

# ***THE CITY OF VAUGHAN***

# ***BY-LAW***

## **BY-LAW NUMBER 004-2018**

**A By-law to protect the City of Vaughan's drinking water system by preventing cross connections and backflow.**

**WHEREAS** Section 8 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, ("*Municipal Act, 2001*") provides that the powers of the municipalities 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 9 of 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 *Municipal Act*;

**AND WHEREAS** Section 23.1 of the *Municipal Act, 2001*, authorizes a municipality, to delegate its powers and duties under the *Municipal Act* or any other Act to a *Person* or body subject to the restrictions set out in the Act;

**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, or to inspect, install, repair, replace or alter a utility meter;

**AND WHEREAS** Section 80(3) of the *Municipal Act, 2001*, provides that 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,

the municipality may enter on the 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;

**AND WHEREAS** Section 81 of the *Municipal Act, 2001*, provides that a municipality may shut off the supply of a public utility by the municipality to land if fees or charges payable by the *Owners* or occupants of the land for the supply of the public utility to the land are overdue;

**AND WHEREAS** Section 391 of the *Municipal Act, 2001*, 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 425 of the *Municipal Act, 2001*, authorizes the *City* to pass By-laws providing that a *Person* who contravenes a By-law of the *City* is guilty of an offence;

**AND WHEREAS** Section 429 of the *Municipal Act, 2001*, authorizes a municipality to establish a system of fines for offences under a by-law of the municipality passed under the *Municipal Act*;

**AND WHEREAS** Section 444 of the *Municipal Act, 2001*, authorizes a municipality to make orders if a municipality is satisfied that a contravention of a by-law of the municipality passed under the *Municipal Act* has occurred, 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 discontinue the contravening activity;

**AND WHEREAS** Section 445 of the *Municipal Act, 2001*, provides that if a municipality is satisfied that a contravention of a by-law of the municipality passed under the *Municipal 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* authorizes a municipality through By-law to require, in default of a required matter or thing being done, that the work may be done by the municipality at the expense of the *Person* required to do it and costs may be added to the tax rolls and collected in the same manner as taxes;

**AND WHEREAS** Part 7 of the *Ontario Building Code*, O. Reg. 332/12 requires *Potable Water Systems* to be protected from contamination;

**AND WHEREAS** pursuant to subsection 20(1) of the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 (*"Safe Drinking Water Act, 2002"*), it is an offence to cause or permit anything to enter a drinking-water system if it could result in a *Drinking Water* health hazard, a contravention of a prescribed standard or the interference with the normal operation of the system;

**AND WHEREAS** Subsection 11(1) of the *Safe Drinking Water Act, 2002*, requires every *Owner* of a *Municipal Drinking Water System*, amongst other things, to ensure that all water provided by the system to the point where the system is connected to a user's *Plumbing* system meets the requirements of the prescribed *Drinking Water* quality standards;

**AND WHEREAS** the *City* desires to protect the health, safety, and well-being of the inhabitants of the *City* by passing a By-law to put mechanisms in place to prevent the discharge of a contaminating substance into the *Municipal Drinking Water System* for which the *City* is responsible;

**NOW THEREFORE** the Council of the Corporation of the City of Vaughan enacts as follows:

**1. DEFINITIONS**

1.0 For the purposes of this By-law:

*"Authorized Functions"* means the functions listed on the *Authorized Functions List*, which must be carried out by a *Qualified Person*;

“*Authorized Functions List*” means the list provided by the *City* that sets out certain functions that must be performed by a *Qualified Person* and the qualifications that must be obtained to be a *Qualified Person*;

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

“*AWWA Standards*” means the Series Published by the American Water Works Association, as amended;

“*Backflow*” means the flowing back or reversal of the normal direction of flow;

“*Backflow Preventer*” means a device, as defined by the *Ontario Building Code*, that prevents *Backflow* to the *Municipal Drinking Water System*, and includes all valves and test ports approved by the *CSA Standards* and/or *AWWA Standards*;

“*Backflow Preventer Test and Inspection Report*” means an inspection and testing report, in the form prescribed by the *City*, of a *Backflow Preventer*, containing the make, model, serial number, size, type, installation date, location and installation address, the *Qualified Person(s)* who performed the test, and the test results;

“*Backflow Preventer Test Tag*” means a tag, in the form prescribed by the *City*, which contains the make, model, serial number, size, type, installation date, installation address as well as test history of a *Backflow Preventer*;

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

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

“*City*” means the Corporation of the *City of Vaughan*;

“*Cross Connection*” means any actual or potential connection between a *Potable Water System* and any source of pollution or contamination;

“*Cross Connection Control Manual*” means the *AWWA Canadian Cross Connection Control Manual*, Edition #1, 2007, as amended, or successor thereof;

“*Cross Connection Control Survey Report*” means a report, in the form prescribed by the *City*, to be completed by a *Qualified Person* listed on the *Authorized Functions List*, which shall contain a

description of all *Cross Connections* and all identified existing method of protecting those *Cross Connections* and corrective measure and recommendations;

“*CSA Standard*” means the CAN/CSA B-64 Series published by the Canadian Standards Association, as amended, or successor thereof;

“*Device Upgrade Implementation Report*” means a report, in a form prescribed by the *City*, which shall record all work done by an *Owner* to remedy the deficiencies identified either on the *Cross Connection Control Survey Report* or on the *Backflow Preventer Test and Inspection Reports* for their *Property*;

“*Drinking Water*” means *drinking water* as defined in Subsection 2(1) of the *Safe Drinking Water Act* as follows:

- a) Water intended for human consumption, or
- b) Water that is required by an Act, Regulation, order, Municipal By-law or other document issued under the authority of an Act,
  - i. To be potable, or
  - ii. To meet or exceed the requirements of the prescribed drinking-water quality standards

“*Information Request Form*” means a form, prescribed by the *City*, which shall include information regarding an *Owner*, primary contact, and tenant and business activities on a *Property*;

“*Minor Hazard*” means any type of *Cross Connection* or potential *Cross Connection* that involves a substance that constitutes only a nuisance and that results in reduction in only aesthetic qualities of the water as defined by the *CSA Standards*;

“*Moderate Hazard*” means any *Minor Hazard* connection that has a low probability of becoming a *Severe Hazard* and includes, but is not limited to, connections involving water where the aesthetic qualities of the water have been reduced and, under certain conditions can create a danger to health as defined by the *CSA Standards*;

“*Municipal Act*” means the *Municipal Act, 2001, S.O. 2001, c.25*, as amended;

“*Municipal Drinking Water System*” means the drinking-water system as defined by Subsection 2(1) of the *Safe Drinking Water Act* as follows:

A drinking-water system or part of a drinking-water system,

- a) That is owned by a municipality or by a municipal service board established under the *Municipal Act*,
- b) That is owned by a corporation established under Sections 9, 10, 11 of the *Municipal Act* in accordance with Section 203 of the *Municipal Act*,
- c) From which a municipality obtains or will obtain *Drinking Water* under the terms of a contract between the municipality and the *Owner* of the system, or
- d) That is in a prescribed class;

“*Ontario Building Code*” means O. Reg. 332/12, of the *Building Code Act*, or any successor thereof;

“*Owner*” includes any *Person* that has reasonable control over *Property* to which this By-law applies and includes the *Owner* registered on the title of the *Property* and any occupant of any *Building* or *Structure* located on such *Property*;

“*Person*” includes an individual, association, partnership, firm or corporation;

“*Plumbing*” means *Plumbing* as defined by the *Safe Drinking Water Act* as follows:

A system of works,

- a) That comprise a “water system” for the purposes of the definition of the *Building Code Act*, other than equipment installed in *Plumbing* to treat water, and
- b) That are connected to the *Municipal Drinking Water System*;

“*Potable Water*” means water that is safe for human consumption and that complies with Section 10 of the *Safe Drinking Water Act*;

“*Potable Water System*” means the *Plumbing* that conveys *Potable Water*;

“*Property*” means a *Building* or *Structure* or part of a *Building* or *Structure*, and includes the lands and premises appurtenant thereto and all mobile homes, mobile *Buildings*, mobile *Structures*, out *Buildings*, fences and erections thereon whether hereto fore or hereafter erected, and includes vacant land;

“*Qualified Person*” means a *Person* with approved qualifications as set out in the *Authorized Functions List*;

“*Safe Drinking Water Act*” means the *Safe Drinking Water Act*, 2002, S.O. 2002, c.32, as amended;

“*Service Connection*” means a piping connection between the *Municipal Drinking Water System* and a user’s system;

“*Severe Hazard*” means any type of *Cross Connection* or potential *Cross Connection* involving water that has additives or substances that, under any concentration, can create a danger to health, as defined by the *CSA Standards*;

“*Structure*” means anything that is erected which requires location on the ground or attached to something having a location on the ground, but does not include swimming pools constructed not more than 0.3 metres above finished grade;

“*Water Meter*” means all equipment installed for the purpose of measuring the water supplied by the *City* to a *Property*.

## **2. INTERPRETATION**

- 2.0 In the event of a conflict between the provisions of this By-law and the provisions of any other By-law, Act or regulation, the provisions that are the most restrictive shall prevail.
- 2.1 Where a court of competent jurisdiction declares any section or part of a section of this By-law invalid, the remainder of this By-law shall continue to be in force unless the court makes an order to the contrary.
- 2.2 Any reference in this By-law to any statutes, regulations, or by-laws shall be deemed to be a reference to such statutes, regulations or by-laws, as amended, restated or replaced.

## **3. APPLICATION OF BY-LAW**

- 3.0 This By-law applies to all industrial, commercial, and institutional (ICI) properties and mixed-use and multi-use residential properties located within the *City*.

## **4. PERSONS PERMITTED TO CARRY OUT WORK**

- 4.0 No *Person* shall carry out any *Authorized Function* unless he/she has the necessary qualifications as set out in the *Authorized Functions List*, and, if applicable, subsection 4.1 below.

4.1 In addition to required qualifications listed in the *Authorized Functions List*, those permitted to perform the *Cross Connection Control Survey Report* or testing of *Backflow Preventer* shall also have and submit proof of the following qualifications in a form satisfactory to the *City*:

4.1.1 a current and valid Tester's Certificate issued within five years prior to the date of the *Cross Connection Control Survey Report* or *Backflow Preventer Test and Inspection Report*;

4.1.2 a current calibration certificate for the test equipment issued within the twelve months prior to date of submission of a *Backflow Preventer Test and Inspection Report*; and

4.1.3 proof of adequate insurance requirements to perform the work.

## **5. INFORMATION REQUEST FORM REQUIREMENT**

5.0 Upon receiving a request from the *City* to submit an *Information Request Form*, every *Owner* of a *Property* to which this By-law applies shall fill out an *Information Request Form* and submit a legible copy of the completed form to the *City* within 30 days.

## **6. CROSS CONNECTION CONTROL SURVEY REQUIREMENT**

6.0 Within 30 days of receiving a request from the *City* to submit a *Cross Connection Control Survey*, every *Owner* shall provide a completed *Cross Connection Control Survey* to the *City*.

6.1 Every *Owner* shall ensure a *Cross Connection Control Survey Report* is completed and submitted to the *City*:

- a) every five (5) years from the date of the first survey requested by the *City*;
- b) upon change of ownership, operation or use of the *Property*;
- c) when a new *Service Connection* to the *Municipal Drinking Water System* is made, and prior to making a request to the *City* to turn on the water valve; and
- d) at the *City's* request.

6.2 The *Owner* shall ensure that the prescribed *Cross Connection Control Survey Report* form is undertaken and completed by a *Qualified Person* pursuant to the *Authorized Functions List*.



- 6.3 The *Owner* shall ensure that a completed and legible *Cross Connection Control Survey Report* is provided to the *City* within 14 days of the survey being conducted.
- 6.4 No *Person* shall submit a *Cross Connection Control Survey Report* to the *City* that contains inaccurate or false information.

## **7. REQUIREMENT FOR BACKFLOW PREVENTERS**

- 7.0 Every *Owner* shall install a *Backflow Preventer* as required by the *Building Code Act* for new *Buildings* and for each new water *Service Connection*.
- 7.1 Every *Owner* of *Property* shall install a *Backflow Preventer* when so directed by the *City*.
- 7.2 Every *Owner* of the *Property* to which this By-law applies shall ensure that a *Backflow Preventer* is installed on every *Structure* or *Building* to which *Potable Water* is supplied.
- 7.3 Every *Owner* shall ensure that the selection of every *Backflow Preventer* shall be determined by using the *Ontario Building Code*, the *CSA Standards* and *AWWA Standards*.

## **8. APPLICATION OF STANDARDS AND SELECTION OF METHODS**

- 8.0 Except as otherwise set out in this By-law, the selection, installation, maintenance, and testing of *Backflow Preventer* required pursuant to this By-law shall be undertaken in accordance with the current *CSA (B64) Standard* and *AWWA Standards*.
- 8.1 Wherever the *CSA Standards* and/or *AWWA Standards* are in conflict with this By-law, the higher standard shall prevail.

## **9. INSTALLATION OF BACKFLOW PREVENTER**

- 9.0 Every *Owner* required to install, replace or relocate a *Backflow Preventer* shall ensure that:
- 9.0.1 it is installed by a *Qualified Person* in accordance with good engineering and construction practices and the requirements of the *Ontario Building Code*, the *CSA Standards*, the *Cross Connection Control Manual*, and the *AWWA Standards* as amended or any successor thereof;

- 9.0.2 the *Backflow Preventer* is located and installed in a such a manner so that in the event of *Backflow* the *Backflow Preventer* prevents contamination of the *Municipal Drinking Water System*; and
- 9.0.3 a *Building* permit is obtained in accordance with the provisions of the *Building Code Act*.
- 9.1 Where a *Backflow Preventer* is installed, every *Owner* shall ensure that it is in proper working order at all times.
- 9.2 In order to isolate a premise, every *Owner* must ensure that all piping between the *Water Meter* and the *Backflow Preventer* is clearly and permanently labelled “no connections permitted”.

## 10. **TESTING OF BACKFLOW PREVENTERS**

- 10.0 Every *Owner* who has a *Backflow Preventer* installed on their *Property* shall ensure that:
- 10.0.1 such device is tested by a *Qualified Person* when it is first installed and annually thereafter, or when requested by the *City*, as well as when it is cleaned, repaired, overhauled or relocated;
- 10.0.2 when such device is tested, the prescribed *Backflow Preventer Test and Inspection Report* form is completed by a *Qualified Person* pursuant to the *Authorized Functions List*;
- 10.0.3 the completed *Backflow Preventer Test and Inspection Report* is submitted to the *City* within 14 days of the test being conducted;
- 10.0.4 in the event that such a device is malfunctioning or otherwise not in proper working order, cause the device to be repaired or replaced forthwith by a *Qualified Person*; and
- 10.0.5 when a new connection to the *Municipal Drinking Water System* is made, a *Qualified Person* shall complete and submit a *Backflow Preventer Test and Inspection Report* prior to the request for the turning on of the water valve by the *City*.
- 10.1 Every *Qualified Person* who tests a *Backflow Preventer* shall carry out such testing in accordance with this By-law, and the *CSA Standards* or the *AWWA Standards*.
- 10.2 Every *Qualified Person* who tests a *Backflow Preventer* shall:

- 10.2.1 within fourteen (14) days of carrying out such test, provide a *Backflow Preventer Test and Inspection Report* to the *City*;
- 10.2.2 upon completing such test, complete and affix a *Backflow Preventer Test Tag* to the device or immediately adjacent to the device on the piping connected thereto;
- 10.2.3 upon finding that a *Backflow Preventer* is malfunctioning, or otherwise not in proper working order, immediately notify the occupant of the premises and the *City* of such condition; and
- 10.2.4 when a *Backflow Preventer* is found to be malfunctioning or not in proper working order, the *Owner* shall ensure all activities that may result in *Backflow* immediately cease. Such activities shall not be recommenced until written notification from the *City* is received.

## **11. REMOVAL OF BACKFLOW PREVENTERS PROHIBITED**

- 11.0 Where a *Backflow Preventer* is installed, the *Owner* shall not remove, or cause, or permit the removal of the *Backflow Preventer* or part thereof unless the removal is to replace the *Backflow Preventer* with another that meets or exceeds the provisions of this By-law, or such removal is required to change *Building* functions and the *City* has provided written approval of the removal.
- 11.1 A *Backflow Preventer* shall not be removed without first obtaining a *Building Permit* under the provisions of the *Building Code Act*.

## **12. PROHIBITION OF CROSS CONNECTIONS – OWNER’S RESPONSIBILITY**

- 12.0 No *Person* shall directly or indirectly connect, permit, cause to be connected, or allow to remain connected, any piping, fixture, fitting, container, appliance, or equipment to the *Municipal Drinking Water System*, or any other connection which may or could under any circumstance allow any substance other than *Potable Water* to enter the *Municipal Drinking Water System*.
- 12.1 No *Person* shall connect, cause to be connected, or allow to remain connected, a private well to the *Municipal Drinking Water System*.

**13. CORRECTIVE ACTIONS**

- 13.0 Every *Owner* shall take corrective actions to remedy the deficiencies identified either on the *Cross Connection Control Survey Report* or the *Backflow Preventer Test and Inspection Reports* for their *Property*;
- 13.1 Within fourteen (14) days of implementing corrective actions, the *Owner* shall submit to the *City* the *Device Upgrade Implementation Report*.

**14. IMPLEMENTATION AND COMPLIANCE**

14. Every *Owner* shall install a *Backflow Preventer*.
- (1) within the timeframe specified on an order, but no later than 30 calendar days from the date of identification of a hazard that is deemed by the *City* to be a *Severe Hazard*; or
- (2) no later than 90 calendar days from the date of identification of a hazard that is deemed by the *City* to be a *Moderate Hazard* or *Minor Hazard*.

**15. ADMINISTRATION AND ENFORCEMENT**

- 15.0 The *City* may enter on a *Property* at any reasonable time for the purpose of carrying out an inspection to determine whether or not the following are being complied with:
- a) The provisions of this By-law;
  - b) An order issued under this By-law; or
  - c) An order made under Section 431 of the *Municipal Act*.
- 15.0.1 Where an inspection is conducted by the *City*, the *Person* conducting the inspection may:
- a) Require the production for inspection of documents relevant to the inspection;
  - b) Inspect and remove documents relevant to the inspection for the purpose of making copies or extracts;
  - c) Require information from any *Person* concerning a matter related to the inspection including their name, address, phone number and identification;

- d) Alone or in conjunction with a *Person* possessing special or expert knowledge, make examination or take tests, samples or photographs necessary for the purposes of the inspection, and
- e) Undertake an inspection pursuant to an order issued under Section 438 of the *Municipal Act*.

15.1 Where the requirements of this By-law are not met or a condition exists on any *Property* that may allow contamination of the *Municipal Drinking Water System* or the contamination of any other *Potable Water System* on such *Property*, then the *City* may:

15.1.1 Issue and serve an order to the *Owner* requiring compliance with the requirements of this By-law and to eliminate the condition which may allow contamination; and in so doing may prescribe the time period for compliance with such order; the work to be completed which may include but is not limited to:

- a) An *Information Request Form* be completed and submitted to the *City*;
- b) A *Cross Connection Control Survey Report* be completed and submitted to the *City*;
- c) A *Backflow Preventer Test and Inspection Report* be completed and submitted to the *City*;
- d) Taking corrective actions on deficiencies identified either on the *Cross Connection Control Survey Report* or on the *Backflow Preventer Device Test and Inspection Report* form for the *Property*;
- e) A *Backflow Preventer* be tested annually;
- f) A *Backflow Preventer Test Tag* be installed to a *Backflow Preventer Device*;
- g) A *Plumbing* permit be applied for and obtained prior to installation, replacement or removal of a *Backflow Preventer*;
- h) Installation, repair, and/or replacement of a *Backflow Preventer*.

15.1.2 If a condition exists on a *Property* which may result in the contamination of the *Municipal Drinking Water System*, the *City* may, in addition to issuing an order, shut off the water

supply to the *Property* or any portion thereof until the condition is eliminated to the satisfaction of the *City*.

- 15.2 Wherever this By-law directs or requires any work to be done, in default of it being done by the *Person* directed to do it, such work may be done by the *City* or its agents at the expense of the *Person* and the *City* may recover all expenses incurred in doing the work by action or by adding the costs to the tax roll and collecting them in the same manner as taxes. Unpaid outstanding court fines will also be added to the tax roll and be collected in the same manner as taxes.
- 15.3 In addition to any other provision of this By-law, the *City* may at any time issue an order to an *Owner* to conduct tests, provide reports and undertake any other measure required for the elimination of a *Cross Connection* and the prevention of *Backflow*.
- 15.4 No *Person* shall hinder or obstruct, or attempt to hinder or obstruct, a *City's Water/Wastewater Enforcement Officer* or other *Person* so authorized who is performing a duty or exercising a power under this By-law.

**16. PENALTY PROVISION**

- 16.0 Every *Person* who contravenes any of the provisions of this By-law including an order is guilty of an offence.
- 16.1 Every *Person* who is guilty of an offence under this By-law shall be subject to the following penalties:
- a) Upon first conviction, or subsequent convictions of the same offence, to a fine of not less than \$500.00 for each offence;
  - b) Upon conviction of multiple offences and for each offence included in the multiple offence, to a fine of not less than \$500.00 for each offence and not more than \$10,000.00.
- 16.1.1 For purposes of this By-law, an offence is a second or subsequent offence if the act giving rise to the offence occurred after a conviction had been entered at an earlier date for the same offence.

16.1.2 For the purposes of this By-law, “multiple offence” means an offence in respect of two or more acts or omissions each of which separately constitutes an offence and is a contravention of the same provision of this By-law.

17 **FEES**

17.1 Any fees and administrative costs associated with this By-law are non-refundable and are indicated in the *City’s Fees and Charges By-law 171-2013*, as amended.

18 **GENERAL PROVISIONS**

18.1 Where a timeframe is set out in this By-law for carrying out any action, the *City* may extend the time for compliance beyond the established timeframe provided such extension is approved by the *City* in writing.

18.2 The *Authorized Functions List*, the *CSA Standards* and the *AWWA Standards* shall form part of this By-law.

18.3 Every *Person* required to submit a report or form to the *City*, shall do it truthfully and accurately.

19 **SHORT TITLE**

19.1 This By-law shall be known as the Backflow Prevention By-law.

20 **EFFECTIVE DATE**

20.1 This By-law comes into force on the day it is passed.

Enacted by City of Vaughan Council this 30<sup>th</sup> day of January, 2018.

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Hon. Maurizio Bevilacqua, Mayor

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Barbara A. McEwan, City Clerk

Authorized by Item No. 1 of Report No. 46  
of the Committee of the Whole (Working Session)  
Adopted by Vaughan City Council on  
December 11, 2017.