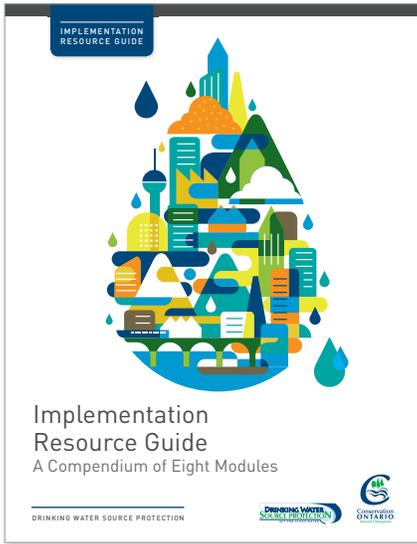




MODULE 8

Other Obligations

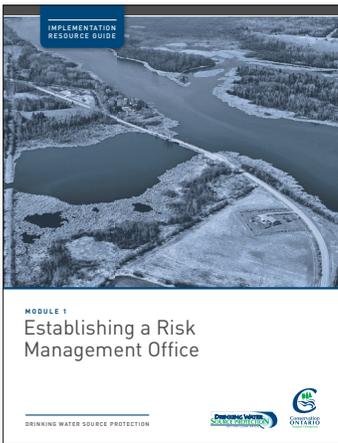


Implementation Resource Guides

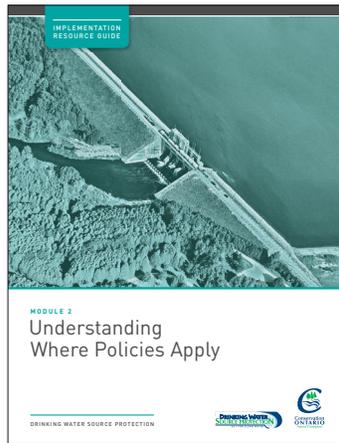
A Compendium of Eight Modules

Look for all eight modules in our Drinking Water Source Protection series. You can find them at www.conservation-ontario.on.ca

MODULE 1



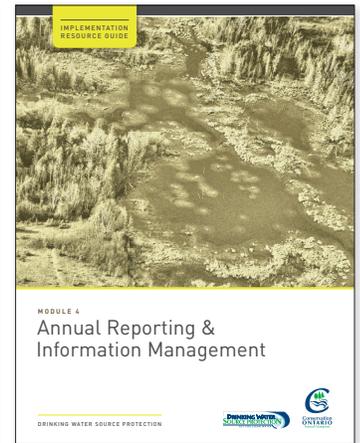
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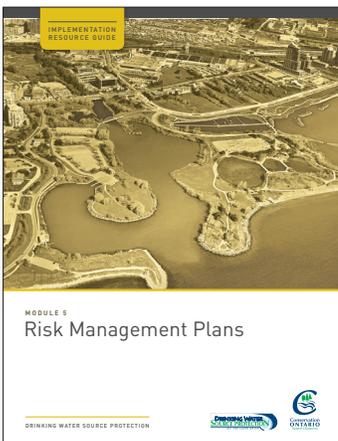
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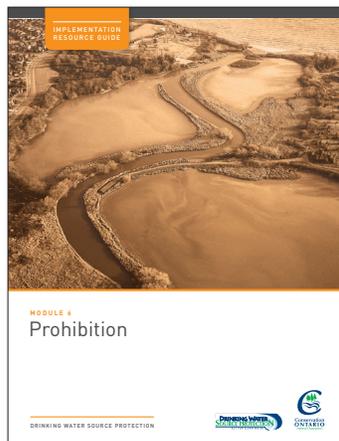
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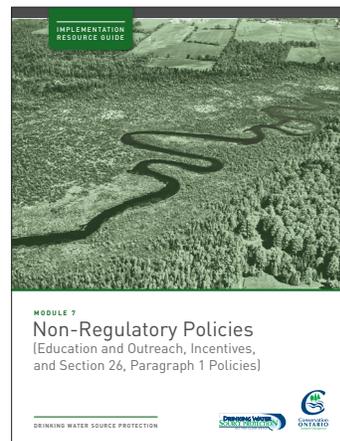
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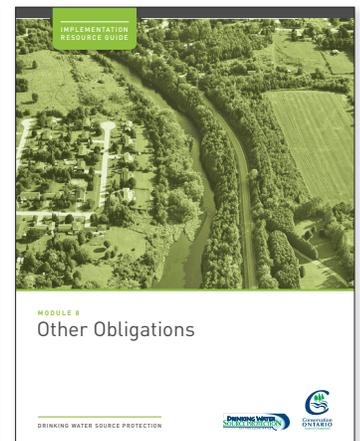
MODULE 6



MODULE 7



MODULE 8



Module 8: Other Obligations

Implementation Resource Guide

06/05/2014

Note to Reader: This document is one of a series developed by staff at conservation authorities and Conservation Ontario in support of source protection plan implementation. These documents cover a variety of tools related to plan implementation, but not all will apply in your municipality. Consult your local source protection plan to determine which policies are applicable in your municipality. This document has not been reviewed by legal counsel and is not presented as legal advice.

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A. Purpose of This Module

This module is the eighth in a series of documents which have been developed for use by municipalities to assist with implementation of source protection plans. This module focuses on these subjects:

- I. Mandatory maintenance inspections of septic systems
- II. Transport pathways
- III. Spill prevention, contingency or response plans

B. Septic System Inspections

i. Overview

Onsite sewage systems (commonly called septic systems) are intended to collect, treat and dispose of sewage. The establishment, operation, and maintenance of a septic system is a prescribed drinking water threat under O. Reg. 287/07 of the *Clean Water Act*. When located in vulnerable areas where the threat could be significant, septic systems regulated by the Building Code are now subject to mandatory maintenance inspections once every five years to ensure they are in substantial compliance with operation and maintenance requirements.

Systems with a design flow of up to 10,000 L/day are subject to regulations under Ontario's *Building Code Act, 1992* and Building Code (O. Reg. 350/06), and are overseen by the local principal authority which may be a municipality, a board of health, or a conservation authority. Any onsite sewage system with a design flow larger than 10,000 L/day must be operated under terms specified in an environmental compliance approval administered by the Ministry of the Environment. Large treatment systems typically service facilities such as schools, campgrounds and larger businesses.

The Ontario Building Code (O. Reg. 350/06) was recently amended to establish and govern onsite sewage system maintenance inspection programs to support the implementation of the *Clean Water Act* and the *Lake Simcoe Protection Act*. The new provisions for mandatory inspection programs in Division C, section 1.10 came into force in January 2011. This section of the Building Code covers three sewage system maintenance inspection programs:

- a) Mandatory maintenance inspection programs for vulnerable areas identified in an assessment report or source protection plan where a sewage system is or would be a significant drinking water threat, as part of the implementation of the *Clean Water Act*.
- b) Mandatory maintenance inspection programs for specific sections of the Lake Simcoe shoreline and watershed, as part of the implementation of the Lake Simcoe Protection Plan.

- c) Discretionary maintenance inspection programs, where the principal authority can choose to designate part or its entire jurisdiction as requiring a periodic maintenance inspection (some municipalities already had these types of programs, the Township of Huron-Kinloss for example).

The focus of this section is mandatory maintenance inspections for vulnerable areas for the protection of drinking water sources. Guidelines for conducting maintenance inspection programs are provided in Section G, Appendix 3: Onsite Sewage System Maintenance Inspections (MMAH, 2011).

Maintenance inspections can be undertaken by inspectors appointed by principal authorities (the local agency charged with enforcement of legislation related to small onsite sewage systems governed by the Ontario Building Code) only. The details of the inspection procedure are at the discretion of the agency conducting the program.

With respect to the establishment and administration of mandatory sewage inspection programs for vulnerable areas, the Ontario Building Code Division C, Section 1.10.2.3 specifically states:

- (1) Subject to Article 1.10.2.5., an inspector shall inspect all sewage systems located in whole or in part in the areas set out in Sentence (2) for compliance with the requirements of section 8.9. of Division B.
- (2) The areas referred to in Sentence (1) are:
 - “(b) areas within a vulnerable area that are located in a source protection area and that are identified in the most recent of the following documents as the areas where an activity described in Sentence (4) is or would be a significant drinking water threat:
 - i. the assessment report for the source protection area, as initially approved under the *Clean Water Act, 2006* or as most recently approved following any updating under that Act, or
 - ii. the source protection plan for the source protection area, as initially approved under the *Clean Water Act, 2006* or as most recently approved following any amendments or reviews under that Act.”

ii. Determining Areas Subject to Mandatory Maintenance Inspections

Septic systems subject to mandatory maintenance inspections are those located where they are or would be a significant drinking water threat. This determination considers whether the system is in a vulnerable area, the vulnerability score at the system’s location, and the circumstances related to the system. In most cases, septic systems are considered significant threats only in wellhead protection areas (WHPAs) and/or intake protection zones (IPZs) with a vulnerability score of 10. These areas are relatively small. However, there are situations in which septic systems may contribute to an existing issue of impaired water quality and the resulting vulnerable area could be quite extensive. In both cases, all sewage systems subject to the program must be inspected.

Figure 1 illustrates the various vulnerability scores associated with a WHPA. Sewage system maintenance inspections are mandatory only in the red area shown on the map, where the vulnerability score is 10, and where septic systems are considered significant threats. Refer to Module 2 for detailed definitions and descriptions of how vulnerable areas and significant threats are delineated. Maps of vulnerable areas in your community can be found in the Assessment Report prepared by your local source protection authority. Electronic versions of approved assessment reports can be downloaded from your local source protection authority’s website. Alternatively, hard copy versions are available for viewing at your local conservation authority.

Refer to page 11 for further guidance on locating sewage systems within the mandatory inspection area.

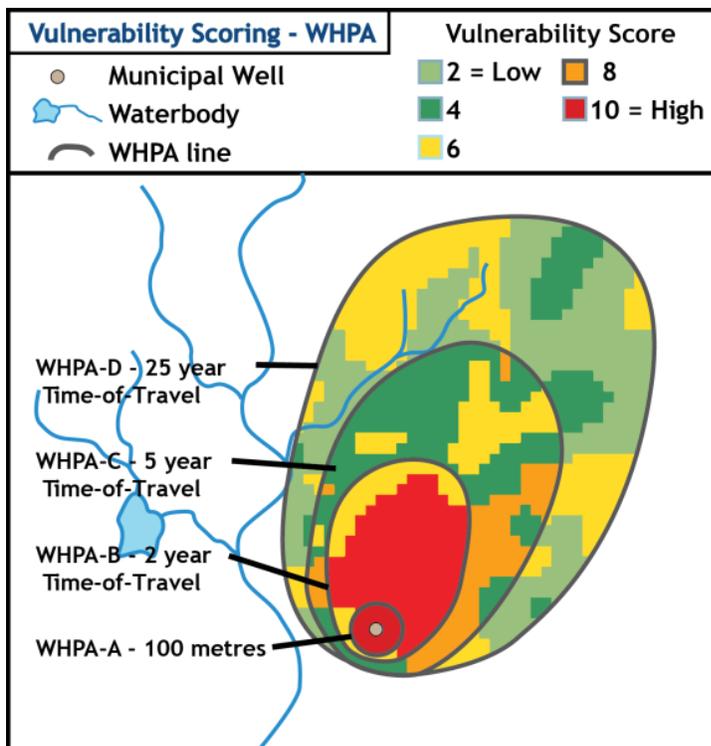


Figure 1: Wellhead Protection Area and Associated Vulnerability Scores (Ministry of the Environment, 2012)

iii. Timelines for Maintenance Inspections

The Building Code also establishes timelines for the execution of mandatory maintenance inspections. Inspections for existing systems identified as significant threats should be completed no later than five years after the approval of a local Assessment Report. For a comprehensive list of program completion deadlines established for each source protection area in Ontario, refer to Table 3 in Section E, Appendix 1 of this module. Onsite sewage

treatment systems installed on or after the publication of a local source protection plan will need to be inspected within five years of their construction. Furthermore, all treatment systems subject to maintenance inspection programs will need to be inspected every five years on a recurring basis, following initial inspection.

The Building Code sets out the minimum requirements with which principal authorities must comply when administering maintenance inspection programs. As previously mentioned, under the *Building Code Act* (section 7(1)(b.1)), principal authorities also have the discretion to establish inspection programs in other parts of their jurisdiction, beyond what is mandatory under the Building Code.

iv. How to Implement

The *Building Code Act, 1992*, requires that the principal authority with jurisdiction over Part 8 of Division B of the Building Code (the construction, operation and maintenance of all sewage systems), take on the responsibility of establishing and conducting maintenance inspection programs. In most cases this principal authority will be the local municipality. In unorganized territories and some municipalities, the administration and enforcement of Part 8 of the Building Code may be assigned to a Board of Health or conservation authority. Where a municipality has delegated the responsibility to a conservation authority or Board of Health by an agreement, it may be necessary to determine if the existing wording of the agreement would address the mandatory maintenance inspection program or if additional clauses may need to be negotiated to delegate this added task.

Under the *Building Code Act* section 7(1)(b.1) municipalities are authorized to pass by-laws to help establish and administer sewage system maintenance inspection programs in accordance with the Building Code and *Building Code Act*. By-laws can aid municipalities with the enforcement of sewage system maintenance inspection programs in their community, as well as help define the parameters associated with the inspection program. A sample by-law established for the mandatory maintenance inspection program for the Tay Valley Township is provided in Section F, Appendix 2 for reference.

The Ontario Building Code gives principal authorities the power to implement their sewage system inspection programs using a number of different approaches. This section will outline some of these potential implementation options.

In-House Inspection Program

After establishing the parameters of the program, the principal authority must appoint personnel qualified according to the requirements of Section 3.1 of Division C of the Building Code to carry out sewage system maintenance inspections. Under the Code, qualified inspectors are individuals who have successfully completed the examination program administered by the Ministry of Municipal Affairs and Housing, related to the Building Code and *Building Code Act*.

Qualified inspectors are permitted to carry out sewage maintenance inspections, sign inspection reports, issue orders (including unsafe orders and emergency orders to remediate dangerous situations), and enter property to conduct an inspection. Qualified inspectors may include individuals from within the organization, such as the Chief Building Official and supporting staff.

The Building Code also authorizes intern inspectors who are not fully qualified under the Building Code to conduct inspections of onsite sewage systems under mandatory and discretionary inspection programs. These inspectors must be supervised by a Chief Building Official or qualified inspector and cannot issue any orders. For more information on inspector qualifications, visit the Ministry of Municipal Affairs and Housing website:

<http://www.mah.gov.on.ca/Page9846.aspx>

Third-Party Inspection Program

As an alternative to retaining existing staff members to conduct inspections, principal authorities may choose to accept third-party inspection certificates prepared by a qualified person. Under the Building Code (section 1.10.2.5, Division C) municipalities have the authority to accept approved inspection certificates completed by qualified third parties. In accordance with section 1.10.1.3 (3), qualified third parties include designers and installers of onsite sewage systems holding a Building Code Identification Number, architects, and professional engineers. Principal authorities may decide to require property owners to contract a qualified company to conduct the inspection and complete a third-party inspection certificate. Third-party inspection certificate forms are available through the Ministry of Municipal Affairs and Housing website, and should be issued by principal authorities. A sample third-party inspection certificate form is also available in Section F, Appendix 2.

Principal authorities may also opt to establish a contract with a qualified consulting or engineering firm to complete the inspection program. Authorities should retain firms with experience in onsite sewage design and inspections. Contracts should be established with firms meeting the section 1.10.1.3(3) qualification requirements of Division C of the Building Code. Establishing a contract with a firm requires the firm to take on the responsibility for completing all of the inspections for the municipality over an established period of time.

For more information on how to implement maintenance inspection programs in your community, visit the Ministry of Municipal Affairs and Housing website:

<http://www.mah.gov.on.ca/Page9845.aspx>

Requirement to Monitor Implementation in Source Protection Plan

Source protection plans include policies to track the implementation of policies addressing significant drinking water threats, including septic system maintenance inspection programs, and to gauge their effectiveness. More specifically, these monitoring policies help ensure that the established program is effectively addressing the risks to sources of drinking water, by providing the source protection authority access to documentation and data relating to the inspection program. Access to information about the maintenance inspection programs (e.g.

total number of systems, number of systems inspected, number of orders to remediate) is important for tracking the effectiveness of the policy, and planning for future policy development. Principal authorities should work cooperatively with their local source protection authority to track the effectiveness of the established program and monitor implementation.

v. Inspection Method

During an inspection, inspectors should aim to identify any defects or failures in the treatment system. An equally important goal of the maintenance inspection should be to determine the risk of future malfunction or failure in the system. Following an inspection, principal authorities should be able to confidently determine if the system is in compliance with the operation and maintenance requirements outlined in the Building Code (section 8.9 of Division B). The six steps of the inspection process, as shown on Figure 2, are detailed later in this section.

What Constitutes an Inspection?

When carrying out the inspection, inspectors may choose to implement a tiered approach, and conduct the assessment in phases. Initial (Phase I) inspections should be non-intrusive, and should thus avoid significant disturbance to the system. In the first phase of the inspection, inspectors may want to obtain the latest records available in order to locate the system's components, and identify any apparent signs of malfunction or risk of failure.

In many instances, the completion of a Phase I inspection will be sufficient to determine compliance with the standards outlined in the Building Code. When a Phase I inspection indicates that a system is at risk of future failure, or when the initial inspection does not reveal an obvious reason for an existing malfunction, a second, more intrusive inspection will be necessary. This Phase II inspection should determine the cause behind observed problems and suggest remedial actions to bring the system into compliance with the Building Code.

The following section outlines a series of progressive steps to consider when establishing and administering a sewage system maintenance inspection program. Figure 2 summarizes the steps for setting up and implementing an inspection program. Consult the document Onsite Sewage System Maintenance Inspections in Section G, Appendix 3 of this module for information on how to plan and conduct onsite sewage system maintenance inspections.

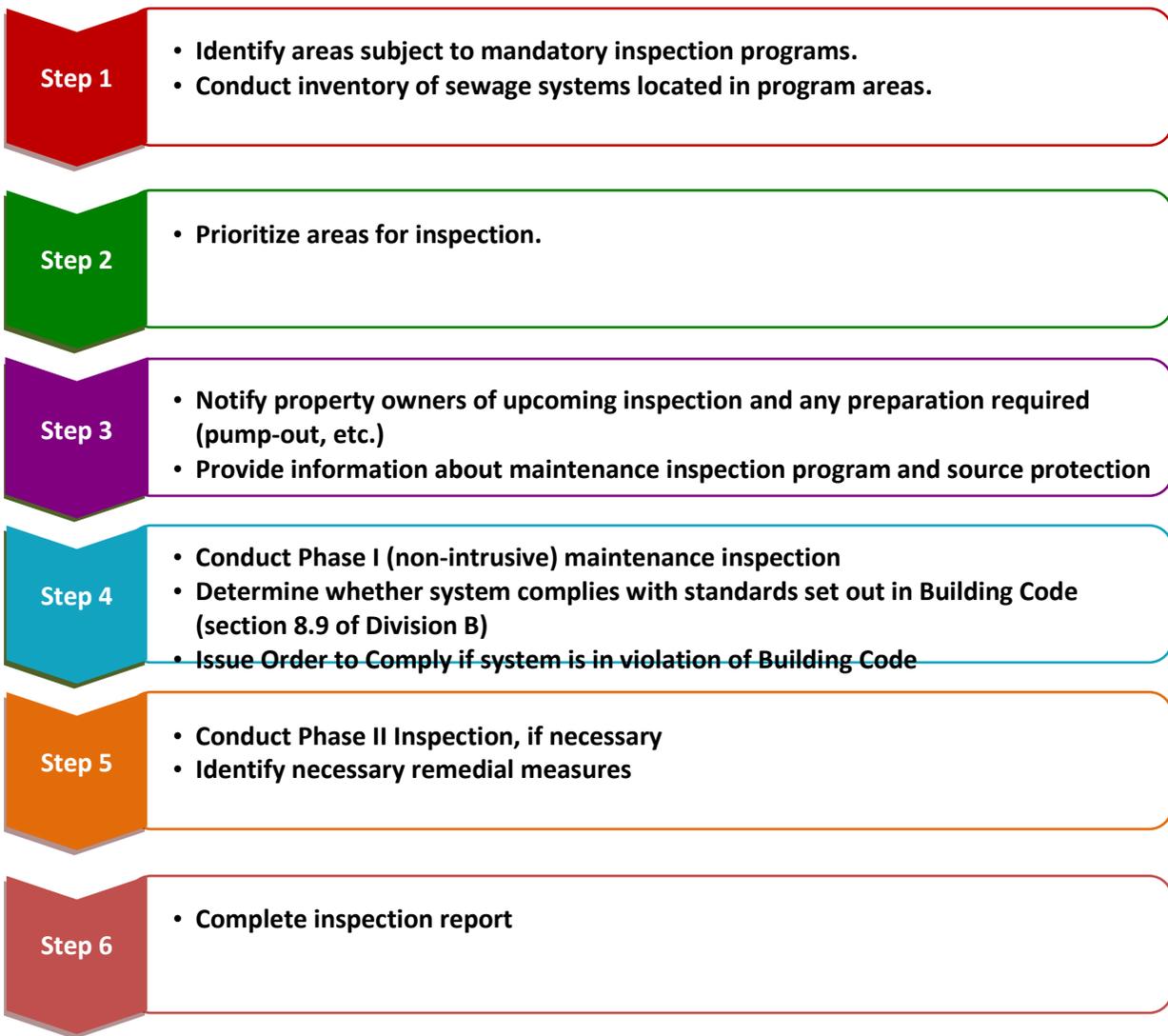


Figure 2: Suggested Steps for Setting Up and Implementing a Sewage System Maintenance Program.

Step 1: Identification of Sewage System Maintenance Inspection Program Areas and Sewage System Inventory

To effectively implement an inspection program, principal authorities should first identify the areas in their jurisdiction that are subject to the mandatory maintenance inspections. Identifying these areas will also help authorities decide what additional areas they may want to incorporate into their discretionary programs, if they choose to implement them. Principal authorities will want to refer to Assessment Reports produced by their local source protection committee. Assessment Reports contain maps that delineate areas where sewage systems are subject to mandatory inspection programs. Much of this information is available from the local source protection authority. Electronic versions of Assessment Reports are also available

through your source protection authority's website. Alternatively, hard copies are available for viewing at your local conservation authority.

Following identification of program areas, principal authorities should locate the individual sewage systems situated in each area. A review of the following items may assist authorities with the identification of mandatory program areas and individual sewage systems:

- Assessment Reports, in consultation with the local source protection authority, to determine septic systems identified as part of the Assessment Report threat enumeration
- permit applications submitted under the *Building Code Act, 1992*
- certificates of approval or use permits issued under the *Environmental Protection Act*
- orders issued under the *Building Code Act, 1992*
- records of problems and complaints regarding sewage systems
- water use records
- maintenance inspection reports (for systems that require the existence of a service agreement as a condition of use, or for systems previously inspected by the principal authority);
- lists of properties with residential or other uses not serviced by either municipal services or sewage works administered by the Ministry of the Environment
- field surveys

Step 2: Prioritization of Areas for Inspection

After identifying areas subject to inspection programs, local enforcement bodies may want to prioritize the areas based on their risk to sources of drinking water. Maps of surface water intakes and WHPAs (documented in Assessment Reports), as well as records of known groundwater or surface water contamination related to sewage may be helpful in this regard. Suggestions for prioritizing systems based on risk:

- systems in proximity to municipal drinking water wells or surface intakes
- areas with existing ground or surface water contamination issues
- older systems and systems without records

Step 3: Inspection Notification

Notifying property owners of planned inspections will give them an opportunity to gather records that may assist the inspector with the process. Notifications sent well in advance of planned inspection dates will also allow property owners to have their systems pumped, undertake remedial work prior to the assessment, and be onsite on the day of evaluation.

If the principal authority decides to accept third-party inspection certificates as an alternative to conducting inspections, property owners should be allowed appropriate time to retain a qualified person to inspect and to remediate any problems with the system prior to returning the signed certificate. Third-party certificate forms are available through the Ministry of

Municipal Affairs and Housing website (<http://www.mah.gov.on.ca/Page9235.aspx>), and should be issued by principal authorities to third-party inspectors for completion. When third-party inspectors return the certificate, principal authorities have the power to decide whether to accept or reject the certificate. A sample of the form can also be found in Section F, Appendix 2.

When drafting notifications, the principal authority should include details such as associated fees, procedural information, the legislative authority for the inspection program, and a contact name to whom property owners can direct questions. The notification may also state whether the principal authority will be accepting third-party inspection certificates and, if so, advise property owners to notify the responsible authorities when they have retained a third party. Educational materials related to source protection could be distributed to homeowners with this notification. The principal authority should consult with the source protection authority to ensure they have all materials.

Find a sample notification letter in Section F, Appendix 2.

Step 4: Phase I Inspection

A Phase I inspection should be a non-intrusive process that aims to establish compliance with the Building Code (section 8.9 of Division B). Ultimately, the inspector should identify any existing defects in the system, and potential risks that may trigger future malfunctions. When conducting the Phase I, the inspector will conduct a comprehensive review of any available records that provide information about the specific components of the system. During the Phase I inspection, the inspector should aim to determine:

- the type of occupancy to determine the source and type of the sanitary sewage
- the source of water supply (municipal, well, lake, etc.)
- the approximate volume of sewage generated
- the use of special devices such as garbage grinders or water softeners
- the general nature of the system (class, components, type, layout, etc.)
- the location of the system's components with respect to wells, surface water, and other environmental features
- the approximate level of ground water

This may be achieved by

- reviewing local maps and records of ground water elevation observed on site or nearby properties, including the local assessment report, if available;
 - observing the conditions of the septic tank and the distribution box for indications of ground water infiltration;
 - observing the elevation of nearby water body, or evidence of ground water infiltration in other subsurface structures; or
 - the use of hand augering.
- the size, material and condition of the septic tank, or the holding tank
 - the frequency of tank pump-out and the last time the tank was cleaned
 - any indication of sewage system failure, including:

- evidence of backup of effluent
- signs of hydraulic failure (breakout of sewage, wetting conditions in the leaching bed area)
- condition of surface vegetation
- odour problems
- documentation of previous effluent sampling test results where required (i.e., under Article 8.9.2.4. of the Building Code).

A Phase I inspection may sufficiently establish compliance with the Building Code. When the Phase I inspection indicates a defect or failure of the system, a Phase II inspection is required.

Step 5: Phase II Inspection

Phase II inspections should be conducted when the inspector determines that the system is at risk of future malfunction or failure following the completion of the Phase I inspection. A Phase II inspection may also be necessary when the inspector identifies a malfunction or failure in the system, but cannot readily identify the cause for the failure.

The inspector may consider this list of matters when undertaking the Phase II investigation:

- the depth of the sludge layer and the distance from the top of the sludge layer and the outlet tee
- the thickness of the scum layers
- the distance between the bottom of the scum/grease layer and the bottom of the outlet tee
- the distance between the top of the scum layer and the top of the outlet tee;
- the physical condition of the inlet and outlet
- the condition of the effluent filter, if utilized

For sewage systems utilizing treatment units, Phase II inspections may also include a review of these items:

- the existence of a maintenance agreement and the date of latest servicing
- the test results of a new round of effluent sampling (if otherwise required by the Building Code, or by an authorization issued by the BMEC)
- operational problems or system malfunction before or, at the time of inspection

When used in sewage systems, distribution boxes, dosing tanks and pumps may be inspected to determine their condition and functionality.

Phase II inspections of leaching beds may also consider:

- clearance distances to environmental features, wells and surface water intakes
- soil type and its permeability
- additional sources of hydraulic loading (e.g. surface discharge, roof drains)
- evidence of ponding

- encroachments into the leaching bed area (e.g. building additions, patios, driveways, pools)
- trees and deep rooting shrubs in the vicinity of the bed

Blockages in the leaching bed and pollution sources may be identified by measures including:

- evaluation of in-home plumbing and estimates of water usage,
- conducting a leak diagnostics,
- conducting a flow trial,
- conducting a dye tracing test, or
- excavating a cross section of the leaching bed.

Step 6: Inspection Reports

Following the inspections, principal authorities should create records that include this information:

- identification of the property attended
- identification of any information collected as part of the inspection
- status of deficiencies noted in previous inspections
- deficiencies identified during the current visit
- the legislative authority for the inspection program
- enforcement action taken

These records may be useful when undertaking future inspections. For a sample inspection report, see Section F, Appendix 2.

vi. What This Means to My Municipality

If your municipality is the principal authority with jurisdiction over Part 8 of Division B of the Building Code, the municipality must:

- Decide how it will implement the inspection program. Options include establishing a contract with a qualified firm, giving property owners the responsibility of retaining qualified third-party inspectors, or assigning qualified staff to complete inspections.
- Pass by-laws, if necessary, to help establish and administer sewage system maintenance inspection programs and aid in implementation and enforcement of the program in the community.
- Identify the vulnerable areas in which sewage system maintenance inspection programs will be mandatory, as delineated by the local source protection authority. Municipalities have the responsibility to obtain this information and plan their inspection programs within these designated areas. Municipalities may also use this information to determine if they wish to establish a discretionary program to incorporate additional areas for inspection.

- Complete inspection programs within five years of the approval of the local Assessment Report. For a comprehensive list of completion deadlines established for each source protection area in Ontario, refer to Table 3 in Section E, Appendix 1.
- Notify property owners of the commencement and details of the inspection program.

If your municipality is not the principal authority, it is likely the principal authority will make contact to discuss options for the collection of fees for the inspections and other aspects of the program.

vii. Consequences of Failing to Establish a Mandatory Sewage System Maintenance Inspection Program under the Building Code

Where municipalities are the principal authority under the Building Code, the Building Code requires that they implement an inspection program for onsite sewage systems located in vulnerable areas where there are significant drinking water threats. If a municipality fails to establish a mandatory inspection program under the Building Code, it may be in contravention of the *Building Code Act*. The *Building Code Act* states that any corporation that contravenes the Act or regulations made under the Act is guilty of an offence. If a corporation such as a municipality fails to comply with the requirements of the Building Code, the municipality may be found guilty of an offence. If convicted of an offence, the municipality may face a maximum penalty of \$100,000 for a first offence, and \$200,000 for a subsequent offence. In addition to these penalties, the court may make an order prohibiting the continuation or repetition of the offence by the authority convicted.

viii. Inspection Program Comparison

The Township of Huron-Kinloss, Township of Ramara, and Tiny Township each have septic inspection programs. They have been running their programs for different lengths of time with some differences in their approach. Table 1 highlights some of the key comparison areas. Full case studies with references are in Section H, Appendix 4.

Table 1: Inspection Program Comparison Chart

Program (more details provided in Section H, Appendix 4)	Mandatory under <i>Clean Water Act, 2006</i>	Huron-Kinloss Community Septic Inspection Program	Ramara Onsite Sewage Maintenance Inspection Program	Tiny Township Inspection Program
Inspections conducted by	As designated by principal authority	Third-party qualified inspectors coordinated by local engineering firm - B. M. Ross and Associates Limited	Third-party inspection was attempted, discontinued, and replaced by contract with local consulting engineer	Contract with local consulting engineer C.C. Tatham & Associates
Inspection rotation	Every 5 years	Every 6-7 years	Every 5 years	Every 5 years
Area included	Vulnerable areas only for those areas where activity designated as existing or potential significant drinking water threat	All sewage treatment systems in township	Ontario Building Code (OBC) legislated – landowners sent letters	Community program initially, now following OBC requirements
Year of establishment	2011	2007	2011	2002
How program is funded	Per principal authority	Flat rate fee on property tax bill, \$55 for inspection, pump-out at owners expense	Landowner pays township fees and must complete any needed work under stipulated timelines	Landowner pays fees to township for first phase and sewage hauler for pump out
Prioritizing	No later than 5 years after approval of local Assessment Report for existing, within 5 years after source protection plan published for new construction	Perceived risk/no records or 20 years old were inspected first	Volunteers first then as required	High-risk systems first

Program (more details provided in Section H, Appendix 4)	Mandatory under <i>Clean Water Act, 2006</i>	Huron-Kinloss Community Septic Inspection Program	Ramara Onsite Sewage Maintenance Inspection Program	Tiny Township Inspection Program
Steps	At discretion of principal authority conducting the program	<p>Three steps:</p> <ol style="list-style-type: none"> 1. Pump-out (if not done in past 12 months) 2. Third party inspector performs visual, non-invasive inspection and documents features of property, uses camera to look in tank and takes system history 3. Education materials, aerial photo and inspection reports sent to landowner 	<p>Two steps:</p> <ol style="list-style-type: none"> 1. Consulting engineer – visual surface inspection 2. Property owner must arrange a pump-out and send certificate to township – see samples in Section F, Appendix 2 	<p>Two steps:</p> <ol style="list-style-type: none"> 1. Visual surface inspection; any deficiencies are noted and senior inspectors follow up and issue orders for compliance 2. Pump-out with written report and receipt submitted to consulting firm

C. Transport Pathways, s.27, Clean Water Act

i. Overview

Transport pathways may increase the risk of contamination to both surface and subsurface drinking water sources by circumventing the natural protection that soils and overburden create. Their presence may increase the distribution of contaminants horizontally (e.g. sewer lines) and/or vertically (e.g. wells) throughout the drinking water source.

The *Clean Water Act* defines transport pathways as “a condition of land resulting from human activity that increases the vulnerability of a raw water supply of a drinking water system,” (O. Reg. 287/07, s.1). The intent of this legislation is to address artificial (or “constructed”) transport pathways, such as storm sewers, ditches and improperly constructed or abandoned wells. Naturally occurring transport pathways, such as fractured bedrock and karst formations, are accounted for separately under the intrinsic vulnerability assessment that is part of the scoring system for WHPAs.



Figure 3: Under high flows, municipal drains and storm sewers can rapidly move contaminants toward a surface water intake. (SGSNBP Source Protection Region)

ii. Requirement to Report Transport Pathways under the *Clean Water Act*

In an effort to reduce the risk to drinking water sources from transport pathways, s. 27 of O. Reg. 287/07 requires municipalities to report any new transport pathways to the source protection authority and source protection committee. In turn, the source protection authority and source protection committee will make sure the source protection plan (including the Assessment Report section) is appropriately updated to account for the new transport pathways to help ensure the assigned implementing body is implementing all applicable policies.

Considering the extent that water can travel in a given time, transport pathways can influence surface water sources. See Section C (iv) for further details.

Examples of transport pathways that may increase the risk of contamination to surface water sources include:

- drainage ditches
- storm sewers
- tile drains

For groundwater sources, transport pathways act as a conduit that may bypass some of the natural protection offered by soils and other material that overlies an aquifer. See section C (iv) for further details. Examples of transport pathways that may increase the risk of contamination to subsurface water sources include:

- improperly abandoned wells
- aggregate pits
- boreholes
- improperly constructed or maintained wells
- deep excavations, such as trenching for sewer lines



Figure 4: *Poorly maintained wells can provide a conduit for contaminants to travel from the surface down to the aquifer. (SGSNBP Source Protection Region)*

iii. Reporting Transport Pathways under the *Clean Water Act*

According to O.Reg. 287/07, s. 27(3), if a municipality receives a development application or other application related to a project where the proponent proposes to engage in an activity that could create a new, or modify an existing, transport pathway in a WHPA or IPZ, the municipality must provide notice of the proposal to the source protection committee and source protection authority. A copy of the notice is also provided to the person responsible for the proposal (O.Reg. 287/07, s. 27(4)).

The notice of the proposal must include (O.Reg. 287/07, s.27(3)):

- a description of the proposal
- identity of the person responsible for the proposal

- description of the approvals the person requires to engage in the proposed activity

The source protection committee can consider changes to the vulnerability scoring for any transport pathway notices for the respective portion of the vulnerable area. The timing of this review and determination is at the discretion of the source protection committee. The review of transport pathway notices could form part of the terms of reference for an update to the Assessment Report (CWA, s. 36). The time between such updates may be several years, however.

There is an optional process whereby the source protection authority, with the concurrence of the source protection committee, may initiate an amendment to the source protection plan under s. 34 of the *Clean Water Act* (see also O. Reg. 287/07, s.48). The source protection authority could decide to initiate an amendment based on an analysis of the impacts that a project referenced in a transport pathway notice could have. For example, the review process could reveal that a new transport pathway would change the vulnerability score, and, as a result, nearby activities could become significant drinking water threats. Consultation requirements for amendments are specified in O.Reg. 287/07, s. 48 and 50. If the project proceeds, the source protection authority would submit the amendment to the Ministry of the Environment. Once the amendment is approved, the applicable source protection plan policies would apply in that area.

Municipalities could also have the option to include an analysis of the impact of a transport pathway during the application review process. The municipality could use the information from the analysis to better inform its decision on an application. Under the Provincial Policy Statement, “planning authorities shall protect, improve or restore the quality and quantity of water...” (PPS 2005, s. 2.2; also PPS 2014, s. 2.2 (*effective April 30, 2014*)). The municipality could make arrangements with the local conservation authority to undertake a review of an application during its processing before any decision is returned to the proponent. This review process could be part of a service agreement with the conservation authority. Alternatively, the municipality could require the proponent of the application to undertake a study that would achieve a similar determination and submit the report to the municipality as part of the complete application requirements.

Figure 5 depicts the basic reporting process municipalities should follow when a new transport pathway is identified, as well as the options for considering the potential impacts of the transport pathway on nearby activities.

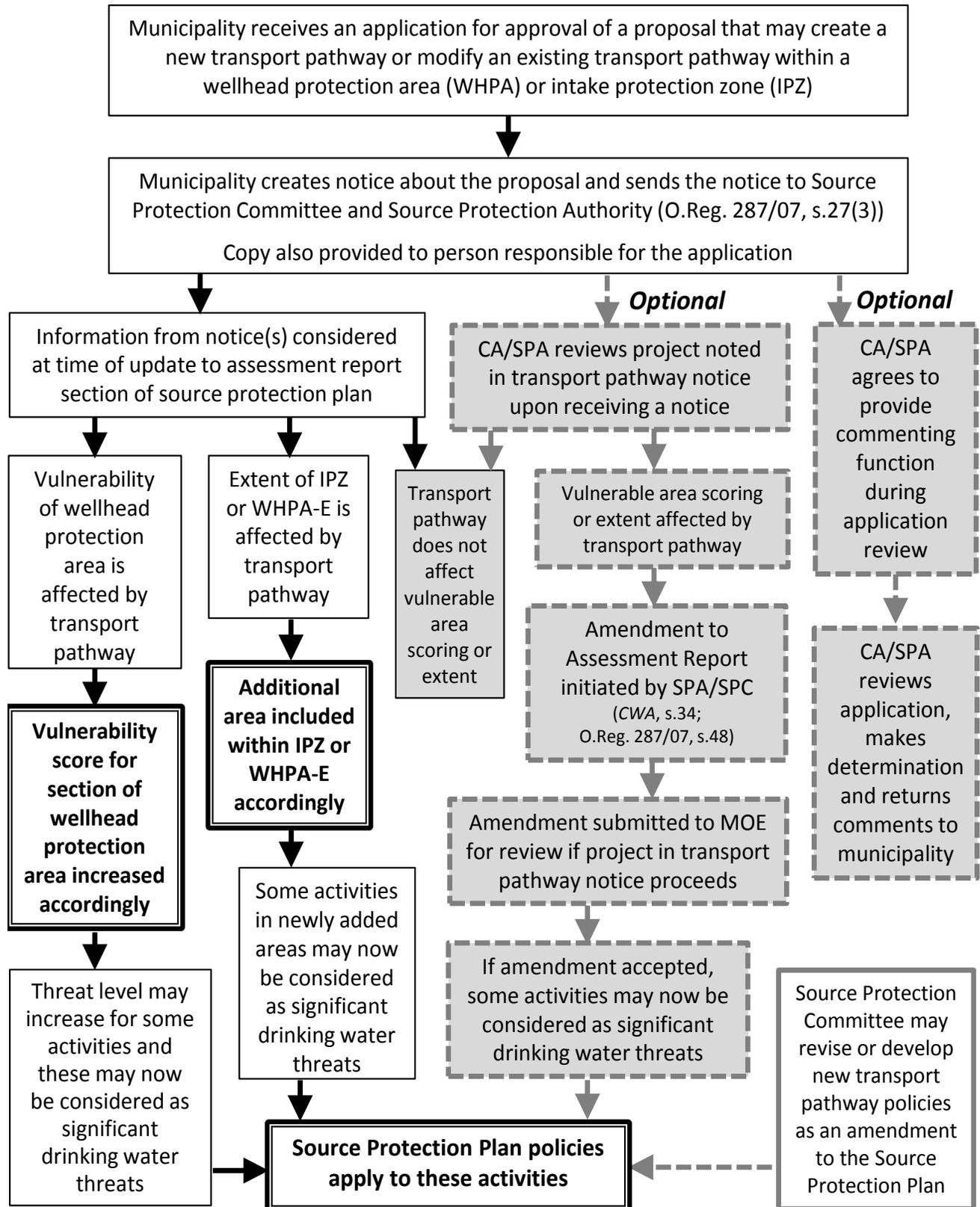


Figure 5: Process for Reporting New Transport Pathways to Source Protection Authority

iv. Transport Pathways' Effect on Vulnerability or Extent of Vulnerable Area

The source protection authority will compile the information from notices pertaining to any new and/or modified transport pathways and use these to consider amendments to the Assessment Report section of the source protection plan, and/or future updates of these documents.

For WHPAs the transport pathway may trigger a change of the vulnerability scores. The vulnerability scores for groundwater (i.e. WHPAs) are developed by intersecting intrinsic vulnerability with associated time-of-travel capture zones. Technical Rules 38, 39, and 40 allow for the intrinsic vulnerability score to be increased taking into account the impact of transport pathways. Hydrogeological conditions, type and design of transport pathway, cumulative impact, and extent of any assumptions used in the vulnerability assessment, must be considered when determining whether vulnerability of an area is increased (*Clean Water Act*, Technical Rules, December 2009). Notices generated by municipalities about potential new transport pathways will serve as one source of information. See also Vulnerability Scoring for Wellhead Protection Areas in Module 2 for more information.

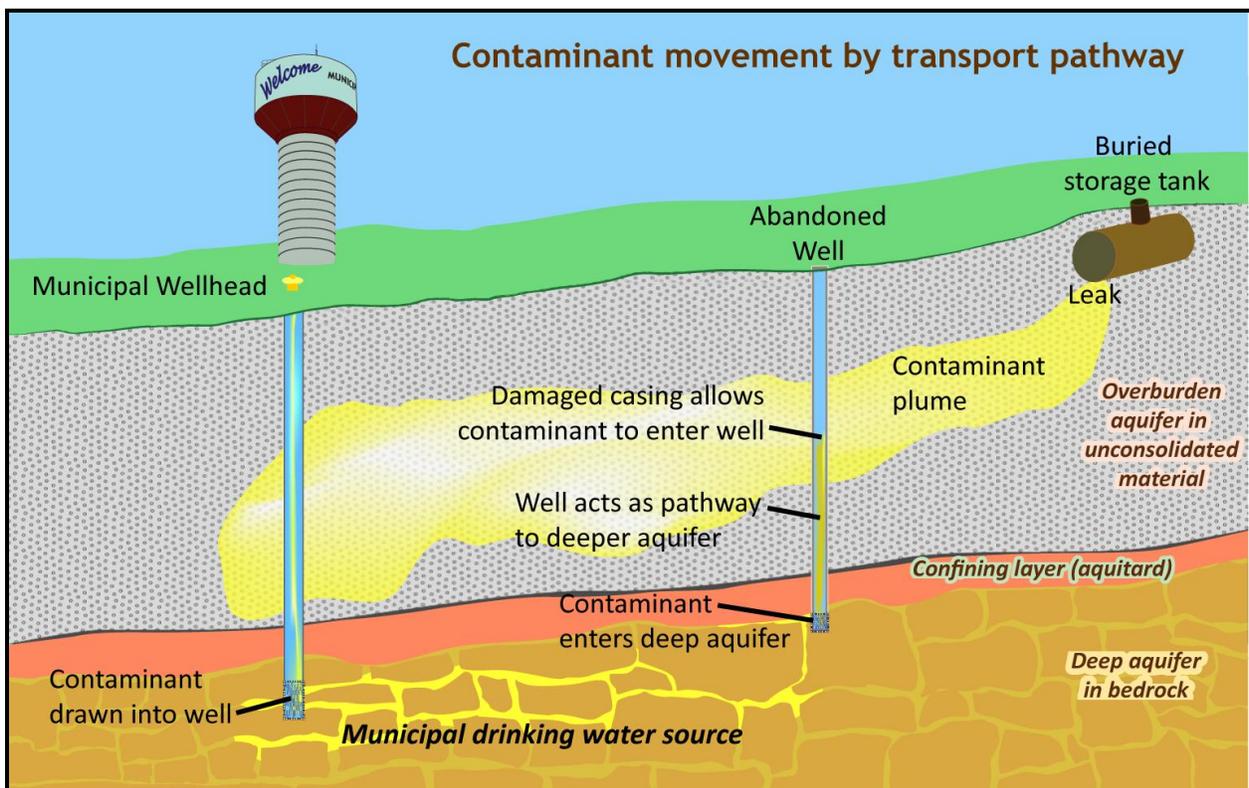


Figure 6: Sample Process of Contaminants Using a Transport Pathway to Migrate from One Aquifer to Another and Cause Contamination of a Municipal Drinking Water Source.

Improperly constructed or maintained wells may allow contaminants to travel in subsurface zones. For example, a failed seal could allow a spill plume in an upper aquifer to enter the well and exit into a deeper part of the same aquifer. The spill could even bypass a confining layer, or aquitard, that normally acts as a barrier between two aquifers and enter a deeper aquifer (see Figure 6). The removal of material in a gravel pit operation may eliminate much of the natural protection between the surface and the groundwater.

If it is determined that the transport pathway(s) would increase the intrinsic vulnerability of part of the WHPA, the vulnerability score of that part may also be increased. Changes to vulnerability scores in the area adjacent to the transport pathway may mean that low or moderate threats become significant drinking water threats. Therefore, some existing activities may become subject to source protection plan policies included in the approved source protection plan (e.g. risk management plans), where they had not been subject to policies prior to the new transport pathways being proposed/created. Future activities may also become subject to source protection plan policies.

Transport pathways affecting surface water sources can result in extended delineation of vulnerable areas, specifically IPZ-2, IPZ-3 and WHPA-E. In urban areas, storm sewers are designed to convey rain and snowmelt away from roads, buildings and structures. A similar function is served by roadside ditches and municipal drains in rural areas. Tile drains in agricultural lands are buried, perforated pipes that work as a subsurface drainage system to collect water percolating in the soil. Some of the water this subsurface system collects will eventually leave the field through outlet pipes to a ditch or watercourse. Because these constructed facilities are hydraulically connected to bodies of water, they are considered part of the flow network when looking at surface water vulnerable areas.

Technical Rules 72-75 allow for the extension of surface water vulnerable area delineations to include an area with a conduit that may decrease travel time of contaminants to an intake (e.g. storm sewers or tile drains). Changes to transport pathways within or near one of these zones may warrant an update to the delineation of the vulnerable zone. Changes to the extent of the vulnerable area delineation may mean that activities previously not subject to policies are now in a vulnerable area where the activity would be considered a significant threat and subject to source protection plan policies.

The source protection committee may choose to revise existing transport pathway policies, if included in the source protection plan, or develop new transport pathways as part of an amendment to the source protection plan, per O.Reg. 287/07, s. 27.

v. What This Means for My Municipality

Transport pathways may increase the risk to drinking water as a result of an activity near the pathway. Transport pathways are different than threat activities, so they need special policy

considerations. Under O.Reg. 287/07, s. 27 (1), municipalities can address transport pathways using the following policy types:

- stewardship programs
- pilot programs
- best management practices
- governing research
- specify actions required to implement source protection plan

Consult the local source protection authority to discuss the types of activities that may create potential transport pathways that would have to be reported and whether any source protection plan policies address transport pathways.

D. Spill Prevention, Contingency, or Response Plans

i. Overview

A spill means a discharge of a pollutant into the natural environment from or out of a structure, vehicle or other container, and that is abnormal in quality or quantity in light of all the circumstances (*Environmental Protection Act*, s. 91(1)). The *Clean Water Act* allows source protection plans to include policies that focus on spill prevention, contingency, or response plans. According to s. 26(6) of O. Reg. 287/07, these policies may specify actions to update spill prevention plans, spill contingency plans, or emergency response plans with respect to spills that occur within a WHPA or surface water IPZ along highways, railway lines or shipping lanes. These policies are not significant threat policies and therefore are not legally binding on municipalities, except in limited situations pertaining to local threats.

Some source protection committees opted to include the transportation of specified substances along corridors as a local threat (the Technical Rules require that these be approved by the Director of the Source Protection Programs Branch of the Ministry of the Environment). In a few cases, the transportation of oil through pipelines has also been included as a local threat.

ii. What Are Spill Prevention Plans?

There are three types of spills plans: spill prevention, spill contingency, and emergency response. The primary objectives are to help prevent or reduce the risk of spills of pollutants and prevent, eliminate or recover from any adverse effects that result or may result from spills. Actions may include notifying appropriate levels of government, as well as the affected members of the public, and the developer of the plan. The impacts as well as the outcomes of most spills are directly related to the level of preparedness.

Spill prevention plans, spill contingency plans, and emergency response plans are continually evolving documents. Major themes outlined in these plans include:

- **Prevention:** actions taken to prevent spills or emergencies; may be long-term and include capital improvements, regulations, building codes, and public education
- **Mitigation:** actions taken to reduce or eliminate the effects of a spill or an emergency
- **Preparedness:** measures taken prior to spill or emergency to ensure effective response; may include plans, procedures, public education, and training, such as for emergency responders
- **Response:** measures taken to ensure a controlled, coordinated and effective response
- **Recovery:** measures to assist individuals, businesses and communities to return to a state of normalcy; may include clean up and financial assistance.

Each plan details the actions, documentation, and responses to spills. Changes to any one of the included elements of these plans could necessitate changes to other plan components as well. Updates to these plans could address existing gaps related to protecting municipal drinking water supplies. Note that other source protection plan policies may apply to these activities and that the implementation of these other policies may facilitate the prevention of spills.

The municipality may use the process of reviewing and updating emergency response plans as a communication tool for both the municipality as an organization, and the general public. Within the municipal organization, staff members in different departments would be made aware of vulnerable areas (i.e. WHPA or IPZ) to provide the appropriate response in the event of a spill. These actions may also result in greater public awareness of the location of vulnerable areas.

iii. Requirements of Source Protection Plan Policies

Here are some notes about spill response and contingency policies in source protection plans:

- Fewer than half of the local source protection plans have policies about spills
- Spill policies are not legally binding
- Some plans have opted to include a road signage policy for consistent signage design for vulnerable areas across the province. The signs are intended to increase awareness of the location of vulnerable areas for transport companies, emergency response personnel and the general public.

Refer to the local source protection plan to determine if there are policies that would apply in your municipality. Section I, Appendix 5 contains some examples of spill policies.

Current legislation/policies/program

Table 2 highlights current legislation, policies and programs at various levels of government which may affect spills plans. Consideration of these elements and vulnerable areas during spills plan development may facilitate communication between agencies, avoid duplication of effort and assist in the protection of drinking water sources. The Thames-Sydenham Source Protection Authority has developed a summary of these laws, policies and programs, [available on its website](#).

Table 2: Current legislation, policies and programs applicable to SPP spills policies

Level of Government	Applicable Legislation/Policies/Programs
Federal	<i>Emergency Management Act</i>
	Canadian Regional Emergency Teams
	transCAER (Transportation Community Awareness and Emergency Response) Program
	Marine
	Canada-United States Joint Marine Pollution Contingency Plan
	Canadian Coast Guard Marine Spills Contingency Plan
	Transport Canada's National Marine Oil Spill Preparedness and Response Regime
	St. Lawrence Seaway Management Corporation
	Land
	Canada-United States Joint Inland Pollution Contingency Plan
	National Environmental Emergencies Contingency Plan
	Transportation of Dangerous Goods Act and Regulation
	Chemistry Industry Association of Canada <ul style="list-style-type: none"> • Responsible Care Programs • Transportation Emergency Response Programs
	Canadian National Railway Emergency Response Plan
Provincial	Environmental Protection Act 1990 <ul style="list-style-type: none"> • Ontario Regulation 224/07-Spill Prevention and Contingency Plans
	MOE Spills Action Centre
	<i>Emergency Management and Civil Protection Act 1990</i>
	<ul style="list-style-type: none"> • Ontario Regulation 380/04-Standards
	Province of Ontario Emergency Response Plan
Municipal	Municipal By Laws and Emergency Plan

General Source Protection Plan Spills Policy Content

When a source protection committee has chosen to include spills policies in its plan, it may also direct that spill prevention and contingency plans or emergency response plans include education and outreach components to:

- Raise awareness of the need for timely and adequate spill response related to the transportation and handling of goods within IPZs and WHPAs
- Provide training to emergency responders, transportation agencies and operators including maps and information about the areas where a spill could be a significant drinking water threat.
- Ensure that the drinking water system operator is alerted in the event of a spill.
- Provide information to the general public, such as what to do in the event of a spill and the reasons for not discharging contaminants like used motor oil onto the ground or into the water.

Some spills policies also direct municipalities to consider:

- location of vulnerable areas when planning new highways or arterial roads
- municipal by-laws to prohibit transportation of specific substances/volumes through vulnerable areas
- signs alerting drivers that they are entering IPZ/WHPAs, particularly emergency responders
- enhancements to emergency response programs that include training and equipment to manage spills
- upgrading/reviewing water treatment response time and equipment
- updates to spill prevention plans, spill contingency plans and emergency response plans to identify all IPZs and WHPAs

In addition, some spills policies may request that the MOE Spills Action Centre review and update procedures to include source protection mapping and communicate spill information to municipal contacts in a timely way. Some spills policies encourage the Ministry of Transportation to conduct a regional and province-wide review of Emergency Detour Routes considering IPZs. Consult your local source protection plan for applicable policies.

iv. What It Means for My Municipality

When a source protection plan has policies related to spills response and contingency plans, the municipality should review the local policies and take action depending on the details of the policy. Where a spills policy addresses a local threat, your municipality may be legally obligated to implement the policy.

Whether or not your local source protection plan includes spills policies, or the spills policies do not apply to your municipality, municipalities are encouraged to consider updating their spill prevention, contingency and emergency response plans as a best management practice and/or communication tool. Having spills response plans in place can protect local water sources beyond the municipal residential drinking water systems included in Assessment Reports and source protection plans.

E. Appendix 1 – Septic Inspection Program Deadlines

Table 3: Inspection Program Completion Deadlines According to Source Protection Authority

Source Protection Area	Assessment Report Approval Date	Deadline for Completion of Inspection Program
Ausable Bayfield Source Protection Area	9 January, 2012	9 January, 2017
Cataraqui Source Protection Area	16 January, 2012	16 January, 2017
Catfish Creek Source Protection Area	29 November, 2010	29 November, 2015
Central Lake Ontario Source Protection Area	18 January, 2012	18 January, 2017
Credit Valley Source Protection Area	10 January, 2012	10 January, 2017
Crowe Valley Source Protection Area	17 January, 2012	17 January, 2017
Essex Region Source Protection Area	25 January, 2012	25 January, 2017
Ganaraska Region Source Protection Area	17 January, 2012	17 January, 2017
Grand River Source Protection Area	12 September, 2012	12 September, 2017
Grey Sauble Source Protection Area	24 January, 2012	24 January, 2017
Halton Region Source Protection Area	11 January, 2012	11 January, 2017
Hamilton Region Source Protection Area	11 January, 2012	11 January, 2017
Kawartha-Haliburton Source Protection Area	17 January, 2012	17 January, 2017
Kettle Creek Source Protection Area	29 November, 2010	29 November, 2015
Lakehead Source Protection Area	21 June, 2011	21 June, 2016
Lakes Simcoe and Couchiching/Black River Source Protection Area	19 January, 2012	19 January, 2017
Long Point Region Source Protection Area	30 May, 2011	30 May, 2016
Lower Thames Valley Source Protection Area	25 March, 2011	25 March, 2016
Lower Trent Source Protection Area	17 January, 2012	17 January, 2017
Maitland Valley Source Protection Area	9 January, 2012	9 January, 2017
Mattagami Region Source Protection Area	29 November, 2010	29 November, 2015
Mississippi Valley Source Protection Area	25 January, 2012	25 January, 2017
Niagara Peninsula Source Protection Area	12 January, 2012	12 January, 2017
North Bay-Mattawa Source Protection Area	30 May, 2011	30 May, 2016
Northern Bruce Peninsula Source Protection Area	24 January, 2012	24 January, 2017
Nottawasaga Valley Source Protection Area	19 January, 2012	19 January, 2017
Otonabee-Peterborough Source Protection Area	17 January, 2012	17 January, 2017
Quinte Source Protection Area	5 May, 2011	5 May, 2016
Raisin Region Source Protection Area	23 January, 2012	23 January, 2017
Rideau Valley Source Protection Area	25 January, 2012	25 January, 2017
Saugeen Valley Source Protection Area	24 January, 2012	24 January, 2017
Sault Ste. Marie Region Source Protection Area	13 January, 2012	13 January, 2017
Severn Sound Source Protection Area	19 January, 2012	19 January, 2017
South Nation Source Protection Area	23 January, 2012	23 January, 2017
St. Clair Region Source Protection Area	7 April, 2011	7 April, 2016
Sudbury Source Protection Area	13 January, 2012	13 January, 2017
Toronto And Region Source Protection Area	10 January, 2012	10 January, 2017
Upper Thames River Source Protection Area	20 January, 2012	20 January, 2017

F. Appendix 2 - Septic Inspection Sample Documents

Sample By-Law for Inspection Program

**THE CORPORATION OF TAY VALLEY
TOWNSHIP BY-LAW NO. 2012-009**

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 2000, the Corporation of Tay Valley Township (the "Township"), implemented a septic tank re-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");

AND WHEREAS, the Township 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 mandatory sewage system maintenance inspection program which will apply to all waterfront properties located in the areas described in Schedule "A" to this By-Law ;

AND WHEREAS, the Township 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 continue to offer a voluntary sewage system maintenance program to owners of waterfront properties located in the areas described in Schedule "B" to this By-Law;

AND WHEREAS, the above referenced mandatory and voluntary sewage system maintenance inspection programs (collectively the "Sewage System Maintenance Inspection Programs") are described in the Septic System Re-Inspection Program document attached as Schedule "C" to this By-Law;

AND WHEREAS, the Township has entered into an agreement with the Mississippi Valley Conservation Authority in accordance with Section 6.2 of the Act to provide for the enforcement of the provisions of the Act and the Building Code relating to sewage systems and to allow the Mississippi Valley Conservation Authority, through its Mississippi Rideau Septic System Office (the "MRSSO") to deliver the Sewage System Maintenance Inspection Programs on behalf of the Township;

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

Sample By-Law for Inspection Program *(Continued)*

**THE CORPORATION OF TAY VALLEY
TOWNSHIP BY-LAW NO. 2012-009**

1. GENERAL REGULATIONS

- 1.1 THAT, the mandatory sewage system maintenance inspection program will apply to all waterfront properties located in the areas described in Schedule "A" to this By-Law.
- 1.2 THAT, the voluntary sewage system maintenance inspection program will apply to all waterfront properties located in the areas described in Schedule "B" to this By-Law.
- 1.3 THAT, the Septic System Re-Inspection Program, attached hereto as Schedule "C", be adopted.

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.

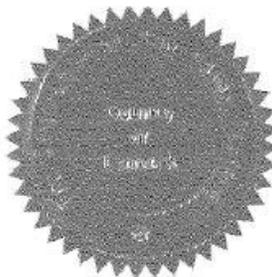
3. ULTRA VIRES

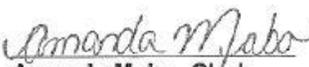
- 3.1 Should any sections of this by-law, including any section or part of any schedules attached hereto, be declared by a court of competent jurisdiction to be ultra vires, the remaining sections shall nevertheless remain valid and binding.

4. EFFECTIVE DATE

- 4.1 ENACTED AND PASSED this 13h day of March, 2012.

for 
Keith Kerr, Reeve




Amanda Mabo, Clerk

Sample Notification Letter

CURRENT DATE

**NAME
STREET ADDRESS,
CITY/TOWN, ON POSTAL CODE**

Dear **Mr. and or Mrs. LAST NAME:**

**RE: Mandatory Maintenance Inspection Program
MUNICIPAL ADDRESS PROPERTY ROLL NUMBER
TOWN, DISTRICT**

The North Bay-Mattawa Conservation Authority (NBMCA) is required by legislation to conduct maintenance inspections of specific sewage systems that have been identified through the Ontario Clean Water Act's assessment report process. Your property has been identified as a property that is included in the Mandatory Maintenance Inspection Program.

The Ontario Building Code requires that a maintenance inspection be conducted on your property once every five years. The NBMCA has listed your property to participate in the mandatory maintenance inspection program during the 2012 construction season. A NBMCA sewage system inspector will be visiting your property this summer/fall to conduct the required maintenance inspection.

The goal of the program is to inspect existing septic systems to ensure that the existing septic systems are being operated and maintained in accordance with the Ontario Building Code. The objectives of the maintenance inspection program is to determine, at the time of inspection, if the existing septic system is functioning properly, assess the minimum setback requirements and ensure that there is not an unsafe condition associated with the existing septic system.

The maintenance inspection required is a visual inspection that requires input from property owners with regard to septic system: type, age, location and past operation. Additional information regarding water usage is also requested. The information is recorded and compiled into a file of the property, a site inspection is conducted and an evaluation of the system performance is determined.

A questionnaire is enclosed, please complete the form and return it to the NBMCA (North Bay office), alternatively, you may complete the questionnaire and call the NBMCA to advise that the questionnaire is complete and will be available onsite when the inspection is conducted.

Should you have any questions regarding the above, please do not hesitate to contact this office (705) **474-5420**.

Your participation and cooperation in this program is greatly appreciated.

Sincerely,

THE NORTH BAY-MATTAWA CONSERVATION AUTHORITY

Manager, On-Site Sewage System Program

Enclosure: Questionnaire

Sample Property Owner Information Questionnaire



Mandatory Maintenance Inspection Program Property Owner Information Questionnaire

Property Information:	
Owner/Tenant:	
Municipal Address (of subject property):	
Mailing Address (if different from above):	
Phone Number: ()	
Size of property (acres):	
Permanent Residence <input type="checkbox"/> Seasonal Residence <input type="checkbox"/> Other: _____	
Would you like to be present during the mandatory maintenance inspection? Yes <input type="checkbox"/> No <input type="checkbox"/>	
<i>If yes, please contact our office to arrange an appointment (705) 474-5420</i>	

Drinking Water Source: (please provide as much detail as possible)	
Dug Well <input type="checkbox"/> Drilled Well <input type="checkbox"/> Other <input type="checkbox"/> Please specify:	
Water filtered? Yes <input type="checkbox"/> No <input type="checkbox"/> Filter type:	
Water treated? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes how:	

Sewage Disposal Information:			
Type(s) of septic system in use (please indicate if more than one system services property):			
Is the septic/holding tank: <input type="checkbox"/> Concrete <input type="checkbox"/> Steel <input type="checkbox"/> Plastic <input type="checkbox"/> Unknown			
Age of system:			
Last pump-out date (<i>if available please attach copy of receipt</i>):			
Name of pump-out contractor:			
Number of residents		Number of full bathrooms	
Number of bedrooms		Number of half bathrooms	
Number of dishwashers		Number of additional sinks	
Number of garborators		Number of washing machines	
Number of laundry tubs		Number of hot tubs/whirlpool baths	

Please list any previous problems with septic system:

Sample Property Owner Information Questionnaire *(continued)*

Site Plan Sketch

N↑

Site Plan Drawing:

1. Lot size, property dimensions, roads, existing rights-of-way, easements, or municipal/utility corridors;
2. Show and identify neighboring properties, including wells on adjacent properties (document if any at all);
3. Show the location and size of existing sewage system components (tanks, pump chambers, alarms, distribution bed)
4. Show the direction of surface water flow (grade);
5. Indicate directions of North on the site plan (draw an arrow through the “N” in the direction of north);
6. Show the distances from the sewage system components to all property lines, easements, rights-of-way, driveways, structures, and wells;
7. Show any surface water (creek, pond, lake) on or adjacent to the property and provide the common name.

Sample Inspection Form



Mandatory Maintenance

Inspection Program

Permit #: _____	Date: _____ Time: _____
Owner: _____ _____	<input type="checkbox"/> GPS <input type="checkbox"/> Mapping <input type="checkbox"/> Inspection not required
Person in attendance:	Sewage System Class: 2 4 4F 5 Privy Other (Specify): _____

Property Info	Property Address: _____
	Roll Number: _____
	Legal Description: _____
	Property Slope & Description: _____
	Well Present on Site: <input type="checkbox"/> YES <input type="checkbox"/> NO
	Any Occurrences on Property: <input type="checkbox"/> YES <input type="checkbox"/> NO
Set Backs	Distance from waterbody (m): _____
	Distance from dwelling to bed (m): _____
	Distance from dwelling to tank (m): _____
	Distance from well to septic (m): _____

Any sign of malfunction or concern? YES NO

Comment: _____

Sample Inspection Form *(continued)*

Diagram

(include all distances and points of interest, eg. well, waterbodies, etc)

N↑

Re-Inspection completion status

Date of Completion: _____

Time of Completion: _____

Inspector Signature: _____

Sample third-party inspection certificate

Certificate Mandatory Sewage System Maintenance Inspection Program
(pursuant to Article 1.10.2.5 of Division C of the Building Code)

Certificate Number: _____ **Date Certificate Issued:** _____

Address of Property on which Sewage System is Located: (hereinafter called the “Property”)

Owner of Property on which Sewage System is Located:

Certificate issued to (name and address of Principal Authority):

Certification

Person Signing Certificate:

(Name, Address, Business telephone number, Building Code Identification Number, if applicable)

I certify that:

- (a) I am a person described in Sentence 1.10.1.3.(3) of Division C of the Building Code.
- (b) I have conducted an inspection of the sewage system located at the Property.
- (c) I am satisfied on reasonable grounds that the sewage system located on the Property is in compliance with the requirements of Section 8.9 of Division B of the *Building Code*.

Certificate issued by:

Name: _____

Complete as applicable:

BCIN: _____

- I am the holder of a licence, a certificate of practice or a temporary licence under the *Architects Act*.
- I am a person who holds a licence or a temporary licence under the *Professional Engineers Act*.

Signature: _____ Date: _____

This certificate is approved by the Minister of Municipal Affairs and Housing under the *Building Code Act, 1992*

[Personal information contained in this form and schedules is collected under the authority of clause 34(2.2)(d) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.]

G. Appendix 3 - Ministry of Municipal Affairs and Housing Sewage System Maintenance Inspection Guide

On-Site Sewage System Maintenance Inspections

March 2011

Building and Development Branch Ministry of Municipal Affairs and Housing

Introduction

The *Building Code Act, 1992* and Building Code (Ontario Regulation 350/06) regulate the design, construction and renovation of treatment systems which are located wholly on the property which they serve (i.e. “on-site”) and have a design sewage capacity of 10,000 litres/day or less.¹ Such systems typically provide treatment for smaller buildings such as houses, cottages and small businesses.

Enforcement of the on-site sewage provisions of the *Building Code Act, 1992* and Building Code is the responsibility of local enforcement bodies, or “principal authorities”, – the municipality, the board of health or the conservation authority, depending on the location within Ontario.

Ontario’s Building Code (Ontario Regulation 350/06) was recently amended to establish and govern mandatory on-site sewage system maintenance inspection programs, to be administered in certain areas by local enforcement bodies. The recent amendments to the Building Code also govern discretionary on-site sewage system maintenance inspection programs established by local enforcement bodies.

The Ministry of Municipal Affairs and Housing, in consultation with the Ministry of the Environment, has developed this document for principal authorities to provide information and highlight certain issues respecting inspections undertaken in connection with on-site sewage system maintenance inspections programs.

Note: This document has been prepared for explanatory purposes only and does not form part of the regulations, and is not intended to provide legal or other professional advice. Persons requiring such advice should consult their legal or professional advisors.

¹ “sewage system” is defined in Article 1.4.1.2. of Division A of the Building Code (Ontario Regulation. 350/06) as follows:

Sewage system means,

- (a) a chemical toilet, an incinerating toilet, a recirculating toilet, a self-contained portable toilet and all forms of privy including a *portable privy*, an *earth pit privy*, a *pail privy*, a *privy vault* and a composting toilet system,
- (b) a *greywater* system,
- (c) a cesspool,
- (d) a *leaching bed* system, or
- (e) a system that requires or uses a *holding tank* for the retention of *hauled sewage* at the site where it is produced before its collection by a *hauled sewage system*,

where these,

- (f) have a *design capacity* of 10,000 litres per day or less,
- (g) have, in total, a *design capacity* of 10,000 litres per day or less, where more than one of these are located on a lot or parcel of land, and
- (h) are located wholly within the boundaries of the lot or parcel of land on which is located the *building* or *buildings* they serve.

Authority for Inspections

Sewage system maintenance inspections are generally intended to determine whether a sewage system is in substantial compliance with the operation and maintenance requirements outlined in Section 8.9 of Division B or, in the case of discretionary programs, with the requirements enforced by the program. These inspections are undertaken by inspectors appointed by Principal Authorities in respect of maintenance inspection programs:

- Required under Article 1.10.2.3. of Division C of the Building Code (“Mandatory Programs”); and
- Established by Principal Authorities under by-laws, resolutions or regulations under clause 7(1)(b.1) of the *Building Code Act, 1992* (“Discretionary Programs”).

Identification of Sewage System Maintenance Inspection Program Areas and Sewage System Inventory

As a first step, Principal Authorities will need to identify areas that would be subject to Mandatory Programs (these areas are set out in Article 1.10.2.3. of Division C of the Building Code) and, where applicable, Discretionary Programs.

As a next step, Principal Authorities will need to identify existing sewage systems located within areas subject to Mandatory Programs and Discretionary Programs. These sewage systems may be identified by reviewing:

- a) Assessment reports, in consultation with the local source protection authority, to identify septic systems identified as part of the assessment report threat enumeration;
- b) Permit applications submitted under the *Building Code Act, 1992*;
- c) Certificates of approval or use permits issued under the Environmental Protection Act;
- d) Orders issued under the *Building Code Act, 1992*;
- e) Records of problems and complaints;
- f) Water use records;
- g) Maintenance inspection reports (for systems that require the existence of a service agreement as a condition of use, or for systems previously inspected by the Principal Authority);
- h) Lists of properties with residential or other uses not serviced by sewage works administered by the Ministry of the Environment [or municipal services]; and/or
- i) Field surveys.

Inspection Notification

Mandatory inspection programs require that all systems be inspected every five years. In doing so, Principal Authorities may choose to prioritize areas for inspection based on:

- Proximity to a municipal residential drinking water well or surface water intake as identified in the local assessment report;

- Known groundwater or surface water contamination related to sewage;
- Previous drinking water issues at a well or intake that may be related to sewage, as identified in the local assessment report;
- Age of on-site sewage system;
- Systems without records.

Principal Authorities may find it helpful to notify property owners of the intention to inspect their property. Such notifications may include notice of:

- a) Any applicable fees to be charged;
- b) Procedural information;
- c) Whether the Principal Authority accepts third-party certificates as an alternative to conducting an inspection and, if so, requesting owners to notify the Principal Authority if they have retained a third party for this purpose;
- d) A contact name within the Principal Authority, and
- e) The legislative authority for the inspection program.

It may be helpful to send such notifications well in advance of the inspection to give the opportunity for the property owner (or representative) to be on site on the day of the inspection and to gather information and records which may assist in the inspection, and also to give the property owner the opportunity to undertake remedial work prior to the inspection.

Where the Principal Authority has determined that it will accept third-party certificates as an alternative to conducting an inspection, the Principal Authority should provide sufficient time:

- a) for the property owner to consider retaining a person qualified to sign such a certificate;
- b) if a person is retained, for the person to inspect the sewage system; and
- c) for any necessary remedial work to be carried out where this will be necessary before the person may sign the certificate.

Inspections

Maintenance Inspections - Overview

These guidelines provided in this document set out a progressive audit approach to maintenance inspections for sewage systems, as with most inspections under the *Building Code Act, 1992*. Under this approach, initial inspections are designed to be non-intrusive tests and will generally avoid significant disturbance to the system and to the surrounding soil area. Where concerns are identified, more tests may follow.

A Phase I maintenance inspection may be sufficient to establish compliance with Section 8.9. of the Building Code or with the standards enforced under a Discretionary program. A follow-up Phase II inspection (described below) is required where the Phase I inspection indicates a defect or failure of the system.

Phase I – Maintenance Inspections

Inspections generally begin with a review of available material, including material collected in the identification phase, and reports from previous inspections.

The purpose of Phase I maintenance inspections is to:

- a) Obtain the most recent information on the system, as well as the size of the building and the number of fixtures and bedrooms that it is servicing;
- b) Locate the sewage system's components;
- c) Identify any obvious or outward signs of malfunction or failure; and
- d) Identify systems that are at risk of malfunction or failure.

Phase I maintenance inspections generally avoid significant disturbance to the system and the surrounding soil area. During the course of a Phase I maintenance inspection, the inspector would normally identify:

- a) The type of occupancy to determine the source and type of the sanitary sewage;
- b) The source of water supply (municipal, well, lake, etc);
- c) The approximate volume of sewage generated;
- d) The use of special devices such as garbage grinders or water softeners;
- e) The general nature of the system (class, components, type, layout, etc);
- f) The location of the system's components with respect to wells, surface water, and other environmental features;
- g) The approximate level of ground water: This may be achieved by
 - i. reviewing local maps and records of ground water elevation observed on site or nearby properties, including the local assessment report, if available;
 - ii. Observing the conditions of the septic tank and the distribution box for indications of ground water infiltration;
 - iii. Observing the elevation of nearby water body, or evidence of ground water infiltration in other subsurface structures; or
 - iv. The use of hand augering;
- h) The size, material and the condition of the septic tank, or the holding tank;
- i) The frequency of tank pump-out and the last time the tank was cleaned;
- j) Any indication of sewage system failure, including:
 - i. Evidence of backup of effluent;
 - ii. Signs of hydraulic failure (breakout of sewage, wetting conditions in the leaching bed area);
 - iii. Condition of surface vegetation; and
 - iv. Odour problems;

- k) Documentation of previous effluent sampling test results where required (i.e., under Article 8.9.2.4. of the Building Code).

Phase II – Follow-Up Maintenance Inspections

It may be appropriate to undertake more intensive follow-up maintenance inspections where:

- a) The Phase I maintenance inspection has identified that the septic system is at risk of future malfunction or failure, or
- b) The Phase I inspection detected a malfunction or failure, but did not reveal the reason (e.g., location or nature) of malfunction or failure.

Phase II inspections will be familiar to Principal Authorities in terms of usual Building Code enforcement activities (i.e., investigation of potentially failing sewage systems, inspections due to neighbour complaints). These inspections may typically include examinations of the following elements:

- a) The depth of the sludge layer and the distance from the top of the sludge layer and the outlet tee;
- b) The thickness of the scum layers;
- c) The distance between the bottom of the scum/grease layer and the bottom of the outlet tee;
- d) The distance between the top of the scum layer and the top of the outlet tee;
- e) The physical condition of the inlet and outlet; and
- f) The condition of the effluent filter, if utilized.

For sewage systems utilizing treatment units, Phase II inspections may also include a review of:

- a) The existence of a maintenance agreement and the date of latest servicing;
- b) The test results of a new round of effluent sampling (if otherwise required by the Building Code, or by an authorization issued by the BMEC); and
- c) Operational problems or system malfunction before or, at the time of inspection.

Where used in sewage systems, distribution boxes, dosing tanks and pumps may be inspected to determine their condition and functionality.

Phase II inspections of leaching beds may also consider:

- a) Clearance distances to environmental features, wells and surface water intakes;
- b) Soil type and its permeability;
- c) Additional sources of hydraulic loading (e.g. surface discharge, roof drains);
- d) Evidence of ponding;
- e) Encroachments into the leaching bed area (e.g. building additions, patios, driveways, pools); and
- f) Trees and deep rooting shrubs in the vicinity of the bed.

Blockages in the leaching bed and pollution sources may be identified by measures including:

- a) Evaluation of in-home plumbing and estimates of water usage;

- b) Conducting a leak diagnostics;
- c) Conducting a flow trial;
- d) Conducting a dye tracing test; or
- e) Excavating a cross section of the leaching bed.

Inspection Reports

Principal Authorities may wish to maintain documentation in respect of maintenance inspections, which could include the following information:

- a) Identification of the property attended;
- b) Identification of any information collected as part of the inspection;
- c) Status of deficiencies noted in previous inspections;
- d) Deficiencies identified during the current visit;
- e) The legislative authority for the inspection program; and
- f) Enforcement action taken.

H. Appendix 4 – Further Materials from Septic Case Studies

Huron-Kinloss Website



Community Septic Inspection Program

The Township of Huron-Kinloss initiated the Huron-Kinloss Community Septic Inspections (HK- CSI) program in the spring of 2007. The goal of this program is to encourage regular maintenance of septic systems, through mandatory inspections. If unmaintained, septic systems are a threat to public health and the environment. Regular maintenance, however, can ensure that systems work efficiently and safely, protecting the natural environment. Through the program, every property with a septic system (including outhouses/pit privies) will be inspected on a rotating basis over a six to seven year period.

If you own a septic system in the Township of Huron-Kinloss, here's what you need to know about the HK-CSI program:

- Property owners must call the Township (519-395-3735) to book an appointment for an inspection.
- Inspections are done between spring and fall, weather permitting.
- Appointments are available Monday to Thursday between 9:00 am and 1:00 pm, with some evening and Saturday appointments available as well.
- If you haven't had your septic tank pumped in the last twelve months, it is recommended that you have it pumped prior to the inspection.
- Inspections are carried out by a qualified Ontario Building Code Part 8 Sewage Systems inspector.
- At no time during the inspection will you be asked for payment. The program is funded by a flat rate of \$55 on the annual tax bill of properties with a septic system.
- Once an inspection is completed, property owners are mailed an inspection report which includes an aerial photograph of the property outlining the location of the septic system.
- If you sell your property, please leave the inspection report for the new owners.

Visit our blog at hkcsi.blogspot.com for additional information or to post any comments you have.

The Huron-Kinloss septic inspection program represents a proactive step on the part of the Township and the citizens in addressing the possibility of septic systems affecting surface and groundwater quality. The project was developed as a response to requests from property owners throughout the Township and designed to complement the existing water quality monitoring program.

Septic systems are a common method of waste treatment and disposal within the Township; it is estimated that there are approximately 2800 private septic systems along the lakeshore and in the rural areas of the Township. Properly maintained systems are very effective in treating and disposing of

wastes, however, poorly designed, installed or maintained systems can have serious environmental and health impacts. With these impacts in mind, the Township implemented a septic inspection program to identify systems with deficiencies and work with property owners to ensure that their septic system operates properly.

On a 7 to 8 year inspection cycle, all septic systems in the Township will be inspected. Each year, between 300 and 400 tanks will be inspected. The inspection is a non-invasive, visual inspection carried out by a qualified Part 8 inspector. Pump outs are not mandatory, but are recommended. Also, if tank levels are too high during the inspection, the inspector can order a pump out. The inspector, when on site, will document the location of buildings, wells, watercourses and property lines in respect to the location of the septic system. Vegetation around the drainfield and any septage leaks will also be noted. For inspections it is recommended that the property owner is present to answer any questions the inspector may have. After an inspection, the property owner will receive the results of the inspection and notice if any follow up actions are required.



Inspections will first be conducted on properties identified as high risk. High risk properties are those that have no record of an approved septic system or the existing system is greater than 20 years old. After the high risk systems have been inspected, moderate risk (systems between 10 and 20 years in age) and low risk (systems less than 10 years old) systems will be inspected.

The HK-CSI is funded by a flat rate of \$55, assigned per eligible property on the annual taxes. A flat rate is assigned to the annual taxes so that property owners will not be charged for anything at the time of inspection.

If you have any questions about the HK-CSI, please contact the Township of Huron Kinloss municipal office at 519-395-3735.

Program Statistics

2007-2012 Risk Rating Statistics							
Risk Assessment	2007	2008	2009	2010	2011	2012	TOTAL
Low	202 (75%)	214 (60%)	212 (58%)	198 (48%)	279 (46%)	155 (48%)	1260 (54%)
Medium	63 (23%)	129 (36%)	134 (35%)	195 (4%)	305 (50%)	149 (47%)	975 (42%)
High	5 (2%)	13 (4%)	17 (5%)	19 (5%)	21 (4%)	17 (5%)	92 (4%)

TOTAL	270	356	363	412	605	321	2327
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Rating Definition:

Low

Medium Age

Medium Minor Repairs

Medium Non-Conforming (to current Ontario Building Code standards)

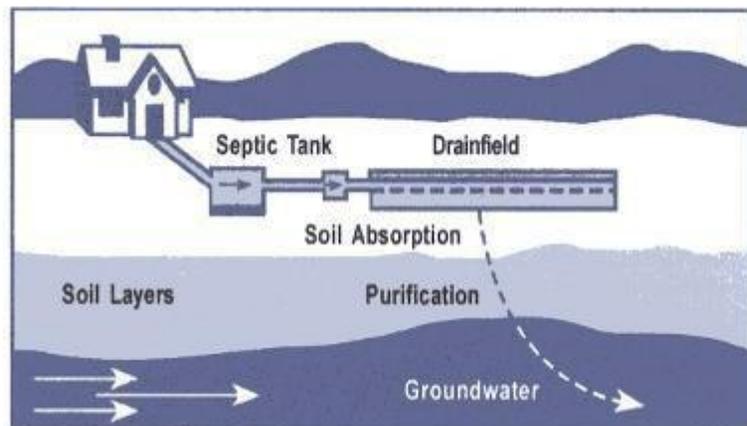
High - Environmental Hazard

High - Structurally Unsafe

Septic System Information

In many small communities and rural areas, septic systems are a common method of waste disposal and treatment. Septic systems are common in these areas because they are the most cost effective and efficient waste treatment technology. If properly designed, installed and maintained, a septic system can service a home for up to 25 years. However, poorly designed, installed or unmaintained systems may be a hazard to the environment and public health through inadequately treated wastes.

Septic systems treat household wastes onsite using a series of natural processes. These natural processes occur in the different components of the septic system. The two major components of septic system are the septic tank and the drainfield (which is also known as the leach field or a weeping bed). Some systems may include a distribution box between the septic tank and the drainfield. Distribution boxes are concrete or plastic structures that ensure effluent from the septic tank is evenly distributed to the drainfield.



A typical septic system with septic tank and drainfield

The septic tank is a watertight container that is either single or double chambered and buried beneath the ground. Most tanks are made of concrete, but fibreglass and plastic tanks are also available. Tanks are come in a variety of sizes; most homes will have tanks sized between 500 and 2500 gallons. All tanks have an inlet, which is connected to the sewer pipe from the house, and an outlet, which is attached to the drain field. At both the inlet and the outlet there is a 'Tee' or baffle, which keeps the waste flowing in the right direction. At the top of the tank there is an access port, which allows for top of the tank pumping. The access port should always be accessible, in case an emergency pump out is needed.

In the septic tank, the first stage of waste treatment occurs. When household waste enters the tank, the solid part of the waste separates from the liquid. The solids collect at the bottom forming a 'sludge' layer.

On top the liquid, oil and grease collect and form the 'scum' layer. Bacteria in the tank then begin to naturally decompose the wastes in the sludge and scum layers. The wastewater that remains between the sludge and scum layers is gradually pushed out into the drain field for another stage of treatment.

The drainfield consists of a series of trenches, typically 1 to 3 feet below the surface. In each trench is a length of perforated pipe, surrounded by either gravel or coarse sand. The size of the drainfield is dependent on the expected wastewater flow and soil quality. Wastewater flows into the drain field and is distributed throughout the series of pipes. Slowly, the wastewater percolates out of the pipes into the gravel or sand liner and then the soil below. The liner and soil filter out nutrients, bacteria, metals and other chemicals from the waste water. The treated water continues to move through the soil to enter the groundwater supply.



Regular pumping of the septic tank keeps the system functioning properly and prevents solids from entering and clogging the drain field. Septic tanks should be pumped every 3 to 5 years. Unpumped systems can allow excess nutrients and disease causing bacteria to move through the system and pollute groundwater. Signs of system failure include foul odour, soggy lawns, slow drains in the house and lush vegetation growth over the drainfield. If you see any of these signs, contact a septic professional to deal with the problem. Never try to inspect or repair a tank yourself, as the bacteria in the septic tank produce deadly gases.

Septic system maintenance, in addition to regular pumping includes conserving water and watching what goes into the septic system. Conserving water by fixing leaky taps and installing water-saving showerheads and faucets can reduce the total amount of waste water entering the system. This prevents the drainfield and septic tank from being overloaded. To maintain the environment within the tank and ensure that the sludge and scum layers do not accumulate to excess, care should be taken when disposing of household materials. Some materials, such as chemical cleaners, bleach, paint, cigarette butts, paper towels, kitty litter and coffee grinds, should never enter the septic system. Also, products advertised as septic system additives, enhancers, starters or rejuvenators are not necessary to maintain a septic system.

Maintaining your septic system is important, not only for the environment and public health, but also for your pocket book! Replacements or repairs can be very costly. The best way to avoid unnecessary costs and extend the lifetime of your septic system is to simply maintain it! As the old adage goes, an ounce of prevention is worth a pound of cure.

Septic System Maintenance

Septic system maintenance is important: it helps to prevent system failure which is beneficial for the environment and your pocketbook! Failed systems are expensive to repair or replace and can have

serious environmental consequences. A few simple maintenance steps can help your septic system function longer and safer.

Conserve Water

- Using water wisely prevents saturation of the soil in the drainfield.
- Fix leaky faucets and running toilets
- Use washing machines and dishwashers when there's enough for a full load
- Don't let the water run when washing hands or brushing teeth.
- Avoid taking long showers
- Install water saving faucets and shower heads
- Reduce water use by toilets by installing a low flow toilet or a toilet dam

Be gentle to the drainfield!

- Space out water use over a few days. Don't do all the laundry in one day.
- Divert roof drains, surface water and sump pumps away from the drainfield
- Don't plant anything but grass near your septic tank or drainfield. Roots can damage the pipes
- Don't let anyone drive anything over the drainfield – this includes snowmobiles and ATVs
- Don't build or plant any gardens or trees over the drainfield

Watch what you flush

Some chemicals and household products can harm your septic system

Avoid letting chemicals like paint, varnish, paint thinner, pesticides, nail polish remover, household cleaners and bleach go down drains or toilets.

Don't flush: coffee grinds, dental floss, cigarette butts, kitty litter, sanitary napkins, condoms, antibacterial soap, paper towels or kitchen wastes.

Pump it!

Get your tank pumped every 3-5 years by a professional – this may be the most important part of maintaining your septic system

Contacts

Township of Huron-Kinloss
21 Queen St., Ripley ON N0G 2R0
info@huronkinloss.com
519-395-3735 Fax: 519-395-4107

Matt Farrell
Chief Building Official
cbo@huronkinloss.com
519-395-3735

Ramara Pump-out Certificate



NAME OF HOME OWNER: _____

ADDRESS OF PROPERTY: _____

DATE OF PUMPING: _____

TANK: CONCRETE: _____ STEEL: _____ PLASTIC: _____

SEPTIC TANK: _____ OR HOLDING TANK: _____

SIZE OF TANK: _____

T'S IN PLACE? YES _____ NO _____

EFFLUENT LEVEL: CORRECT HEIGHT _____

 ABOVE OUTLET _____

 BELOW OUTLET _____

OVERALL CONDITION OF TANK? GOOD _____ FAIR _____ POOR _____

LIDS? GOOD _____ FAIR _____ POOR _____

NOTES: _____

PUMPED BY: _____ (NAME OF COMPANY)

NAME OF PUMPER: _____ (PRINT)

SIGNATURE: _____

Ramara Notification Letter



THE CORPORATION OF THE TOWNSHIP OF RAMARA

Proud History - Progressive Future

March 28, 2013

Dear Property Owner:

**Re: TOWNSHIP OF RAMARA
MANDATORY ON-SITE SEWAGE SYSTEM MAINTENANCE
INSPECTIONS**

As you learned through our previous notices effective on January 1st, 2011 and January 19th, 2012 the Ontario Building Code was amended by Ontario Regulation 315/10 to establish and govern mandatory on-site sewage system maintenance inspection programs to be administered by municipalities in Ontario. To satisfy this requirement, the Township chose to accept third party certificates as an alternative to municipal inspections. However due to the lack of response, that program has been discontinued. Moving forward the Township's consulting engineer, C.C. Tatham & Associates Ltd., has been retained to complete the inspection of the remaining properties over the next 3 years. Property owners that submitted a third party certificate up to March 28, 2013 will not be inspected under the new program until the next five year program.

There are two components of the -inspection program. The first is a visual surface inspection of your sewage system, which will be completed by C.C. Tatham & Associates Ltd. staff for the Township of Ramara. The property owner does not need to be in attendance for this inspection. The cost including the Township administration fee is \$150, payable to the Township of Ramara within 30 days of invoicing. If payment is not received by the Township of Ramara within 30 days of invoicing, the inspection fee will be added to the property tax bill. If a deficiency is noted during the inspection, the property owner(s) will be notified in writing by C.C. Tatham & Associates Ltd. and they must take the necessary steps to correct the deficiency within the timeline stipulated.

If your property is serviced by underground utilities, a locating company will be visiting your property prior to the inspection, at no cost to you. All lines will be located with small flags or paint for safety purposes. The ground will not be dug up or disturbed during the inspection, but soil probes will be used to locate the septic tank and leaching bed.

THE SECOND COMPONENT OF THE ...INSPECTION PROGRAM IS THAT YOU ARE RESPONSIBLE FOR ARRANGING TO HAVE YOUR SEPTIC OR HOLDINGTANK PUMPED OUT BY A LICENSED SEWAGE HAULER. You must

P.O. Box 130, Brechin, Ontario L0K 1B0, (705) 484-5374 Toll Free 1-800-663-4054 (for 689 exchange only) Fax (705) 484-0441
Email: ramara@ramara.ca Web Site: www.ramara.ca

Ramara Notification Letter *(continued)*

request the hauler provide a written report confirming the date of the pump-out and the condition

and size of the tank. We have provided the local sewage haulers with an appropriate report form. This report is to be completed and signed by the hauler. You **must** submit a copy of the report to the Township of Ramara no later than September 30 of the year of the inspection.

You will be advised by separate notice the year which your property will be inspected.

We appreciate your co-operation with this proactive program that is focused on protecting Ontario's drinking water, the natural environment and supports the implementation of the Ontario Clean Water Act, 2006.

**FOR FURTHER INFORMATION, PLEASE CONTACT OUR BUILDING
DEPARTMENT AT EXTENSION 234.**

2297 Highway 12
P.O. Box 130
Brechtin, ON L0K 1B0
Phone: (705) 484-5374
Fax: (705) 484-0441
Email: ramara@ramara.ca
Hours: 9:00 a.m. to 4:30 p.m. Monday to Friday

I. Appendix 5 – Spills Policy Examples

The proposed Cataraqui Source Protection Plan (August 2012) includes five policies that either require or call for enhancements to spill prevention and response planning (see 4.3.1-NB, 4.3.2-CW, 4.3.3-NB, 7.2.17 (sewage hauling via barges), and 7.6.2-NB (MTO Wolfe Island ferry));

The implementation of this type of policy may include:

- a. Addition of vulnerable area maps to relevant documents;
- b. Consideration of key drinking water risks in the vulnerable area (e.g. highways, railways, large storages) as well as other “significant” risks that could leak and/or spill;
- c. Consideration of typical ground and surface water flow elevations/directions within the vulnerable area, with reference to the modeling used to define that area;
- d. Preparation of updated procedures and the development of additional capacity (i.e. equipment, consulting arrangements, staffing), as necessary, to properly account for (a), (b) and (c);

The review of spill prevention and response plans may also provide an opportunity for the water treatment plant operator to ensure that they have procedures in place for intake/well closures, notification of disruptions to service (e.g. hospitals, industry, media, public, and schools), alternate water sources/supplies, etc.

Some Source Protection Committees identified additional local threats and subsequently developed spills plan policies in the source protection plan. For example, the Director approved the following local threats in the Thames-Sydenham Source Protection Region, in vulnerable areas of the St. Clair Region Source Protection Area:

- Transportation of fuel and fertilizer along provincial highways, county and local roads, railways, and waterways passing through the various vulnerable areas in the St. Clair Region Source Protection Area; and
- Transportation of liquid petroleum products through pipelines that cross the St. Clair Region Source Protection Area and may result in a spill into the St. Clair River

The classification of these activities as either a significant, moderate or low drinking water threat is dependent on the location of the corridor as defined by the event based modelling exercise, the type of substance, and the volume or mass of the substance resulting from a spill.