



Septic System Re-Inspection Program

DRAFT - February 7th, 2012

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Background

In 1998, the responsibility for on-site sewage systems with a total daily design flow of less than 10,000 litres per day was transferred from the Ministry of Health to the Ministry of Municipal Affairs and Housing. In doing so, the Province of Ontario shifted responsibility for these systems from provincial jurisdiction to municipal jurisdiction with Part 8 of the Building Code requiring owner maintenance of on-site sewage systems. The transfer in jurisdiction made enforcement the municipality's obligation and responsibility.

Many of the lakes and other water courses in Tay Valley Township were developed years ago. The original cottages were usually serviced with a privy, had no running water and were used for only a few weekends each year. Over the years these original cottages have been improved and are inhabited for longer durations over the year, with many now converted to permanent residences.

Tay Valley Township began conducting visual re-inspections of septic systems on waterfront properties in 2000, when a pilot program began on Christie Lake. Since 2000, the Township expanded its program to include all waterfront properties, on all water bodies, and in 2004 added a septic tank component, which consisted of an internal inspection of the tank. Since the program's inception, and up until the end of 2011, property owner participation has been voluntary.

Tay Valley Township has led the way locally for the sewage system re-inspection program as well as other initiatives that work towards protecting the quality of surface and ground water. Since the sewage system re-inspection pilot program, the Township has now inspected approximately 1,500 waterfront properties. The program combines the education of the homeowner regarding the maintenance of their sewage system with an inspection component. A follow-up component is also essential to ensure that the program effectively manages identified sewage system problems.

Executive Summary

In January 2011, through Ontario Regulation 315/10, the Ontario Ministry of Municipal Affairs and Housing amended the Ontario Building Code to establish mandatory on-site sewage system maintenance inspection programs for the Lake Simcoe area and for “vulnerable” areas” to be established in Source Water Protection Plans. These amendments “also govern discretionary on-site sewage system maintenance inspection programs established by local enforcement bodies”. This amendment has allowed Tay Valley Township the ability to make a portion of its current voluntary septic inspection program, a discretionary program. A discretionary program allows the Township to undertake mandatory maintenance inspections.

Introduction

A working sewage system is an integral part of any functioning home or cottage not serviced by the municipal sewer. As such, proper maintenance and operation of the sewage system is integral 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 both human health and environmental impacts 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 septic system. Under the Ontario Building Code 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.

PROGRAM ADMINISTRATION

INITIAL COMMUNICATION WITH THE PUBLIC

Letter

When an area for re-inspection has been determined, a letter will be sent to affected property owners informing them of the potential value of the program.

Program Description

An overview of what will be undertaken during a re-inspection will be included with the letter.

Questionnaire & Site Sketch

Property Owners will also be requested to complete and return a questionnaire and site sketch regarding their septic and well. While the Township may have some information about the septic or well, this information requires updating and old septic or well records are excellent resources for the more technical components of an inspection, as well as knowing the current locations of and distances between any septic components (tank, bed, privy, greywater pit), structures (house, shed, garage), water bodies (lakes, rivers, creeks, wetlands), farming activities, or wells. If required, additional documents will be requested (ex. Septic Use Permit).

A sample Package to Property Owners has been included in Appendix “A”.

DOCUMENTATION

Pre-Inspection

A review of the information provided by the property owner on the questionnaire and sketch will be reviewed, including any additional requested documentation. If records are not available due to the age of the septic system then a more thorough investigation will be undertaken by the Inspector.

Contact with the property is made to either confirm the date for the inspection that the property owner has suggested, or to let the property owner know when the inspector will be on site.

Post-Inspection

Once an inspection has been completed, it will be filed in the property file at the Municipal Office and entered into the geographic information system (GIS) database. This information is a valuable tool for generating statistics and follow-up correspondence.

Inspection Reports

An inspection report will be completed by the Inspector after every inspection with a copy of the report to be provided to the property owner. The report is provided to the property owner as a record as to when the inspection was complete and the results.

At a minimum, the inspection report shall contain the following information:

Item	Information
Personal Information	name, address, property legal description
Existing Facilities	class of sewage system, leaching bed type
Observations	visual indications of components of an unsafe sewage system
Diagram	to identify septic tank components
Requirements	provide details on the remedial work required

Report to Property Owner

The property owner will be informed that their system is in need of remedial action or that there is no indication from the inspection of an unsafe system. If the system is in need of remedial action, the report will describe the deficiencies observed by the Inspector and who the property owner should contact for further information regarding their intentions to remedy the deficiencies. The record will indicate the link between the deficiencies and the specific provisions in the Ontario Building Code. The Owner will also be informed that if they do not respond within a specific time frame, they may be issued an Order to Remedy an Unsafe Building.

Records

Information pertaining to this program will be filed under the appropriate property file at the Municipal Office.

SCOPE OF INSPECTIONS

The inspection begins with a walk around the property looking for water sources and sewage system components. Measurements are taken between the sewage system components, structures and water bodies, as well as to water sources. A GPS reading is taken of all sewage system components, and wells.

The operation or failure of the bed is assessed by looking for conditions of lush vegetation, wet areas, surface discharge, tree or root growth, side slopes and erosion control.

A visual inspection of the septic tank condition is made, and a measurement of the tank contents is taken. This information is used to determine if a pump out is required.

A visual inspection of the baffles is done, as well as a check that the partition wall is in working order. If the solids in the second chamber are as high as the first chamber it can be an indication that the partition wall has suffered some damage. A check for roots in the tank, and for the presence of effluent filters is conducted before replacing the lids and covering the tank.

INSPECTION ACTIVITIES

The following are items that may be undertaken during an inspection:

- Surface inspection of bed and tank
- Estimate tank volume
- Estimate sludge depth/volume
- Inspect interior plumbing
- Probe leaching bed area
- Excavate bed area
- Soil sampling/testing
- Well testing/water quality analysis
- Surface drainage assessment
- Property owner interview
- Estimate distribution pipe length
- Estimate setback distances
- Estimate daily design flow
- Inspect mechanical equipment
- Determine type of building
- Determine type of tank
- Determine type of system
- Evidence of sewage effluent visible and/or odour
- Evidence of erosion of septic bed side slopes
- If the sewage system/septic tank is properly located on the property
- Whether the sewage system bed had trees/vegetation growth
- Whether the system meets setbacks
- Whether the sewage system serves more than one building
- If the system uses a pump chamber

Deficiencies For Sewage System Classes

The following are examples of observable deficiencies during a visual re-inspection:

Class 1 (Privy)

- Absence of fill around the base of the privy
- Inadequate soil depth

Class 2 (Greywater)

- No evidence of a grey-water pit; pipe on surface of the ground
- Absence of fill around the base of an existing pit
- Inadequate cover

Class 3 (Cesspool)

- Inadequate soil mounding
- Inadequate construction

Class 4 (Septic System)

- No existing system; pipes on surface of the ground, or slightly buried
- Old tanks in need of replacement
- No indication of leaching bed; outlet pipe from ground extending into/onto ground
- Leaching bed completely overgrown, in need of replacement
- System completely buried; requires information

Class 5 (Holding Tank)

- Corroded access cover
- Holes in holding tank
- Access openings not properly sealed

General

- Extra plant growth over the leaching bed area
- Foul odours outside
- Effluent breaking out to the ground surface

AREAS OF INTEREST

The re-inspection program will apply to all properties located on the following water bodies:

Creeks

Bolton Creek	Grant's Creek	Scotts Snye
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Lakes

Adam Lake	Andrew Lake	Bennett Lake
Big Rideau Lake	Black Lake	Bob's Lake
Christie Lake	Clear Lake	Davern Lake
Deer Lake	Fagan Lake	Farren Lake
Long Lake	Loon Lake	McLaren Lake
McGowan Lake	Mills Lake	Little Mud Lake
Lower Mud Lake	Upper Mud Lake	O'Brien Lake
Otty Lake	Pike Lake	Rainbow Lake
Rock Lake	Round Lake	Little Silver Lake
Silver Lake		

Rivers

Fall River	Mississippi River	Tay River
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PROPERTY SELECTION

Participants in the program are chosen based on the following criteria:

- 1) Properties that either have a septic permit that is 10 years or greater or does not have permit information, has not been re-inspected in the past, and is not vacant.
- 2) Are due for a re-inspection after 10 years.

A septic system with registered complaints against it will have already been dealt with outside the re-inspection program.

A Procedure will be developed to describe the step by step process for property selection.

VOLUNTARY VERSUS MANDATORY

In 2012, the decision was made to modify the current voluntary septic re-inspection program to include a discretionary program with mandatory inspections. The mandatory component will apply to the following seven lakes: Adam, Bennett, Bob's, Farren, Long, Otty and Pike.

Property owners under the discretionary program will be required to participate in the program when their property has been identified, whereas property owners under the voluntary component can choose whether or not to participate.

INSPECTION SCHEDULE

The program will focus on conducting inspections from May to September given the Township's high seasonal population; however inspections will be conducted between April to November each year, with weather permitting.

The program will strive to complete 200 inspections per year, with a 10-year re-inspection timeframe. The focus will be to complete inspections on the seven mandatory lakes within the first four years of the program. This figure does not take into account the number of properties that will undergo inspections unrelated to this program but does include enforcement and follow-up.

INSPECTION ROTATION

Mandatory Re-Inspection

The Inspection Rotation for mandatory water bodies will be re-evaluated each year to accommodate any unforeseen circumstances that may require adjustment to the rotation schedule and/or to include additional water bodies to the mandatory component, as approved by Council. The addition of water bodies to the mandatory program will require an amendment to the program; however other annual adjustments to the rotation schedule will be included in the annual report.

Year 1 (2012)		Year 2 (2013)		Year 3 (2014)		Year 4 (2015)	
Lake	# of Properties	Lake	# of Properties	Lake	# of Properties	Lake	# of Properties
Adams	14	Adams	<i>completed</i>	Adams	<i>completed</i>	Adams	<i>completed</i>
Bennett	10	Bennett	10	Bennett	44	Bennett	23
Bob's	10	Bob's	10	Bob's	10	Bob's	13
Farren	20	Farren	26	Farren	<i>completed</i>	Farren	<i>completed</i>
Long	15	Long	<i>completed</i>	Long	<i>completed</i>	Long	<i>completed</i>
Otty	10	Otty	44	Otty	36	Otty	<i>completed</i>
Pike	10	Pike	10	Pike	10	Pike	64
Total = 89		Total = 100		Total = 100		Total = 100	

* property information based on CGIS data in 2011 (best available data)

* vacant properties removed

* the number of properties shown represents those that have never been inspected under the program

* the original program began in 2002, therefore the 10 year re-inspection requirement will begin to apply to the mandatory water bodies in 2012, resulting in additional properties on the mandatory water bodies being re-inspected from 2012 forward

* inspections each year will occur first on the properties under the mandatory program, then on properties that are up for re-inspection under the 10-year timeframe, then inspections will occur on properties under the voluntary program to bring the total properties inspected to 200 per year

Voluntary Re-Inspection

Voluntary re-inspections will be scheduled based on responses to the letter of invitation to conduct a re-inspection.

STAFFING

The Mississippi Rideau Septic System Office (MRSSO) through the Mississippi Valley Conservation Authority, has been delegated the responsibility with respect to sewage systems (with a capacity of less than 10,000 litres per day) and will administer the Septic System Re-Inspection Program on behalf of the municipality. An annual progress report will be provided to Council on the septic re-inspection program.

PUBLIC EDUCATION

Information related to this program will be posted on the Township website. In addition, the MRSSO and/or a Township Staff member will attend at least two separate Lake Association meetings each year in order to educate the public on septic systems and the purpose of the septic re-inspection program.

Appendix “A”



**TAY VALLEY SUPPORTS A HEALTHY ENVIRONMENT FOR ALL TO ENJOY.
THE SEPTIC RE-INSPECTION PROGRAM IS AN IMPORTANT PART OF
COUNCIL’S ENVIRONMENTAL STRATEGY.**

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 Septic Re-Inspection Program is aimed at achieving a better understanding of system function, owner intervention and preventative measures. The implications of poor maintenance are costly to the owner and to the community. Our 10-year program history shows owners are committed to protecting their lake lifestyle, as is the Township. Information and advice are welcomed by the participants. Only in a few instances has remedial action been required and owners have been very respectful of the goals of the Septic Re-Inspection Program.

The Mississippi/Rideau Septic System Office (MRSSO), on behalf of the Tay Valley Township, will be conducting re-inspections in your area this summer. The MRSSO is a co-operation between the Rideau Valley and the Mississippi Valley Conservation Authorities, contracted to conduct the Septic Re-Inspection Program. Re-inspections can be scheduled to better accommodate property owners wishing to be on-site. If you wish to be present during the 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. In addition, we are asking that you have your septic tank located and the lids exposed (excavated) prior to the arrival of MRSSO staff. If you require MRSSO staff assistance to locate/excavate the tank a \$20/lid (usually 2 lids) to a maximum of \$40 total will be charged for this service and again invoices will be issued in late fall at the end of the Program.

Your active involvement in the Septic Re-Inspection Program is encouraged and begins with reading the attached Program description. Please fill in the accompanying questionnaire to the best of your ability. After the re-inspection is completed a letter stating the status of the system and any deficiencies present will be sent to you. Advice on proper maintenance will be provided both on-site and in writing with the letter. 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. Owners of systems found to be installed, functioning and maintained properly, but which are not in compliance with current requirements of Part 8 of the Ontario Building Code will be advised the system is likely to require upgrade or replacement prior to further site development.

Any comments regarding the Program in general or Council’s strategy can be directed to Noelle Reeve, the Township Planner at (613) 267-5353. Program specifics or questions about your involvement in the Program should be directed to the MRSSO, (613) 259-2421.

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

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 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 the Township Planner.

Septic Re-Inspection Procedure

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 Septic Re-inspection Program is aimed at achieving a better understanding of system function, owner intervention and preventative measures.

The following is a list of the steps involved to ensure an efficient, accurate and unobtrusive septic system re-inspection for your property.

1. Included in this package is a Sewage System Questionnaire. While the Township may have some information about your septic system, this information requires updating. The first step in your participation is completing and returning the questionnaire. Please fax, email or mail the questionnaire, as soon as possible, to the number or address above. Do not feel as though the form must be fully completed to return it to us, every bit of information is useful.
2. Appointments are not required but can be made between 8 am – 4 pm on a first come, first served basis by contacting the MRSSO.
3. Before a re-inspection can occur the MRSSO requests that you expose both septic tank lids on your property (most tanks have 2). There will be a \$40 (20\$/lid) maximum charge for septic tanks which require locating/excavation. This fee will be invoiced upon completion of the re-inspection program in the fall IF YOUR SEPTIC TANK LIDS ARE NOT EXPOSED. No cost will be incurred if excavation is not required. The MRSSO will re-cover the tank when the inspection is completed, unless it is determined that a pump-out is required.
4. The septic tank system inspection will include the following items:
 - visual inspection of tank structure
 - measurement of tank contents/requirement for pumping
 - visual inspection of bed
 - measurement of separation distances to key lot features
 - determining location of privies/greywater pits
 - briefing the homeowner on proper system maintenance and operation
5. A copy of the septic re-inspection report will be left on-site and invoice for tank excavation (if required) will be mailed out upon completion of the 2011 re-inspection program.

Historically, a majority of the systems inspected were deemed to be fine, with only minor remedial work required. Should a system be found to be unsafe, the property owner must take the necessary steps to render the sewage system safe. The Building Code Act defines a sewage system as a “building”, and as such, a sewage system that is discharging effluent onto the surface of the ground, or has not been maintained or operated in accordance with the Ontario Building Code, is determined to be an unsafe “building”.

The primary role of the MRSSO, as the administrators of the re-inspection program, is to educate property owners about their onsite waste water treatment system and any deficiencies with it. Our secondary role is to ensure that unsafe systems are reported to the appropriate Authority, based on the requirements of Part 8 of the Ontario Building Code. You, as the property owner, can expect the re-inspection, communication of results, and all inquiries to be dealt with in a professional manner.

If you have any questions about the Sewage System Re-inspection Program, do not hesitate to contact the MRSSO with any questions or concerns.

Thank you in advance for your co-operation. We know you share the Township's desire to protect our water resources and ultimately the value of waterfront property around the lakes within the watersheds. Your co-operation in this program will assist in providing continued enjoyment of a clean, healthy waterfront environment for generations to come.

Yours Truly,



Eric Kohlsmith
Re-inspection Program Co-ordinator
613-259-2421 ext. 256
septic-inquiries@mvc.on.ca

/Enclosure

- Questionnaire
- Site Sketch

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 location septic system and other property features.

Property Owner					<i>Correction - New Property Owner, Spelling of Name...</i>		
Mailing Address					<i>Correction - New Mailing Address...</i>		
Telephone Number () ()	Alternate Number () ()			Email Address			
Re- Inspection Property Location					Length of Ownership	Lake Name	
						Sand	
					Property Size	Shore Length	
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"/> _____		
Directions to Property					Do you require assistance locating/excavating your tank?*		
					Yes <input type="checkbox"/>		No <input type="checkbox"/>
General Location of Tank					* There is a maximum charge of \$40 for this service		
Septic System Type	Class 1 <input type="checkbox"/> Privy	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"/>	Sewage Pump		Yes <input type="checkbox"/> No <input type="checkbox"/>
					Separate Pump Tank		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"/>	Other-			
Privy Pit Structure	Earth <input type="checkbox"/>	Rock <input type="checkbox"/>	Wood <input type="checkbox"/>	Other-			
Date System(s) Installed				Date System(s) Approved			
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

Site Sketch

Please include the **locations** as well as the distances between any **septic components** (tank, bed, privy, greywater pit), **structures** (house, shed, garage), **water bodies** (lakes, rivers, creeks, wetlands), **farming activities**, or **wells**.

A large grid of graph paper for site sketching, consisting of 30 columns and 30 rows of small squares.