



Onsite

Ontario Onsite
Wastewater Association

ONTARIO ONSITE WASTEWATER ASSOCIATION NEWSLETTER
treatment | technology | innovation | reuse | recycle

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Mandatory Training for Onsite Professionals:

Continuing the Conversation

Lesley Desjardins, Stefan Furey and CeCe Rudnicki

On the second day of our 2020 Convention in London, OOWA hosted a panel discussion that addressed mandatory training efforts of onsite professionals. The intent of the conversation was to explore how continuing education and ongoing skills training is carried out in other jurisdictions. The panelists shared the challenges and successes they face in delivering their programs. They also addressed questions about how Ontario might consider adopting a mandatory training regime and the potential benefits. Our panelists were:



Lesley Desjardins: the Executive Director of the Western Canada Onsite Wastewater Management Association (British Columbia, Alberta, Saskatchewan and Manitoba)



Stefan Furey: is a P.Eng. and the lead for Nova Scotia's Onsite Sewage Disposal System Program with a specific focus on the industry's Professional Development Program



CeCe Rudnicki: a wastewater specialist and inspector with the Wisconsin Department of Safety and Professional Services with the State of Wisconsin



Rick Esselment: the President of ESSE Canada and OOWA past president represented an Ontario perspective

In an attempt to share the learning from this session with those who were not in attendance at the convention, we've asked the out-of-province panelists to summarize their thoughts and comments from the session.

Continued on pages 3-6

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PRESIDENT'S MESSAGE



Welcome to the summer edition of your association's newsletter. It has been an unprecedented start to the construction season with COVID-19 and

an early dose of extreme summer heat. Even with the restrictions that accompany the pandemic, early indications are that our industry is in good shape and will remain so as we all follow the mitigation measures set out by government and local health officials. There are, however, many resources available for small businesses that have been negatively impacted, which OOWA staff has worked hard to pass this information on to you and are happy to continue to help members that need additional direction.

OOWA has been adapting on several fronts. Most notably, we have decided to cancel our annual fall regional round ups. Over the last several years, these locally focused events bring together regulators, installers, designers, engineers, and suppliers to discuss important issues and explore best practices for our industry. The feedback we consistently get from attendees is that these events are beneficial for our members and are also a great time to meet with and to learn from friends and colleagues. Our Events and Communications Committees are working on ways to shift our educational efforts online with webinars and instructional videos. Check back to www.oowa.org in the coming weeks to see what we have developed for you.

This exploration of the online learning environment carries over to the planning of our 2021 Convention and Expo scheduled for February 28th – March 2nd at the Ottawa Conference and Event Centre (NOT the Ottawa Convention Centre!) Our Events Committee is continuing to plan an in-person event while at the same time preparing for an online version to approximate the benefits of our annual gathering. We may miss the personal connections that make our convention special, but we will strive for quality information sessions that address critical issues in our industry – as always! We have already attended other online events as research and investigated innovative online platforms that make for an enjoyable and

interactive experience. A reminder that we are currently accepting presentation proposals so contact Mike Gibbs at 1-855-905-6692 ext. 101 for more details.

Continuing with the online environment theme Kelly, Mike, and OOWA's Communications Committee have been working on the new website which is now live. Look forward to a more user friendly and interactive website with access to our 'Wild Apricot' member portal and our membership directory. It will be a more visual experience with much of the content streamlined and organized in a more efficient manner. Check back to www.oowa.org in the coming weeks to see what we have developed for you.

Coming out of our annual convention and the Annual General Meeting, OOWA has a new Board and a new Board Executive that have already made significant contributions! Check out the announcement further along in the newsletter for more details. If you happen across one of these individuals in your day to day work be sure to congratulate them and let them know that we are all depending on them!

It is no surprise that our provincial government has been busy lately but that has not stopped our External Relations Committee from making sure that provincial ministries hear from us. The Committee recently submitted a letter and petition requesting that the MECP review and update the D-5 series guidelines. Discussions will also be moving forward with MECP staff regarding improving the ECA approvals process. Much has been accomplished with the help of the MECP staff members who attended our 2020 convention. This progress speaks to the importance of having ministry attendance at our events to speak to and to hear directly from industry. OOWA will continue to strive for ministry representation at our convention and engagement with members on a one-to-one basis. It makes a big difference!

I want to take this opportunity to wish you all a safe and productive summer season and I look forward to serving all of you as your association president over the course of my term.

Brady Straw, President



Ontario Onsite Wastewater Association

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Wastewater Association
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The opinions expressed in this newsletter by contributing authors are not necessarily the opinions of OOWA's Board of Directors or the Association.

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MANDATORY TRAINING FOR ONSITE PROFESSIONALS:

Continuing the Conversation:

Lesley Desjardins



I had the pleasure of participating in a panel discussion on education for onsite wastewater practitioners at the OOWA conference in March. It seems like that was just yesterday. With the world turning upside-down directly after the conference, we have all been focussed on learning

to cope with the new realities of running our businesses, but now with economic activity starting up again, it is time to regroup and revisit.

The purpose of the panel was to discuss the pros and cons of both initial education and resulting certification and ongoing continuing education. Two others on the panel represented jurisdictions where initial education and certification along with ongoing continuing education are required. One was an OOWA representative and I represented areas where initial education and certification are required (one area where continuing education is required and three areas where continuing education is under development).

The big question is: why require contractors to suddenly attend classes and become certified in a discipline they have been working in for many years? Good question.

When septic systems were first utilized, the emphasis was on disposal. The goal was simply to get rid of the waste so that it didn't smell or cause a nuisance. There wasn't much consideration about the fact that the wastewater doesn't just disappear. Nobody really concerned themselves about where it was going. Systems were built based on number of bedrooms and the emphasis was on the excavation and plumbing work involved in system installations. The ability of the soil to accept water was only a consideration with regards to ensuring the wastewater was absorbed, with higher percolation rates being considered best for system sites. There was no thought about using the soil to treat the wastewater.

We have a far greater understanding now about how wastewater moves through the soil and how soil treats the wastewater, purifying it prior to re-entry into the water table. We also are far more aware that the wastewater doesn't just go away; it re-enters the freshwater stream, either through an aquifer or a surface water body. Eventually, it ends up in our tap water as it cycles through again.

Our greater understanding of how the hydrologic cycle works puts much more responsibility on our industry as stewards of both public health and the environment. The goal now is to achieve treatment and dispersal, not collection and disposal.

When training was first mandated in Western Canada, there was significant pushback from the installation community. However, after the training had been in place for only a few months, we received comments from contractors who had been installing for many years stating how much they had learned, and how they now looked at soil differently. The tide began to change in favour of training and certification.

Another positive outcome of training and certification, besides improving the understanding of our contracting community, was the professionalization of the onsite wastewater industry in the eyes of the public. In the past, the public had not demonstrated much respect or faith in our industry members, but gradually as they realized there was more to a septic system than digging trenches and gluing pipe, their opinions of the onsite wastewater industry was elevated.

The government began to pay closer attention as well, adjusting regulations and policies to support better design and installation practices. Regulations were modernized and Standards of Practice were developed to support the industry. It was recognized that in an industry that demonstrated quickly evolving technologies, that continuing education would be needed.

It was gratifying to sit on the panel with other stakeholders whose organizations have developed robust continuing education programs. These programs ensure that industry members stay engaged and updated both from a regulatory and a technical perspective. This is something we are working towards in Western Canada.

It was interesting to have OOWA's representative there as a counterpoint to the various opinions put forward from the panel, and to bring OOWA's member's concerns into the discussion.

Following the panel, I was approached by a number of contractors who support industry training and certification. There is a recognition that our world anticipates and expects training in any discipline you work in. There is pride that this industry provides an essential service. There is an understanding that we can all learn something new about our craft even if we have been successfully practicing for years.

Many of those working in the onsite wastewater industry are self-employed, perhaps with others working for them

MANDATORY TRAINING FOR ONSITE PROFESSIONALS:

or in small family businesses. Business owners recognize the importance of investing back into their company, to build their expertise, expand their scope of work, and to continue to provide top-notch service to their clients.

Participating in training and certification in your discipline is good business. You will be amazed what you learn and you will be able to share your expertise with others and help them to expand their skill levels and knowledge as well.

The provision of responsible and environmentally sustainable wastewater systems is an essential service. Ensuring those who work in that industry are up-to-date on the latest research and technology through training and certification protects the business, the homeowner, and the industry as a whole.

Continuing the Conversation:



*Stefan Furey, P.Eng.
Onsite Sewage Disposal
System Program Lead
Nova Scotia Environment*

Introduction

On March 3rd, 2020 I was able to participate in a keynote panel discussion at

the Ontario Onsite Wastewater Association conference. The discussion was titled Training and Continuing Education for Onsite Wastewater Professionals. I enjoyed being part of the respectful dialogue that not only focused on the benefits of continuing education but also the challenges.

Being involved with various certification programs since my early days with Nova Scotia Environment I am happy to share some information on how our onsite renewal program works and offer some basic tips based on my Department's experience with certification and renewals.

A bit about our program

Nova Scotia's onsite sewage disposal system program has been mostly privatized to allow certified persons to select or design systems by filing what we call a notification. A notification can be used if the system is completed in accordance with the Onsite Sewage Disposal Systems Standard and means the notifier can proceed to install the system once they have a receipt of notification from Nova Scotia Environment. Nova Scotia Environment audits a certain number of installations to confirm compliance

with the Standard or applicable approvals, however the regulator relies on the training and accountability of the professionals to install the system correctly. For this reason, certification and continuing education are essential.

Those who can work in the onsite industry in Nova Scotia are:

- Engineers – Can select or design systems in accordance with the Standard or request approval for system designs that cannot meet the Standard.
- Qualified Persons (QPs) – Can select pre-designed systems from the Standard.
- Installers – The contractors who construct the systems.
- Septic Tank Cleaner – Those who pump, clean, and maintain systems and portable rest rooms.

A cooperative approach to certification

Like the Ontario Onsite Wastewater Association, Nova Scotia has Wastewater Nova Scotia (WWNS). Nova Scotia Environment has a partnership with WWNS to provide the certification courses and exams, manage continuing education points, and manage renewal information to their membership.

WWNS does provide some training opportunities, however eligible training is not required to be from WWNS.

Becoming certified

To be eligible to participate in the onsite program a person must first become certified. Nova Scotia Environment issues certifications based on meeting the following requirements:

- Qualified Persons and Installers
- 1000 hours of onsite work experience
- Participation in the installation of 6 systems
- Complete Installers course (QPs and Installers)
- Complete Qualified Persons course (QPs only)

Septic Tank Cleaner

- Complete the Septic Tank Cleaners Course

A person must hold a certificate for each area of the program they work in.

Certification and continuing education for Engineers is managed by their provincial licensing and regulatory body, Engineers Nova Scotia.

Staying certified

Nova Scotia Environment manages up to 17 different certificates in various programs. Twelve of the 17 certificates require continuing education as part of a renewal requirement. The most common renewal cycle is 4-5 years.

For the onsite program certifications are on a 4-year cycle and the renewal fee is \$166.05 to be paid every four years. Renewal is based on a point system for education and other eligible activities which is managed by a committee of WWNS with representation from Nova Scotia Environment. In addition to traditional formal education sessions, points can be achieved through participation in the industry organization and mentorship. Septic Cleaners require less points than QPs and Installers.

What we've noticed

I had a chance to discuss this topic with the executive director of WWNS. When renewals were introduced about 20 years ago, there was up to a 75% decrease in the number of certified people. The requirements for maintaining certification retained those who were more knowledgeable, experienced and committed to the advancement of the industry. It was felt it had made the industry more professional.

Some thoughts on pursuing a renewal program

In speaking with some of my colleagues involved in certification programs we offer the following thoughts should your onsite industry consider pursuing a continuing education program:

- Determine the resource implications of a renewal program. It can be a lot of work, even more so in the first few years of the program.
- Staggering renewal periods so not everyone is due at once.
- Encourage industry members to keep records of their training documentation. Point/credit tracking systems can be put in place but ultimately, it's the members who must take ownership of their education credits.
- Design accessible training solutions for individuals in rural areas. A lot of the in-person training tends to occur in the more urban areas.
- You may need to define what is acceptable training and what is not. It's a common question.

- Ultimately continuing education is about remaining competent in your field for the protection of public health. As demonstrated by the Walkerton Inquiry training should ensure that professionals continuously refresh their skills, acquire knowledge about new developments in their field, and remain aware of risks to public health.
- Consider what other objectives you might want to achieve. Credit towards industry participation and mentoring encourages involvement which improves professionalism of the industry. Safety is an important part of the industry. However, limits may need to be in place for these types of training to ensure the goals of competency and public health protection are met.

Introducing a mandatory continuing education program can seem like a leap of faith. What will be the impact on the industry? Will there be enough training opportunities available? There are real risks and challenges to consider. However, given what is at stake I still believe it is a worthwhile endeavor.

Continuing the Conversation:



*CeCe Rudnicki, Wastewater Specialist
Wisconsin Department of Safety and Professional Service*

Each one of us took different paths in getting to the point we are today in the wastewater industry.

Whether we started out as a student in a university or shoveling dirt in the trenches, we all have a story to tell and each of those stories can help someone else along the way. But even though all of us have different stories, one thing we likely have in common is a passion for helping others and protecting human health and the waters of the earth.

Along with other states, Ontario and Wisconsin share the shores of a Great Lake - Lake Superior. Do you think Gitche Gumeé knows there is an international border going through the middle of it? Does Ontario water stay along the Ontario border and Wisconsin water stay within the Wisconsin border? Of course not! And we all know the same is true for wastewater that we put into the ground. It doesn't care where property lines or structures or wells are at. It is going to take the easiest path to wherever it wants to go. So those of us in the industry need to care... and we need to be responsible to the people we serve.

MANDATORY TRAINING FOR ONSITE PROFESSIONALS:

Education provides us with opportunities to learn from others...sometimes their successes, sometimes their mistakes....but in the end it helps everyone – no matter where we live.

To provide a little background on Wisconsin's POWTS program: Wisconsin has about one third of its population on decentralized wastewater. This includes 730,000 homes and just under 2 million people. We have had a uniform Private Onsite Wastewater Systems (POWTS) code for over 50 years. This code was adopted by the Legislature and is overseen by the Wisconsin Department of Safety and Professional Services (DSPS), but it is applied by the local governmental unit – which is generally the county. The county issues the sanitary permits, performs installation inspections, completes enforcement and tracks servicing and maintenance of all POWTS within their jurisdiction.

The state, through DSPS, establishes and provides policy for the uniform rules that apply to POWTS, establishes rules and provides exams for uniform licensing of POWTS professionals, provides audits and support to the local governmental units, provides training for licensed POWTS professionals and provides plan review of specific types of POWTS designs.

Mandatory continuing education has been a part of Wisconsin's program for over 40 years. The state requires licensing of soil testers, designers, installers, county inspectors and maintainers. The number of continuing education hours that is required to renew a license varies, but it is anywhere from 12 to 24 hours per 4-year cycle. Licenses are renewed on a 4-year basis and the hours can be obtained all in a single year or spread out throughout the 4 years.

Mandatory continuing education can come in many shapes and forms. Some states have a "Cadillac" system which includes several in-depth courses that really focus on training all POWTS professionals in all POWTS aspects – in other words, a county inspector would be just as knowledgeable about how to install a septic system as an installer would be. These types of programs are great but may come at a high cost since doing this type of training takes dedicated program personnel.

In Wisconsin, we have more of a mid-size program. Anyone can provide continuing education training, but the course must first be approved by DSPS. Most of our POWTS training is provided by WOWRA (Wisconsin Onsite Wastewater Recycling Association), WCCA (Wisconsin County Code Administrators), tank manufacturers, plumbing suppliers, counties or DSPS. The down side is that there really isn't anything uniform to this process, other than the state needing to approve the course, but the benefit is that the training is usually low cost or free, and license holders generally exceed the continuing education requirements because they attend several different courses. The continuing education attendance is recorded on a DSPS website by the course provider who simply enters the credential number of the attendee in the approved course database. That information is automatically applied to that license holder's credential and stored for verification at the time of renewal.

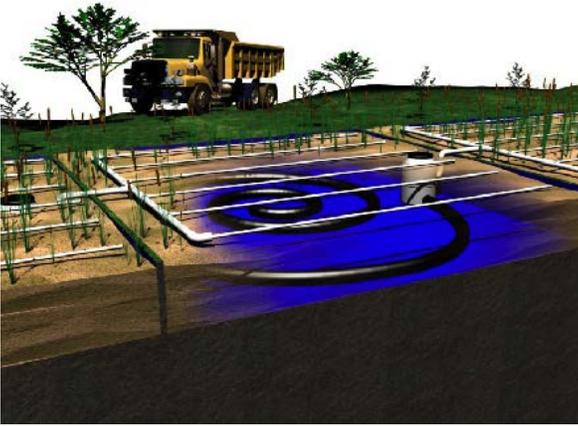
Obviously, with the concern over viruses, some of our training techniques may change, but I am hopeful we will continue to make sure license holders are up to date with new technologies, new ideas and new ways to improve the service we all provide.

The path I took in getting to the point where I am writing an article for an OOWA newsletter is filled with many twists and turns. But I never would have gotten here without the insight of so many others who have taught me some of the lessons they have learned. Mandatory continuing education plays a big role in the success of Wisconsin's POWTS program. I know I learn something new and am reenergized each time I attend training. If each of us could be inspired by a few hours of training every winter, what a difference we could make!



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Ontario Onsite Wastewater Association

OOWA's 2021 Convention & Expo

Sunday, February 28th – Tuesday, March 2nd

The Ottawa Conference & Event Centre
200 Conventry Rd., Ottawa, K1K 4S3

OOWA's convention organizing committee is planning an in-person event but also working on an on-line or virtual experience that may take place depending on COVID-19 restrictions. Stay tuned for more details.

**Save
the
Date!**



Meet OOWA's 2020/2021 New Board of Directors and Executive Team

OOWA is proud to announce the Executive Committee members of the Board of Directors for 2020/21.



PRESIDENT

Brady Straw,
Waterloo Biofilter



TREASURER

Roddy Bolivar,
Makeway Environmental
Technologies



PAST PRESIDENT

Anne Egan,
Burnside



VICE-PRESIDENT

Bill Goodale,
Tatham Engineering



SECRETARY

Bert Knip,
Makeway Environmental
Technologies

OOWA Committee Update

OOWA has 8 working committees and several sub task groups that are supported by volunteers who lend their time, knowledge and expertise to activities identified in our strategic plan. Each committee meets regularly for a one-hour Zoom meeting. Committee members who are participating in task groups will meet with these task groups monthly as well. It is in these committees where much of the work of the association gets done. Our committee volunteers really are the unsung heroes of your professional association. This is a brief update as to what each committee has been up to so far this year.

Communications Committee

This committee meets on an as-needed basis. The big news coming out of this committee is the completion of the association's new website! You can check it out at oowa.org. The new website is more appealing visually, the content has been re-organized in a more efficient manner and is much more user friendly. We hope you find it to be a valuable resource with the member directory and our best practice documents now easily accessible. Committee members also

provide content ideas and input for our ongoing monthly email communications and our print newsletters. To help with homeowner education, committee members have been providing pictures to be used in social media posts and our recently produced 'A Homeowner's Guide to a Healthy Sewage (Septic) System.

Events Committee

The Events Committee has grappled with the fall out from COVID-19 by deciding to cancel our annual Regional Round Up events that are usually scheduled for multiple locations throughout the province in the fall. The Convention Planning task group continues working on delivering an in-person annual convention at the Ottawa Conference and Event Centre while also planning a virtual conference where we would provide all the information sessions on-line. Depending on how things go we may be able to offer a hybrid version of the event where we do the usual 'live' event but also run the information sessions on-line for folks who are not able to attend in person. Stay tuned for updates.

External Relations Committee

The External Relations Committee develops and maintains active relationships with relevant representatives of provincial government, agencies, industry organizations, and partner organizations. Last month this Committee drafted and submitted a letter and petition with over 70 signatures to the Ministry of Municipal Affairs and Housing requesting that the Ministry update the D-5 series guidelines that deal with municipal planning for sewage and water services. Updates to these guidelines would work to help clarify issues pertaining to Municipal Responsibility Agreements (MRAs) for communal systems and would increase the adoption of septic technologies that would in turn, support the province's targets for development density while supporting the growth of our industry. Committee members are also re-initiating a group comprised of both OOWA representatives and MECP staff to discuss ways of improving the approvals process for ECAs.

Finance Committee

OOWA's Finance Committee is comprised of members of the Executive Committee of OOWA's Board of Directors as well as various committee chairs. OOWA's Treasurer, Roddy Bolivar, works with OOWA's Operations Coordinator, Kelly Mercer, to produce monthly financial reports and general updates which are presented to the board of directors. Roddy and Kelly are continuously working together to streamline OOWA's financial processes and to closely monitor OOWA's expenditures and revenues. This committee is working on securing one of the Federal Government's subsidy offerings to help offset current and potential financial stream losses because of COVID-19 restrictions.

Governance Committee

The Governance Committee's mandate is to assist the Board of Directors in matters of policies and procedure. The committee also helps make and change policy with respect to by-law issues within the organization. This committee is currently working on finalizing a privacy policy for the association in addition to clarifying expectations for our event speakers by reviewing and updating our mandatory speaker agreement.

Membership Committee

The Membership Services Committee's purpose is to ensure value for members as evidenced in retention and growth. The Membership Committee has recently drafted and issued an electronic survey to get feedback on the association's performance and to get input about how we can better serve our membership. Some of the feedback has initiated work on exploring an outreach strategy to our regulator community with the intention of providing additional education and guidance on Part 8 of the OBC. Stay tuned for more details.

Professional Development Committee

The key focus of the Professional Development Committee is to expand the abilities of all OOWA members. Much of the recent work of the Committee has dealt with streamlining accessibility to the required courses for the Registered Professional Program (RPP). To this end, the Committee has completed a road map that will make it easier for program participants to achieve their designation. The road map lists all the required aptitudes for each designation, identifies the required courses and provides links to the course providers along with the duration of each of the courses. The Committee has also been working on developing a course that has not been available for the Regulatory Inspector designation. This course will have a focus on inspecting septic systems from a regulatory perspective and will provide some additional guidance on Part 8 enforcement.

Onsite Technical Committee

The Onsite Technical Committee evaluates and recommends changes to existing codes, guidance and other related rules and regulations to improve the technical aspects of design, service and maintenance for the distributed wastewater industry. This also includes best practices and technical guidance documents to support practitioners. This Committee has been hitting it out of the park with their work on our guidance document series. You can find the completed documents on our new website under the 'Resources' tab then select 'Industry Resources'. Task groups of this Committee are currently working on best practice documents for site evaluation and flow distribution. This Committee is always looking for feedback on the documents they produce so please get in touch with us so we can keep improving these living documents. If there is a topic that you would like to see addressed with a guidance document let us know or join the committee!

Join us in welcoming our new 2020-2021 Directors

Marie Christine Belanger (returning),
Premier Tech Aqua

Jeremy Kraemer,
Cambium Inc.

Jami Quathamier,
Brooklin Concrete

Danielle Ward,
Adams Brothers Construction

The board is always interested in hearing from our members so if there is something that you would like to share with them you can contact us at 1-855-905-6692 ext. 101 or at outreach@oowa.org and we will connect you. The new Executive team wishes everyone a prosperous summer season!

New & Renewed Members Listing

For the period of February 15, 2020 to July 24, 2020

NEW MEMBERS

Konrad Bindas, NEXTGEN Excavating & ICF Solutions Inc.
Alex Campbell, Tekoa Environmental Ltd
Gemma Charlebois, MTE Consultants Inc
Dave Covill, Elmer's Construction
Mike Gooch, Cottage Country Environmental Services
Lea-Jeanne Grenier, Bionest Technologies Inc
Ben Heinbuch, MTE Consultants Inc.
Darren Hewgill, The Hewgill Group Ltd
Tony Lodder, Lodder Brothers Ltd
Tyler Lodder, Lodder Brothers Ltd
Michelle Poulin, Tekoa Environmental Ltd
Arlene Quinn, Municipality of Highlands East
Michelle Rea, Student - Fleming College
Pratima Sharma, Rivercourt Engineering Inc.
Wayne Shelly, Northern Project Services Inc.
Mark Stivrins, XKvate Inc
Montana Wilson, MTE Consultants Inc.
John Yantha, Yantha Backhoe & Trucking Ltd.

RENEWED MEMBERS

Bassim Abbassi, Ontario Rural Wastewater Centre
Larry Acchione, Allto Construction Services Ltd.
David Adams, Adams Brothers Construction
Matthew Aldom, Town of Bancroft
Debbie Anderson, Municipality Of Grey Highlands
Alexandra Anderson, Camping In Ontario/OPCA
Imad Aouli, WSP Canada Inc
Felipe Araque, BNA Inc (Bergmann North America)
Randy Armstrong, Armstrong Pumping Ltd
Lorne Bagshaw, Lorne Bagshaw Excavating
Clark Ballantyne, Corporation of the City Of London
Richard Barg, Xylem Inc. - Goulds Water Technology
Dominic Bauer, Gunnell Engineering Ltd.
Andy Bauman, FlowSpec Engineering Ltd
Gord Bell, Acton Group Uxbridge Inc.
Lars Bergmann, BNA Inc (Bergmann North America)
Adam Biancaniello, Verge Insurance Group (OOWA Insurance)
Bruce Blackburn, B. Blackburn Ltd
Jeff Blackburn, B. Blackburn Ltd.
Jamie Blakely, Blakely Property Services
Roddy Bolivar, MakeWay Environmental
Janis Bortolotti, LaSalle Backhoe Service
Sandy Bos, Township Of Muskoka Lakes
Colin Bos, Waterloo Biofilter Systems Inc
Randy Bossence, Township of Centre Wellington
Anthony Boyko, City of Markham
Rick Brear, Burke Stonework and Excavating
Bruce Brisbois, Leroy Construction
Mark Brosowski, Weber Environmental Services
Jarett Brown, Southpaw Contracting
Paul Bruinsma, Bruinsma Excavating Ltd.
Darrell Brunton, Darrell Brunton Excavating
Teresa Buckman, MakeWay Environmental Technologies Inc.
Martin Burger, Groundwork Engineering Limited
Emily Burgess, Univeristy Of Waterloo - Business Development
Carl Burke, Burke Stonework and Excavating
Brenda Burrows-Rabb, Rabb Construction Ltd
Gary Cameron, Waste Water Nova Scotia
Madeline Carter, Crozier Consulting Engineers

Pat Casey, Total Site Services Inc.
Carolyn Chan, GM BluePlan Engineering
Robin Charette, Biobite
Frank Charlebois, S Charlebois Haulage And Excavating LTD
Greg Cherniak, Municipality Of Dysart Et Al
Louie Chiarappa, Hernandez Sanitation Services
Dorian Chlopas, Rowan Environmental Consulting Inc.
Stephen Cobean, Cobide Engineering Inc.
Howard Cook, Howard Cook Drainage
Kevin Cooney, Cooney Construction & Landscaping Ltd.
Greg Corman, Waterloo Biofilter Systems Inc.
Jean-Pierre Corriveau, DBO Expert
Dwayne Coulas, Town of Petawawa
Charles Courchesne, Guy Courchesne Excavation Ltd
Hillary Craggs, Waterloo Biofilter Systems Inc.
Mike Crain, Arnott Brothers Construction
Clay Crepin, Gerry Crepin Cartage
Brock Cross, Gunnell Engineering
James Cuming, Allto Construction Services Ltd.
Michelle Dada Ortiz, MNT Consulting Group Inc.
Ron Davenport, Infiltrator Water Technologies
Terry Davidson, Ottawa Septic System Office
Randy De Guire, Township Of Wainfleet
Anthony DeDominicis, Roswell Concrete Products
Derek Demaine, Aqueous Operational Services
Ashley Dennis, Seneca College- Student
David Denstedt, Muskoka Barging & Construction
Gary Deppe, Polylok
Lesley Desjardins, Alberta Onsite Wastewater Mgement Assoc.
Joe Dibbits, Dibbits Excavating
Bob Dickie, Flue To Footing Home Inspections
Don Dillman, Dillman Sanitation
Adam Dillon, Ottawa Septic System Office
Tammy Dobie, Municipality of Meaford
Dave Dobinson, Dave Dobinson Excavating Inc
Kevin Dolderman, Pioneer Septic Solutions Inc
Lisa Dolderman, Pioneer Septic Solutions Inc
Ryan Dolderman, Pioneer Septic Solutions Inc
Stewart Dolstra, Cambium Inc
John Doner, Wescor Wastewater & Environmental Systems Corp.
Helena Draper, The Septic Store
Eric Draper, The Septic Store
Bill Drury, Drumax Construction
Darren Drury, Drumax Construction
Glenn Dryden, Dryden Excavation Inc
John Duffy, Van Harten Surveying Inc.
Kathryn Dukelow, Ricor Construction
Cliff Eborall, Walters Custom Works Inc
Anne Egan, R.J. Burnside & Associates Limited
Anne Elmhirst, City Of Kawartha Lakes
Fritz Enzlin, Norfolk County
Harold Erb, Rhino Excavation
John Faris, Faris Excavating Ltd
Andrew Faris, Faris Excavating Ltd
Marc Favaro, CMT Engineering Inc.
Dave Fedoriw, Township Of Georgian Bay
David Finch, Wes Finch & Sons Excavating
Graham Fisher, Haddad Geotechnical
Dwayne Fisher, Fisher Excavating & Grading
David Fondevilla III, FlowSpec Engineering Ltd
Laura Freeland, Durham Region Health Department
Peter Froehlich, Brooklin Concrete

New & Renewed Members Listing

For the period of February 15, 2020 to July 24, 2020

Mike Fulton, Near North Supply
Jameson Gallinger, Waterloo Biofilter Systems Inc.
Jason Ghawali, Gunnell Engineering
Nilou Ghazi, E3 Laboratories Inc.
Julia Gobran, Waterloo Biofilter Systems Inc.
Bill Goodale, Tatham Engineering Ltd.
Susan Gordon, Novatech Engineering
Roger Gostlin, R. Gostlin & Son Sand & Gravel
Rene Goulet, Goulet Septic Pumping & Design
Jessica Goulet, Goulet Septic Pumping & Design
Brent Green, Township of Centre Wellington
Mark Green, The Septic Store
Stefan Gruescu, LSK Septic And Drain
Eric Gunnell, Gunnell Engineering Ltd.
Daniel Hagarty, Township of Centre Wellington
Ken Hanes, Peto MacCallum Ltd
David Harsch, K Smart Associates Limited
Rudy Hartfiel, OWSIM
Andrew Hartholt, Township of Centre Wellington
Irene Hassas, Aslan Technologies
Brandon Hastings, Waterloo Biofilter Systems Inc.
Jeremy Hein, Groundwork Engineering Limited
Mark Hernandez, Orbit Excavating
Scott Hetrick, Norweco Inc
Cliff Hobbs, Can-Mech Agencies
Jordan Hoekstra, Dig'R Wright Excavating Inc
Karen Holt, Municipality Of Grey Highlands
Dwight Hordyk, Pinestone Engineering Ltd
Kurtis Horn, Haldimand County
Evan Hughes, Evan Hughes Excavating
Jason Hutton, Ottawa Septic System Office
Warren Hyde, Haldimand County
Ben Hyland, Strik Baldinelli Moniz Ltd
Chris James, Waterloo Biofilter Systems Inc.
Aaron Jantzi, Rhino Excavation
Patricia Johnson, Trish Johnson, Environmental Consulting
Kirk Johnstone, Northumberland County
Andy Jones, Town Of Gravenhurst
Christopher Jowett, Waterloo Biofilter Systems Inc.
Levi Junop, Town of Petawawa
Viralkumar Kankotiya, University of Guelph- Student
Keith Karl, Caledon Excavation & Grading
Thomas Keane, Gunnell Engineering
Daniel Kern, HomeWorks Inspection Services
Willis Kerr, Willis Kerr Contracting Ltd.
Tanya Killins, Niagara Region - Planning & Development
Melissa King, Peto MacCallum Ltd
Josef Klopper, Gunnell Engineering
James Knechtel, Aqueous Operational Services
Randy Knight, J.A. Porter Holdings Ltd
Randy Knight, Glen Knight Septic Service
Bert Knip, MakeWay Environmental Technologies Inc.
Gerry Knoop, Denby Environmental Services
Eric Kohlsmith, Ottawa Septic System Office
Don Krauss, Infiltrator Water Technologies
Douglas Krysko, Gunnell Engineering
Caitlin Larwa, WSP Canada Inc
Nathan Latchford, MacGregor Concrete Products
Paul Leahy, Leahy Excavation
Kevin Lehan, Town of Gravenhurst
Perry Leifso, Interpump Supply Ltd.

Elizabeth Lew, Gunnell Engineering
Veronica Linares-Krauss, Infiltrator Water Technologies
Miles MacCormack, BNA Inc (Bergmann North America)
John MacGregor, MacGregor Concrete Products
Mat MacLean, Tatham Engineering Ltd.
Kevin MacLellan, Moose Creek Cement Products
Rob MacLellan, Moose Creek Cement Products
Andrew Maguire, L.M.Ent Water
Chad Mann, Lloyd Collins Construction Ltd.
John Martin, Cromar Advanced Septic Systems
John (Curtis) Martin, Town of Huntsville
Paisley McDowell, WSP Canada Inc
Lauren McGregor, McMaster University Student
Joanne McGurn, KFLA Public Health Unit
Lynn McIlwaine, Gunnell Engineering
Richard McKee, Vacutrux Ltd
Andy McKinlay, Waterloo Biofilter Systems Inc.
Lloyd McMillan, Lloyd McMillan Equipment Ltd
Troy McMillan, Lloyd McMillan Equipment
Scott McMullen, Verge Insurance Group (OOWA Insurance)
David McPherson, Haldimand County
Kelly Mercer, OOWA
Kelly Mercer, OOWA
Ashley Metzger, Waterloo Biofilter Systems Inc.
Kim Millen, Norfolk County
Gerry Mitchell, Peto MacCallum Ltd
Gord Mitchell, KFLA Public Health Unit
Dale Moak, David Brown Construction
Adrian Molloy, Molloy Contracting Inc
Kevin Moniz, Strik Baldinelli Moniz Ltd
John Moore, Town of Bradford West Gwillimbury
Cheikh Mor Mbacke, DBO Expert Inc
David Morlock, FlowSpec Engineering Ltd
Daniel Morrison, McMaster University
John Moudakis, JM Consulting
Andre Moura, Tatham Engineering Limited
Bill Muirhead, Waterloo Biofilter Systems Inc.
Archie Mulder, The Rideau Group
Caroline Newby, Caroline's Septic Designs
Caely Nicholson, Township of Georgian Bay
Nico Nirschl, Liberty Pumps
Justin Noort, Niagara Region
Jim Oakley, Township of Severn
David Oliver, Concord Engineering
Irwin Osinga, D.M. Wills Associates Limited
Grant Parkinson, GM BluePlan Engineering
Gary Pearson, Pearson Engineering Ltd.
Duane Porter, J.A. Porter Holdings Ltd
Marty Price, MacGregor Concrete Products
Jami Quathamer, Brooklin Concrete Products
Michael Rahme, Home Pro Central Ont. Inc
Jason Rail, The Septic Store
Matthew Rainville, Gemtec Consulting Engineers and Scientists
Doug Rankin, Slagter Construction
Terry Rees, FOCA - Federation of Ontario Cottage Assoc.
Michael Reid, C.E. Reid & Sons
Greg Reimer, O'Hara Trucking & Excavating
Katherine Rentsch, Crozier Consulting Engineers
Steve Ritsema, Liberty Pumps
Bill Robinson, SepticCheck.ca/Robinson Enterprises
Leroy Robinson, BNA Inc (Bergmann North America)

New & Renewed Members Listing

For the period of February 15, 2020 to July 24, 2020

Robert Robinson, Robinson Haulage Inc
Ian Robinson, BNA Inc (Bergmann North America)
Scott Robinson, Unit Precast
Stephen Ropp, Percon Excavating Inc
Scott Roswell, Roswell Concrete Products
Will Rounds, Corporation of the City Of London
Robert Rudak, Rudak Excavating Inc.
Brian Rudak, Rudak Excavating Inc.
David Ruppert, Ruppert Haulage Inc.
Tim Salter, CMT Engineering Inc.
Monique Sauve, South Nation Conservation
Stuart Saville, Zoeller Canada
Brad Schildroth, FlowSpec Engineering
Mark Schroeder, Twsp of Bonnechere Valley
Doug Schultz, Township of Whitewater Region
Randall Secord, Wood Environment & Infrastructure Solutions
Glen Sharp, Francis Thomas Contracting Company Ltd
Kim Shelswell, Morris Shelswell & Sons Excavating & Grading Ltd
Brian Shepherd, George Burnett Ltd.
Brad Smale, Township Of Norwich
Edward Smith, Ted Smith Construction
Mike Smith, Smith Excavating, Grading & Septic Services
Charles Smith, Second to None Inspections Inc.
David Smith, HERN Sand & Gravel
Nick Snyder, Township Of Muskoka Lakes
Roger Souigny, Biobite
Brigitte South, Pinestone Engineering Ltd.
Mathew St Denis, Peto MacCallum Ltd
Craig Stainton, Ontario Ground Water Association
Darlene Stastny, ALS Environmental
Carmen Staunton, WSP Canada Inc
Connor Steer, Gunnell Engineering
Jason Stephens, Stephens Excavating
Brady Straw, Waterloo Biofilter Systems Inc.
Paul Studholme, Professional Home Inspections
Andrew Sumary, Van Harten Surveying
Sandra Swanton, K Smart Associates Limited
Gill Tarundeeep, Waterloo Biofilter Systems Inc.
Bernie Taylor, Cambium Inc

Mac Taylor, Mac Taylor Corporation
Don Taylor, Mr. Septic
Marilyn Taylor, Mac Taylor Corporation
John Teixeira, Teixeira Construction
Keith Thomas, Francis Thomas Contracting Company Ltd
Scott Thompson, MTS Environmental Inc.
Bob Thomson, Valley Sanitation Services
Don Thomson, Valley Sanitation Services
Simon Thoume, James Thoume Construction Ltd
Michael Tinney, Tinney's Septic Service & Construction
Terry Tompkins, Township of Tay
Travis Toms, Township Of North Kawartha
Jeremy Tracey, Cambium Inc
Claus Trost, Laurentian Valley Twp.
Numair Uppal, OASIS
Mark Van Alstine, HERN Sand & Gravel
John Vanden Hoven, JVH Consulting
Michael Varty, WSP Canada Inc
Andrew Vitaterna, Clearford Water Systems Inc
Joseph Voisin, Pinestone Engineering Ltd.
Sam Vreugdenhil, MakeWay Environmental Technologies Inc.
Steve Walmsley, Township Of Tay
Mathew Walters, Walters Custom Works Inc
Danielle Ward, Adams Brothers Construction
Kevin Warner, Cambium Inc
Eric Watkin, Tatham Engineering Ltd.
Chad Welch, Waterloo Biofilter Systems Inc.
Kyle Wetherall, Waterloo Biofilter Systems Inc.
Shawn Wheatley, CMT Engineering Inc.
Karen Wilkie, Upper Thames River Conservation
Marianne Willson, Waterloo Biofilter Systems Inc.
John Winkup, LaSalle Backhoe Service
Jazmyne Woolley, R.J. Burnside & Associates Limited
Ed Yohanna, Rural Water & Septic
Jennette Zimmer, Municipality of Huron East
Derek Zomer, Zomer Corporation
Geanine Zuliani, Waterloo Biofilter Systems Inc.

JOIN AN OOWA COMMITTEE!

Want to really make an impact in the industry?

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

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



Long Time OOWA Member and Volunteer, Rob Palin, Passes

With great sadness, we share the news that long time, founding OOWA member Rob Palin died on August 7, 2020.

In the words of Rob's son, Michael;

"My dad died on his own terms on Friday morning at 10:06. He wanted everyone to know that he loves you all and to "be good, and if you can't be good, be yourself".

For those members who did not know Rob, he spent his early career in southern Ontario with positions in the Ministry of the Environment, the Upper Thames River Conservation Authority and Ecoflo Ontario.

After many years with Ecoflo Ontario, Rob transitioned into a regulatory role in North Bay at the North Bay Mattawa Conservation Authority as their head inspector and On-site Sewage System Program Manager. He was a founding member of OOWA and served as a board member, as the chair of the association's Onsite Technical Committee and also made significant contributions while working on its Governance Committee.

Rob's volunteer contributions went well beyond his time with OOWA. While in his role with the NBMCA, Rob was also an active member of the Ontario Building Officials Association and participated as a member of the public advisory committee at Canadore College.



In December of 2015, Rob was diagnosed with ALS and fought bravely against the disease since his diagnosis. As part of our 2020 Convention, OOWA raised over \$4,000.00 in a silent auction to help purchase specialized equipment that helped Rob maintain his mobility.

Below is Rob's message to the convention delegates at OOWA's 2020 Convention:

"I hope that everyone has a great conference. Sorry I couldn't be with you but I am thinking of you all and remembering the many years of attending, volunteering and presenting. I have many great memories of this important annual event. Even the conference where I ended up in the fountain. Have a wonderful conference and network as much as possible. Miss you all."

His contributions to protecting freshwater resources in Ontario will be missed.

Rob is survived by wife Anna and sons Michael, Nicholas and Gino.



2020 OOWA Membership Benefits



Perkopolis is a discount program with **hundreds of available discounts** across the country on things like entertainment, car rentals, hotel stays, electronics, flights, food, wellness and attractions. To sign up, visit www.perkopolis.com and use your OOWA Member ID to create an account.



No reservation required! Simply use the code **1019186** at time of check out and automatically receive the discounted rates. Save \$7/day and \$90/week when parked in Toronto using the Park 'N Fly Valet service, or \$4/day and \$39/week when choosing Toronto Self-Park.



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



A **new** CAA Plus membership is reduced to \$99.00 for the first year (\$39.00 savings!) or a CAA Plus Associate Membership is reduced to \$75.00 for the first year. Contact CAA's Corporate Representative at 800-267-6394 ext. 6394 to sign up.



OOWA members save **10% at Mark's Work Warehouse** on the following items and more; Carhart merchandise, Dakota workwear, coveralls and overalls, casual wear, work gloves, and all CSA footwear. Present your card at any location to receive your discount.



Grand & Toy is your one stop shop for all your office needs including ergonomics, furniture, computer supplies, PPE, Janitorial/Sanitary. OOWA's partnership with G & T provides preferred pricing on 240 commonly consumed essentials, **plus 10% off market competitive web pricing**. Each member can add a customized price list of up to 25 items reflecting your business needs. Your savings could easily offset OOWA membership dues!



ALS Laboratory Group provides a **30% discount** on all your wastewater and soil testing needs. Contact Darlene Hoogenes-Stastny at 519-886-6910 or email at: Darlene.Stastny@ALSGlobal.com



Save 10% on any ORWC Course offering (cannot be used in conjunction with other discounts). See their course offerings at www.uoguelph.ca/orwc. Contact Bassim Abbassi at 519-824-4120 Ext. 52040 or via email at babbassi@uoguelph.ca



OOWA members get guaranteed and discounted rates on car and trunk rentals. Reference business Account Number **LC23343** when booking a rental vehicle.



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**

To get more information on these member benefits please visit our website at: www.oowa.org/about/join-oowa/

JOIN NOW TO ACCESS YOUR PERKS!

- 1** Go to perkopolis.com and click Register in the top right corner.
- 2** Enter a valid email address. You will receive an email to complete your registration.
- 3** Enter "OOWA" + your member ID number (ex: OOWA12345).

//////////////////////////////////// You are now a Perkopolis member! Enjoy your perks! //////////////////////////////////////

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A FEW OF OUR BRANDS



MEMBER PROFILE

Brad Billings

Owner, Billings Construction

Name of Business: Billings Construction

Owners: Brad Billings

Services: Additions, renovations, excavating and septic services

Service Area: Guelph, Centre Wellington and surrounding area

Number of Years in Operation: 42 Years

What got you started in the onsite wastewater industry?

As our scope of work increased and the Ontario Building Code required many of our builds to include septic system upgrades, we made the decision to increase the excavation portion of the business. This lead naturally to including septic system installations.

Give us one reason/secret for your success.

I feel like our success is due to our excellent customer care. I am driven to help customers solve their problems and I have a 'I am too stubborn to stop, until the customer is satisfied' approach.

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

One of the most challenging jobs was in fact one of the smaller systems we installed. However, it was on a property that the clients had spent 20+ years creating a spectacular



BRAD BILLINGS
Billings Construction

landscape. The clients were initially devastated to think all their hard work would be ruined but we were able to work with the engineers and a tertiary system as well as with the clients to allow us to keep the upheaval to a minimum. It was very rewarding to be able to install the new system but to also ensure the clients hard work was also preserved.

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

I would like to see the permit application process streamlined and more use of specialized engineering firms involved in the planning process. I also believe increasing public education about the importance of proper installation and maintenance of their system would benefit our industry as well.

Where do you see the onsite industry going?

Continuing improvements in technology and systems as well as more homeowner education, will increase both our customers satisfaction and will also have a positive effect on the environment.



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Contact Mike Gibbs to find out how to advertise:
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Important Ministry of Transportation Regulatory Changes Coming

Getting Your Trucks S.P.I.F. Compliant

Simon Thoume, James Thoume Construction

As of January 1st, 2021 contractors using triaxle dump trucks or truck and trailer combinations will need to ensure that they are S.P.I.F. (Safe, Productive & Infrastructure Friendly) compliant under the following regulations:

- O. Reg. 457/10: Vehicle Weights and Dimensions - For Safe, Productive and Infrastructure-Friendly Vehicles
- O. Reg. 413/05: VEHICLE WEIGHTS AND DIMENSIONS - FOR SAFE, PRODUCTIVE AND INFRASTRUCTURE-FRIENDLY VEHICLES
- Highway Traffic Act Part VII and Part VIII

The most relevant section of the regulations that will affect most installers who haul aggregate for septic systems using a Triaxle dump truck or truck and trailer combination is Reg 413/05, Section 34 (pg. 174-175 Appendix 1):

TRUCKS – Non- S.P.I.F. Aggregate Straight Trucks Grandfathered until December 31, 2020. Permits available thereafter on a per year basis until the truck is 15 years old.

The biggest affect that members will see from this new regulation is that, if their trucks or truck and trailer combinations are not S.P.I.F. compliant according to the regulation (and/or the guide below) the total allowable gross vehicle weight will get cut down by as much as 9000kg after January 1, 2021. So, if you have a triaxle with a rigid lift axle and you are good to haul 21,500kg right now, after January 1, 2021 you would only be good to haul 12,500kg.

Get details about the regulation from the guide, "Vehicle Weight and Dimension Limits in Ontario". You can download the document here: https://cdn.ymaws.com/www.ctea.ca/resource/collection/A0241961-F8DC-4FCA-A5B2-29BD1EECBBBD/2019_Ontario_VWD_Public_Guidebook.pdf. This document covers everything you need to know about the regulations and what trucks and trailers are affected.

Chapter 4 of the guide has Allowable Weight Worksheets (S.P.I.F. and non-S.P.I.F.) that can help members determine if their truck or trailer is compliant with the regulations. Chapter 8 has vehicle weight tables. The triaxle dump truck with a rigid lift axle falls under table 32. The table helps to determine the allowable gross vehicle weight based on the vehicle or combination length as a non S.P.I.F. vehicle after January 1, 2021. The good thing about this guide is that it is the same resource that MTO field officers use to help them understand the regulation and

how to enforce it. I know this because we had an MTO officer come out to measure our trucks for their Allowable Gross Vehicle weight sheets to use at other gravel pits and when I was asking him questions about S.P.I.F. he pulled out the same guide I was using.

Heavy truck and trailer shops that are qualified to convert a non-designated truck to be S.P.I.F. compliant are a good resource to ask questions on whether a member's truck or trailer is eligible to be converted or not. I used Cotrill Heavy Equipment, Wiltsie Truck Bodies Ltd. and Can American Stone Spreader to get information and quotes to convert our 2009 Sterling Triaxle to be S.P.I.F. compliant. We have 5 triaxle dump trucks all with rigid lift axles. We have converted our newest truck in the fleet but some of our trucks are not worth investing in the conversion and will likely be looking to sell. Our other options have been a combination or used S.P.I.F. compliant trucks (anything built after July 2011) and new trucks. In preparation for the regulation we have converted 1 truck, bought 1 used truck and 1 new truck. We will be keeping 1 of our older triaxles to pull our float trailer but the rest will be sold privately or at auction. The good thing is there is still a market for rigid lift axle trucks outside of Ontario, so there is still some value in the truck when selling.

See Cotrill's resource document that highlights critical aspects of the S.P.I.F. changes below. It gives a point form breakdown of the reg and how it affects trucks with rigid lift axles. There is a really good example at the bottom of the first page that uses a typical tri axle dump truck and actual weights and how much would be lost after Jan 1, 2021. The document is their checklist that members can use to determine if their truck qualifies to be converted to S.P.I.F. compliant.

To get further clarity on this regulatory change and to get your questions answered contact Ministry of Transportation's S.P.I.F. expert:

Jason Trewartha, 416-246-7222

jason.trewartha@ontario.ca

For additional resources the Ontario Stone, Sand and Gravel Association (OSSGA), has some articles on their website and are doing a pilot project to collect data on the amount of trucks failing inspections at the scales due to S.P.I.F. and not having the correct weight over each axle. Members can also check out the Ontario Trucking Association's (OTA) website as another good resource.

Thank you to Cottrill Heavy Equipment for compiling these important highlights and clarifications.

Converting NON-Designated (non S.P.I.F) truck to be S.P.I.F Compliant check list.

- Compliance labels -pre-2011 truck – Must be present, intact and legible
- OEM incomplete or National Safety Mark (NSM) Manufacturer Label present - YES or NO
(Label(s) will be located inside LH door jam)
- Compliance labels –post -2011 truck – Must be present, intact and legible
- MUST have a National safety Mark (NSM) “Final Stage” or “manufactured by” Label present – Yes or NO
(Labels will be located inside LH door jam)
- -Valid Ontario Ownership – YES or NO
- -Current Annual Safety Inspection label – YES or NO
(CHE requires the truck to have a new annual (yellow) sticker before work can begin. CHE will be completing a mechanical inspection on unit prior to completing any other work)
- Foundation Brakes & Air system capacity – correct brake shoes & chambers – YES or NO
(shoe material, chamber size, air tank and air compressor capacity – OE spec or better)
- ANTI LOCK BRAKE SYSTEM (ABS) – intact and operating correctly - YES or NO
(Required if originally equipped by OE manufacturer)
- -Emission Controls Systems – intact and operating correctly – YES or NO
(Required if originally equipped by OE manufacturer)
- -Wheel Base measurement – center of drive axles to center of front (steer) axle - _____
(Schedule 21 truck – not controlled, Schedule 23 truck either 252” or 270” minimum)
- -Drive axle spread - _____
- -Current lift axle (if equipped) – STATIC NON STEER or SELF STEER

S.P.I.F Highlights

- July 1, 2011 – start date for trucks in Ontario
- Trucks built after July 1, 2011 had to be built with a self-steer axle and automated lift axle controls (Proviso / Cleral axle control systems)
- Trucks built S.P.I.F compliant operated under new REG’s (413/05)
- S.P.I.F compliant trucks hauling aggregate DO NOT get penalized 1500kgs, they get that payload back
- NON-S.P.I.F compliant trucks build before July 1, 2011 continued to operate under old weight laws until December 31 2020. Aggregate trucks penalized 1500kgs.
- After January 1, 2021 NON-S.P.I.F compliant trucks will be known as NON-DESIGNATED VEHICLE under the S.P.I.F 413/05 Reg’s
- After December 31, 2020 trucks that are less than 15 years old (2006 to 2011) will be able to purchase a permit annually to enable them to continue to operate under the old weight laws. Aggregate trucks will still be penalized 1500kgs.
- NON-DESIGNATED trucks less than 15 years old can purchase a permit annually

Year	Oldest truck eligible for permit
2021	2006
2022	2007
2023	2008
2024	2009
2025	2010

- After December 31, 2020 trucks that are older than 15 years old (2005 and older) will be classified as NON-DESIGNATED VEHICLE will fall under the “Vehicle Weight Tables”
- NON-DESIGNATED triaxles for the most part will fall under TABLE 32

Examples of S.P.I.F compliant trucks compared to Non-Designated trucks that will falling under Table 32:

Tri axle dump truck:

SPIF: GVWR:36,000kg (9000kg (20 front) + 9000kg(20 lift)+ 18,000kg (40 or 46 rears))

NON-S.P.I.F: GVWR: 27,000kg (same truck, same axle positioning & capacities)

9000kg LOSS!

Case Study

Replacing a Residential Septic System Under OBC Part 11 Renovation

Stew Dolstra, Cambium Inc., Lesley Kennedy, Durham Region Health Department, Ashley Chlebak, Kawartha Conservation, Glen Williams, Williams Excavating.

While not always considered, the compliance alternatives in Part 11 – Renovation of the Ontario Building Code (OBC) can allow a property owner to have a sewage system replaced in a situation where a holding tank may seem to be the only solution. Although compliance alternative replacements imply more risk because Part 8 minimum clearances are not achieved, that risk can be mitigated by best practice design and collaboration between the designer, regulator, and installer.

A residential community in Blackstock constructed in the 1970s was serviced by municipal water supply and private sewage systems. An owner in this community was experiencing failure of the original septic system which was reaching the end of its service life. The owner's property is approximately 28 m by 42 m with a 3-bedroom dwelling and the sewage system located in the backyard. The property is relatively flat; however, a distinctive drainage ditch was observed running along the rear property line.

Based on conversation with the property owner and a review of local mapping, the drainage ditch appeared to be constructed when the community was developed. The owner reported the ditch had flowing water in the spring and after major weather events. If the drainage ditch was considered a watercourse then the entire backyard including the existing sewage works would be within the 15 m minimum horizontal clearance required under Part 8 of the OBC. The property was also within an area under the authority of Kawartha Conservation.

Through consultation with the Durham Region Health Department and Kawartha Conservation, the drainage ditch was indeed identified as a watercourse named Crestwood Creek.

A file review of the Durham Region Health Department archives did not find a permit for the existing sewage works. Given the clearances to the watercourse, property line, and building required under Part 8 of the OBC, there was insufficient space to replace the sewage system. The property owner was faced with the possibility of being serviced by a Class 5 holding tank resulting in on-going pump out costs and reduced property value.

After inspecting the residence and discussion with the owner, Cambium determined that the residence size,

number of bedrooms and number of plumbing fixtures had not changed since original construction. As a result, Cambium proposed to the regulator a like-for-like replacement of the sewage system as a Part 11 compliance alternative. As it relates to sewage systems for residential occupancies, a Part 11 compliance alternative allows the existing clearances to be accepted if the replacement sewage system is the same class and capacity. Since the design flow had not changed since original construction, the regulator indicated that a Part 11 replacement would be considered.

Field investigations were then conducted to characterize the subsurface conditions and identify the location and setbacks of the existing sewage system. The test pits were unsaturated, however, the soil was observed to consist of 0.2 m of topsoil over 0.5 m of fill. The fill was presumed to be placed as a result of the development of the community including basement excavations and overall grading. The soil was described as light brown, compact, silt and sand with some clay and trace gravel. The fill was observed to overlie the original organic topsoil layer observed at 0.7 m below ground surface. The original topsoil/organic layer was observed to be soft, very dark and extend to a depth of at least 1.25 m below ground surface. The original site may have been a low-lying wet area prior to the community development. The test hole was observed to be unsaturated at the time of excavation, however, the limiting depth was recognized as the original topsoil/organic layer at 0.7 m below ground surface. A sample of the fill was collected with grain size and hydrometer analysis completed by Cambium's Materials Testing Laboratory in Peterborough. Based on the grain size distribution and soil conditions the fill was estimated to have a percolation rate of 40 min/cm.

In consultation with the regulator based on the design characteristics (i.e. design flow, soils, clearances) the regulator decided that an application for a sewage system Part 11 compliance alternative would be accepted for review if the following conditions were met:

1. Existing clearances were not reduced,
2. The proposed sewage works provided enhanced treatment, and
3. Cambium inspected all stages of the construction.

Considering the imposed conditions as well as the limited space available, a raised Infiltrator Water Technologies Advanced Treatment Leachfield (ATL) system was selected. The ATL system is a combined treatment and dispersal system consisting of a septic tank equipped with an effluent filter, ATL conduits within and overlying a specified system sand that together provides enhanced treatment prior to dispersal into the native soil. The ATL system is approved under an authorization from the Building Materials Evaluation Commission.

This design met the required conditions by providing enhanced treatment, allowed for a small footprint that would meet existing clearances, met all Part 8 requirements other than the watercourse clearance, and did not raise the ground surface by more than 430 mm, which allowed for favourable final grading and aesthetics. Raising the system by 430 mm allowed the system to meet the minimum 450 mm vertical separation required between the bottom of the system sand and the limiting soil layer. As with all treatment systems, the ATL system requires a service agreement involving annual system



Backyard looking towards the drainage ditch.



Drainage ditch/Watercourse.

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inspection and effluent sampling. The owner appreciated the system would function without any moving parts and minimal maintenance.

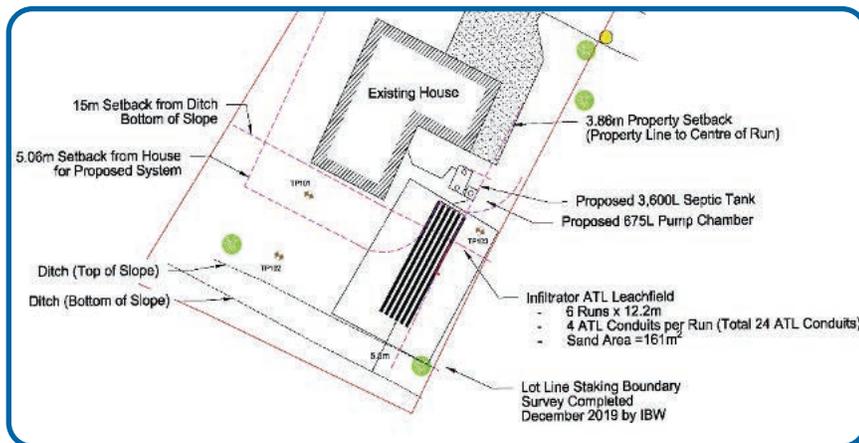
Prior to applying for the permit from Durham Region, the property owner was required to obtain a permit from Kawartha Conservation. The design was accepted and approved by Kawartha Conservation, however, a fee was imposed for the system sand imported within the Kawartha Conservation controlled zone and the elevation of the dispersal system had to be demonstrated to be above the flood elevation. This was achieved by comparing the flood elevation provided by Kawartha Conservation to the elevations obtained during the property topographic survey completed by Cambium.

Given the tight clearance to the adjacent neighbour property line, a land surveyor was retained to stake the property line. As a result, the property line was identified to be approximately 1 m closer to the proposed dispersal bed than the treeline and fence line suggested. The lost space meant the system would be shoe-horned into the available space. Kawartha Conservation was made aware of the minor shift in the bed location with no additional comments.

The existing septic tank was initially thought to be too small and was planned to be replaced with a larger tank. However, during construction the septic tank was pumped out and intrusively inspected and determined to be intact and suitable for continued use if upgraded with riser and effluent filter.

With the design meeting the Durham Region conditions, and with the Kawartha Conservation permit obtained, the design was submitted to the Region's Health Department which included all application forms, design drawings, soil analysis results, and a letter justifying the Part 11 compliance alternative. A permit was issued by Durham Region without any additional comments or requirements, which was a testament to the good communication and consultation during the investigation and design phase.

The Part 11 compliance alternative for maintaining existing clearances was the first of its kind in Durham Region. The sewage system was recently installed and is operating as designed. The owner is extremely happy with the outcome noting "Getting a new septic system was a very daunting task. Stew and his team at Cambium Inc. made it seamless and looked after all the difficult details - and there were many difficult details".



Site Conditions and Sewage System Layout.

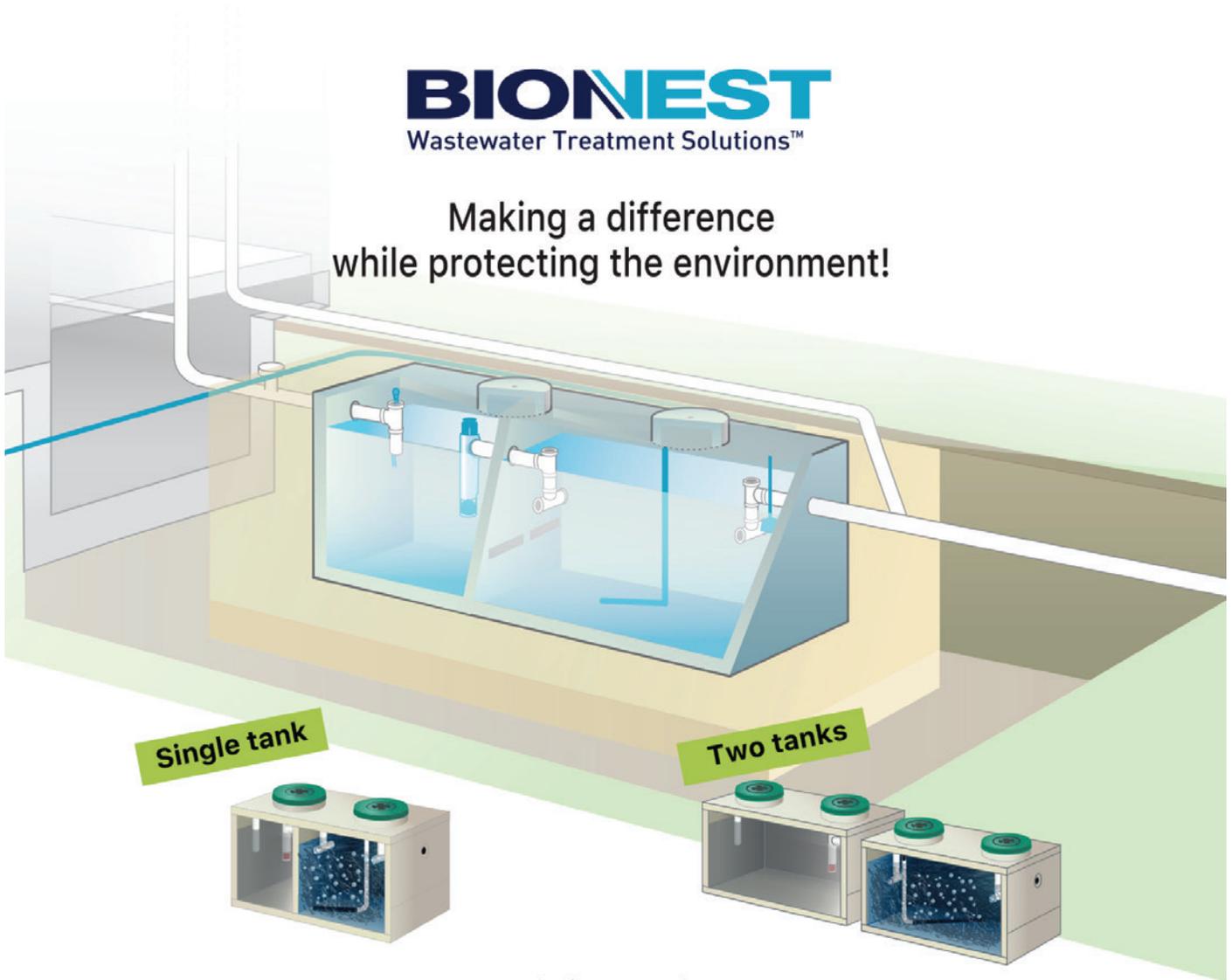


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Tips for Proper Effluent Screen Cleaning

Onsite Installer Magazine

Dr. Sara Heger

An effluent screen requires regular maintenance and must be periodically checked. The need to clean a screen should not be considered an indication of a problem since the purpose of a screen is to catch suspended solids.

As a concern for the homeowner's safety in dealing with the components of a septic system, it is recommended that a certified inspector or septic tank pumper/maintainer or service provider provide this maintenance, but some property owners might clean their own screen. The screen must be periodically removed from the tank, and the solids that have been trapped and attached to the screen must be washed back into the septic tank.

For this reason, it is more appropriate to have this maintenance done when the septic tank is being pumped so those solids can be removed, but the filter may need to be cleaned more frequently than the tank is cleaned, and therefore, it must be done properly. In most cases, the effluent screen is cleaned when the tank is pumped, but it should be inspected at a frequency of at least every six months to two years, depending on the filter and use of the system.

Factors that can increase the frequency of maintenance include:

- High content of fats, oil and grease
- Presence of hair or laundry lint
- Presence of excessive solids through use of a garbage disposal or excessive toilet paper
- High water usage and peak flows
- Number of people in the home
- Size of the septic tank and effluent screen

Effluent screen cleaning procedure

1. Do not enter the septic tank for any reason. Noxious gases exist in septic tanks and can result in serious injury or death. You do not need to enter the tank in order to clean the screen. If the tank is deep, the effluent screen should have a handle on it to remove the screen without placing your head below the top of the tank maintenance hole.
2. Put on waterproof, disposable gloves and safety glasses. The effluent screen should be located below a large-diameter access (20 inches), but it is possible only a 6-inch access exists. Remove the maintenance hole cover of the septic tank and note the liquid level in the tank. The liquid level should be at the bottom of the outlet pipe. If it is below the outlet pipe, this is a sign that the tank is not watertight and you will have to troubleshoot the problem. If the liquid level is above the outlet pipe or the effluent screen, do not remove the screen. This is a sign of problems somewhere in the system: a plugged screen, pump failure, plugged soil treatment area, etc. Pump the tank before removing the screen. This will prevent a surge of excess effluent, containing unwanted solids, from moving into the next component of the treatment system.
3. If the liquid level is at the bottom of the outlet pipe, carefully remove the screen from its casing to prevent collected solids from falling off the screen. (Some screens have a secondary device to prevent solids bypass.) Note the condition of the screen and the extent of buildup, as this will impact the frequency of cleaning needed. Using a garden hose, spray off the screen over the first septic tank maintenance hole or place the screen in a 5-gallon bucket and spray off all material into the bucket. Be careful to prevent splashing onto your body or clothes or into the yard. Do not clean the effluent screen in the grass next to the septic tank; raw sewage in the yard is a public health hazard. Never allow the screen cleanings to be left on the ground.
4. Return the screen to its casing once it has been cleaned. Dump the contents of the bucket into the septic tank and add a small amount of bleach and rinse the bucket several times (emptying the rinse water into the septic tank each time.) Secure the maintenance hole cover once you are finished. The solids from the screen cleaning will settle and get removed the next time the tank is pumped during routine maintenance. Make sure the screen is reinstalled correctly to ensure proper operation.
5. Once the job is complete, dispose of the gloves and wash your hands thoroughly with soap and hot water. If your clothes were contaminated, remove them immediately and launder in hot water.

If there is premature clogging (less than six months), it may be an indicator of problems such as:

- Excessive chemical usage
- Reduced detention time due to excessive flows
- Neglecting to pump out the septic tank as needed
- Excessive flushing of grease or oil down the kitchen drain
- Use of a garbage disposal
- Excessive toilet paper use, along with disposal of other sanitary products not advisable for flushing

If a screen requires servicing more frequently than anticipated by design, either the effluent screen or the wastewater characteristics should be evaluated to find the cause for premature clogging. This may indicate leaks in the fixtures, excess water use, poor wastewater quality or an inadequately sized screen for the needed application.

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MEMBER PROFILE

Carl Gauthier

Ontario Region Manager since 2007

Name of Business: Bionest Wastewater Solutions
- We ReNEWater

Number of Years in Role: Ontario Region Manager
since 2007

What got you started in the onsite wastewater industry?

I started my journey with Bionest in 1998, when I met entrepreneur Gary Lord. Gary was working on the development of a new wastewater treatment system. I found this idea to be revolutionary compared to a conventional septic system and I soon found myself committed to this idea.

I would travel to Montreal, Quebec, to work with Gary on weekends and any free time I could spare.

My background was with Bell Canada as a lineman, so this venture into the wastewater business was a whole new world with lots to learn.

In 2003, Bionest started to sell systems in Québec while conducting the BNQ 3680-910 certification which was officially granted in March 2006.

I participated in the first installs in Quebec and would attend meetings at the head office in Shawinigan (Grand-Mère) to gain more knowledge.

Bionest received approval for Ontario also in 2006 and the company launched in 2007.

Give us one reason/secret for your success.

My success in the market has been largely due to my belief in the product, watching the development of our innovative technology, building relationships with our precasters, networking with the 100's of regulators and training installers.

I am a hands on Manager: if I'm not in the office, I can be found on a job site, with work boots, hard hat and shovel or giving seminars to engineers, designers and regulators. My dad always taught me to do the job right; that's exactly what we do at Bionest. Our staff is committed to TOTAL QUALITY from designing, manufacturing, documentation, installation and service.

Bionest has many products for the market, suitable for all needs: residential ZENITH™ one tank or two tank systems, commercial AZIMUTH™, MYSTRAL™, mobile KODIAK™ and our new lagoon treatment technology KAMA™.

What was the most challenging onsite job you worked on or participated in? One of the more challenging jobs I've worked on was a Nursing home in Clarence-Rockland. This project had a 50 m3 design flow rate with high loads.



CARL GAUTHIER

Ontario Region Manager, Bionest Wastewater Solutions

This type of effluent can vary from day to day and so did the flows; our team developed the best design to meet this challenge.

We used Airtech blowers and porous hoses for the aeration system, time dosing to balance the flows, 6 BIONEST® reactors for the treatment, unique venting and large septic tanks.

The nursing home continued to operate while the system was being installed, making this job the most challenging one of my career.

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

If there was one thing I could change in the onsite/ decentralized industry, it would be to have provincial and municipal leaders take a closer look at the industry.

There are many great technologies in the onsite industry that have invested huge amounts of energy to develop technologies that work and can be verified.

The cost of expanding the decaying municipal infrastructure make poor economic sense when there are more cost effective and improved treatment performance options available.

I do not stand alone in this belief and our leaders need and should consider the onsite/decentralized technology systems available.

Where do you see the onsite industry going?

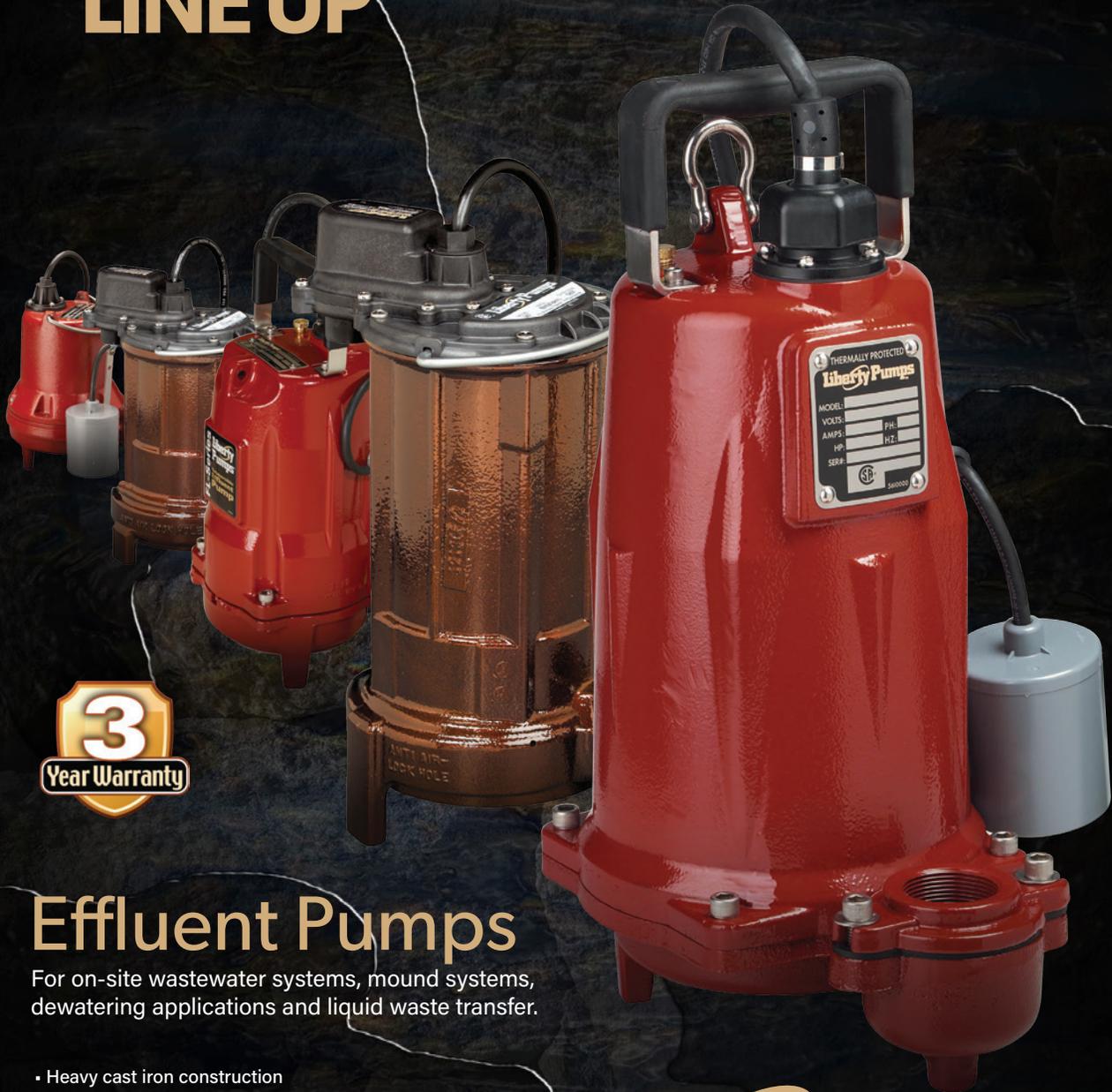
I'm really excited seeing where our industry is going. We have some great people on our board of directors, the various committees have a good cross section from our industry and our regulators are very competent and understand the industry very well.

As the environment gets more attention, so does our industry; we are the stewards of our fresh water and ground water.

The installer base is outstanding contractors who believe in what they do and ensure best practice methods.

I look forward to a bright future for all of us. ~ Carl Gauthier

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Case Study

Solutions for a Limited Access Site

Geanine Zuliani, Waterloo Biofilter

The location and function of the sewage treatment system and leaching bed is often overlooked when more exciting landscaping plans are being developed. This applies for both new construction but is especially important for existing sites, where overall site planning isn't the main focus. Existing sites can be more challenging. In this small group more attention is paid to evaluating the layers of receiving soils than the size of the pool, patio, or garden.

New homeowners were looking to purchase an existing property and wanted to do things the right way to ensure they had a well-functioning sewage system as well a beautifully landscaped yard. The property backed on to the Grand River in Conestogo ON. Prior to purchasing the property, an inspection was done which included a professional evaluation of the sewage treatment system. Evaluation of the system and bed by a qualified expert is an important but often overlooked or misunderstood step of an inspection for the entire property.

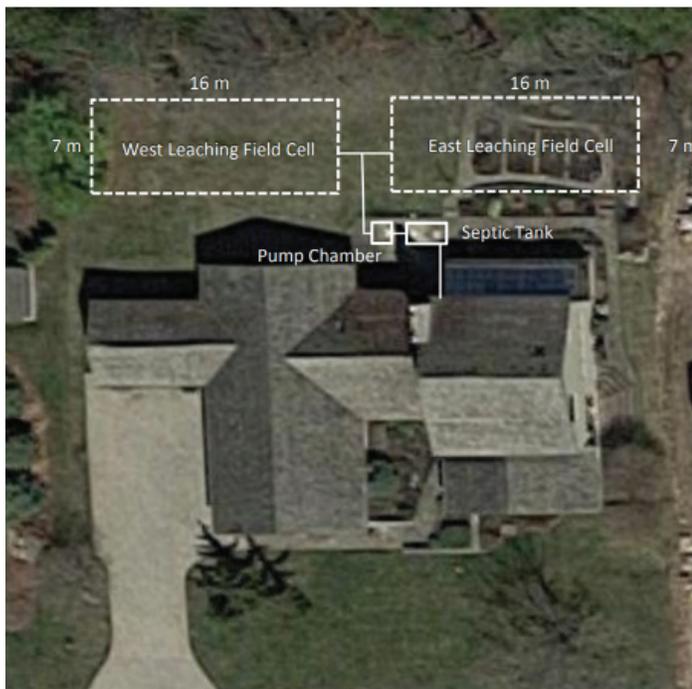


Figure 1: Approximate Existing Septic Layout

The existing system was determined to consist of a ~ 5,600 L septic tank, a ~ 1,800 L pump tank, a distribution box, and two areas of absorption trenches each approximately 7 m x 16 m (the exact number and length of runs could not be determined). The absorption trench beds utilized the entire backyard. The inspection identified several deficiencies including that part of the leaching bed was

covered in raised flower beds, interlock walkways, and retaining walls. It also noted that the 33-year-old system was operational (operational meaning there were no breakouts although it is possible that with a covered and compacted bed the system would soon be at the end of its life), but did recommend minor electrical repairs, new lids for safety, an alarm system, and a new pump. Lastly, it was shown that the footprint for the existing system was the entire backyard.

After purchasing the property and not wanting to compromise on having a backyard pool and other hardscaping plans, the homeowners decided to investigate their options and hired a professional engineer to assess the site and design a new sewage treatment system with a smaller footprint.

"We started our design process by having test pits excavated to establish soil/groundwater conditions and assess percolation time. Although typical practice for our designs, the test pits were especially important here, as the site lies near the Grand River, and river valleys can exhibit highly variable soil conditions. True to form, we contacted several different layers of mostly poor-draining soil. The diamond in the rough, however, was a layer of well-draining sand/gravel soil encountered at a depth of about 2.5 m. The layer was sufficiently thick to support a "shafted" filter bed. A "shafted" filter bed takes advantage of deeper well-draining soil (and the smaller bed created as a result) by removing overlying poor-draining soil, then placing filter sand from the exposed base of well-draining soil all the way up to the stone/pipe layer. The additional filter sand acts as a permeable conduit to transfer the hydraulic load down to the well-draining soil.

With a wastewater flow over 3,000 L/day for the residence, two filter bed cells would be required, and normally suitable, for a "conventional" septic tank scenario. In order to accommodate a future pool nearby, however, a smaller bed would be required. To solve the resulting spatial constraint, we incorporated a Waterloo Biofilter Level IV system to reduce the size to only one filter bed cell. Although a shallow buried trench or Type A dispersal bed could also have been used with the Waterloo Biofilter system, we opted for a filter bed, as it would be the most robust and compact option available."

David Morlock, P.Eng., Consulting Engineer with FlowSpec Engineering Ltd.

The filter bed was designed with 100 L/m² per day surface area (i.e. stone area) was proposed. The filter bed design included four runs of 11.6 m perforated distribution pipe, with tracer to detect the header and distribution pipes, within a 50 m² stone area over top of a 75 m² filter sand area. A natural unsaturated soil area of 340 m² was available to satisfy the loading area requirements for filter beds.



Figure 2: Patio area in foreground, Plastic Digesters in Series in background during construction

The Level IV treatment unit was initially designed as a Waterloo Biofilter with a concrete anaerobic digester with internal pump chamber and a concrete basket Biofilter tank. During a pre-construction meeting with the installer, a few logistical issues were uncovered. It was found that the precast delivery truck was unable to access the proposed tank location to place the tanks. The property has steep slopes on either side and an uncooperative neighbor who would not allow use of their property. The spring season this year was quite wet. Landscape construction timelines were already set in place and could not be moved, so a solution was needed, quickly.

Multiple solutions were investigated regarding the treatment tanks. One option was to use a crane to lift the tanks up and over the home. This proved itself to be expensive and outside of the homeowners' budget. Another option was to

use an alternate tank location, however, the sanitary sewage line from the house was already quite deep. Achieving the fall needed would have required a deep burial tank which was expensive and makes maintenance difficult, or a lift station to pump up to the system which interfered with the landscaping plans of the homeowners. Removing well-established trees was also considered but the homeowners preferred to keep them for environmental and aesthetic reasons.



Figure 3: Seating Area with Fire Table Finished

Finally, the option of using Roth plastic tanks was explored and ultimately became the solution. These tanks are lightweight and can be maneuvered with small machinery. As a bonus, they come pre-plumbed from the Waterloo Biofilter factory which makes connections onsite very efficient. The largest Roth tank used as an anaerobic digester (AD-5700) is sized for flows up to 3,000 L/day on its own. With a design flow of 3,400 L/day an additional, smaller, anaerobic digester with internal pump chamber (ADIPC-4000) was installed afterwards. Installing these tanks in series is a great option to handle higher flow rates where heavy machinery access is not possible. The first tank flows by gravity into the second where the internal pump chamber houses floats and a pump to dose the Biofilter tank.



Figure 4: Basket Biofilter tank access lids in foreground, Pool area in background

With the Biofilter tank being pumped into and pumping out the treated effluent, the originally proposed concrete basket Biofilter tank was able to be relocated to the far side of the yard, approximately 7.5 m from the anaerobic digester tanks. The concrete delivery truck could safely and with minimal property disturbance, drop the tank there. Floats, plumbing and a pump are installed directly in the Biofilter treatment tank which eliminates the need for a disposal tank.

With accurate system drawings, detection means, and proper ongoing operation and maintenance, the system is setup to function indefinitely. Keeping it well documented assists with potential modifications or upgrades are required for even further landscaping ideas in the future.

The finished project turned out beautiful. The homeowners were able to put in a 36' x 18' pool, a cabana, and multiple deck and seating areas for entertaining. Open communication between all parties throughout the planning, preconstruction, and construction stages of the process is integral in ensuring a happy homeowner in the end!

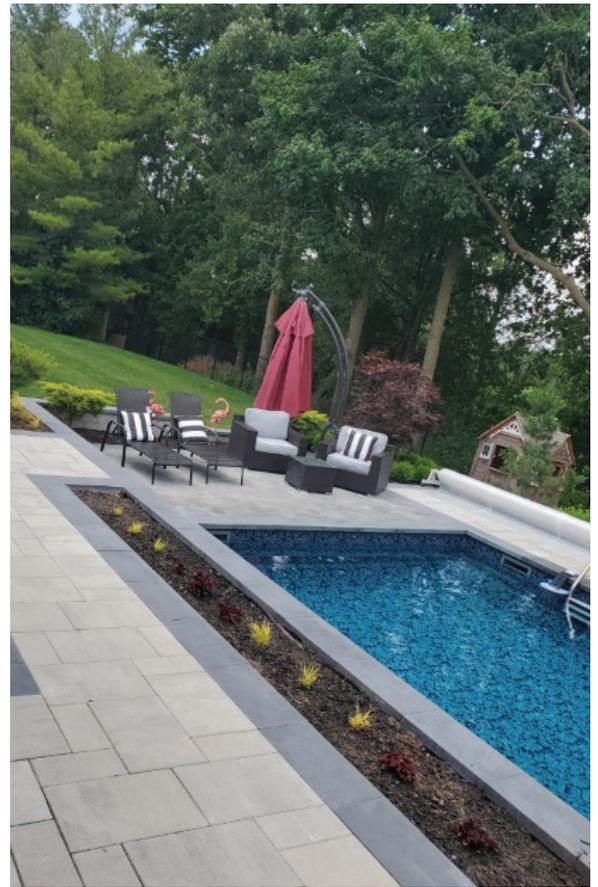


Figure 5: Finished Pool with Filter Bed in the background

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MEMBER PROFILE

Stephen Cobean

Co-owner

Name of Business: COBIDE Engineering Inc.

Owners: Stephen Cobean and Travis Burnside

Services: Civil Engineering, Land Development, Municipal Engineering, Stormwater Management, Onsite Sewage System Design, Municipal Drainage

Service Area: Southwestern Ontario – Generally Grey-Bruce-Huron

Number of Years in Operation: 3.5 years as the Co-Owner of COBIDE Engineering with 24 years' experience in the industry

Growing up in rural Ontario I experienced “country plumbing” and as a result I gained an interest in ensuring our environment was safely protected while still offering choices to homeowners for residential and cottage living. This led me to pursue my Professional Engineering designation after graduating from the University of Guelph’s Environmental Engineering program.

I credit my honest approach with clients and our employees to be the key to my success. Always remembering that without clients and good employees there would be no business. They are truly the secret to my success.

What was the most challenging onsite job you worked on?

Replacing my own septic system with limited space for the replacement bed. Let’s just say sometimes there is a benefit of living in small rural Ontario where you know the Municipal Staff. I knew the design would work, I just had to convince the approval authority. That was 2012 and so far, so good. Of course, we limit our kids to showers every other week and they use the neighbours washroom! Just kidding.



STEPHEN COBEAN
Co-owner, COBIDE Engineering Inc.

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

I always have thought that we could use more continuing education for designers and installers to ensure compliancy with the constantly changing regulations.

Where do you see the onsite industry going?

In the rural area that COBIDE Engineering services there are more rural subdivisions being developed requiring private onsite sewage systems. Most of these systems are utilizing advanced treatment systems and require engineered designs and supporting studies prior to the granting of approvals. I anticipate this approach will continue to grow as rural Ontario becomes a permanent destination for current urbanites.

Case Study

Ontario Seasonal Sites: A Case Study on Accelerated Treatment Plant Start-Up

Clearford Water Systems Inc.

Accelerated Seasonal Site Start-Ups Due To COVID-19 Crisis

PROJECT OVERVIEW

Location: Seasonal sites across Ontario

Challenge: In March 2020, the COVID-19 pandemic caused the shutdown of all non-essential services which delayed the routine start-up of seasonal sites, such as campgrounds, overseen by Clearford.

SOLUTION

The best way to adapt to the pandemic restrictions and regulations was to take every opportunity possible to prepare sites. Without knowing when the COVID-19 restrictions would be lifted and operations could commence, Clearford's Operations team was on standby until they received the authorization to start up the seasonal sites. With careful planning, diligence, and a dynamic team, Clearford was able to execute the startup of all plants within the reduced timeline.

BOTTOM LINE

The expanding health challenges resulted in the shutdown of all non-essential services, including the opening of the more than 30 campgrounds where Clearford manages the water and wastewater infrastructure. The pandemic forced us to fit a dense two weeks of pre-planned work into 6 days. This made for long hours and raised issues in securing the supplies required to commission the treatment plants.

BACKGROUND

To address the scheduling for seasonal site start-up, Clearford's Director of Operations, District Supervisors, and Operators developed a standard pre-startup plan for each site. This plan includes all capital expenses (CAPEX) work that has to be approved by the site owners. In addition, it incorporates important site information such as standard annual maintenance regimes, additional manpower required, and preparation of compliance notifications to governing agencies.

Pandemic delays seasonal site startup

At the beginning of March 2020, a global pandemic was declared due to the spread of the COVID-19 virus. The developing health crisis resulted in the shutdown of all non-essential services in Ontario, delaying the opening of the water and wastewater infrastructure for over 30 campgrounds managed by Clearford.



Obtaining start-up approval

When commissioning water treatment plants (WTP), notifications to the Ontario Ministry of Health (MOH) and the Ministry of the Environment, Conservation and Parks (MECP) is required. However, the regulatory requirements and other related system information for wastewater treatment plants (WWTP) typically requires communication with only the MECP.

Prior to starting up a treatment system, sampling requirements outlined in the Certificate of Approval (CofA) or the Environmental Compliance Approval (ECA) must be followed and communicated to the regulatory bodies to obtain official start-up approval. Depending on the ECA and site location, most of the seasonal sites prepared for a start-up date of **April 1st** or **May 1st**.



PANDEMIC ADAPTATIONS

At the beginning of every operating season, one of the first steps in commissioning systems is the coordination of major maintenance and CAPEX items with sub-trades prior to start-up dates. This is always one of the toughest challenges in commissioning seasonal systems and the pandemic only made it more difficult. Clients were less willing to spend CAPEX dollars on systems when facing the prospect that they may not see any revenue from these sites due to the potential sustained shutdown of the sites. Clearford continued to monitor the ever-changing pandemic crisis and remained in consistent communication with clients.

Without knowing when the restrictions would be lifted and operations could commence, our Operations team was on standby awaiting for the go-ahead to start-up the seasonal sites.

The Ontario government released a statement in the beginning of May approving the start-up of some seasonal sites, which gave us less than a week's notice to start up the treatment plants by May 15th.



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CHALLENGES

Typically, two weeks to a month prior to the startup date of the seasonal sites, we begin the initial steps of running the water and wastewater treatment plants. However, the pandemic forced us to fit two weeks of work into 6 days. This made for long hours and raised issues in securing the supplies required to commission the WTPs and WWTPs.

Water Treatment Plants

For water treatment plants (WTP), obtaining chemical resources is required to achieve system process requirements. The pandemic resulted in a shortage of chemical supply and a delay in routine shipment. To overcome this challenge, Clearford has been purchasing smaller volumes of NSF approved chemicals to bridge the gap.

“One of the concerns caused by the pandemic was the availability of sodium hypochlorite as it was being supplied to other services first deemed higher on the essential services hierarchy.”

Dave Barnard, Niagara District Supervisor

Wastewater Treatment Plants

COVID-19 has caused several challenges in the commissioning, operations, and maintenance of wastewater treatment plants (WWTP) including:

- Sudden surges in flow volumes that were not predictable based on past data,
- Delayed start-up causing peak flows to shift outside of the historical norms,
- An inadequate supply of wastewater to start the biological processes in the facilities.

SOLUTION

Prioritizing tasks and resources for optimized start-up procedures

Prioritizing all maintenance items in advance reduces treatment plant issues such as problems with the media filters and leaks in the distribution system. Completing these tasks prior to start-up also lessens the total number of staff required to operate any one site.

After the Province deemed water and wastewater operations as an essential service, Clearford management and the Health & Safety Specialist worked closely to ensure social distancing and the proper use of personal protective equipment (PPE) were being followed where necessary. The condensed start-up schedule led to staff shortages and limitations on the number of staff working together on site at once. To optimize start-up procedures, Clearford management was active throughout the COVID-19 period to develop and update new policies and procedures to allow field and office staff to continue work safely and effectively.

Adapting to unplanned circumstances

Residents of the seasonal sites commonly look forward to the summer months at their seasonal home. The best way to adapt to the ongoing pandemic restrictions and regulations was to take every opportunity possible to prepare sites. Although the seasonal sites startup dates were uncertain, our contingency planning provided a rapid response to re-open the sites and support the surrounding communities.

With careful planning, diligence, and a dynamic team, Clearford successfully executed the start-up of essential water infrastructure systems within the condensed timelines and constraints arising from the COVID 19 crisis.

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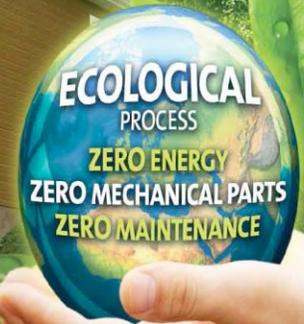
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