalities is the greatest challenge to our business.

**Where do you see the onsite industry going?**

Simple: it’s only going to expand. It’s my personal belief that with an influx of residents from urban to rural living combined with systems like Omega filtration, the pressure to limit or prohibit lagoons and spreading sites altogether will only intensify.





## Installers Corner

Brenda Burrows-Rabb, P.Eng.

### What is the name of the business or organization that you represent?

Rabb Construction Ltd.

### Who are the business owners? (if applicable)

Brothers Mark Rabb and Rick Rabb own Rabb Construction Ltd. I joined Rabb Construction Ltd. HQ's in January 1998 and have never looked back :).

### What is the service area?

Rabb Construction Ltd. services the greater Ottawa area. we will go farther out for great project opportunities.

### In your opinion, what do you see as the three most challenging technical issues faced by septic system installers today?

1. "Some challenges as an installer, Keeping up with updates and changes to treatment technology or learning tip and tricks for the installation process can be difficult when we work such long hours.
2. Knowing when to stop if a technical or design issue or challenge presents itself upon excavation for the system - this could be groundwater, soil that doesn't match the design, an old system, really anything that seems out of place.
3. Timely Communication with the designer, when time is of the essence during a septic installation."

### Briefly, how might these be addressed?

1. "Our industry offers many events to attend to keep current, from annual treatment unit meetings, regulators annual gatherings or OOWA's courses, burgers and beers, and convention - really there is always something to learn at any level of experience in this industry. I would recommend attending any and all offered.
2. Knowing when to stop is critical thinking when it comes to septic system installations. The best course of action is to stop, investigate and ask the designer when an unknown situation presents itself. This could be bedrock or groundwater at an elevation that wasn't listed on the design test pits, different soils identified upon excavation or a watercourse too close to the system. I know it will slow the progress of the installation, and also know that time is money; but correcting an oversight or an unknown at the time of installation is the best solution in the long run.
3. As above, getting a timely response is critical when completing and installation. In my experience, ongoing respect and communication with both the designers, engineers and regulators goes a long way in co-operative work. In our area we have simply terrific engineers, designers and regulators that work very hard to educate and help installers with any questions."

### What advice would you give to contractors wanting to make a go of installing septic systems?

My advice for new septic installers would be to never stop learning, be honest and truthful. The on-site waste water industry is forever evolving with new research and innovation. Discuss what you know with your clients; however, never hesitate to say what you don't know. Always take the opportunity to learn, to gather the required information, and then commutate options on how to solve the problem at hand. Clear communication with your client is a key to success.

### What would be the most impactful thing that OOWA could do to improve the industry?

Education is the most important thing OOWA can do to improve the on-site industry. OOWA is the platform for the information, installers can be a conduit to get the information to the homeowner and/or owner of the septic systems. There is so much information available on the OOWA website for installers to access and use.

### How do you communicate homeowner operation and maintenance responsibilities to your clients when the install is complete?

"Upon the completion of an septic system installation and receipt of the Certificate of Completion from the Regulator, Rabb provides the homeowner/system owner with a complete Septic System package. I always say that this package contains everything the homeowner would need or want to know about their septic system.

Our septic package contains all design, approval, inspection paperwork and As-built plans related to the septic installation. We include our Do's and Don'ts, recommendations highlighting the need for regular maintenance and filter cleaning. We provide a link to the OOWA website and the tremendous amount of information available with our OOWA membership. In my experience, the homeowners really appreciate the information as they want to protect their investment. Our septic package is very well received by our clients."



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# The Red Tag - Ensuring Code Compliance in Precast Septic Tanks

By: Dominic Girotti

Manufacturing any product to a high level of quality requires sound design, the use of high-quality materials and consistent application of best practices. For regulators and end users, it can be difficult to distinguish between organizations manufacturing quality products from those that don't. For that reason, governing bodies in most industries have established minimum standards and methods of production.

Agencies such as Canadian Standards Association (CSA), Electrical Safety Authority (ESA), American Society for Testing and Materials (ASTM), American Society of Mechanical Engineers (ASME), American National Standards Institute (ANSI), International Organization for Standardization (ISO) etc. publish codes and regulations stipulating how products are designed, produced, installed and maintained. These standards, when implemented, ensure consistent performance.

Governments reference these standards when drafting legislation to protect the public from both a commercial and safety perspective. The Ontario Government, through the Ontario Building Code (OBC), stipulates that septic tanks for residential applications shall conform to CSA B66. By citing this standard, the provincial government ensures tanks produced meet minimum standards for structural integrity, durability, reliability and performance. This not only provides assurance that the tank will perform as intended with a long service life, it's also a valuable tool for the municipal inspector.



To ensure compliance with the Ontario Building Code, all building officials in the province must confirm that concrete septic tanks installed in their jurisdiction conform to CSA B66. There are two ways a concrete producer can demonstrate conformance.

Firstly, a precast plant can be certified under CSA A23.4 (Precast Concrete - Materials and Construction/Qualification Code for Architectural and Structural Precast Concrete Products). This is a comprehensive program best suited for precasters manufacturing a diverse range of concrete products. It certifies that all products produced in their plant comply with the wider CSA standard. An inspector can identify tanks produced by a CSA certified plant by looking for the CSA logo stamped on the product. Only certified plants are authorized to use the CSA logo. Look for this marking and the inspector can be assured the product meets CSA requirements.

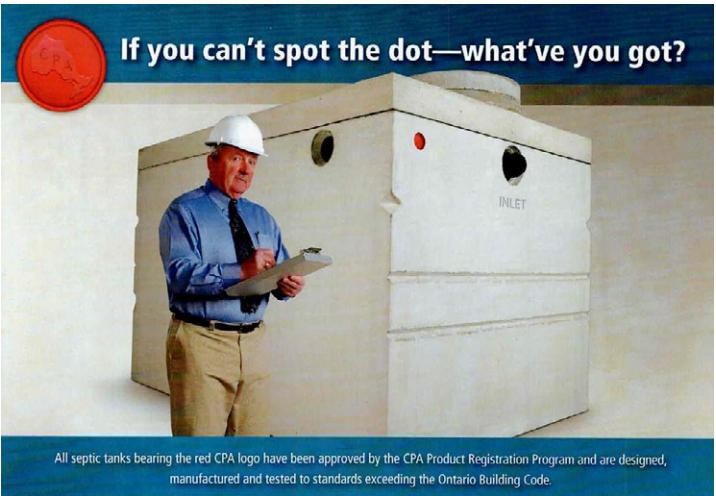
Due to costs involved in certification by CSA, this may not be appropriate for plants that primarily produce septic tanks. Only a small number of septic tank manufacturers in Ontario are certified under this program.

The second, and most common method to demonstrate compliance with CSA B66, is participation in Concrete Precasters Association of Ontario (CPA) Product Registration Program. Through arms-length oversight, this program ensures that products conform to B66.

To participate in the CPA Product Registration Program, a tank producer must undergo annual plant audits where materials and manufacturing methods are inspected and evaluated against the requirements of CSA B66.

As part of this evaluation, random tanks are selected from the producer's inventory for comprehensive testing by an independent professional engineer. At the conclusion of this testing regime, the engineer produces a report which includes a statement asserting whether the producer meets CSA B66. Only precasters that receive a positive engineering report are authorized to place a CPA Red Tag on their tanks. These tags provide inspectors with an easy visual method to satisfy that the products meet CSA B66.

Both the CSA logo and the Red Tag are visual tools demonstrating the producer adheres to a robust quality control program and their products are in compliance with the code. Look for either marking and the inspector can be assured of code compliance and that the tank will perform well for many years to come.



## About the Author

Dominic Girotti, P.Eng., from St. Catharines, brings extensive experience from his career in precast concrete. As the former owner of Hy-Grade Precast Concrete Ltd., a long-standing family business, he gained deep industry knowledge. Currently, Dominic leverages his expertise as the administrator of the Concrete Precasters Association of Ontario Product Registration Program, contributing significantly to the sector's standards and quality assurance. His P.Eng. designation underscores his commitment to engineering excellence and professional integrity.





# Out and About with OOWA

## Brooklin Concrete Seminar Recap

We were proud to see a strong OOWA presence at the Brooklin Concrete Session, hosted right here in Peterborough. Our Executive Director, Kelly Andrews, gave an engaging presentation on the value of OOWA membership and how we continue to support professionals in Ontario's onsite wastewater industry.

OOWA board members Mike Gibbs (ESSE Canada, representing Bionest Technologies) and Andy Bauman (BNA Inc.) shared exciting updates on their companies' latest innovations. We also heard valuable insights from fellow industry supporters, including System O, Waterloo Biofilter Systems, and Metropolitan Pump Co. It was a great day of learning, networking, and collaboration!



## Peterborough Children's Water Festival Recap

OOWA was thrilled to be invited to take part in the 2025 Peterborough Children's Water Festival, held May 27th and 28th along the Otonabee (Otonabee) River at Riverview Park & Zoo. This engaging event welcomed students in Grades 2 to 5 to explore more than 35 hands-on, curriculum-connected learning stations focused on water conservation, technology, protection, and science.

It was great to be out in the community and contribute to this long-standing event, helping to inspire the next generation of water champions. We handed out homeowner brochures to adults and had a blast chatting with the kids, who truly proved that kids say the darndest things! When explaining how water is recycled, one student exclaimed, "do we drink pee?" When asked what not to flush down the toilet, one kid hilariously exclaimed, "a dead fish!" And when we talked about solids settling in a septic tank, asking what those solids would be, the enthusiastic response was a chorus of "POOOOOO!" followed by tiny giggles.

We were honoured to receive a thank-you note from festival organizers, which shared:

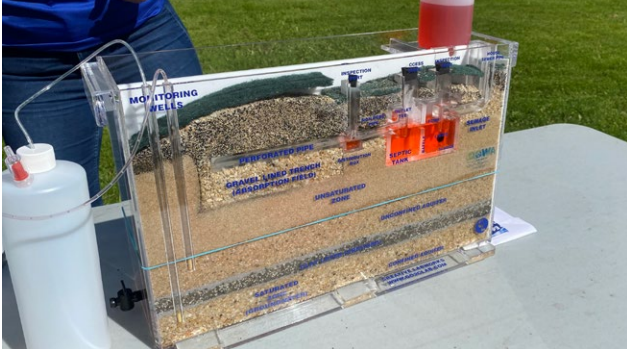
*"Your leadership in delivering engaging, hands-on activities helped bring water education to life for over 1,400 students. The time, expertise, and enthusiasm you shared created meaningful learning experiences that students will remember and carry with them."*

Thank you to the organizers for including us—we look forward to participating again next year!

## OOWA Members – have you recently attended a similar event?

We would love to highlight what our members have been doing to spread the word about the benefits of onsite and decentralized wastewater management. Send us a brief description of the event, accompanied by a few photos, and we will feature it in a future newsletter!

Send to [info@oowa.org](mailto:info@oowa.org)





# ONTARIO ONSITE WASTEWATER ASSOCIATION GOLF TOURNAMENT

## Registration ends soon!

**FRIDAY  
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**\$150 PER GOLFER**

**Shotgun start at noon**  
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Dinner only option available
- Colleagues, friends and family welcome!
- Percentage of proceeds go to our scholarship fund
- Registration deadline: August 29, 2025  
\* Must have 62 golfers to proceed with event.

For more information or sponsorship opportunities,  
please contact Krista at [op-coordinator@oowa.org](mailto:op-coordinator@oowa.org)

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[info@oowa.org](mailto:info@oowa.org)

## Tee Off for a Great Cause at OOWA's 1st Golf Tournament!

Get ready to hit the greens and support the future of the onsite wastewater industry! The Ontario Onsite Wastewater Association (OOWA) is hosting its **1st Golf Tournament** on **Thursday, September 19, 2025**, at the beautiful **Harbourview Golf & Country Club** in Gilford, ON.

Our goal is to raise funds for the OOWA Scholarship Fund, which provides essential educational scholarships to students pursuing careers in the onsite wastewater and environmental sectors. Your participation directly assists in cultivating the next generation of innovative and sustainable industry leaders.

### Event Details:

- **Date:** Thursday, September 19, 2025
- **Location:** Harbourview Golf & Country Club; 1284 Shore Acres Drive, Gilford, ON L0L 1R0
- **Time:** Registration opens at 11:00 AM; Shotgun start at 12:00 PM
- **Registration Includes:** 18 holes of golf with a power cart, dinner, contests, prizes, giveaways, and invaluable networking opportunities with industry peers. (Lunch will be available for purchase at the course.)

### We Need You!

We need at least **62 golfers** to make this event a success, and we're counting on your support! This is an open tournament, so whether you're an OOWA member or not, we encourage you to bring a friend, colleague, or your spouse for a fantastic day out. If you're new to OOWA, this is a perfect chance to meet seasoned professionals. Let us know if you'd like to be matched with an experienced member!

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- Structurally reinforced access ports eliminate distortion during installation and pump-outs
- Reinforced structural ribbing and fiberglass bulkheads offer additional strength
- IM-300 and IM-1250 now available in the Ontario market
- Whatever you need - we have a tank for that!



### Click and Lock Riser Technology

Create an easy-to-assemble SNAP watertight riser system for septic tanks, pump tanks, and cisterns. Click and lock system eliminates the need for assembly tools.

- No Tools or Adhesive
- Nest Together for Efficient Shipping
- Available in 2, 6 and 12 Inch Heights
- Strong, Durable, Polypropylene Construction



### Safety Star System

Per CSA Standard B66-2021 referenced in table 1.3.1.2 of the OBC, it is a mandatory requirement for all access openings of prefabricated septic tanks to have secondary safety screens. Effective January 1, 2025.