

THE CORPORATION OF THE TOWNSHIP OF WILMOT  
BY-LAW NO. 2012 - 33

BY-LAW TO REGULATE THE BACKFLOW OF WATER INTO A WATER  
DISTRIBUTION SYSTEM THAT IS UNDER THE JURISDICTION OF  
THE CORPORATION OF THE TOWNSHIP OF WILMOT

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WHEREAS section 11(2) and (6) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, authorizes a municipality to pass by-laws respecting the health, safety and well-being of persons;

AND WHEREAS section 11(3) and (4) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, authorizes a municipality to pass by-laws respecting public utilities;

AND WHEREAS the term “public utility” includes systems that are used to provide water and sewage services for the public;

AND WHEREAS section 80(1) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, authorizes a municipality, at reasonable times to, 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 80(2) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, authorizes a municipality to, for the purposes of s. 80(1), shut off or reduce the supply of the public utility to the land;

AND WHEREAS section 80(3) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, authorizes a municipality to enter on land to shut off the supply of the public utility, to remove any property of the municipality or to determine whether the public utility has been or is being unlawfully used, if a customer discontinues the use of a public utility on land or a municipality lawfully decides to cease supplying the public utility to land;

AND WHEREAS section 82(1) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, states that a municipality is not liable for damages caused by the interruption or reduction of the amount of a public utility supplied to a municipality or to the land of any person as a result of an emergency or a breakdown, repair or extension of its public utility if, in the circumstances, reasonable notice of its intention to interrupt or reduce the supply is given;

AND WHEREAS section 391(1)(a) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, authorizes a municipality to impose fees or charges on persons for services or activities provided or done by or on behalf of it;

AND WHEREAS section 445 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, states that if a municipality is satisfied that a contravention of a by-law of the municipality passed under this or any other Act has occurred, the municipality may make an order requiring the person who contravened the by-law or who caused or permitted the contravention or the owner or occupier of the land on which the contravention occurred to do work to correct the contravention.

AND WHEREAS section 446 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, states that if a municipality has the authority under this Act or under a by-law under this or any other Act to direct or require a person to do a matter or thing, the municipality may also provide that, in default of it being done by the person directed or required to do it, the matter or thing shall be done at the person’s expense.

NOW THEREFORE the Council of the Corporation of the Township of Wilmot hereby enacts as follows:

## **Short Title**

1. This by-law shall be known as the “*Backflow Prevention By-Law*”.

## **Definitions**

2. For the purposes of this By-law, the following terms shall have the corresponding meanings:

“*applicant*” means the owner of lands or his authorized agent requiring services.

“*ASSE*” means the American Society of Sanitary Engineering.

“*area isolation*” means protection provided for a section of a piping system with potable and non-potable connections (that may or may not be considered cross-connections) downstream of a backflow preventer.

“*AWWA*” means the American Water Works Association.

“*Authorized Functions List*” means the list of functions and the persons authorized to carry out such functions as set out in the CSA Standard and Appendix A of this by-law..

“*authorized person*” means a person who is authorized to carry out such functions as set out in the Authorized Functions List of the CSA Standard.

“*auxiliary water supply*” means any water source or system other than the Township’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.

“*back pressure*” a pressure that is greater than the water system supply pressure.

“*backflow prevention device*” means a device that prevents backflow and includes, but is not limited to, a reduced pressure principle assembly, a dual check valve, a double check valve.

“*back siphonage*” a form of backflow caused by a negative or sub-atmospheric pressure within a water system.

“*building*” shall have the same meaning as set out in the *Building Code Act*.

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

“*Chief Building Official*” means a chief building official of the Township, or designate, appointed or constituted under sections 3 or 4 of the *Building Code Act*.

“*Council*” means the Council of the Corporation of the Township of Wilmot.

“*Cross Connection*” means any actual or potential connection between a potable water supply or system and any source of pollution or contamination and includes any by-pass, jumper connection, removable section of pipe, swivel or changeover device and any other temporary or permanent connecting arrangement through which backflow can occur.

“*Cross Connection Survey Form*” means the form set out in Appendix B of this by-law.

“*CSA Standard*” means the document entitled *National Standard of Canada – CAN/CSA-B64.10 and Amendments – Manual for the Selection, Installation, Maintenance and Field Testing of Backflow Prevention Devices – Plumbing Products and Materials – A National Standard of Canada* published in 1997 by the Canadian Standards Association or any successor thereof.

“*Director*” means the Director of Public Works for the Township of Wilmot or designate.

“*good repair*” means free from health hazard; free from fire hazard; in good working order; not in poor condition by way of deterioration, neglect, damage or defacement; able to perform its intended function; and protected from freezing.

“OWWA” means the Ontario Water Works Association.

“*individual protection*” means protection at the connection to a fixture or appliance.

“*Owner*” means any person, firm or corporation having control over property to which this Chapter applies and includes the owner registered on the title of the property and any occupant of any building or structure located on such property.

“*potable Water*” means water that is safe for human consumption.

“*premise isolation*” means isolation of the water supply that is provided at the entrance to a building or facility from the Township’s water supply.

“*survey*” means a complete review of the potable water system or systems located within a building 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 and has a current tester’s certificate.

“*Test Report*” means a report in the form as prescribed by the Township from time to time as prescribed from time to time.

“*test tag*” means a tag indicating that the backflow prevention device is in working order as indicated through the Test Report in the form as prescribed by the Township from time to time.

“*Township*” means the Corporation of the Township of Wilmot and includes its employees, servants and agents.

“*water meter*” means the water meter installed within a premises to record the amount of water supplied to such premises by the Township.

“*water purveyor*” means the owner and operator of a water system.

“*water system*” means any Township owned and operated water supply and distribution system.

“*zone isolation*” means the protection provided for sections of a piping system within a building or facility with no potable connections downstream of a backflow preventer.

### **Application**

3. This by-law applies to existing 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.
4. Notwithstanding Section 3 this by-law applies where a condition exists in any building or structure that may be hazardous or detrimental to potable water supply services as determined by the Chief Building Official or the Director of Public Works or designate.

### **General Provisions**

5. A permit is required prior to installation of a backflow prevention device(s) pursuant to this by-law and any other relevant Township by-law as well as the *Building Code Act*.
6. Every owner of a property upon which a backflow prevention device is installed shall ensure that such device is in proper working order and good repair at all times.

### **Cross Connection Prohibited**

7. No person or owner shall connect, cause to be connected or allow to remain connected to the water system or any other potable water system any piping, fixture, fitting, container, appliance, vehicle, machine or the like in a manner which may under any circumstance 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.
8. 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 without first installing a proper backflow prevention device in accordance with this by-law.
9. In all cases, premise isolation shall be required where an auxiliary water supply system exists.
10. No connection shall be made between a potable water system supplied with water from a drinking water system and any other water system without the consent of the Director or water purveyor.

### **Persons Permitted to Carry Out Work**

11. No person shall carry out any backflow prevention functions except in accordance with the functions listed in the Authorized Functions List of the CSA Standard.
12. Any person permitted to carry out work, as outlined in Authorized Functions List, shall produce, upon request by the Township, a current tester's certificate, and a copy of the backflow prevention assembly test certification of calibration.

### **Application of CSA Standard**

13. 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*.
14. Wherever the CSA Standard and this by-law are in conflict, the provisions of this by-law shall prevail where the CSA Standard is not incorporated as a part of the *Building Code*.

### **Selection of Backflow Prevention Devices**

15. Every owner of a building type set out in Section 3 and 4 of this by-law shall ensure that backflow prevention device(s) are installed for premise isolation, individual isolation, zone and area isolation in every building where a Township water supply or other potable water exists pursuant to the provisions of this by-law.
16. Backflow prevention devices for premise, individual, zone or area isolation shall be determined:
  - a. By using the CSA Standard and/or the *Building Code*; or,
  - b. When the type of cross connection is not identified in the CSA Standard or in the *Building Code*, by a professional engineer using the CSA Standard.
17. Notwithstanding Section 16 of this by-law, the Township may require or permit particular backflow prevention device(s) or form of protection be used in respect of any cross connection, including premise, zone, area and individual protection.
18. Notwithstanding Section 16 of this by-law, where the manufacturer of equipment has installed a backflow prevention device, the cross connection is required to be reviewed to determine if the backflow prevention device meets the requirements of the CSA Standard. These cross connections are to be indicated on the cross Connection Survey Form when a Survey is required.
19. Every owner shall ensure that every backflow prevention device required for premise isolation on their property is a testable device and is the proper device to be used pursuant to Section 16 of this by-law.

### **Required Surveys**

20. Upon inspection and/or notification of the Chief Building Official, or when otherwise ordered, every owner of a building of a type set out in Section 3 and 4 shall cause to be carried out a survey, at the owner's expense, of each of his or her buildings and structures to determine the presence of any existing backflow prevention systems and/or cross connections, corrective measures, recommendations and a date for which each device will be installed and:
- a. Shall ensure such survey is carried out by a person permitted to do so pursuant to the Authorized Functions List;
  - b. Shall ensure that the completed Cross Connection Survey Form is complete and includes the current testers certificate number and;
  - c. Shall ensure that the completed Cross Connection Survey Form, is provided to the Chief Building Official within the specified time period.
21. A Cross Connection Survey Form shall be completed:
- a. Upon inspection and/or notification or when otherwise ordered;
  - b. Upon change of use, changing of machinery, fixtures or alteration of the piping and/or;
  - c. Construction of a new building type set out in Section 3.

### **Installation of Backflow Prevention Devices**

22. Every person installing a backflow prevention device shall ensure that:
- a. Such device is installed by a licensed plumber in accordance with acceptable engineering practices, the requirements of the *Building Code*, manufacturer's specifications, this by-law and the CSA Standard, as amended;
  - b. Such device is installed in a building;
  - c. Such device is located in such a manner so that, in the event of backflow, the device prevents contamination of the water system and any other potable water system;
  - d. Such device is installed in respect of premise isolation, such device is located within a maximum of 3.0 metres 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 Chief Building Official.
  - e. 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" and;
  - f. Where such device is installed in respect of individual, area, or zone isolation, all piping between the point of contamination or potential contamination and the point at which the device is located is labeled "non-potable water."
23. Connections to potable water systems shall be designed and installed so that non-potable water or substances that may render the water non-potable cannot enter the system.

### **Testing of Devices**

24. Every owner who has a testable backflow prevention device located on his or her property shall ensure that:
- a. 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 Chief Building Official and also when it is cleaned, repaired, overhauled or relocated;

- b. When the device is first installed and tested, that a Test Report, of such test be submitted to the Chief Building Official, within fourteen (14) days of the test being conducted;
  - c. When the device is tested annually thereafter, that a Test Report, of such test be available on site for review and submitted to the Chief Building Official;
  - d. 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 and submitted to the Chief Building Official;
  - e. When the device is tested as requested by the Chief Building Official, that a Test Report, of such test be submitted to the Chief Building Official within fourteen (14) days of the test being conducted;
  - f. When a device is tested and a Test Report has been completed, said report is retained on site for a period of not less than seven (7) years and;
  - g. Whenever a device is tested, the tester shall ensure that a current Wilmot Township test tag is affixed to the device.
  - h. All reports shall be submitted on the Wilmot Township test report form.
25. Every person who tests a backflow prevention device shall carry out such testing in accordance with this by-law and the CSA Standard and be licensed by OWWA or AWWA..
26. 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.
27. 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 Chief Building Official.
28. Authorized persons undertaking a survey shall ensure that they report to the Chief Building Official immediately any cross connections.
29. Where required by the *Building Code* and the CSA Standard, al equipment used to test backflow preventer shall be verified or calibrated for accuracy.

### **Fire Protection Systems**

30. Potable water connections to fire protection systems (standpipe and sprinkler systems) shall be protected against backflow in accordance with the CSA Standard and the *Building Code*.

### **Inspections**

31. The Chief Building Official may at any reasonable time enter onto the property of any owner to inspect for compliance with this by-law.
32. No person shall hinder or obstruct, or attempt to hinder or obstruct, the Chief Building Official in the exercise of a power or performance of a duty under this by-law.
33. For the purposes of conducting an inspection the Chief Building Official may:
- a. Require the production for inspection of documents or things relevant to the inspection;
  - b. Inspect and remove documents or things relevant to the inspection for the purposes of making copies or extracts;
  - c. Require information from any person concerning a matter related to the inspection and;

- d. 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.

**Contraventions and Orders**

- 34. Where the Township is satisfied that a contravention of this by-law has occurred, the Chief Building Official may make an order, requiring that the person who contravened this by-law, or who caused or permitted the contravention, or the owner or occupier of the land on which the contravention occurred to do work to correct the contravention.
- 35. An order shall set out:
  - a. Reasonable particulars of the contravention adequate to identify the contravention and the location of the land on which the contravention occurred and;
  - b. The work to be done and the date by which the work must be done.
- 36. An order 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 place.
- 37. Where an owner fails to comply with an order within the prescribed period of time, the Chief Building Official may cause the required work to be done at the person's expense.
- 38. For the purposes of Section 37 the municipality may enter upon land at any reasonable time.
- 39. The municipality may recover the costs of doing a matter or thing under Section 37 from the person directed or required to do it by action or by adding the costs to the tax roll and collecting them in the same manner as the property taxes.
- 40. Where an owner of a building contravenes, or allows the contravention of, a provision of this by-law which could or would endanger the health or safety of any person, as determined by the Chief Building Official or the Director of Public Works, the Township may shut off the water supply to the building or property of that owner, or any portion thereof, until the real or potential danger to health or safety ceases to exist.

**Removal of backflow Prevention Devices Prohibited**

- 41. No person shall remove a backflow prevention device or part thereof after it has been installed and no owner of a building in which a backflow prevention device is installed shall cause or permit the removal of such device, unless such removal is:
  - a. To facilitate the repair of the device and such device is replaced immediately after such repair is carried out and;
  - b. To replace the device with another device that meets or exceeds the provisions of the by-law.

By-law read a first, second and third time and finally passed in Open Council in The Township of Wilmot on this 25<sup>th</sup> day of June, 2012.

This By-law shall come into force and take effect on June 25, 2012.

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Director of Clerk's Services

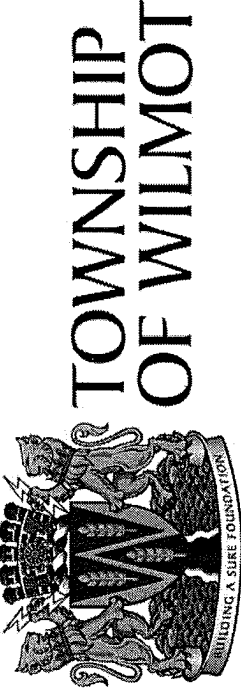
APPENDIX A – Authorized Functions List

APPENDIX B – Cross Connection Control Survey Form

# CROSS CONNECTION CONTROL SURVEY FORM GENERAL

Included with this form:  
Additional Cross Connections

DATE: / /  
(M/D/Y)



*Occupant:		*Address:		*Phone #: Fax #: Email:
*Owner:		*Address:		*Phone #: Fax #: Email:
*Qualified Person:		*Company:		*Phone #: Fax #: Email:
*Building Use				
*Degree of Hazard: Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>		*Size and Type of Premise Isolation: Bypass device Yes <input type="checkbox"/> No <input type="checkbox"/>		
Does building have a designated process line Yes <input type="checkbox"/> No <input type="checkbox"/>		Size and Type Bypass device Yes <input type="checkbox"/> No <input type="checkbox"/>		
Protection: Size		Is all non-potable pipe labeled Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>		
Does building have a Fire Sprinkler System Yes <input type="checkbox"/> No <input type="checkbox"/>		Chemical addition Yes <input type="checkbox"/> No <input type="checkbox"/>		
WASHROOMS - Total #		Protection:		
BASINS - Total #		TOILETS - Total #		
Protection: Air Gap <input type="checkbox"/> Other <input type="checkbox"/>		Chemical addition Yes <input type="checkbox"/> No <input type="checkbox"/>		
Protection: AVB <input type="checkbox"/> Other <input type="checkbox"/>		Protection: AVB <input type="checkbox"/> Air gap <input type="checkbox"/>		
Floor Drains - Total #		Are floor drains primed Yes <input type="checkbox"/> No <input type="checkbox"/>		
Location				



Facility Address:		SIZE/TYPE/SERIAL NUMBER/REQUIRED UPGRADE	
Lunch Rooms/cafeterias	Coffee machines Yes <input type="checkbox"/> No <input type="checkbox"/>	Direct water connection Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Vending Machines	Yes <input type="checkbox"/> No <input type="checkbox"/>	Direct water connection Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Mop Sinks Y/N	Total No: Total No:	Chemical dispenser Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Laundry Tubs Y/N	Yes <input type="checkbox"/> No <input type="checkbox"/>	Chemical addition Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Boiler make-up water	Yes <input type="checkbox"/> No <input type="checkbox"/>	Chemical addition Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Chiller make up water	Yes <input type="checkbox"/> No <input type="checkbox"/>	Chemical addition Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Irrigation	Yes <input type="checkbox"/> No <input type="checkbox"/>	Aspirator Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Pressure Washer	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>	Protection:
Chemical dispenser	Yes <input type="checkbox"/> No <input type="checkbox"/>	Degree of Hazard: Severe	Protection:
Garbage Wash down	Chemical addition Yes <input type="checkbox"/> No <input type="checkbox"/>	Degree of Hazard: Moderate/Severe	Protection:
Humidifier			
<b>FULL DISCLOSURE REQUIRED:</b> this form is intended to assist the Qualified Person in carrying out a survey and is not to be construed as addressing all potential cross connection situations. It is the responsibility of the owner or building occupier, to bring to the attention of the Qualified Person all water uses within the premises to permit inspection for potential cross connections and recommendation of corrective actions. Cross connections not identified in the survey may be deemed as works carried out subsequent to the survey in violation of the Building Code (2006) and Bylaw 2012-XXXX.			
Date all required upgrades will be completed:		No required upgrades or DATE COMPLETE:	
*OWNER/OCCUPANT Name (please print)	*QUALIFIED PERSON Name (please print)		
SIGNATURE		SIGNATURE	
All selections shall be made in accordance with the Backflow Prevention By-law and current edition of CSA B64-10 <b>Note: Surveyor required to submit copies of this report to Wilmot Township and owner of property.</b>		Laboratory Faucet Type Vacuum Breaker Pressure Type Vacuum Breaker Reduced Pressure Principle Type Single Check Valve Type Dual Check Valve Type with Atmospheric Port for Carbonation Systems	
† Building Permits required for installation of these devices * All fields marked with an * are mandatory fields Please list additional cross connections on Page 3 (ie: hose bibs, eye wash stations, laundry machines etc.)		AG Air Gap AVB Atmospheric Type Vacuum Breaker DCAP Dual Check Valve Type with Atmospheric Port †DCVA Double Check Valve Assemble Type DUC Dual Check Valve Type DUCV Dual Check Valve Type with Intermediate Vent HCVB Hose Connection Vacuum Breaker	
		LFBV Laboratory Faucet Type Vacuum Breaker †PVB Pressure Type Vacuum Breaker †RP Reduced Pressure Principle Type †SCVA Single Check Valve Type DCAPC Dual Check Valve Type with Atmospheric Port for Carbonation Systems	
		Development Services Building Department Phone: 519-634-8444 Fax: 519-634-0544	

# CROSS CONNECTION CONTROL SURVEY FORM

## Additional Cross Connections

Date: / /  
(M/D/Y)



TOWNSHIP  
OF WILMOT

\*FACILITY ADDRESS:

TYPE OF HAZARD AND LOCATION	DEGREE OF HAZARD Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	PROTECTION: SIZE / TYPE / SERIAL NUMBER / REQUIRED UPGRADE
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	
	Minor <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/>	

**NOTE: List additional cross connections on this form that were NOT mentioned on General Form**