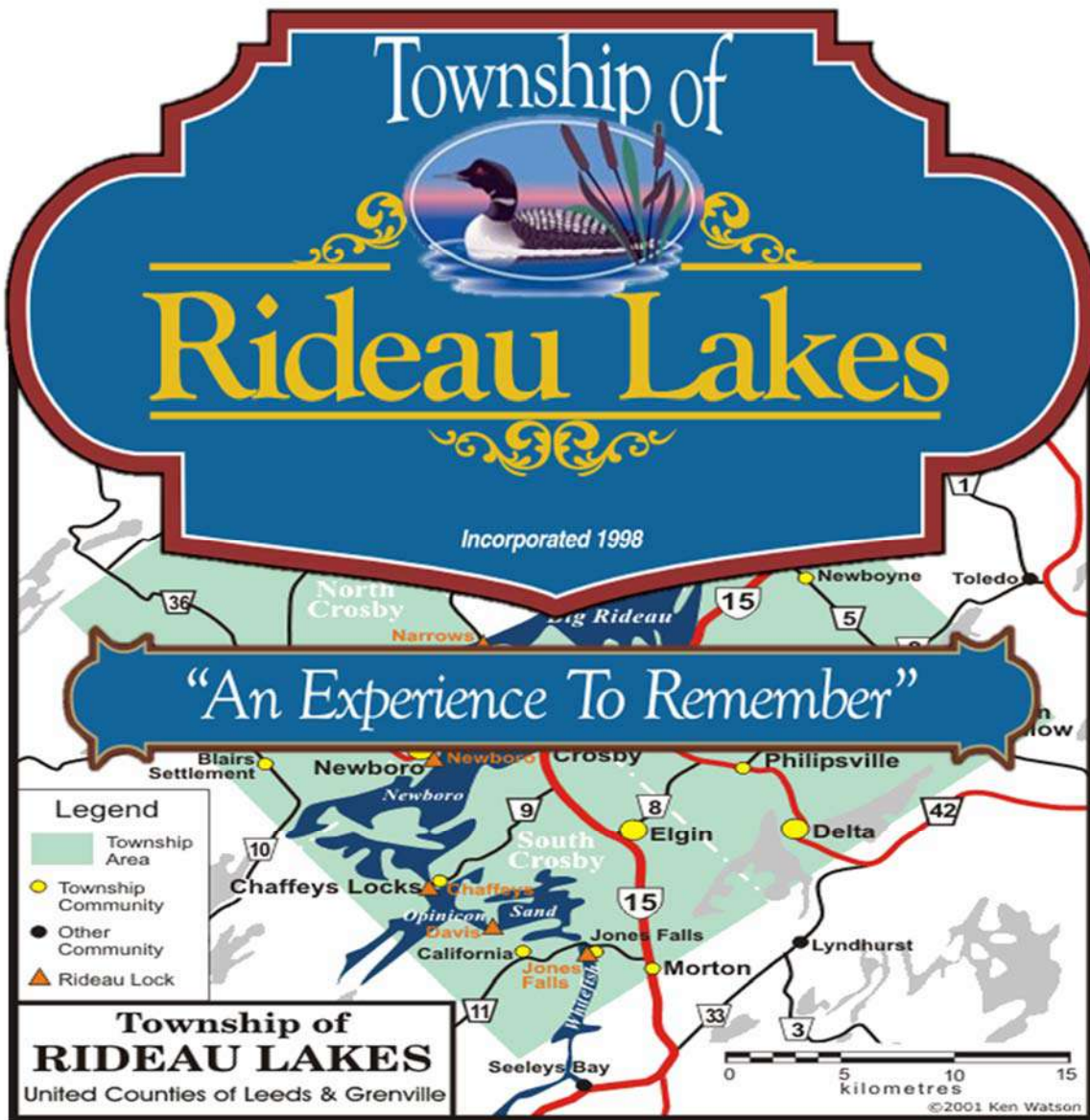


2020

Septic Re-Inspection Program Report



Prepared For: Township of Rideau Lakes
Prepared By: Eric Kohlsmith,
Septic Inspector
December 22, 2020


MississippiRideau
SEPTIC SYSTEM OFFICE

 Mississippi Valley
Conservation Authority

 Rideau Valley
Conservation
Authority

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Executive Summary

2020 was the fifth season for the mandatory re-inspection program. For 2020, 301 properties were visited with 295 inspections completed out of 300 proposed. Two properties were removed as new sewage systems permits were issued and 4 properties will be completed in 2021. During the inspection of properties located on Bass Lake and in the Village of Portland, 53% of systems were found to require work to be completed, and 16% (25 systems) of those systems required either full or partial replacement.

2020 marked the first-year where non-waterfront properties were inspected. Villages in general can have a greater impact not only on ground water quality, but also on surface water when located near a lake. Villages, especially historic ones, have smaller lots with wells and septic systems in close proximity, increasing the density and treatment requirements. Ensuring sewage systems are operating properly and being maintained is one part to protecting ground and surface waters.

The 2019 program required 9 properties to be completed in 2020. Six of the non-complying properties were inspected. Three have been re-scheduled to 2021. The results of the 2019 systems can be found in Appendix D.

Due to the COVID-19 pandemic, most properties received two mail-outs, some properties received three mail-outs. As we approached the inspections scheduled in April, Health Officials were requesting property owners to not visit their cottages and to restrict non-essential services. The Mississippi Rideau Septic System Office (MRSSO), with the support of Rideau Lakes Township, decided to postpone all inspections until June 1, 2020. Two properties were postponed to 2021 due to on going travel restrictions between Canada and the United States of America.

Participants were asked to return the questionnaire included in the information package to the Mississippi Rideau Septic System Office (MRSSO). Appointment dates were outlined in the property owner package. Owners were given the opportunity to arrange a new appointment, if required.

The table on the right breaks down the number of inspections completed per lake. As a result of the program, 136 systems were identified as having no concern, 132 requiring remedial work, 25 system replacements required, and 2 properties were requested to provide more information.

Lake	Inspections
Mandatory	
Bass	165
Portland	130
Total	295

The inspections began on June 1, 2020 and the last inspection was completed on October 19, 2020. Most of the inspections were completed in the months of June and July.

In conclusion, the re-inspection program was able to:

- Identify 53% of all systems inspected required work to function properly.
- 25 systems required replacement (8.5% of all systems or 16% of systems that required work)
- Conduct 301 site visits with 295 inspections completed.
- Meet with 213 (72%) property owners to provide information regarding the maintenance and operation of their sewage system.



1.0 Introduction

A working sewage system is an integral part of any home or cottage not serviced by the municipal sewer. As such, proper maintenance and operation of the sewage system is essential to the continued life of the system. A Septic Re-Inspection Program provides:

1. Participants with information and advice regarding the proper operation and maintenance of their septic system;
2. A proactive approach to identifying risks to human health or the natural environment;
3. A database of inspected existing septic systems that can be used as a planning tool for municipalities.

Malfunctioning on-site sewage systems can have negative impacts on both human health and the environment beyond the property on which it is located. Nutrient and bacteria-rich effluent can travel through soil and rock fractures to surface water bodies and ground water sources. Contamination of surface water can cause excessive aquatic plant growth, depletion of oxygen in lakes, and impact the natural habitat for aquatic species. Ground water contamination can cause illness and even death. This makes it crucial that property owners be aware of the location and operation of their sewage system. Under the Ontario Building Code (OBC) it is the property owner's responsibility to ensure that their sewage system is working properly, not only for their health, but also that of the surrounding community and environment.

In 2011, the OBC was amended to include Section 1.10. "Sewage System Maintenance Inspection Programs". Section 1.10 was developed to support the implementation of Mandatory Maintenance Inspections as required through the Clean Water Act and Source Water Protection Plans, but also provide an enforcement framework for Principal Authorities to implement mandatory sewage system maintenance inspection programs in areas not included in the Source Water Protection Plans. In 2015, the Township of Rideau Lakes enacted By-Law 2015-49 under Section 1.10.1 of the OBC (Appendix C).

All classes of sewage systems are inspected to ensure they are being maintained and operated in conformity with Section 8.9 of the OBC. A report is completed on-site and systems are determined to either be of no concern at the time of inspection, require remedial work, require replacement, or more information is needed. In cases of systems which require replacement, the Township of Rideau Lakes Manager of Development Services and Chief Building Official (CBO) will be emailed a copy of the re-inspection report form for enforcement at the CBO's discretion.

The results for the 295 inspections completed in 2020 were compiled and this report is the culmination of those efforts.



2.0 Program Initiation

2.1 Criteria for Selection of Properties

In Spring 2007, the Township of Rideau Lakes approached the Rideau Valley Conservation Authority and requested a proposal for conducting a Re-Inspection pilot program for the Township. The proposal was accepted by the Township of Rideau Lakes and the initial voluntary re-inspection program was started.

In the Fall of 2015, the Township of Rideau Lakes passed By-law 2015-49 (Appendix C) to create a Discretionary Maintenance Inspection Program (*OBC Div. C, 1.10.1*). In 2020, the number of mandatory inspections were 300 and focused on Bass Lake and Village of Portland.

A mailing list of selected properties for participation is provided to MRSSO from the staff at the Township of Rideau Lakes. The objective of the mailing list is to select developed properties with sewage systems 10 years or older and that have not been re-inspected before.

2.2 Re-Inspection Protocol

After receiving the participant list, a Property Owner Information package is mailed out to each property owner informing them of the re-inspection program, what their participation would entail, a description of the inspection to take place, and a two-sided questionnaire to be completed by the property owner and returned to our office. New for 2020 was a letter outlining inspection process changes due to the COVID-19 pandemic (Appendix A).

Property owners were notified of their appointment in the property owner package and were given the opportunity to arrange a new appointment if required. The MRSSO's target is to schedule ten appointments per day.

Once a participant has contacted our office either by returning the questionnaire, calling, faxing, or emailing, the information is recorded in the database under four different categories. The categories are:

- Appointment,
- Returned,
- New Appointment,
- Removed from list (permit number or reason recorded).

If a property owner had not contacted our office either by returning the questionnaire, calling, faxing, or emailing, the MRSSO still conducted a site visit on the pre-scheduled appointment in the property owner package. If no one was present on site, as a courtesy, a program information postcard was left with instructions to contact the MRSSO and schedule an inspection within two weeks. If an inspection was not scheduled, MRSSO conducted another site visit and completed the re-inspection, if possible. If the inspection could not be completed either an enforcement letter was sent and/or an Order to Comply for follow-up in 2021 will be sent. In 2019, nine properties



were carried forward to 2020, with enforcement letters sent out in March and six of the nine properties were inspected between June and November of 2020. Two of the remaining properties were re-scheduled to 2021 due travel restrictions and one due to illness. The results of those inspections can be found in Appendix D.

Due to the COVID-19 pandemic, most properties owners received two mail-outs some three. Initially re-inspections were scheduled for the last week of April and ending first week of June. As we approached the April inspections, Health Officials were requesting property owners not travel to their cottages and to restrict non-essential services. Two weeks before the April inspections the Mississippi Rideau Septic System Office (MRSSO), with the support of Rideau Lakes Township, decided to postpone all inspections until mid-May and eventually commencing inspections on June 1, 2020. Unfortunately, this re-scheduling caused some property owners to miss appointments due to delivery delays through the mail system. As a result, many inspections were re-scheduled again to ensure property owners had an opportunity to attend the re-inspection if they wanted to. Two properties were postponed to 2021, due to ongoing travel restrictions between Canada and the United States of America.

If a property did not qualify for the program, we asked them to contact our office so the information can be recorded. Three property owners contacted our office. When properties are removed from the mailing list, MRSSO staff record a comment to describe the reason for removal. The following is a list of common comments recorded for 2020:

- New sewage system (2)

The inspections in Rideau Lakes were conducted from June 1 to October 16, 2020

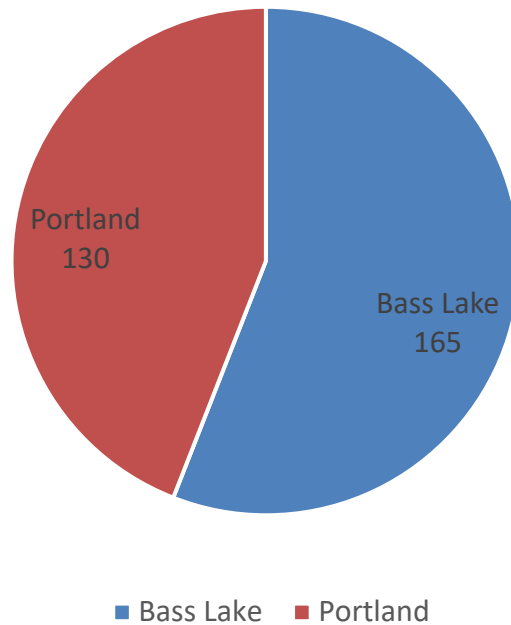


3.0 Results and Discussion

3.1 Distribution of Sewage System Re-Inspections

The re-inspection program resulted in 295 inspections and 301 site properties visited in 2020 on two different water bodies shown in Figure 1.

Figure 1 - Properties Inspected

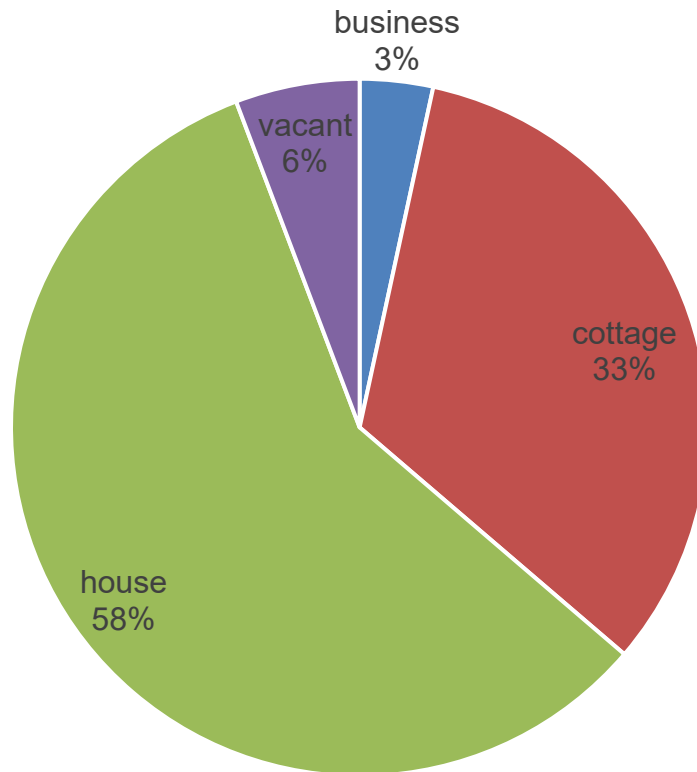


From information collected through site visitations, records of mailing addresses and observations at the time of the inspection, the 295 properties were designated to be cottage, house, farm, business, or vacant (Figure 2). While year-round residential properties generate more wastewater and have the potential to contribute more nutrients to surface water bodies, seasonal properties often have older sewage systems which are more likely to be contributing nutrients. Therefore, a mix of both seasonal and year-round residential properties is desirable.

During the 2020 program, many properties primary use was either identified or determined to be “cottage”. A property was determined as a cottage (seasonal) if the mailing address for the owner was different from the property address, unless indicated otherwise on the questionnaire. Properties that appeared to be developed during the selection process were also inspected, resulting in 17 properties being identified as vacant. The properties which appeared to be developed with structures only had garage(s), sheds, boathouses, but did not have any related sewage systems.



Figure 2 - Property Use



3.2 Age & Class of Sewage System

There are five primary classes of wastewater treatment systems identified in Part 8 of the OBC as outlined below.

Class 1 - Earth Pit, Vault, Pail, Portable Privies and Composting Toilets

Class 2 - Greywater Systems

Class 3 - Cesspools

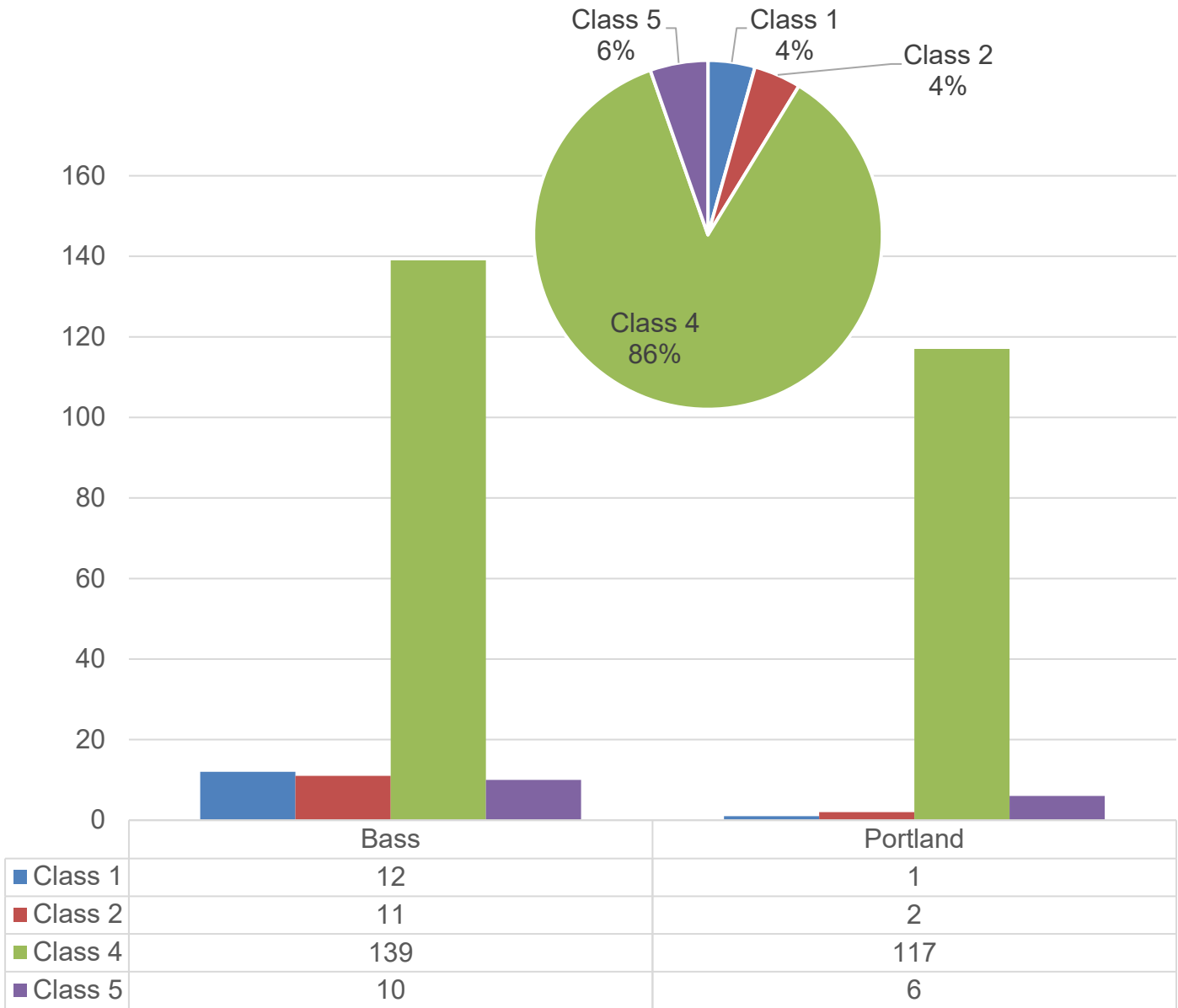
Class 4 – Septic Tank and Leaching Field

Class 5 – Holding Tanks

Figure 3 displays the primary type of on-site wastewater system for each property where it was known, either from the visual inspection or from information provided by the property owner. A Class 4 sewage system was most prevalent and was found on 267 of the properties inspected.



Figure 3 - Septic System Class Distribution

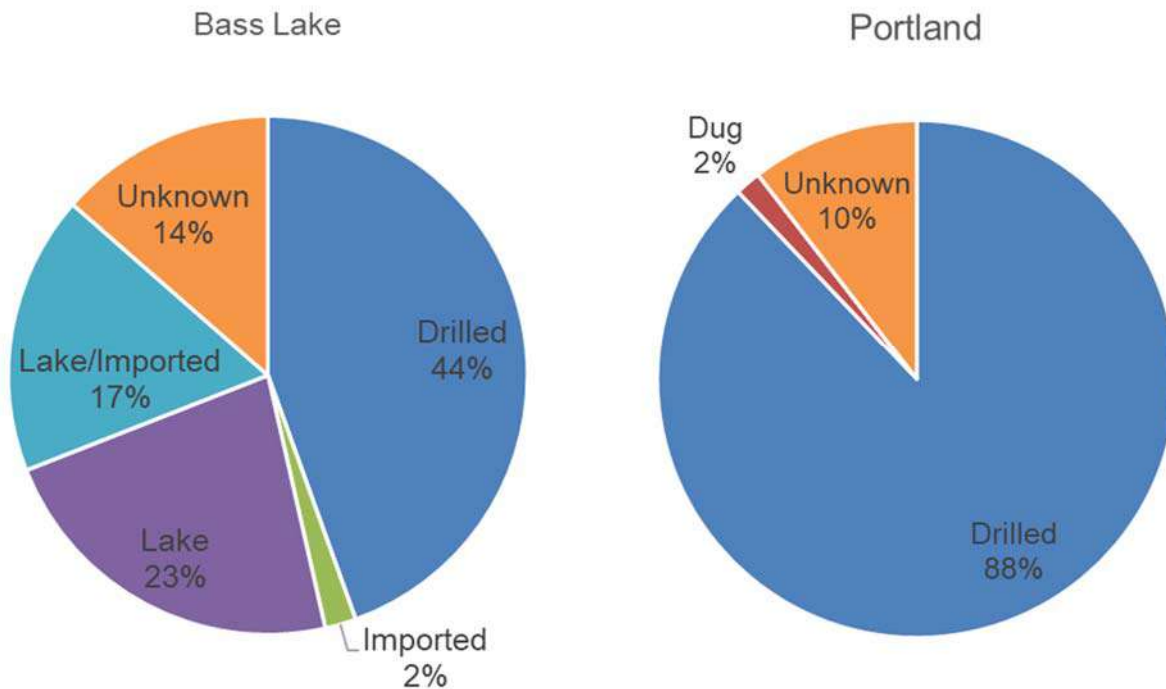


It is common, and many times is necessary, for properties to have more than one class of system present on the property. For instance, if the primary class of system is a privy (Class 1), then generally a Class 2 system is required for greywater treatment. It is strongly recommended that property owners with a Class 4 or Class 5 system direct all sources of greywater to that system unless they have an approved Class 2 system. Nineteen properties were found to have more than one class of system in use.

3.3 Wells and Drinking Water

During the field inspection, information was also collected with regard to the water source and water testing practices of the property owners. During the visual inspection, if a pipe pumping water from the water body was visible and no well was located on the property, then the water source was assumed to be the lake and recorded as such. If no pipe was visible and a well was located, then the water source was recorded as a drilled well. Information provided by the property owner is the most accurate. Figure 4 shows the percentage of systems for each category of water source. Information was requested regarding the level of treatment of the water before consumption (water softener, UV filter, reverse osmosis, iron filter, etc.) if the property owner was present on site.

Figure 4 - Water Source Distribution



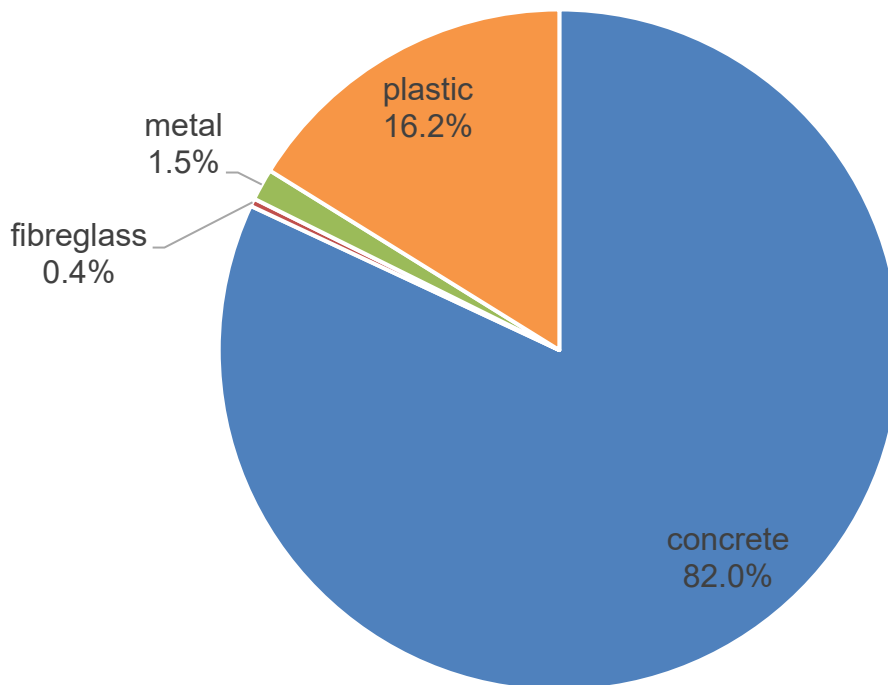
Although the Leeds, Grenville and Lanark Health Unit has free water testing available for residential properties and water bottles are available for pick up at their office in Smiths Falls, many property owners noted that they do not test their drinking water regularly.



3.4 Tank Inspection

The material of the tank was observed during the tank inspection. If the tank was not uncovered for the re-inspection, the tank location was determined by using a soil probe. The probe was also used to determine the construction material by the sound/feel it created. Of the 131 properties inspected, 120 of the properties had septic, holding, or cesspool tanks. Figure 5 shows the breakdown for the common tank materials found: concrete, plastic, and metal.

Figure 5 - Tank Material



As a result of the re-inspection program, it was noticed that 23.9% (53) of concrete/metal tanks had signs of corrosion (Illustration 1). Concrete corrosion can be caused by a build-up of gases from normal operation reacting with the concrete. The corrosion can cause baffles to fall off and/or effluent to escape around the outlet pipe.



Illustration 1 - Concrete Corrosion Around Outlet Baffle



Effluent filters are generally a plastic screen with narrow slots (1.6 mm opening) which allows the effluent to pass through and helps retain solids in the tank. Not only does the effluent filter reduce solids, but it allows bacteria to grow on the surface providing further treatment. The combined effect means low strength effluent enters the leaching bed which can extend the life of the system. The OBC requires an effluent filter in all new systems installed since 2006; septic installers or sewage haulers can install a filter into an existing tank upon request. Although filters function passively, they do require regular maintenance to ensure proper operation. Regular maintenance requires the filter to be removed from its housing and rinsed off into the septic tank. The MRSSO recommends annual cleaning of the filter. As shown in Illustration 2, an unmaintained effluent filter can clog, potentially causing sewage break-out to the surface of the ground or even a back-up in the dwelling.



Illustration 2 – Clogged Effluent Filter

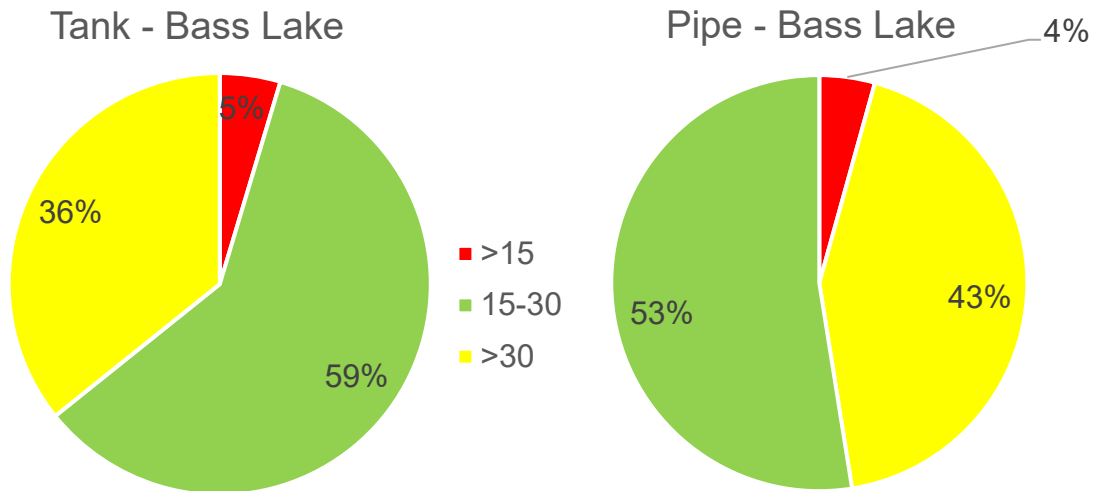
3.5 *Separation Distances*

Horizontal separation distances are measured from the dwelling, lot line, well and shoreline to the sewage system components. Figure 6 represents the separation distance measured from septic/holding tanks and distribution pipes to the surface water. The measurements were sorted into three categories:

- Less than 15 m (<15 m) – Does not meet OBC or Zoning By-Law requirements
- Between 15 m – 30 m – Meets OBC but does not meet Zoning By-Law requirements for new development
- Greater than 30 m (>30 m) – Meets OBC and Zoning By-Law requirements for new development.



Figure 6 – Water Setback – Bass Lake



Although a reduced separation distance does not necessarily provide evidence to ground or surface water contamination, it is important to recognize that these systems are present.

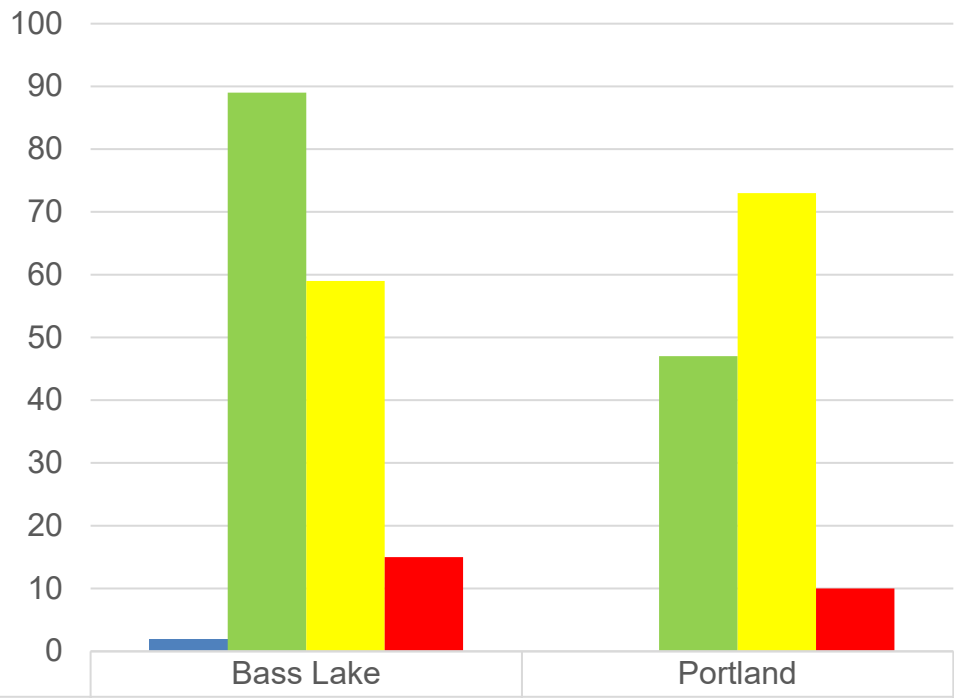
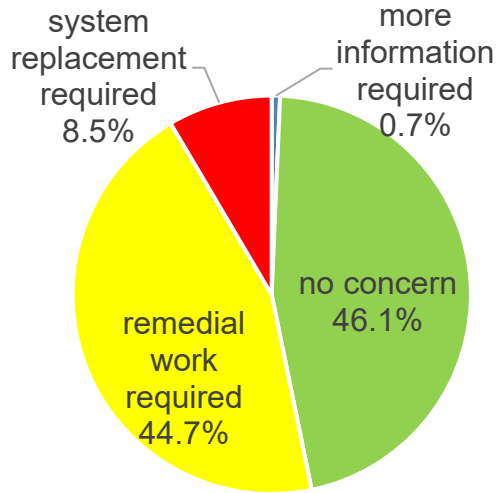
3.6 Sewage System Status

When completing an inspection of the existing sewage system, the MRSSO has developed the following terms to identify the overall septic system status or condition, as shown in Figure 7:

- **No Concern** – At the time of inspection there were no operational and/or maintenance issues identified.
- **Remedial Work Required** – At the time of inspection operational and/or maintenance issues were identified, but generally do not require a permit to remedy.
- **More Information Required** – At the time of inspection one or more questions arose regarding the class of system, location of components, water source, pumping, maintenance and/or operation of the system.
- **System Replacement Required** – At the time of inspection it was determined that the on-site system was not being maintained or operated properly and was posing or could pose a risk to human health or the environment.



Figure 7 - System Status



	Bass Lake	Portland
more information required	2	0
no concern	89	47
remedial work required	59	73
system replacement required	15	10



Every septic system requires regular maintenance to ensure it is operating efficiently, effectively and safely. System deficiencies are generally classified as a remedial work item(s). Table 1 illustrates the most common deficiencies found during the re-inspection program.

Table 1 - System Deficiencies

Pump-out required	78
Portion of system under a structure	5
Baffles require maintenance (broken/missing)	37
Effluent above/below operating level of tank	16
High level alarm required	4
Greywater issues	7
Tank corrosion	53
Recommend risers	6
Fill in rodent holes	4
Sewage pump out of septic tank	9
Partition wall corroded	7
Pump not operating	2
Total	228

*Note: some systems have more than one maintenance issue.

3.7 *Follow-up and Enforcement*

For 2020, the MRSSO implemented the use of electronic reporting. The property owner was provided a “Status Post Card” upon completion of the inspection with final reports being either emailed or mailed the same day. The postcard provides basic information regarding the results of the re-inspection along with common do’s and don’ts for sewage systems.

Properties that the MRSSO feels are of significant threat to the environment and/or public health were classified as “system replacement required” and sent to the Manager of Development Services and the CBO. Enforcement of violations on the properties identified by the re-inspection report will be at the discretion of the Rideau Lakes Building Department.

The MRSSO conducted several follow-up inspections on properties where work was completed to correct identified issues for items without the requirement for a permit.

All properties provided for inspection have had a site visit and assessment. Four properties from 2020 and three from 2019 still require completion of inspections as either the property was not accessible, the location of the system components could not be identified, or travel restrictions prevented the individual from opening the cottage. An enforcement letter will be mailed to each property And these inspections will be completed in the Spring of 2021.



3.8 Program Participation

The Township of Rideau Lakes Re-inspection program's target is:

- 300 Mandatory inspections

Site visits were conducted for 301 properties, with 295 inspections completed. Two properties had new systems permits issued, verified by Township staff, leaving 299 eligible properties for inspection. The four remaining properties could not be completed in 2020 due to:

- Systems could not be located or accessed at two sites,
 - Unsafe conditions at one site,
 - Property owner illness resulting in multiple re-scheduling ultimately a late season cancellation.
- There were 213 (72%) homeowners present during the inspection, allowing the inspector to provide valuable information about the maintenance and operation of their septic system.

4.0 Recommendations

As a result of the 2020 inspection process, efforts will be altered to complete inspections in a timelier manner. The following changes are proposed:

- For 2020, MRSSO developed a tracking application for completed inspections. The application will be altered to allow for custom queries of the data to track the number of eligible properties daily.

With the implementation of these recommendations, it is our hope that the program requirements will be clear for property owners and allow all inspections to be completed in the same calendar year.

5.0 Program Review

Since 2007 the MRSSO has been administering the Voluntary Sewage System Re-Inspection and since 2016, the Discretionary Maintenance Inspection Program. The following table is the results of the inspections over the twelve years of the programs.

Table 2 - Program Results 2007-2020

Year	No Concerns	Remedial Work	System Replacement	More Information	Total
2020	136	132	25	2	295
2019	134	138	22	10	304
2018	82	44	1	4	131
2017	55	59	4	9	127
2016	34	18	1	2	55
2015	18	16	1	2	37
2014	28	42	6	1	77



2013	33	66	0	1	100
2012	27	48	1	2	78
2011	32	63	1	5	101
2010	53	32	4	11	100
2009	52	42	3	4	101
2008	57	36	5	3	101
2007	42	51	5	2	100
Total	783	787	79	58	1707

6.0 Conclusions

The 2020 program completed inspections at 295 properties on as well as six property inspections from the 2019 program. Four properties will be receiving an enforcement letter and a Mandatory Inspection completed by June 1, 2021. 53% of the systems inspected required work. Of those systems that required work, 16% required system replacement or 25 systems out of all systems inspected, required replacement. It should be noted that age was not a significant factor in the system deficiencies identified.

Interaction with property owners during the re-inspection program this year was very positive. 72% of property owners were able to be present during the re-inspection. Property owners encountered were very supportive of the re-inspection program.

The 2020 Re-inspection program had the added challenge of conducting inspections through the COVID-19 pandemic. With changes to our inspection process and the cooperation of property owners, we were able to complete the inspections and reporting safely and efficiently.

We look forward to conducting the program in 2021 and continuing to provide the property owners of Rideau Lakes Township fair, accurate and timely service. When systems are inspected year after year, we will begin to have a better idea of the status of on-site wastewater treatment in the Township of Rideau Lakes.

We trust that the momentum of the mandatory re-inspection program continues in the coming years as we believe it is a valuable asset to the health of the environment for our community.



Appendix A: Property Owner Information Package





1439 County Road 8, Chantry, Ontario K0E 1G0

**RIDEAU LAKES SUPPORTS A HEALTHY ENVIRONMENT FOR ALL TO ENJOY
THE SEPTIC MANDATORY RE-INSPECTION PROGRAM IS AN IMPORTANT PART OF
COUNCIL'S ENVIRONMENTAL STRATEGY**

March 31, 2020

Did you know that the Township has over 5200 waterfront properties across 32 lakes that have a total area of over 33,000 acres? Did you know the Township has over 840km of shoreline? That is more shoreline than Highway 401 is long from Windsor to Quebec

For over 9 years the Township of Rideau Lakes has had a voluntary septic re-inspection program. Mandatory Re-inspections have been in place since 2016 within the Township and this is an important program to implement requirements of the *Clean Water Act*. For 2020, the mandatory program will focus on Bass Lake and the Portland area, including some non-waterfront properties in Portland. If you took part previously in the voluntary program and your system was in good condition, it is unlikely you need to participate again at this time. If you did not participate previously or are new to the lake your participation is **required**.

A properly functioning septic system is an integral part of a healthy shoreline environment. Improperly maintained systems can be a significant contributor of nutrient and bacteriological pollution into an adjacent water body. The key to proper maintenance and operation of an on-site sewage system is education. The Mandatory Septic re-inspection Program is aimed at achieving a better understanding of system function, owner intervention and preventative measures. The costly implications of poor maintenance are significant to the owner and to the community. The success of the voluntary re-inspection program so far shows owners are committed to protecting their lake lifestyle, as is the Township. Information and advice are welcomed despite the fact that in some instances remedial action may be required.

The Mississippi/Rideau Septic System Office (MRSSO), on behalf of the Township of Rideau Lakes, will be conducting re-inspections in your area this summer and your property has been selected to be included in the mandatory component of the program. If you wish to be present during the mandatory re-inspection of your property, appointments will be made on a first come, first served basis during the dates outlined in the accompanying program description. If it is not convenient for you to be present for the inspection, you are not required to be present. In addition, we are asking that you have your septic tank located and the lids exposed (excavated) prior to the arrival of MRSSO staff.

Your active involvement in the Mandatory Septic re-inspection Program begins with reading the attached Program description. Please fill in the accompanying questionnaire to the best of your ability. After the mandatory re-inspection is completed the re-



inspection form will be emailed or mailed and a post card with the results of the inspection will be left in a secure, visible location on your property. This form will state the status of the system and any deficiencies present. Advice on proper maintenance can be obtained at the time of inspection or by contacting the MRSSO if you are not able to be present on-site. If necessary, the MRSSO will initiate a dialogue and define an action plan with owners of systems deemed to be a concern to the environmental/public health or which are found not to be in compliance with Part 8 of the Ontario Building Code.

Any comments about the Program in general or Council's strategy can be directed to me, Malcolm Norwood at 1-800-928-2250. Program specifics or questions about your involvement in the Program should be directed to the MRSSO, (613) 253-0006 ext. 256.

On behalf of Council, thank you in advance for your co-operation.

Sincerely,

Malcolm Norwood, M.A, M.P.L
A/ Manager of Development Services

PROGRAM AUTHORITY

The Province of Ontario has delegated the responsibility to regulate on-site sewage systems (with total daily design flow of less than 10,000 litres per day) to municipalities. The authority to do so was transferred from the Environmental Protection Act to Part 8 of the Ontario Building Code which defines a sewage system as a "building". Implementation of Code requirements is meant to ensure proper installation, operation and maintenance of on-site sewage systems. A sewage system that is discharging effluent onto the surface of the ground, or that has not been maintained or operated in accordance with the Code is determined to be an unsafe "building". Any remedial action required will be addressed pursuant to the Ontario Building Code.

PERSONAL INFORMATION collected as part of the Septic Mandatory re-inspection Program will be used to facilitate communication between the Township, MRSSO and individual owners and will be protected in a confidential manner in accordance with the Municipal Freedom of Information and Protection of Privacy Act. A summary report, containing no owner names, will be prepared for public viewing. Questions about the collection of personal information should be directed to Brittany Mulhern



CURRENT DATE

5 Easy Steps to Your Mandatory Sewage System Re-Inspection Program

We are pleased to provide free re-inspections on a number of septic systems including:

- Earth Pit Privies and Composting Toilets
- Greywater Pits
- Cesspools
- Septic Tanks & Leaching Fields
- Holding Tanks

Our professional, impartial staff are registered Building Official Inspectors who will provide advice on your current, care and maintenance and possible replacement options.

Here are the five steps of the Septic Re-inspection Program — from start to finish.

Step 1 — Complete and return the attached questionnaire

Do the best you can to complete the attached questionnaire and submit it by:

Fax: 613-253-0122

Email: mrssso@mvc.on.ca

Mail: MRSSO 10970 Hwy. 7, Carleton Place ON K7C 3P1

Questionnaire can be filled out and returned online at <http://mvc.on.ca/mrssso-questionnaire/>.

The goal of the questionnaire is to provide us with some basic information about your system and where it is located.

Step 2 — Scheduled appointment

The re-inspection of your property at «Location_Number» «Location_street» is mandatory and will be conducted on «Date». If you would like to arrange an alternative inspection appointment, please contact our office - 613-253-0006 ext. 256 or mrssso@mvc.on.ca.



Step 3 — Dig Your Lids

The MRSSO asks that you expose both lids on your septic tank (most tanks have two).

The MRSSO will re-cover the tank, **upon request**, when the inspection is completed (**at no cost**) unless it is determined that a pump-out is required. The tank inspection includes a visual inspection of the tank components and measurement of sludge and scum in the tank.

Please do not pump tank before the re-inspection.

Step 4 — Inspection

The septic re-inspection will include the following:

- Location of all system elements
- Measurement of separation distances to key lot features
- Visual inspection of tank structure
- Measurement of tank contents – **Please do not pump tank before inspection.**
- Visual inspection of bed
- Briefing the homeowner on proper system maintenance and operation.

Step 5 — Review your Re-inspection Report

A copy of the septic re-inspection report will be left for the property owner.

Our primary goal is to educate property owners about their septic system and any deficiencies it may have. Our secondary goal is to ensure that unsafe systems are reported to the appropriate Authority, based on the requirements of Part 8 of the *Ontario Building Code*. Staff will let you know of any funding assistance that may be available for septic replacement.

Property owners can expect the re-inspection, results, and all inquiries to be dealt with in a professional manner.

Thank you in advance for your co-operation in our program.

Working together we can protect our watershed resources. Your participation in this program will ensure a safe home with healthy groundwater and surface water and the continued enjoyment of a clean, healthy waterfront environment for generations to come.

Yours truly,



Eric Kohlsmith, MRSSO Re-inspection Program Coordinator
613-253-0006 ext. 256
mrssso@mvc.on.ca



10970 Hwy. 7, Carleton Place, ON K7C 3P1

T (613) 253-0006 F (613)253-0122 mrsso@mvc.on.ca



Inspection #:

Date

Address

Re: Postponement of Mandatory Sewage System Re-inspections Due to COVID-19

Dear Homeowner,

Given current restrictions on travel, gathering and physical distance, we have decided to postpone our sewage system re-inspections to later in the year to help prevent the spread of COVID-19 and keep you and our staff safe.

Your mandatory re-inspection at **LOCATION** has therefore been rescheduled to «**app_date**».

As the Province of Ontario has deemed the delivery of services for sewage treatment and disposal as essential, we anticipate completing our mandatory sewage system re-inspections this year. However, we want to ensure that these re-inspections are undertaken in a safe manner, so we are reviewing our site visit protocols. While you are not required to be present during the inspection, we would normally encourage property owners to attend the site visit to get the most out of the educational component of the inspection. This year however due to COVID-19, if you plan to participate in the site visit:

- A distance of 2 metres (or 6 feet) must be maintained between staff and homeowners
- No more than two homeowners may be present on site during the inspection
- You may not be on-site if you have been outside of Canada within the 14 days preceding your inspection or if you have COVID-19 or are exhibiting any of the symptoms of COVID-19.



As part of your reinspection, the Mississippi Rideau Septic System Office will provide electronic reports that will be emailed or mailed to you to reduce contact onsite.

Please feel free to contact our office with any concerns or questions.

Regards,



Eric Kohlsmith
Regulations Inspector
Mississippi Rideau Septic System Office
613 913-7570 | mrsso@mvc.on.ca



Questionnaire

Please fill out as much information as possible, **as best as you can**, and return to the above address. Old septic or well records are excellent resources for the more technical questions. Mark any applicable boxes. If you select 'Other' please specify. Please use the space noted as 'Correction' to correct any of the supplied information. On the reverse, please identify the location of your septic system and other property features. Please **sign** the form to verify the information that has been provided.

Property Owner						Correction - New Property Owner, Spelling of Name...	
Mailing Address						Correction - New Mailing Address...	
Telephone Number () ()	Alternate Number () ()			Email Address			
Re- Inspection Property Location	Length of Ownership			Lake Name / Village			
	Property Size	# Bedrooms	Floor Area				
Roll Number							
Property Use	Residential <input type="checkbox"/>	Cottage/Seasonal <input type="checkbox"/>	Commercial <input type="checkbox"/>	Farm <input type="checkbox"/>	Other <input type="checkbox"/>		
General Location of Tank						Do you require assistance locating/excavating your tank?*	
						Yes <input type="checkbox"/>	No <input type="checkbox"/>
	* There is no charge of for this service		Inspection Date:				
Sewage System Type	Class 1 <input type="checkbox"/> Outhouse/Composting	Class 2 <input type="checkbox"/> Greywater pit	Class 3 <input type="checkbox"/> Cesspool	Class 4 <input type="checkbox"/> Septic Tank & Leaching Field	Class 5 <input type="checkbox"/> Holding Tank		
Tank Information	Concrete <input type="checkbox"/>	Plastic <input type="checkbox"/>	Fiberglass <input type="checkbox"/>	Metal <input type="checkbox"/>	Advanced Treatment Unit	Yes <input type="checkbox"/> No <input type="checkbox"/>	
Date of Last Pump out				Pump Out Frequency			
Greywater Pit Structure	Earth <input type="checkbox"/>	Rock <input type="checkbox"/>	Wood <input type="checkbox"/>	Sewage Pump	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
				High Level Alarm	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Outhouse Pit Structure	Earth <input type="checkbox"/>	Rock <input type="checkbox"/>	Wood <input type="checkbox"/>	Composting Toilet	Yes <input type="checkbox"/> No <input type="checkbox"/>	Overflow? Yes <input type="checkbox"/> No <input type="checkbox"/>	
	Date System(s) Installed			Sewage System Permit #			
Water Source	Drilled <input type="checkbox"/>	Dug <input type="checkbox"/>	Lake <input type="checkbox"/>	Imported <input type="checkbox"/>	Drinking Water Treatment	Yes <input type="checkbox"/> No <input type="checkbox"/>	
				Type of Treatment			

Participant Signature: _____ Participant Name: _____
(Signature) (Please Print)



MANDATORY SEPTIC RE-INSPECTION PROGRAM



Your township is committed to protecting the health of the watershed. Your participation in this re-inspection program will ensure a safe home with healthy groundwater and surface water and the continued enjoyment of a clean, healthy waterfront environment for generations to come.

**Questions?
Contact:**

Eric Kohlsmith
Mississippi Rideau Septic
System Office (MRSSO)

10970 Highway 7, Carleton Place, ON K7C 3P1

T 613-253-0006 ext. 256 F 613-253-0122

Email: ekohlsmith@mvvc.on.ca



For the health of your home, your lake and your community!

MANDATORY SEPTIC RE-INSPECTION PROGRAM RESULTS:

Inspection No. _____ Inspection Date _____

System Class Class 1 (Privy/Composting Toilet) Class 2 (GW Pit) Class 3 Class 4 Class 5

System Status

- NO CONCERNS
 REMEDIAL WORK REQUIRED
 SYSTEM REPLACEMENT REQUIRED
 MORE INFORMATION REQUIRED

Remedial Work Required

- PUMP OUT REQUIRED
 MONITOR CORROSION IN TANK
 BAFFLE REQUIRED INLET OUTLET
 REMOVE TREES & SHRUBS FROM LEACHING BED

Recommendation

- HIGH LEVEL ALARM EFFLUENT FILTER TANK LID RISERS

Comments



Do

- familiarize yourself with the location of your system
- keep the tank access lid secured to the riser at all times
- keep an "as-built" system diagram in a safe place for reference
- keep accurate records of septic system maintenance and service calls
- test your well water at least three times a year—spring, summer and fall—for indicator bacteria
- have your tank inspected for sludge and scum buildup on a regular basis (3-5 years) and clean out when a third of the depth of your tank is full of sludge and scum
- have your effluent filter checked and cleaned every year; if you don't have an effluent filter, consider adding one
- divert surface water away from your leaching bed
- conserve water in the house to reduce the amount of wastewater that must be treated
- repair leaky plumbing fixtures and replace inefficient toilets with low-flush models
- consider installing a lint filter on your washing machine's discharge pipe
- spread the number of loads of laundry throughout the week



Don't

- enter a tank—gases and lack of oxygen can be fatal
- put cooking oils or food waste down the drain
- flush hazardous chemicals, pharmaceuticals, cigarette butts or sanitary products
- use a garbage disposal unit/garburator unless your system has been designed for it
- use special additives that are claimed to enhance the performance of your tank or system—you don't need them!
- dig without knowing the location of your leaching bed
- drive or park over your tank or leaching bed
- pave over your leaching bed
- allow livestock on the leaching bed
- plant trees or shrubs too close to the septic tank or leaching bed
- connect rain gutters, storm drains, sump pumps or allow surface water to drain into a septic system
- connect leaching bed or greywater system to agricultural field drainage
- discharge water softener backwash to the septic system unless your system has been designed for it
- drain hot tub and spa water to the septic system

Thank you for your participation — your report will be emailed within 5 business days



Appendix B: Description of Site Inspection

Proposal 1: Visual Inspection & Septic Tank Inspection and Management Program

- ✓ Measure depth of solids (sludge and scum layers) in tank
- ✓ Estimate a homeowners individual pumping frequency based on future use remaining consistent with past use
- ✓ Identify any leaking tanks, or potential pipe blockages
- ✓ Ensure septic tank baffles are present and in working order
- ✓ Promote the installation of effluent filters, and septic tank risers
- ✓ Record all information in database, including last record of pump-out
- ✓ Identify any obvious problems with the septic system
- ✓ Confirm that separation distances are met as per the OBC
- ✓ Check for illegal wastewater discharges
- ✓ Record GPS values of all sewage systems, and wells
- ✓ Document all findings on each property in a GIS compatible database
- ✓ Provide informative pamphlets on septic system care and maintenance
- ✓ Liaise with the township building officials to insure Part 8 compliance of properties identified as deficient in the re-inspection program.

Tank Size (L)	Household Size (Number of People)									
	1	2	3	4	5	6	7	8	9	10
1,890	5.8	2.6	1.5	1.0	0.7	0.4	0.3	0.2	0.1	
2,840 (2,700)	9.1	4.2	2.6	1.8	1.3	1.0	0.7	0.6	0.4	0.3
3790 (3,600)	12.4	5.9	3.7	2.6	2.0	1.5	1.2	1.0	0.8	0.7
4,730	15.6	7.5	4.8	3.4	2.6	2.0	1.7	1.4	1.2	1.0
5,670	18.9	9.1	5.9	4.2	3.3	2.6	2.1	1.8	1.5	1.3
6,620	22.1	10.7	6.9	5.0	3.9	3.1	2.6	2.2	1.9	1.6
7,570	25.4	12.4	8.0	5.9	4.5	3.7	3.1	2.6	2.2	2.0
8,520	28.6	14.0	9.1	6.7	5.2	4.2	3.5	3.0	2.6	2.3
9,460	31.9	15.6	10.2	7.5	5.9	4.8	4.0	4.0	3.0	2.6

Estimated Septic Tank Pumping Interval in Years



Appendix C: Ontario Building Code References

OBC 8.1.2.1. Classification of Systems

- Class 1 – all privies (portable, earth pit, vault, chemical, incinerating and composting).
- Class 2 – a greywater system
- Class 3 – a cesspool
- Class 4 – a leaching bed system
- Class 5 – a holding tank

OBC Table 8.2.1.5. Clearance Distances for Sewage Systems

8.2.1.5(1)	Horizontal distance (m) from a well with watertight casing to a depth of at least 6m	Horizontal distance (m) from a spring used as a source of portable water	Horizontal distance (m) from lake, river, pond, stream, reservoir or	Minimum horizontal distance to property line
<i>Earth Pit Privy</i>	15	30	15	3
<i>Privy</i>	10	15	10	3
<i>Vault</i>				
<i>Greywater</i>	10	15	15	3
<i>Cesspool</i>	30	60	15	3

OBC 8.2.1.6. Minimum Clearances for Classes 4 and 5

Minimum Clearances for Treatment Units (m)

Structure	1.5
Well	15
Lake	15
Pond	15
Reservoir	15
River	15
Spring	15
Stream	15
Property Line	3



Minimum Clearances for Distributing Piping (m)

Structure	5
Well with a watertight casing to a depth of	15
Any other well	30
Lake	15
Pond	15
Reservoir	15

River	15
A spring not used as a source of potable	15
Stream	15
Property Line	3

Minimum Clearances for Holding Tanks (m)

Structure	1.5
Well with a watertight casing to a depth of	15
Any other well	15
Spring	15
Property Line	3



Program Authority

The *Building Code Act* (BCA) (1992), and Part 8 of the Ontario Building Code (OBC) regulates the design, construction, operation and maintenance of sewage systems. The OBC, however, has powers which only extend to those systems with a design flow of less than 10,000 Litres/day, serving no more than one lot. Systems which do not fall within these parameters are regulated by the Ministry of the Environment, under the *Ontario Water Resources Act*.

The authority for the Mississippi Valley Conservation, Rideau Valley Conservation Authority and other enforcement agencies to conduct inspections of potentially unsafe sewage systems is provided by BCA s.15.9(1). This act provides inspectors with the right of entry onto land “to determine whether a building is unsafe”. Under Part 1 of the OBC an on-site sewage system is treated as a building and BCA s.15.9(3) deems a sewage system to be “unsafe” if it is not maintained or operated in accordance with the BCA and the OBC. BCA s.18 outlines the powers that an inspector may exercise for the purposes of carrying out an inspection. If the inspector finds the system to be “unsafe”, he or she may make an order under BCA s.15.9(4) setting out the steps necessary to render the building safe, and may require that the steps be taken within a certain period of time. This enforcement for the Township of Rideau Lakes will be carried out by their Chief Building Official (CBO) or his/her appointed representative.

Further authority will be given with amendments proposed to the BCA under the *Clean Water Act, 2005*. This act was passed on October 18, 2006 and will help protect drinking water sources for all Ontarians.

A visual inspection of the sewage system can determine if the system is “unsafe” (defined in OBC 8.9.1.2 as a breakout of effluent onto the surface, contamination of a well or of a surface water source). Clearance distances to the well and surface water from the sewage system can also be verified by a visual inspection. To determine if the system is being maintained and operated in accordance with the OBC and the BCA, a thorough inspection of the tank is necessary.

Section 1.10. Sewage System Maintenance Inspection Programs

1.10.1. Discretionary Maintenance Inspection Programs

1.10.1.1. Scope

(1) This Subsection governs, for the purposes of subsection 34 (2.1) of the Act, *maintenance inspection programs* established under clause 7 (1) (b.1) of the Act in respect of *sewage systems*.

1.10.1.2. Application and Inspections

(1) A *maintenance inspection program* referred to in Sentence 1.10.1.1.(1) shall apply to all *sewage systems* in the area affected by the *maintenance inspection program*.

(2) A *maintenance inspection program* referred to in Sentence 1.10.1.1.(1) shall provide that, subject to Article 1.10.1.3., an *inspector* shall inspect all *sewage systems* affected by the *maintenance inspection program* for compliance with the standards prescribed under clause 34 (2) (b) of the Act in relation to *sewage systems* that are enforced by the program.

1.10.1.3. Certificate as Alternative to Maintenance Inspection

(1) A *principal authority* that establishes a *maintenance inspection program* in respect of *sewage systems* may, as an alternative to conducting an inspection of a *sewage system* required under Sentence 1.10.1.2.(2) accept a certificate described in Sentence (2) from the owner of the property on which the *sewage system* is located.

(2) The certificate referred to in Sentence (1) shall,

(a) be in a form approved by the *Minister*,

(b) be signed by a person described in Sentence (3), and

(c) confirm that the person,

(i) has conducted an inspection of the *sewage system* to which the certificate relates, and

(ii) is satisfied on reasonable grounds that, on the date on which the certificate is signed, the *sewage system* to which the certificate relates is in compliance with the standards prescribed under clause 34 (2) (b) of the Act in relation to *sewage systems* that are enforced by the *maintenance inspection program*.

(3) Subject to Sentence (4), the following persons are authorized to sign a certificate referred to in Sentence (1):

(a) a person registered under Article 3.2.4.2. in the class of registration set out in Column 1 of Item 10 of Table 3.5.2.1.,

(b) a person registered under Article 3.3.3.2.,

(c) an *architect*,

(d) a *professional engineer*.

(4) A person shall not sign a certificate referred to in Sentence (1) if the person would be in a conflict of interest.

(5) For the purposes of Sentence (4), a person would be in a conflict of interest if the person, or an officer, director, partner or employee of the person (where the person is a corporation or partnership), or any person engaged by the person to perform functions for the person,

(a) has participated or participates, in any capacity, in *design activities* or *construction* relating to any part of the *sewage system* to which the certificate relates,

(b) is or has been employed within the previous 180 days by a person who carried out *design activities* or *construction* relating to any part of the *sewage system* to which the certificate relates,

(c) has a professional or financial interest in,

(i) the *construction* of the *sewage system* to which the certificate relates,

(ii) the *sewage system* to which the certificate relates, or

(iii) the person responsible for the design of the *sewage system* to which the certificate relates, or

(d) is an elected official, officer or employee of a *principal authority*.

BY-LAW NUMBER 2015 - 46

**THE CORPORATION OF THE TOWNSHIP OF RIDEAU LAKES
SEWAGE SYSTEM MAINTENANCE INSPECTION PROGRAMS**

WHEREAS, malfunctioning on-site sewage systems can have significant negative impacts on both human health and the environment;

AND WHEREAS, in 2008, the Corporation of the Township of Rideau Lakes (the "Township"), implemented a sewage system maintenance inspection program for waterfront properties based on voluntary participation by property owners;

AND WHEREAS, Section 7(1)(b.1) of the *Building Code Act, 1992*, S.O. 1992, c. 23, as amended (the "Act"), authorizes the council of a municipality to pass by-laws establishing and governing sewage system maintenance inspection programs in accordance with Division C, Part 1, Section 1.10 of the *Building Code Act, 1992 - Ontario Regulation 350/06*, as amended (the "Building Code"), including mandatory programs;

AND WHEREAS, Council considers it desirable for the protection of the health, safety and well-being of persons and the environmental well-being of the municipality to exercise its authority to implement a hybrid (voluntary and mandatory) sewage system maintenance inspection program;

NOW THEREFORE BE IT RESOLVED THAT, the Council of the Corporation of the Township of Rideau Lakes enacts as follows:

1. GENERAL REGULATIONS

- 1.1** THAT, the hybrid sewage system maintenance inspection program will apply to all properties located in the areas and in the manner described in Schedule "A" to this By-Law.
- 1.2** THAT the By-Law Schedule can be amended by resolution of Council.
- 1.3** THAT the Mississippi Rideau Septic System Office (MRSSO) is delegated the Principle Authority for the purposes of conducting mandatory sewage system maintenance inspections under Division C, Part 1.10.1 of the Ontario Building Code Act.

2. BY-LAWS TO BE REPEALED

- 2.1** All by-laws or parts thereof and resolutions passed prior to this by-law which are in contravention of any terms of this by-law are hereby rescinded.



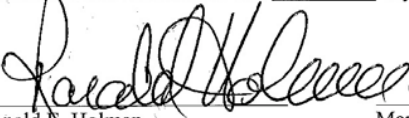
3. **ULTRA VIRES**

3.1 Should any sections of this by-law, including any section or part of any schedules attached hereto, be declared by a court of competent jurisdiction to be ultra vires, the remaining sections shall nevertheless remain valid and binding.

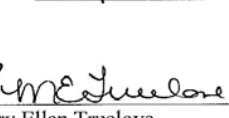
4. **EFFECTIVE DATE**

This By-law shall be effective as of January 1, 2016.

Read a first and second time this 8th day of September, 2015.

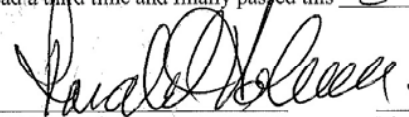


Ronald E. Holman
Mayor

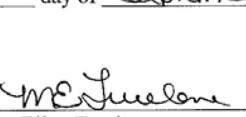


Mary Ellen Truelove
Clerk

Read a third time and finally passed this 8th day of September, 2015.



Ronald E. Holman
Mayor



Mary Ellen Truelove
Clerk



Appendix D: 2019 Follow-up inspection results

At the completion of the 2019 re-inspection program, 9 properties still required inspection. These properties were carried over to the 2020 program for inspection. An enforcement letter was sent by registered mail to each property in March of 2020. Inspections were completed in August 2020. The following is a brief description of the results:

- 9 properties to inspect,
 - 6 were inspected
 - 3 to be completed in 2021 (two postponed due two travel restrictions and one due to multiple cancellations and late in the season)

- There 2 cottages and 4 houses
- 3 owners were present
- 5 Drilled wells found, and the water source was unknown for 1 property
- 6 Class 4 systems
- All 5 tanks inspected were constructed out of concrete
- One tank had signs of corrosion, 2 required a pump out and 2 required baffles
- One system had no concern, 4 required remedial work and one system replacement was identified

