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 WHERAS 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;


“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;

“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 rises 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 30th day of January, 2018.

[Signature]
Hon. Maurizio Bevilacqua, Mayor

[Signature]
Barbara McEwan, City Clerk