



City of  
**Peterborough**

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**To: Members of the Planning Committee**

**From: Ken Hetherington, Manager, Planning Division**

**Meeting Date: November 16, 2015**

**Subject: Report PLPD15-057  
Source Protection Septic System By-law**

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## **Purpose**

To enact a by-law, in accordance with Source Water Protection Planning Policies, that would require developed properties located in proximity to the source of municipal drinking water to be connected to municipal sanitary sewer services.

## **Recommendation**

That Council approve the recommendation outlined in Report PLPD15-057 dated November 16, 2015, of the Manager, Planning Division, as follows:

That Council approve the By-law attached as Exhibit D to Report PLPD15-057, in order to implement the required measures of protection of the vulnerable areas in relation to the City's intake of drinking water as required by the Trent Source Protection Plan.

## **Budget and Financial Implications**

There are no immediate costs associated with the implementation of the recommendation as described. Costs to connect to Municipal sewer services or inspections of private septic systems will be borne by the property owners.

## Background

The City of Peterborough's source of drinking water is the Otonabee River. It is the responsibility of the municipality to protect its source of drinking water. It is required that protection of municipal drinking water be achieved through implementing policies described in the Trent Source Protection Plan in accordance with the *Clean Water Act* and *Municipal Act, 2001*. The Trent Source Protection Plan, which has been in effect since January 1, 2015, identifies areas within the City of Peterborough where development may have an impact on the municipal source of drinking water.

The Planning Division is working on a comprehensive update of the City's Official Plan that will include policies to advance those policies contained within the Trent Source Protection Plan. While staff expects to present the Official Plan update to Council in 2016, the *Clean Water Act* requires that certain source water protection measures be implemented by January 1, 2016. One such measure is enacting a by-law to protect the source of drinking water from small scale private septic systems

## Analysis

### Significant Threats to Drinking Water

Threats to drinking water are activities, or conditions from past activities, that pose a risk to the quality of water that is, or may be, used as a source of drinking water. Risk to drinking water sources is assessed on the basis of the nature of the activity and its proximity to the source of drinking water, which, in the case of surface water sources, is described by Intake Protection Zones (IPZ). Intake Protection Zone 1 (IPZ1) has the highest vulnerability score of 10, where activities may pose the greatest threat to the municipal drinking water intake. It includes an area of land measured 120 metres inland from the water line extending 1000 metres upstream from the intake.

IPZ areas were introduced in previous reports to Council (PLPD09-035 and PLPD10-017). The Area with a vulnerability score of 10 co-insides with the IPZ1 as illustrated on the Map attached to this report (PLPD15-057) as Exhibit A. These areas have been determined by scientific research and described by the Assessment Report and the Trent Source Protection Plan approved by the Province.

As of January 1, 2016, it will be mandatory for municipalities to protect the source of drinking water from private sewer systems such as a septic system located within an area with a vulnerability score of 10 (IPZ1) in accordance with the Trent Source Protection Plan Policies.

## **Sewage Systems**

A private sewage system, such as a septic system, defined by the Ontario Building Code O. Reg. 350/06, (See Exhibit C attached to this Report) is regarded as a potential threat by the Trent Source Protection Plan. There are seven properties located within the Intake Protection Zone 1 that are operating small scale sewer systems and are not connected to municipal sanitary sewer services.

Policy S-4(1) of the Trent Source Protection Plan Policy reads as follows:

“Require by means of by-law that the system is connected to a municipal sewage collection system where connection is feasible given financial and technical constraints. The by-law must be established within one year.”

The municipality is identified as the authority responsible for implementing the policy. To implement Trent Source Protection Policy S-4(1), it is proposed that a by-law be passed that would require that developed properties located within the IPZ1 be connected to municipal sanitary sewer services where those services are located in an abutting road allowance. If such a connection is not feasible, the potential threat by a private, sanitary sewer system will be monitored by the Peterborough County-City Health Unit (the “Health Unit”) to ensure the risk is managed. The Trent Source Protection Plan policies recommend that risks be managed through a Mandatory Maintenance Inspection program, the details of which are described by the Ontario Building Code. Inspections will be conducted by the Health Unit every five years commencing in 2016, being a date five years after the Trent Assessment Report was approved. The outcome of each inspection will be reported by the Health Unit to the City Building Division and in turn to the Trent Source Protection Authority.

It is recommended that the By-law attached as Exhibit D be approved to implement the required protection of municipal drinking water as described.

Submitted by,

Ken Hetherington  
Manager, Planning Division

Prepared by,

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Planner, Policy & Research

Concurred with,

Malcolm Hunt, Director  
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**Attachments:**

Exhibit A – Intake Protection Zone 1  
Exhibit B – Vulnerable Area  
Exhibit C – Definition of Sewage System from Ontario Building Code  
Exhibit D – Draft By-law

**DRINKING WATER  
SOURCE PROTECTION**  
ACT FOR CLEAN WATER

**Peterborough  
Municipal Surface  
Water System**

**Otonabee-Peterborough  
Source Protection Area**

**Intake Protection Zones &  
Vulnerability Scores  
(IPZ 1 & 2)**

**Legend**

- Surface Water Intake
- Railway
- Watercourse
- Main Road
- Highway
- Multi Lane Highway
- Property Boundary
- Source Protection Region
- Source Protection Area
- Lower Tier Municipality
- Upper and Single Tier Municipality
- Waterbody
- Wetland

**Trent Conservation Coalition  
Source Protection Region**  
[www.trentsourceprotection.on.ca](http://www.trentsourceprotection.on.ca)

This map has been prepared for the purpose of meeting the provincial requirements under the Clean Water Act, 2005. It is provided to use as a reference only. It is not intended to be used as a basis for any legal or regulatory action. It is not intended to be used as a basis for any legal or regulatory action. It is not intended to be used as a basis for any legal or regulatory action.

**PROTECTED BY Lower Tier Municipality on behalf of the Trent Conservation Coalition Source Protection Committee, March 2011, with data supplied under authority from the Ontario Conservation Council.**

**Intake Protection Zones**

- IPZ-1
- IPZ-2
- Transport Pathway

**Vulnerability Scores**

**Intake Protection Zones**

**IPZ-1**

**IPZ-2**

**Transport Pathway**

**Scale:** 0 0.5 1 2 Kilometres

**North Arrow**



Exhibit B, Page 1 of 1 – Vulnerable Area

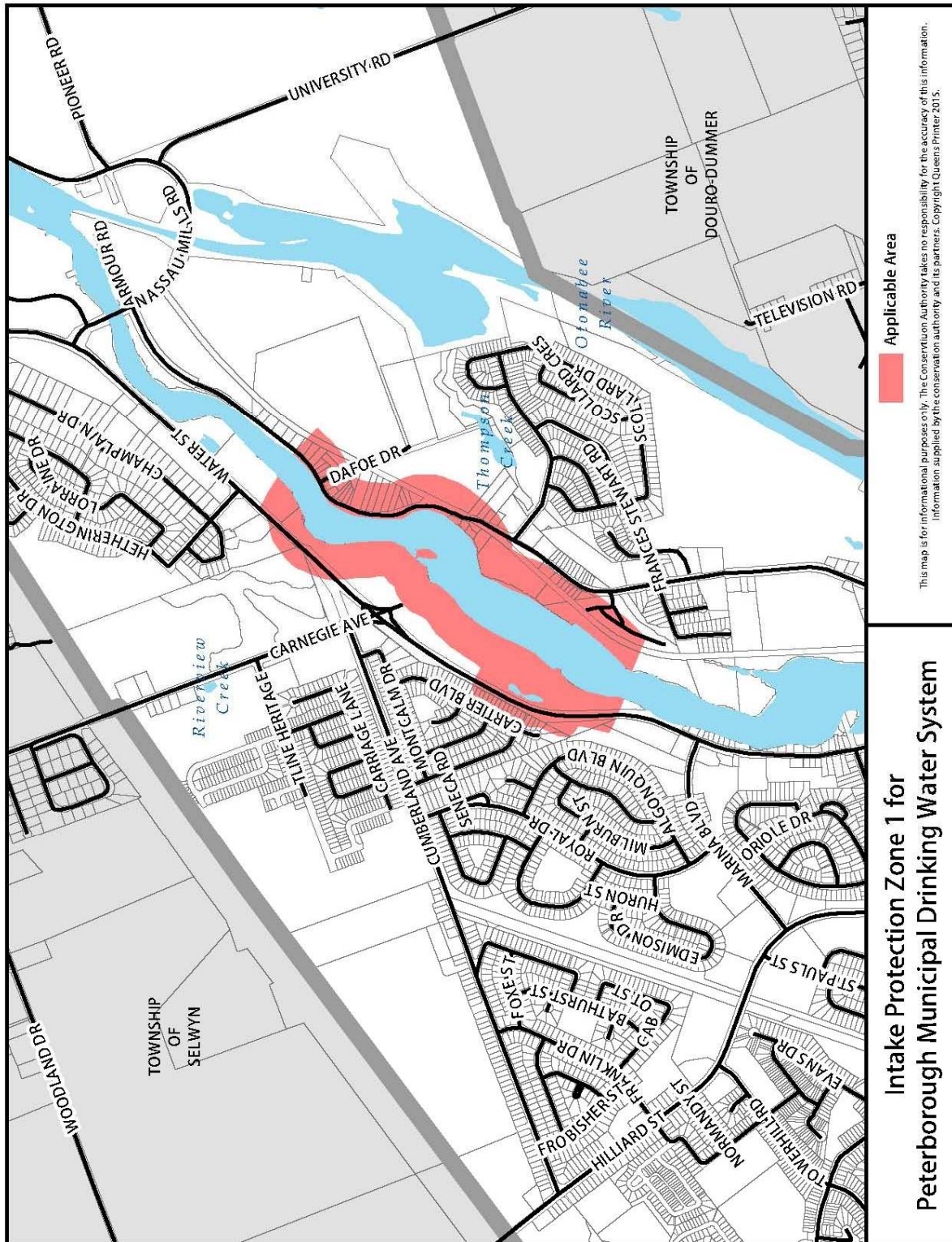


Exhibit C, Page 1 of 1



**2012 Building Code Compendium**

**1.4.1.2.**

*Sewage means sanitary sewage or storm sewage.*



*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.

*Sewage works means sewage works as defined in subsection 1(1) of the Ontario Water Resources Act.*

**r<sub>3</sub>** *Sewer lateral extension means the portion of a storm building sewer or sanitary building sewer that extends from the public sewer up to 1.5 m into the property.*

*Shallow buried trench means an absorption trench that contains a chamber.*

*Shallow foundation means a foundation unit that derives its support from soil or rock located close to the lowest part of the building that it supports.*

*Shelf and rack storage system means a self-contained structural system within a building, having one or more elevated platforms or walkway levels for personnel access that may also support conveyors and other material handling, storage and distribution equipment.*

*Significant drinking water threat has the same meaning as in subsection 2(1) of the Clean Water Act, 2006.*

*Size means the nominal diameter by which a pipe, fitting, trap or other similar item is commercially designated.*

*Smoke alarm means a combined smoke detector and audible alarm device designed to sound an alarm within the room or suite in which it is located on the detection of smoke within that room or suite.*

*Smoke detector means a fire detector designed to operate when the concentration of airborne combustion products exceeds a pre-determined level.*

*Soil means, except for the purposes of Part 8 of Division B, a portion of the earth's crust that is fragmentary or such that individual particles of a dried sample may be readily separated by agitation in water, and includes boulders, cobbles, gravel, sand, silt, clay and organic matter.*

*Soil pipe means a sanitary drainage pipe that carries the discharge of a sanitary unit, with or without the discharge from any other fixture.*

*Soil stack means a vertical soil pipe that passes through one or more storeys and includes any offset that is part of the stack.*

*Source protection area has the same meaning as in subsection 2(1) of the Clean Water Act, 2006.*

*Source protection plan has the same meaning as in subsection 2(1) of the Clean Water Act, 2006.*

*Space heater means a space-heating appliance for heating the room or space within which it is located, without the use of ducts.*

*Space-heating appliance means an appliance,*

- (a) that is intended to supply heat directly to a room or space, such as a *space heater*, fireplace and *unit heater*, or
- (b) that is intended to supply heat to rooms or spaces of a *building* through a heating system, such as a central *furnace* or *boiler*.

*Sprinklered means equipped with a system of automatic sprinklers.*

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## The Corporation of the City of Peterborough

### By-Law Number 15-

Being a By-law to require properties located within Intake Protection Zone 1 and which are served by a small scale sewage system to connect to municipal sanitary sewer services where those services are available in an abutting road allowance and where those services are not available to make the small scale sewage system subject to the Mandatory Maintenance Inspection Program

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**Whereas** Policy S-4(1) of the Trent Source Protection Plan requires that the municipality pass a by-law requiring that any properties serviced by sewage systems as defined in section 1 of O. Reg. 350/06 made under the *Building Code Act, 1992* be connected to the municipal sewage collection system where it is feasible to do so;

**And whereas** Section 11 of the *Municipal Act, 2001*, S.O. 2001 c.25, as amended, provides that every Council may pass by-laws and make regulations for the health, safety and welfare of inhabitants of the municipality in matters not specifically provided for by the said act as may be deemed expedient and are not contrary to the law;

**And whereas** the Council of the City of Peterborough deems it necessary and expedient to pass a by-law to require properties located within the Intake Protection Zone 1, operating on a small scale sewage system to connect to municipal sanitary sewer services where those services are available, failing which the private sewer system will be subject to the mandatory maintenance inspection program and any costs involved to ensure compliance with its effective operation.

**Now therefore** The Corporation of the City of Peterborough by the Council thereof hereby enacts as follows:

### 1.0 Definitions

In this by-law:

- a. **Inspection** – means an inspection carried out by a qualified person under the Mandatory Maintenance Inspection Program and **Inspect** or **Re-Inspect** shall have a corresponding meaning.



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- b. **Health Unit** – means a person qualified to perform the MMIP who is employed by or is an agent of the Peterborough County City Health Unit.
- c. **Intake Protection Zone 1** – means the area of land measured 120 metres inland from the water line extending 1000 metres upstream from the point of the municipal drinking water intake.
- d. **Mandatory Maintenance Inspection Program or MMIP**– means the inspection program specified under the Ontario Building Code (O. Reg. 350/06):
  - i. conducted every 5 years by the Health Unit; or
  - ii. for the property located at 1230 Water Street, at the discretion of the Health Unit, conducted annually or every 5 years.
- e. **Owner** – means a person, individual, firm, corporation, utility, association or partnership who own property or have an interest in land located within Intake Protection Zone 1 or an area where the Vulnerability Score is 10 and who have an operational Small Scale Sewage System.
- f. **Small Scale Sewage System** – means a septic system that has a capacity of no more than 10,000 L/day.
- g. **Vulnerability Score** – is an assessment describing the potential for contamination of a water source as determined by the Trent Assessment Report, 2011.

## 2.0 Small Scale Sewage Systems – Requirements

- 2.1 Every Owner shall forthwith connect their Small Scale Sewage System to municipal sanitary sewer services if such services are located in a road allowance which abuts the Owner's property.
- 2.2 Every Owner who is not required by Section 2.1 or by Section 3 to connect his/her Small Scale Sewage System to municipal sanitary sewer services shall comply with the Mandatory Maintenance Inspection Program.
- 2.3 Every Owner whose Small Scale Sewage System fails any aspect of the Mandatory Maintenance Inspection Program shall, as directed by the Health Unit, forthwith carry out any maintenance and/or repair to the satisfaction of the Health Unit.

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- 2.4 Every Owner shall permit the Health Unit to Inspect or Re-inspect the Owner's Small Scale Sewage System.
- 2.5 No person shall place or use a portable toilet within Intake Protection Zone 1 unless permission has been obtained from the Health Unit.

**3.0 Special Provisions for Particular Properties**

- 3.1 Notwithstanding Section 2.1, every Owner of a property abutting the Armour Street or the Dafoe Drive road allowance shall forthwith connect to municipal sanitary sewer services upon the earlier of:
- a. the Owner's Small Scale Sewage System failing any aspect of the Mandatory Maintenance Inspection Program and, in the opinion of the Health Unit, the Owner's Small Scale Sewage System was not forthwith repaired in accordance with Article 2.3; or
  - b. the City reconstructing its abutting road allowance and installing a lateral connection from the municipal sanitary sewer services to the Owner's property line.
- 3.2 Notwithstanding Section 2.1, the Owner of the property located at 1230 Water Street shall forthwith stop using its Small Scale Sewage System if any aspect of it fails any aspect of the MMIP and, in the opinion of the Health Unit, the Owner's Small Scale Sewage System was not forthwith repaired in accordance with Article 2.3.
- 3.3 If the Small Scale Sewage System at 1230 Water Street is not forthwith repaired in accordance with Article 3.2, the Owner shall forthwith:
- a. decommission and remove same; or
  - b. commence the steps necessary to connect its Small Scale Sewage System to the City's municipal sanitary sewer services located in the Water Street road allowance.

**4.0 Penalties**

- 4.1 Every person who contravenes any requirement of this By-law is guilty of an offence and upon conviction thereof is liable for a penalty or fine for each offence, exclusive of costs as prescribed by the *Provincial Offenses Act* R.S.O 1990, as amended or any successor legislation in substitution thereof.

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**5.0 Title**

This By-law may be referred to as the Small Scale Sewage System By-law.

**6.0 Effective Date**

This by-law shall come into force and take effect upon the final passing thereof.

By-law read a first, second and third time this 7th day of December, 2015.

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Daryl Bennett, Mayor

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John Kennedy, City Clerk