



INFORMATION REPORT

To:	Mayor Stratthdee and Members of Council
Prepared by:	Grant Brouwer, Director of Building and Development
Date of Meeting:	25 July 2017
Subject:	DEV 22-2017 Septic Re-Inspection Program

INFORMATION

This report presents information on the Town's septic re-inspection program for 2017.

RECOMMENDATION

THAT DEV 22-2017 Septic Re-Inspection Program be received for information.

BACKGROUND

In conjunction with Source Water Protection, the Ontario Building Code (OBC) has implemented a "Mandatory Maintenance Inspection Program" and requires all sewage systems located within an area affected by a significant drinking water threat to be inspected.

The *Clean Water Act* (2006) required the development of Source Protection Plans designed to protect existing and future sources of municipal drinking water. The Thames-Sydenham and Region Source Protection Plan was approved by the Ministry of Environment and Climate Change on September 17, 2015 and took effect on December 31, 2015. This protection plan includes St. Marys.

The Source Protection Plan for the Thames-Sydenham and Region contains policies that manage existing significant threats to municipal drinking water sources and prevent new significant threats from occurring. Landowners with significant threat activities on their property will be required to follow Source Protection Plan policies. Examples of things that could be a significant threat in a vulnerable area include septic systems, fuel storage, application of pesticides, etc.

Time periods allowed for maintenance inspections are prescribed to be initially no later than five years after the date on which notice of approval was given which was September 17, 2015.

REPORT

The community currently has 55 septic systems in Town and 25 of them are located in the Source Water Protection Area and will require re-inspection (map attached). The

mandatory inspection must be done initially no later than five years from the date of approval of the Source Water Protection Plan.

The inspections are made up of two categories; a Phase I or a Phase II inspection.

Phase I inspections generally avoid significant disturbances to the system and surrounding soils.

Some conditions to consider during a phase I inspection:

- Any indication of system failure;
- Evidence of backup of effluent;
- Sign of hydraulic failure;
- Condition of surface vegetation;
- Odour problems.

A follow-up phase II inspection is required where the phase I inspection indicates a defect or failure of the system. The phase II inspection is more invasive and may require excavation of the area to determine the cause of the problem or failure.

Included below is the guidance put forward by Ministry of Municipal Affairs and Housing “On-Site Sewage System Maintenance Inspections” (March 2011).

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 1- 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.

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.*

Timing and Notice

The Building Department will be conducting these inspections in late August and early September. We would expect each inspection to take less than an hour depending on residents, and should have them completed in a week. Each of the residents have already been notified by UTRCA of their pending inspection and will be notified again by the Town.

SUMMARY & IMPLICATIONS

The Town will be conducting a Septic Re-Inspection program to ensure compliance with the OBC and Source Water Protection.

OTHERS CONSULTED

UTRCA

Dave Blake - Environmental Services Supervisor

Jason Silcox-Building Inspector


Martin Feeney – CBO of Perth South

ATTACHMENTS

Map of Town identifying properties required Septic Re-Inspection

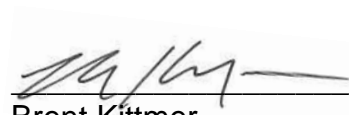
REVIEWED BY

Recommended by the Department



Grant Brouwer
Director of Building and Development

Recommended by the CAO



Brent Kittmer
CAO / Clerk