

THE CORPORATION OF THE TOWN OF SHELBURNE

BY-LAW NO. 61-2020

A By-law to regulate Drinking Water Protection: Backflow Prevention and Cross Connection Control

WHEREAS Section 9 of the *Municipal Act, 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 10 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*, 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*, provides that a municipality may enter onto 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;

AND WHEREAS Section 11 and Section 19 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*;

Part 1 PURPOSE OF LICENSE

1.1. The Town hereby exercises its licensing powers including imposing conditions on Backflow Prevention Device Installers for the purposes of:

- a) Health and Safety and
- b) Consumer Protection

Part 2 DEFINITIONS

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

"auxiliary water supply" means any water source or system on or available to the property other than the Town of Shelburne public drinking water supply;

"backflow" unwanted flow of water in the reverse of the normal direction of the flow;

"backflow preventer" means a device or method that prevents backflow in a water distribution system;

"building" means any structure supplied with water by the Town of Shelburne;

“Building Code” means the regulations made under Section 34 of the Building Code Act being O.Reg 332/12 as amended, or any successor thereof;

“Building Code Act” means the *Building Code Act, 1992*, S.O. 1992, c.23, as amended, or any successor thereof;

“commercial” means lands, buildings or structures that is deemed by the Town to be used for the buying or selling of goods and services to the general public which does not include Industrial and not excluding additional residential usage;

"cross connection" means any actual or potential connection between a potable water system and any source of pollutant or contamination;

“cross connection control specialist” means an individual referred to as a tester who has completed and passed an Ontario Water Works Association endorsed Cross Connection Control Specialist Course or equivalent at an accredited school or college;

"cross connection survey" means a report which shall include existing backflow preventers, cross connections discovered, and evaluates the hazards in the building’s private plumbing system and provides corrective measures and recommendations on the prescribed Town of Shelburne Cross Connection Survey Form; as amended from time to time;

"CSA" means the Canadian Standards Association;

"CSA Standard" means the document(s) entitled CAN/CSA B64.10/B64.10.1 Manual Selection and installation of backflow preventers/Maintenance and field testing of backflow preventers; as amended from time to time;

"fire service" means any system within a Building or Structure for the suppression of a fire, including but not limited to any system consisting of a water sprinkler system or dry foam, or a system described in the CSA Standard as amended;

“hazards” means one of three levels of hazard: minor, moderate, and severe as defined by CAN/CSA B64.10;

"individual residential dwelling unit" one or more habitable rooms, occupied or capable of being occupied as an independent and separate housekeeping establishment, in which separate kitchen and sanitary facilities are provided for the exclusive use of the occupants;

“industrial” means lands, buildings or structures that is deemed by the Town to be used for warehousing of goods and materials, the assembly of manufactured goods, the manufacturing of goods, the repair and servicing of goods and similar uses;

“institutional” means a building or part of a building that caters to non-commercial, non-profit purposes by an organized body, religious group, or society such as a public hospital, library, convent, or similar use;

“multi-residential” means lands, buildings or structures that are used for residential purposes and have four or more self-contained units;

"municipal drinking water system" means the Town's system of works, excluding plumbing, that is established for the purpose of providing users of the system with drinking water;

“owner” shall include any person or any firm or corporation that is the registered owner

of the property under consideration or any agent thereof, a person entitled to a limited estate in land, a trustee in whom land is vested, a committee of the estate of a mentally incompetent person, an executor, an administrator or a guardian;

"plumbing system" means a system for water and wastewater not on the Town right of ways and easements, separate from the municipal drinking water system as defined in the Building Code; as amended;

"potable water" means water that is fit for human consumption;

"premise isolation" means isolation provided at the entrance to a building, structure, or property from the municipal drinking water system;

"private service" means the portion of the water service pipe located on private property;

"property" means any land within the Town of Shelburne and includes all buildings and structures;

"qualified person" means a person with approved qualifications set out in Appendix "A" of this by-law as amended from time to time;

"source isolation" means isolation of the water located within or having flowed through a source or potential source of contamination within a building or structure including a device, machine, water system or the like, from any potable water system;

"structure" means any constructed dwelling which is provided with a source of potable water;

"Test Report" means an inspection and testing report of a backflow preventer containing the make, model, serial number, size, type, installation date, location and installation address and the test results. The report must also contain information related to the qualified person. Form will be supplied by qualified person.

"Town" means The Corporation of the Town of Shelburne and includes its employees, servants, and agents;

"Test Tag" means a tag containing the make, model, serial number, size type, location, installation date and address as well as history of a backflow preventer. This tag shall be completed and updated annually by a qualified person;

"water service pipe" means a pipe on the property that conveys potable water from the municipal drinking water system to the inside of the building or structure; and

"zone isolation" means the isolation of the water located within an area of a building or structure from any potable water system located within such building or structure.

Part 3 APPLICATION OF BY-LAW

3.1. This By-law applies to all properties connected to the municipal drinking water system.

Part 4 GENERAL PROVISIONS

4.1. In addition to any other provisions of this By-law, the *Town* may at any time order an *owner* to conduct tests, provide reports and undertake any other measures required for the prevention of *backflow* or protection from a *cross connection*.

Where a time frame is prescribed in this By-law, the *Town* may extend the time for

compliance at its discretion.

All cross-connection surveys and test reports are to be submitted to the Town.

Part 5 BACKFLOW PREVENTION AND PROTECTION FROM CONTAMINATION

5.1. Requirements

No owner, shall connect, cause to be connected, or allow to remain connected to a plumbing system which is connected to the municipal drinking 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 circumstances, allow any liquid including but not limited to water, untreated or otherwise, waste water, or any source of pollution or any other liquid, chemical, gas or other substance to enter the municipal drinking water system or any other potable water system. The means for the protection against contamination shall be in accordance with the requirements of the *Building Code Act*, CSA Standard, and the *Safe Water Drinking Act*, as amended from time to time.

In accordance with the provisions of this By-law, every owner of property to which this By-law applies shall ensure that a Backflow Preventer is installed in respect of source isolation and/or zone isolation in every building or structure where a municipal drinking water system or other potable water exists.

5.2 Use of Property

In accordance with the provisions of this By-law, every owner of industrial, commercial, institutional, agricultural, multi-residential property shall ensure a testable Backflow Preventer is installed in respect of premise isolation as per the Premise Hazard Classification.

Part 6 CROSS CONNECTION INSPECTIONS

6.1. Access

Any person authorized by the Town for that purpose has free access, at all reasonable times and upon reasonable notice given, to all parts of every building or other premises to which any water service pipe is supplied for the inspecting repairing or of altering or disconnecting any water service pipe, wire, rod or cross connection within or without the building.

6.2. Notice

Where permission is not granted by the property owner, written notice by the Town will be issued requesting access within fourteen days (14) from the date of the notice. If access is still not provided, the Town may, at its discretion, shut off the supply of water to the premises until access is provided.

Part 7 CROSS CONNECTION SURVEYS

7.1. Site Survey

A site survey shall be conducted by Municipal Water Department Staff or Qualified Persons. (See Appendix "A")

7.2. Requirements

The survey shall include the entire premise where potable water is available. The survey is required to be performed and submitted to the Town every 5 years or if there is any internal change to the plumbing system or the building has a change of use.

Part 8 INSTALLATION OF BACKFLOW PREVENTERS

8.1. Installation to Required Standards

Backflow prevention assemblies for the purpose of Premise Isolation shall be installed

at the entry point where the water service enters the building, 3.0 meters downstream of the water meter. Backflow Prevention Devices shall be installed to the required heights and clearance as set forth in the CSA Standard. The device will require accessibility with adequate space to facilitate maintenance and testing as per CSA Standard.

8.2. Alternative Positioning

The Town may allow, at its discretion, an alternative location if the Backflow Prevention Device is not able to be installed downstream due to building restrictions. All backflow preventers shall be installed horizontal unless vertical installation is recommended by manufacturer.

8.3. Piping

All piping between the water meter and such device shall have no connections and is clearly and permanently labelled "no connections permitted" unless otherwise directed by the Town.

8.4. Permits

Building Permits are required for the installation and alterations to Backflow Prevention Devices but not required to test or make repairs to a Backflow Prevention Device.

Part 9 INSTALLATION OF ADDITIONAL DEVICE(S) ON SERVICE

9.1. Additional Device on Service

If there is a risk of possible contamination of the waterworks distribution system, in the opinion of the Officer or approved authority, an Owner shall, on notice from the Town, install a backflow prevention device in accordance with the Ontario Building Code, in addition to any backflow prevention devices already installed at the source of potential contamination.

Part 10 INSTALLATION/REPAIR – QUALIFIED PERSONS

10.1. Authorized Functions

Only those Qualified Persons with the required qualifications described on the Authorized Functions List (see Appendix "A") shall carry out the corresponding functions set out in such list.

10.2. Annual Requirements

Qualified persons shall complete and pass an approved Cross Connection Control Course and provide annually to the Town proof of certification in good standing.

10.3. Standards

Qualified person is required to follow the requirements of the CSA Standard, as well as the provisions of this By-law.

Part 11 ORDER TO INSTALL CONTROL DEVICE

11.1. Order to Install control device

The Town may require a routine cross connection inspection of the property to be

performed by a qualified person. If a condition is found to exist which is contrary to Section 4.0. of this By-law, the Building Code Act or the Safe Drinking Water Act, the Officer may issue such order(s) to the Owner as may be required to obtain compliance with Section 4.0. of this By-law. Should an unsafe and/or undocumented cross connection be found during said inspection, the cost of the inspection shall become the responsibility of the owner.

Part 12 FAILURE TO INSTALL CONTROL DEVICE-WATER SHUT-OFF

12.1. Notice and Shut off

If the Owner to whom the Town has issued an order fails to comply with that order, the Town at their discretion may:

- a. Give notice to the owner to correct the fault, as his/her expense, within a specified time period and, if the notice is not complied with, the director may then shut off the water service or services or;
- b. Without prior notice, shut off the water service or services.

Part 13 REMOVAL OF DEVICE

13.1. Removal of Device

No person shall, without the permission of the Town, remove any installed cross connection control or backflow prevention devices, unless to immediately replace with another device to meet or exceed the provisions of this By-law unless;

- a. result of the cross connection to which the Backflow Preventer was isolating has been permanently removed; or
- b. to facilitate the disconnection of the *private service* from the *municipal drinking water system* in accordance with the written approval from the *Town*, or any combination of the foregoing.

Part 14 OWNERS RESPONSIBILITY

14.1. Condition

Every owner of property upon which a Backflow Preventer is installed shall ensure that such device is always maintained in proper working order.

14.2. Inspection

Backflow prevention devices shall be installed, inspected, and tested at the expense of the Owner. Testing will be required on an annual basis by April 15th of each calendar year.

14.3. Inspection Tags

Upon completing such test, complete and affix a standard cross connection control Test Tag to the Backflow Preventer or immediately adjacent to the device on the piping connected thereto.

14.4. Notification to Town-Malfunctioned Device

If a device is malfunctioned or otherwise not maintained in proper working condition, written notification must be submitted to the owner of the property and the Town

advising of the condition.

Part 15 ORDER TO CORRECT CROSS CONNECTION

15.1. Notice to correct

Should a condition be found to exist which is contrary to the provisions of any section of

this By-law, or if the owner to whom the Town has issued a notice fails to comply, the Town, at its sole discretion may:

- a. Give notice to the owner to correct the fault at their expense within a specified time period and if the notice is not complied with, the Town may then discontinue the supply of municipal water to the plumbing system; and/or to facilitate the disconnection of the *private service* from the *municipal drinking water system* in accordance with the written approval from the *Town*, or any combination of the foregoing.
- b. Issue an unsafe order under 'unsafe requirements' in accordance with the Building Code Act if a condition exists that could be hazardous to the health or safety of persons in the normal use of the building, persons outside the building or persons whose access to the building has not been reasonably prevented; and/or
- c. Without notice to the owner, discontinue the supply of municipal water to the plumbing system, where the Town, at its discretion, has determined that an immediate severe hazard exists that could result in contamination of the municipal drinking water system that may endanger public health or safety.

15.2. Degree of Hazard

Degree of Hazard

Severe (HH)

Moderate or Minor (MH)

Compliance Date

No later than 30 calendar days from the date of notification of hazard

No later than 90 days from the date of notification

Part 16 MAINTENANCE OF FIRE SERVICE MAINS & TEMPORARY CONNECTIONS

16.1. Connections

No person shall connect, cause to be connected, or allow to remain connected, any piping, fixture, fitting, container or appliance to a Town owned, or private fire hydrant in a manner which, under any circumstances may allow water, wastewater or any liquid or substance of any kind to enter the municipal drinking water system. No connection for water supply, other than a fire protection system, shall be made to a fire protection piping system.

16.2. Private Hydrants

All private fire hydrants are the responsibility of the property owner and must be installed and maintained according to:

- a. The Ontario Fire Code as amended;
- b. The Building Code as amended; and
- c. NFPA 24 - Installation of Private Fire Service Mains and Their Appurtenances as amended.

Part 17 Enforcement

17.1. Authority

The By-law shall be enforced by the Town of Shelburne; any Water Operations staff or any person appointed by the Director of Development & Operations (or designate); or any Municipal By-Law Enforcement Officer for the Town of Shelburne.

17.2. Fines

Any person that contravenes any of the provisions of this By-law is guilty of an offence and upon conviction is liable to a fine as provided for in the *Municipal Act, 2001*, S.O. 2001 c 25, as amended and/or the *Provincial Offences Act*, R.S.O. 1990, c. P.33

17.3. Continuation - repetition - prohibited - by order

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, and such order shall be in addition to any other penalty imposed on the person convicted.

17.4. Offence - additional - damage to waterworks

Every person who, by act, default, neglect or omission occasions any loss, damage or injury to any water public utility works, or to any waterworks plant, machinery, fitting or appurtenance thereof is liable to the Town therefore.

17.5. Offence - additional - willful damage

Every person who willfully or maliciously damages or causes or knowingly suffers to be damaged backflow prevention device is guilty of an offence and on conviction is liable to a fine, to the use of the Town, and is also liable for all damages occasioned thereby, which are recoverable under the Provincial Offences Act.

Part 18 SHORT TITLE

18.1. Short Title

The short title of the by-law shall be the "Backflow and Cross Connection By-law".

Part 19 Severability

19.1 Severability

Should any section of this By-law be declared by a Court of competent jurisdiction to be ultra vires or illegal for any reason, the remaining parts shall nevertheless remain valid and binding, and shall be read as if the offending section or part had been struck out.

Part 20 Repeal

20.1. Repeal - previous By-laws

That any previous By-laws are hereby repealed upon this By-law coming into effect.

Part 21
EFFECTIVE DATE

21.1. Effective Date

This by-law comes into force and effect upon the date of passing of the by-law.

BY-LAW READ A FIRST, SECOND AND THIRD TIME AND ENACTED THIS 14th DAY OF DECEMBER 2020.

Mayor

Clerk

By-law No 61-2020 Appendix A Authorized Function List									
Item	Function	Professional Engineer with OWWA Tester's Certificate	*Certified Engineering Technologist with OWWA Tester's Certificate	Licensed Master Plumber with Contractor's license and OWWA Tester's Certificate	** Journeyman Plumber with OWWA Tester's Certificate	Apprentice Plumber with OWWA Tester's Certificate	*** Fire System Sprinkler Filter with OWWA Tester's Certificate	Lawn Irrigation Sprinkler Installer with OWWA Tester's Certificate	Municipal Water Department Staff with OWWA Tester's Certificate
1	Carry out Cross Connection Survey	X	X	X	X				X
2	Install, Relocate or Replace Backflow Prevention Device			X	X	X			
3	Repair of Backflow Prevention Device	X	X	X	X	X			
4	Test Backflow Prevention Device	X	X	X	X	X	X		
5	Items 1, 2, 3 & 4 above in respect to Fire Protection Systems	X	X	X	X	X			
6	Items 3 & 4 above in respect to Lawn Irrigation Systems	X	X	X	X	X		X	
7	Items 2, 3 & 4 above in respect to the Municipal Water System	X	X	X	X	X			X
<p>* Required to be under the direction of a professional Engineer **Required to be employed by a licensed plumbing contractor *** Required to be employed by a licensed plumbing contractor and under the direct supervision of a journeyman plumber or master plumber</p>									

Appendix B: Cross Connection Survey					
This survey must be conducted by a Qualified Person under Town of Shelburne By-law 60-2020. This form must be submitted by the Property Owner, or Agent, of an Industrial, Commercial, Institutional, or Multi-Residential building. Please complete this form for <u>each service connection</u> at a property.					
Section 1: Facility Name:					
Facility Address:		Number of water connections:	Property Type: <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Institutional <input type="checkbox"/> Multi-Residential	Water Account No:	
Water Meter Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No Water Meter Size:	Water Meter Serial No:		Incoming Water Service Size (mm):	Type of Use (e.g. laundry, dental etc.): Plaza with Multiple Uses: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Section 2: Owner/ Agent					
Property Owner Name:		Mailing Address:	Phone:	Email Address:	
Contact Person for Property: <input type="checkbox"/> Same as Owner		Mailing Address:	Phone:	Email Address:	
Section 3: Cross Connection Control Information					
Service Connection Purpose: <input type="checkbox"/> Municipal Water Use <input type="checkbox"/> Dedicated Fire Protection		Is there a Backflow Prevention (BFP) device installed? <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of BFP Is the BFP device installed after the water meter? <input type="checkbox"/> Yes <input type="checkbox"/> No	Is there an unprotected branch connection, hose connection or a split between the Water Meter and the BFP device? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Existing Device Type:	Size:	Make:	Model No:	Serial No.	
Last Certification Date:	Valid Test Tag: <input type="checkbox"/> Yes <input type="checkbox"/> No		Device Accessible: <input type="checkbox"/> Yes <input type="checkbox"/> No	Device Orientation: <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Angle	
By-Pass Device Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No			Device Orientation: <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Angle		
Type:	Size:	Make:	Model No:	Serial No.	
Last Certification Date:			Valid Test Tag: <input type="checkbox"/> Yes <input type="checkbox"/> No	Device Accessible: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Auxiliary Water Supply (AUX) On Premise: <input type="checkbox"/> Yes <input type="checkbox"/> No			Device Orientation: <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Angle		
AUX Connected to any part of the Plumbing System or the Municipal Water System: <input type="checkbox"/> Yes <input type="checkbox"/> No			Source of Auxiliary Water:	Is there a Backflow Prevention (BFP) device installed? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Type:	Size:	Make:	Model No:	Serial No.	

Last Certification Date:		Valid Test Tag: <input type="checkbox"/> Yes <input type="checkbox"/> No	Device Accessible: <input type="checkbox"/> Yes <input type="checkbox"/> No
Fire Protection System			
Flow Through System: <input type="checkbox"/> Yes <input type="checkbox"/> No	Dry System: <input type="checkbox"/> Yes <input type="checkbox"/> No	Chemical Addition: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Section 4: Premise Hazard Level (According to CSA B64.10) and Actions Required			
Premise Hazard Level: <input type="checkbox"/> Severe <input type="checkbox"/> Moderate/Minor	Premise Protection Required: <input type="checkbox"/> Yes <input type="checkbox"/> No Attach Test Certificate for Existing Premise Protection	Location	
Device Type Required:	Device Size:	Device Make:	Device Model:
Comments:			
UPON IDENTIFICATION OF SEVERE HAZARD, THE QUALIFIED PERSON SHALL NOTIFY THE WATER OPERATIONS WITHIN 24 HOURS BY EMAIL OR PHONE			
Section 5: Qualified Person Information			
Qualified Person/Firm Performing Survey:	Address:	Contact Name:	Phone: Email:
Professional Engineer: <input type="checkbox"/> Yes <input type="checkbox"/> No	Certified Engineering Technologist: <input type="checkbox"/> Yes <input type="checkbox"/> No	Licensed Master Plumber: <input type="checkbox"/> Yes <input type="checkbox"/> No	Journeyman Plumber: <input type="checkbox"/> Yes <input type="checkbox"/> No
Valid OWWA Certificate #:	OWWA Certification Date:	Certificate Attached: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Section 6: Signatures			
This Survey must be signed by the owner and the qualified person in accordance with the Town of Shelburne By-law _____			
Name of Owner:	Signature:	Date:	
Owners Authorized Contact:	Signature:	Date:	
Qualified Person:	Signature:	Date of Survey:	
FULL DISCLOSURE REQUIRED: This form is intended to assist the Qualified Person in carrying out the Cross-Connection Control Survey and is not to be construed as addressing all potential cross connection situations. It is the responsibility of the owner or agent, to inform the Qualified Person of all water uses within the premises to permit inspection for potential cross connections and recommendations for corrective actions. "Owner" shall include any person or any firm or corporation that is the registered owner of the property under consideration or any agent thereof, a person entitled to a limited estate in land, a trustee in whom the land is vested, a committee of the estate of a mentally incompetent person, an executor, an administrator or a guardian.			
Device Types			
Air Gap (AG), Atmospheric Vacuum Breaker (AVB), Double Check Valve (DCVA), Dual Check with Atmospheric Port (DCAP), Dual Check with Atmospheric Port for Carbonators (DCAPC), Dual Check Valve (DuC), Hose Connection Vacuum Breaker (HCVB), Laboratory Faucet Vacuum Breaker (LFVB), Pressure Vacuum Breaker (PVB), Reduced Pressure (RP), Single Check Valve Assembly for Fire Systems (SCVAF)			

Town's Office Use Only

Date Requested:

Date Received:

Reviewed By:

Date Reviewed:

The personal information collected herein is subject to the Municipal Freedom of Information and Protection of Privacy Act. The information is collected under the authority of the Town of Shelburne Backflow Prevention and Cross Connection By-law, as amended and may be used for enforcement and administration of the By-law, and will be stored by the Town for such period of time which facilitates the enforcement and administration of the By-law. Completion of this form constitutes consent by the owner and qualified person to these terms and uses.