

The Corporation of the Municipality of West Perth

By-law Number 021-2011

BEING a by-law to regulate the supply of water and to prohibit the impairment of public health by ensuring that the public water supply is not compromised due to backflow resulting from cross connections

WHEREAS Section 8 of the *Municipal Act*, R.S.O. 2001, S.O. 2001, as amended (“the *Municipal Act*, 2001”), provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under the Act;

AND WHEREAS Section 9 of the *Municipal Act*, 2001, provides that Sections 8 and 11 shall be interpreted broadly so as to confer broad authority on municipalities to (a) enable municipalities to govern their affairs as they consider appropriate and, (b) enhance their ability to respond to municipal issues;

AND WHEREAS Section 11 (4) of the *Municipal Act*, 2001, S.O. 2001, provides that a single-tier municipality may pass By-laws respecting matters within the spheres of jurisdiction set out therein including, *inter alia*, public utilities;

AND WHEREAS Section 80(1) of the *Municipal Act*, 2001, S.O. 2001, authorizes a municipality, at reasonable times, to enter on land to which it supplies a public utility to inspect, repair, alter or disconnect the service pipe or wire, machinery, equipment and other works used to supply the public utility or to inspect, repair, replace or alter a public utility meter;

AND WHEREAS Section 130 of the *Municipal Act*, 2001, S.O. 2001, provides that a municipality may regulate matters for purposes related to health, safety and well-being of the inhabitants of the municipality;

AND WHEREAS Section 11 of the *Safe Drinking Water Act*, requires every owner and operator of a municipal drinking water system to ensure that all water provided by the system meets the requirements of drinking water quality standards and that the drinking water system is operated in accordance with the *Safe Drinking Water Act*;

NOW THEREFORE the Council of The Corporation of the Municipality of West Perth enacts as follows:

1.0 CITATION

1.1 This By-law shall be known as the “**Backflow Prevention By-Law**” of the Municipality of West Perth

2.0 DEFINITIONS

In this By-law:

“AWWA” means the American Water Works Association;

“Authorized Functions List” means the list of functions and the persons authorized to carry out functions set out in Schedule A;

“authorized person” means a person who is authorized to carry out a function as set out in the Authorized Functions List;

“auxiliary water supply” means any water source or system other than the Municipality’s direct water supply that may be available in a building or on any property, including any recycled water or cistern;

“backflow” means the flowing back of or reversal of the normal direction of flow of water;

“backflow prevention device” means a device that prevents backflow and includes the reduced pressure principle assembly, double check valve and the like;

“building” shall have the same meaning as in the Building Code Act, and shall include a sprinkler system;

“*Building Code Act*” means *Building Code Act*, 1992, S.O. 1992, c. 23, as amended;

“*Building Code*” means Ontario Regulation 350/06, as amended;

"cross connection" any actual or potential connection between a potable water system and any source of pollution or contamination and includes any bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or any other temporary or permanent connecting arrangements through which backflow can occur are considered cross-connections

“cross connection survey form” means a report, in the form prescribed by the Municipality from time to time; that includes existing backflow prevention devices, cross connections discovered, corrective measures, recommendations and a date for which each device will be installed;

“CSA standard” means the document entitled *National Standard of Canada-CAN/CSA-B64.10-94 and Amendments-Manual for the Selection, Installation, Maintenance and Field Testing of Backflow Prevention Devices-Plumbing Products or Materials-A* National Standard of Canada published in 1994 by the Canadian Standards Association or any successor thereof;

“drinking water system” has the same meaning as in subsection 2(1) of the Safe Drinking Water Act, 2002;

“good repair” means:

- free from health hazard,
- in good working order,
- not in poor condition by reason of deterioration, neglect, damage or defacement,
- able to perform its intended function, and;
protected from freezing

“inspection” shall mean:

- (a) an audit,
- (b) physical, visual or other examination,
- (c) survey,
- (d) test, or
- (e) inquiry;

“land” shall mean all real property, including buildings or any part of any building and all structures, machinery and fixtures erected or placed upon, in, over, under or affixed to land and in the case of utility service providers and the Municipality of West Perth, all buildings or any part of any building erected or placed upon, in, over, under or affixed to land but shall not include machinery whether fixed or not, nor the foundation on which it rests, works structures other than buildings, substructures, poles, towers, lines, nor any of the things exempted from taxation, nor to any easement or the right, use or occupation or other interest in land not owned by utility service providers or the Municipality of West Perth;

“Municipality” shall mean the Corporation of the Municipality of West Perth;

“officer” shall mean an individual authorized by the Municipality to administer and enforce this By-law;

"Owner" shall mean any person, including a corporation, who is the registered Owner of the property under consideration including a trustee in whom land is vested, a committee of the estate of a mentally incompetent person, an executor, an administrator or a guardian. The obligations of the Owner under this By-law may not be transferred to a party which is not an Owner;

"potable water" shall mean water that is fit for human consumption;

“premise isolation” means isolation of the water supply that is provided at the entrance to a building or facility from the Municipalities water supply;

“survey” means a complete review of the potable water system or systems located within a building or structure to determine the presence of any existing backflow prevention systems and/or any cross connections, corrective measures, recommendations and a date for which each device will be installed;

“testable” means the ability to conduct tests to determine if a device is functioning properly;

“tester” means a person who is a certified backflow prevention device tester who has successfully completed a cross connection course in backflow prevention device testing at an accredited school or college as defined in the CAN/CSA B64.10-94;

“test report” means a report in the form as prescribed by the Municipality from time to time used to record the performance of backflow prevention devices;

“water meter” shall mean a device supplied by the Municipality to measure the quantity or rate of water flowing through a pipe that is used to supply a building;

“water purveyor” means any Municipally owned and operated water supply and distribution system;

3.0 APPLICATION

3.1 This By-law applies to existing and new industrial, commercial, institutional and multi-residential buildings and structures, except buildings of residential occupancies within the scope of Part 9 of the Building Code or any individual residential dwelling unit.

3.2 Notwithstanding section 3.1 this By-law applies where a condition exists in any new or existing building that may be hazardous or detrimental to the potable water supply.

3.2 Notwithstanding section 3.1 or 3.2 this By-law applies to lawn sprinkler systems and also applies where a condition exists in any building or structure that may be hazardous or detrimental to the potable water supply as determined by the Chief Building Official or Operations Manager.

4.0 GENERAL PROVISIONS

4.1 All owners of buildings set out in section 3.1 shall have a survey of their building(s) completed by an authorized person from the Authorized Function List within 180 days of the passing of this By-law. The cross connection survey form will be submitted to the officer within fourteen (14) days of completion of the survey.

4.2 A plumbing permit is required prior to installation of a backflow prevention device pursuant to this By-law and any other relevant Municipal By-law, as well as the *Building Code Act*.

4.3 Every owner of property upon which a backflow prevention device is installed shall ensure that such device is in good repair at all times.

4.4 In addition to any other provision of the By-law, an officer may at any time order an owner, at the owner’s expense, to conduct tests, provide reports and undertake any other measures required for the prevention of backflow or cross connection.

5.0 CROSS CONNECTION PROHIBITED

5.1 No person or owner shall connect, cause to be connected, or allow to remain connected to the water purveyor any piping, fixture, fitting, container, appliance,

vehicle, machine or the like in a manner which may under any circumstances allow water, waste water, any source of pollution or any other liquid, chemical or substance to enter such supply or system except in compliance with this By-law and the CSA standard.

5.2 No person or owner shall make any connection to the water purveyor or any other potable water system in a building type set out in section 3.1 without first installing a proper backflow prevention device in accordance with this By-law.

5.3 In all cases, premise isolation shall be required where an auxiliary water supply exists.

6.0 PERSONS PERMITTED TO CARRY OUT WORK

6.1 No person shall carry out any backflow prevention functions except in accordance with the functions listed in the Authorized Functions List.

6.2 Any person permitted to carry out work, as outlined in the Authorized Functions List, shall produce, upon request of the officer, a current tester's certificate, and a copy of the backflow prevention assembly test equipment certification of calibration.

7.0 APPLICATION OF CSA STANDARD

7.1 Except as otherwise set out in this By-law, the selection, maintenance and field testing of backflow prevention devices shall be in accordance with the CSA Standard and the *Building Code*.

7.2 Wherever the CSA Standard and this By-law are in conflict, the provisions of this By-law shall prevail.

8.0 SELECTION OF BACKFLOW PREVENTION DEVICES

8.1 Every owner of a building type set out in section 3.1 of this By-law shall ensure that backflow prevention device(s) are installed for premise isolation in every building where Municipal water supply exists pursuant to the provisions of this By-law.

8.2 Backflow prevention devices for premise isolation shall be determined:

8.2.1 by using the Selection Guide in the CSA Standard and/or the *Building Code*; or,

8.2.2 when the survey of a building considered a moderate or minor hazard in the Selection Guide in the CSA Standard determines that the building contains a severe hazard type of cross connection, a reduced pressure principle type backflow preventer will be required,

8.2.3 by a professional engineer using the CSA Standard when a type of cross connection is not identified in the CSA Standard,

8.3 Notwithstanding section 8.2, an officer may require or permit particular backflow prevention device or form of protection be used in respect of any cross connection.

8.4 Every owner shall ensure that every backflow prevention device required for premise isolation on their property is a testable device.

9.0 INSTALLATION OF BACKFLOW PREVENTION DEVICES

9.1 Every person installing a backflow prevention device shall ensure that:

- 9.1.1 such device is installed in accordance with acceptable engineering practices, the requirements of the Building Code, this By-law and the CSA Standard, as amended;
 - 9.1.2 such device is installed in a building;
 - 9.1.3 such device is located in such a manner so that in the event of backflow the device prevents contamination of the water purveyor;
 - 9.1.4 where such device is installed in respect of premise isolation, such device is located within a maximum of 3.0 meters downstream of the water meter, except where circumstances require the device to be installed upstream of the water meter and such location is to the satisfaction of the officer.
 - 9.1.5 where such device is installed in respect of premise isolation, all piping between the water meter and such device is clearly labeled “no connection permitted”;
- 9.2 Installation of backflow prevention devices shall occur within the timeframes below, for the degree of hazard;

<u>Degree of Hazard</u>	<u>Compliance Date</u>
Severe	No later than 60 calendar days from the date of completion of the survey
Moderate to Minor	No later than 120 calendar days from the date of completion of the survey

10.0 TESTING DEVICES

- 10.1 Every owner who has a testable backflow prevention device located on his or her property used for premise isolation shall ensure that:
 - 10.1.1 a tester tests the device when it is first installed and annually thereafter or as required by the CSA standard or earlier if requested by the officer and also when it is cleaned, repaired, overhauled and relocated;
 - 10.1.2 when the device is first installed and tested, that a Test Report, of such test be submitted to the officer within fourteen (14) days of the test being conducted;
 - 10.1.3 when the device is tested annually thereafter, that a Test Report, of such test be submitted to the officer within fourteen (14) days of the test being conducted and the test report be kept available on site for review as required by the officer;
 - 10.1.4 when the device is tested as a requirement for maintenance or as required by the CSA Standard, that a Test Report, of such test be available on site for review as required by the officer;
 - 10.1.5 when the device is tested as requested by the officer, that a Test Report, of such test be submitted to the officer within fourteen (14) days of the test being conducted;
 - 10.1.6 when a device is tested and a Test Report of such test has been completed, said report is retained on site for a period of not less than seven (7) years; and,
 - 10.1.7 whenever a device is tested, the tester shall ensure that a test tag is affixed to the device;

- 10.2 Every person who tests a backflow prevention device shall carry out such testing in accordance with this By-law and the CSA Standard.
- 10.3 In addition to the testing methods set out in Section 6 of the CSA Standard, test procedures established by the ASSE or AWWA for testing backflow prevention devices may be employed.
- 10.4 Every person who tests a backflow prevention device shall upon finding that such device is malfunctioning or otherwise not in good repair, shall immediately make repairs or replace the device and notify the officer.
- 10.5 Where required by the Building Code and CSA Standard, all equipment used to test backflow preventer shall be verified or calibrated for accuracy.

11.0 FIRE PROTECTION SYSTEMS

- 11.1 Potable water connections to fire protection systems (standpipe and sprinkler systems) shall be protected against backflow in accordance with the CSA Standard and Regulation 350/06 (Ontario Building Code) or any successor thereof.

12.0 INSPECTIONS

- 12.1 An officer may at any reasonable time enter onto the property of any owner to inspect for compliance with this By-law or an order made pursuant to section 16 of this By-law.
- 12.2 No person shall hinder or obstruct, or attempt to hinder or obstruct, an officer in the exercise of a power of performance of a duty under this By-law.
- 12.3 For the purposes of conducting an inspection an officer may;
- 12.3.1 require the production for inspection of documents or things relevant to the inspection;
 - 12.3.2 inspect and remove documents or things relevant to the inspection for the purpose of making copies or extracts;
 - 12.3.3 require information from any person concerning a matter related to the inspection;
 - 12.3.4 alone, or in conjunction with a person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection; and,
 - 12.3.5 every person shall assist any entry, inspection, examination, testing or inquiry by the officer in the exercise of a power or performance of a duty under this By-law.

13.0 CONTRAVENTIONS AND ORDERS TO CORRECT

- 13.1 Where the Municipality finds that a violation of this By-law or condition exists on any property that may allow contamination of the Municipalities water supply, an officer may make a work order, requiring that the person who contravened this By-law, or who caused or permitted the contravention to do work to correct the contravention
- 13.2 The work order shall set out the reasonable particulars of the contravention adequate to identify the contravention and the location of the land on which the contravention occurred and the work to be done and the date by which the work must be done.

- 13.3 A work order issued under section 14.1 may require work to be done even though the facts which constitute the contravention of the By-law were present before the By-law making them a contravention came into force.
- 13.4 Where an owner fails to comply with a work order of an officer within the prescribed period of time, the officer may cause the required work to be done at the person's expense.
- 13.5 The order shall be served on such persons affected thereby as the officer determines and shall be sent by the registered or regular mail to the last known address or may be posted on the site or be personally delivered.
- 13.6 Where an owner of a building or structure fails to comply with any provisions of this By-law or if the condition is, or potentially is, hazardous to the health or safety of users of the water purveyor, the Municipality may shut off the water supply to the property or any portion thereof until the condition is eliminated, in accordance with the Municipality's Water Use By-law, as amended

14.0 REMOVAL OF BACKFLOW PREVENTION DEVICES PROHIBITED

- 14.1 No person shall remove a backflow prevention device or part thereof used for premise isolation after it has been installed and no owner of a building in which a backflow prevention device used for premise isolation is installed shall cause or permit the removal of such device, unless such removal is:

15.1.1 to facilitate the repair of the device and such device is replaced immediately after such repair is carried out; and,

15.1.2 to replace the device with another device that meets or exceeds the provisions of the By-law

15.0 OFFENCES

- 15.1 Every person who contravenes any of the provisions of this By-law or fails to comply with an order, direction or other requirement of this By-law is guilty of an offence and, upon conviction, is liable to a fine pursuant to the Provincial Offences Act, R.S.O. 1990, c. P.33, as amended.
- 15.2 If this By-law is contravened and a conviction entered, in addition to any other remedy and to any penalty imposed by the By-law, the Court in which the conviction has been entered and any court of competent jurisdiction thereafter may make an order prohibiting the continuation or repetition of the offence by the person convicted.

16.0 SEVERABILITY

- 16.1 If a court of competent jurisdiction should declare any section or part of a section of this By-law to be invalid, such section or part of a section shall not be construed as having persuaded or influenced Council to pass the remainder of this By-law and it is hereby declared that the remainder of the By-law shall be valid and shall remain in full force and effect.

17.0 Fees

- 17.1 All fees related to backflow prevention functions pursuant to this By-law may be set by Council from time to time, are non-refundable and shall be in conformance with "Schedule B" of this By-law, as amended by the "Tariff and Fees By-law" from time to time.

18.0 ENACTMENT

- 18.1 THAT this By-law shall come into force and have effect June 30th, 2011.

Read a first and second time this 14th, day of March 2011.

Seal

Mayor Walter McKenzie

Deputy Clerk Will Jaques

Read a third and final time and finally passed this 14th day of March 2011.

Seal

Mayor Walter McKenzie

Deputy Clerk Will Jaques

APPENDIX "A"
By-law No. 021-2011
Corporation of the Municipality of West Perth
Backflow Prevention By-law

AUTHORIZED FUNCTIONS LIST

FUNCTION	PROF. ENG. WITH TESTER CERTIFICATE	LICENCED MASTER PLUMBER WITH TESTER CERTIFICATE	JOURNEY-MAN PLUMBER WITH TESTER CERTIFICATE (1)	WATER DISTRIBUTION SYSTEM OPERATOR WITH TESTER CERTIFICATE	APPRENTICE PLUMBER WITH TESTER CERTIFICATE (2)	FIRE SYSTEM SPRINKLER FITTER WITH TESTER CERTIFICATE	LAWN IRRIGATION SYSTEM INSTALLER WITH TESTER CERTIFICATE
"A"	YES	YES	YES	YES	NO	NO	NO
"B"	NO	YES	YES	NO	YES	NO	NO
"C"	YES	YES	YES	YES	YES	NO	NO
"D"	YES	YES	YES	YES	YES	YES	YES
"E"	NO	NO	NO	NO	NO	YES	NO

NOTES TO APPENDIX "A"

FUNCTIONS:

"A" Carry out Cross Connection Survey

"B" Install, Relocate or Replace Backflow Prevention Device

"C" Repair of Backflow Prevention Device

"D" Test Backflow Prevention Device

"E" Items B, C & D above in relation of Fire Protection System

- (1) A Licenced Journeyman Plumber shall be employed by a Licenced Plumbing Contractor
- (2) An Apprentice Plumber shall be employed by a Licenced Plumbing Contractor and under the direct supervision of a Journeyman Plumber or Master Plumber
- (3) Property owned, leased, used and operated by municipality only
- (4) For buildings with fire sprinkler systems and no other device
- (5) For buildings with irrigation systems and no other device

APPENDIX "B"
By-law No. 021-2011
Corporation of the Municipality of West Perth
Backflow Prevention By-law

FEES

Premise Isolation Backflow Prevention Device Permit Fee	\$115.00
Test Tags	\$5.00 each