

**“CROSS CONNECTION CONTROL BYLAW 2018 NO. 7249”**

*Consolidated Version*

2019-MAR-04

Includes Amendment: 7249.01

City of Nanaimo

BYLAW NO. 7249

A BYLAW RESPECTING CROSS CONNECTION CONTROL

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WHEREAS the Council of the City of Nanaimo may by bylaw operate and maintain a Municipal Water System Cross Connection Control Program.

THEREFORE BE IT RESOLVED that the Council of the City of Nanaimo in open meeting assembled, hereby ENACTS AS FOLLOWS:

1. Title

This Bylaw may be cited as “Cross Connection Control Bylaw 2018 No. 7249”

2. Definitions

2.1 In this Bylaw:

“Approved Backflow Prevention Assembly” means a backflow preventer that is designed to be tested and repaired in-line and to meet the design and testing criteria requirements of the CSA standards B64 Series (most current editions) or a device that is designed as part of a water meter and approved by the Director of Engineering and Public Works;

“Authorized Agent” includes a Person representing the City of Nanaimo by written consent;

“Auxiliary Water Supply” means any water available on or to a premises originating from a source or system, other than that from the City of Nanaimo Waterworks System;

“Backflow” means the reverse direction from normal direction of flow of water or Used Water, as a result of back-siphonage or backpressure;

“Backflow Assembly Test Report” means a form provided by or approved for use by the City of Nanaimo to be used when testing an approved backflow prevention assembly to record all pertinent information and test data;

“Backflow Assembly Tester”	means a person holding a valid certificate from the American Water Works Association, British Columbia Section for testing backflow prevention assemblies and approved by Director of Engineering and Public Works;
Backflow Preventer”	means a mechanical apparatus installed in a water system that prevents backflow of contaminants into the potable water system and to meet the design and installation criteria requirements of the CAN/CSA standards B64 Series most current editions, or a device that is designed as part of a water meter and approved by the City of Nanaimo;
“Cross Connection”	means any actual or potential physical connection whereby the potable water system is or would be connected, directly or indirectly, with any non-potable or unapproved private water supply system, sewer, drain, conduit, well, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain, non-potable or contaminated water, liquid, gases, sewage, or other waste, of unknown or unsafe quality which may be capable of imparting a pollutant or contaminant into the potable water system as a result of backflow;
“CSA”	is the abbreviation for the Canadian Standards Association;
Director of Engineering and Public Works”	means the person duly appointed as such from time to time by Council or pursuant to duly delegated authority and includes any person appointed or designated by the Director of Engineering and Public Works to act on his or her behalf;
“Discontinue”	means to terminate the arrangement between the City of Nanaimo and the Owner for the supply of water and to Shut Off the service, disconnect, or remove it;

“Hydrant or Temporary Use Permit”	means the approval process and documents issued by the City of Nanaimo for any Person requesting water from a fire hydrant, stand pipe, or temporary water connection for purposes other than emergency fire protection;
“Inspect”	means an on-site review by the City of Nanaimo of the premises water use, meters, piping, equipment, operating conditions and maintenance records for the purpose of evaluating conformity with the terms and conditions of this Bylaw;
“Non-potable water”	means water that does not meet Health Canada’s Guidelines for Canadian Drinking Water Quality;
“Non-potable water system”	means an assembly of pipes, fittings, valves, and appurtenance that collects and distributes non-potable water;
“Occupant”	means any person who is the lessee or occupier of any premises to which water is supplied from the City of Nanaimo Waterworks System;
“Owner”	means the registered owner, or the person named as the registered owner on the tax roll by reason of agreement for sales of any lands and premises to whom the City of Nanaimo supplies water;
“Person”	shall, in addition to its ordinary meaning, include a firm or partnership, company or corporation. In addition, throughout this Bylaw where the context requires, the singular shall be held to mean and to include the plural and the masculine, the feminine or body corporate;
“Potable Water”	Means water that meets Health Canada’s Guidelines for Canadian Drinking Water Quality;
“Premises”	means any real property and buildings on it;

“Premise Isolation”	means a Backflow Preventer for protection provided at the entrance to a building or property;
“Private Water System”	means any privately owned pipe and fittings intended for the delivery or distribution of water within Premises or to a property;
“Service”	means the supply of water from the Waterworks System to any person;
“Service Connection Point”	means the point of physical connection between the Waterworks System and a Private Water System;
“Turn Off”	means to turn off the water supply by closing a City of Nanaimo owned valve or curb stop or by any other means approved by the City;
“Turn On”	means to allow the flow of water by opening a City of Nanaimo owned valve or by any other means approved by the City;
“Used Water”	means any Potable Water which is no longer in the water distribution system including Potable Water that has moved downstream or past the Service Connection Point (water meter) and/or the property line to the Private Water System;
“Waterworks System”	means the water distribution system owned by City of Nanaimo.

2.2 Standards referenced in this Bylaw shall be the most recent release of the applicable standard in effect from time to time.

### 3. Water Supply and Pressure

3.1 The City of Nanaimo does not

- (a) warrant or guarantee water pressure or the continuous supply of water, or
- (b) accept responsibility at any time for the maintenance of pressure in its water mains or for increases or decreases in pressure.

- 3.2 The City of Nanaimo is authorized, without notice, to change operating water pressure and to Turn Off the water supply for the purposes of making repairs, extensions, alterations or improvements, or for any other reason.
- 3.3 The City of Nanaimo does not warrant or represent that the water in the Waterworks System will not, from time to time, contain sediments, deposits, or other foreign matter.
- 3.4 Where steam or hot water boilers or other equipment is fed with water by pressure directly from the Waterworks System, the City of Nanaimo shall not be liable for any injury or damage which may result from such pressure or from lack of such pressure or any injury or damage resulting from the improper installation of a Backflow Preventer.

#### 4. Inspection

- 4.1 Without limiting the right of entry of the City under section 16(6) of the *Community Charter*, as a condition of Service to property the employees or Authorized Agents of the City Public Works Department, and Bylaw Enforcement Officers of the City of Nanaimo, are authorized, pursuant to and subject to section 16 of the *Community Charter* to enter on property subject to this Bylaw to:
  - 4.1.1. access the private water system located on private property at all reasonable hours in order to inspect the Premises to determine the existence of conditions, connections or Cross Connections that contravene this Bylaw.
  - 4.1.2. Impose minimum standards that must be met and satisfied relating to the type and method of Backflow prevention;
  - 4.1.3. Inspect the type of Backflow Preventer, the installation and state of maintenance and repair of same;

#### 5. Condition of Service

- 5.1 Service supplied by the City of Nanaimo to a Premises or property shall only be provided where, in the opinion of the City of Nanaimo, the Waterworks System has been and remains effectively protected from any actual or potential Cross Connections existing at or within a Private Water System.
- 5.2 The City of Nanaimo shall not provide water nor Turn On a water valve to provide Service to the occupants of any newly renovated, constructed or reconstructed Premises until the Private Water System in such Premises has been protected from Cross Connections and in conformance with the CSA B64.10 or has been approved by the Director of Engineering and Public Works.

6. Cross Connection Prohibited

Subject to the provisions of this Bylaw:

- 6.1 No Person shall create a Cross Connection by connecting, causing to be connected, or allowing to remain connected to the City of Nanaimo Waterworks System, any device, piping, fixture, fitting, container, appliance or any other chattel or thing which may under any circumstances allow non-potable water, Used Water, wastewater or any chemical, liquid, gas or other substance to enter the Waterworks System.
- 6.2 A person who creates an illegal Cross Connection shall be liable for all costs associated with the work undertaken by the City or its agent to restore the Waterworks System. *(Bylaw 7249.01)*

7. Regulations

- 7.1 If the Director of Engineering and Public Works determines that the configuration of any water connection creates a risk of contamination to the Waterworks System, he or she may require the Owner or Occupant, at their sole expense, to install or cause to be installed a Backflow Preventer on the Private Water System where the Service Connection Point enters the building and downstream of the water meter, or in another location approved by the City of Nanaimo.
- 7.2 Where any condition is found to exist which the Director of Engineering and Public Works determines may expose the Waterworks System to risk of contamination, the Director of Engineering and Public Works is authorized to take one or more of the following actions:
- 7.2.1. give notice to the Owner or Occupant to correct the condition or Cross Connection(s) at the sole expense of the Owner or Occupant within 30 days or a specified time period as indicated in a notice issued by the City of Nanaimo; or
- 7.2.2. Turn Off or Discontinue Service until the condition or Cross Connection is corrected.
- 7.3 A Person to whom a notice under section 7.2.1 applies must eliminate or control the condition or Cross Connection giving rise to the notice by installing a Backflow Preventer, conforming to the CAN/CSA B64.10
- 7.4 Neither the failure to send or deliver a notice, nor the failure to receive a notice, relieves an Owner or Occupant from the regulations or requirements of this Bylaw.
- 7.5 Any Owner or Occupant whose Service has been Turned Off or Discontinued pursuant to this Bylaw is not entitled to a restoration of Service until all requirements of this Bylaw or an order or requirement under this Bylaw have been met and the Owner or Occupant has paid to the City of Nanaimo all costs

associated with the Turn Off / Turn On of Service.

8. Testing, Maintenance and Repair of Backflow Prevention Assemblies

- 8.1 The Owner or Occupant or Backflow Assembly Tester, shall provide, to the City of Nanaimo within thirty (30) days of initial installation, repair or relocation of an Approved Backflow Prevention Assembly, a City of Nanaimo Backflow Assembly Test Report, completed by a Backflow Assembly Tester confirming the following:  
*(Bylaw 7249.01)*
- 8.1.1. the installation and test date of the Approved Backflow Prevention Assembly;
  - 8.1.2. the specific location of the Approved Backflow Prevention Assembly and what Cross Connection or hazard it is intended to isolate;
  - 8.1.3. the manufacturer, model, size and serial number of the Backflow Preventer installed; and
  - 8.1.4. that it is an Approved Backflow Prevention Assembly, installed correctly and in proper operating condition.
- 8.2 An Owner or Occupant must inspect and test the Approved Backflow Prevention assembly, at the sole expense of the Owner or Occupant, using a Backflow Assembly Tester, upon installation, after repair and at least once in every consecutive twelve (12) month period thereafter.
- 8.3 Where an Owner or Occupant fails to have an approved Backflow Preventer tested, the City of Nanaimo is authorized to notify the Owner or Occupant that the Backflow Preventer must be tested within 30 days or a specified time period indicated in a notice issued by the City of Nanaimo.
- 8.4 Any Person that removes a Backflow Preventer from a plumbing system must obtain prior written consent of the Director of Engineering and Public Works. Prior written consent is not required when a Backflow Preventer is removed and is immediately replaced with an equivalent Backflow Preventer and provided details are submitted to the City on a test report.
- 8.5 Where an Approved Backflow Prevention Assembly fails to function as designed or does not meet the test criteria set forth by the CAN/CSA B64.10.1 “Manual for Maintenance and Field Testing of Backflow Preventers” an Owner or Occupant must repair the Backflow Preventer and then retest it 30 days or otherwise in a notice issued by the City of Nanaimo.
- 8.6 Despite section 8.2, the Director of Engineering and Public Works may require more frequent testing of a Backflow Preventer where he or she determines this is necessary to protect the Waterworks System.



9. Temporary Water Use Connection

- 9.1 No Person shall connect, cause to be connected, or allow to remain connected, any piping, fixture, fitting, container or appliance to a fire hydrant, stand pipe or any other temporary water connection:
- 9.1.1. in a manner which, under any circumstances, may allow Used Water, Non-Potable water, wastewater or any liquid or substance of any kind to enter the City of Nanaimo Waterworks System;
  - 9.1.2. without using an Approved Backflow Prevention Assembly which has been approved and installed in accordance with the City of Nanaimo Cross Connection Control Program; and
  - 9.1.3. without first obtaining a Hydrant or Temporary Water Use Permit.
- 9.2 In addition to any other penalties that may be applicable under this Bylaw, any Person who contravenes this section may be refused access to Service through the use of a fire hydrant or temporary water connection.

10. Auxiliary and Non-Potable Water Supplies

- 10.1. An Owner or Occupant of a premise that contains or has access to an Auxiliary Water Supply or system must ensure premises isolation of such facility with a Backflow Preventer corresponding to the degree of hazard as stipulated in the CSA B64.10.
- 10.2. There shall be no direct connection between a non-potable Auxiliary Water System and any other Potable Water system unless otherwise approved by the Director of Engineering and Public Works.
- 10.3. All piping, exposed standpipes, fittings, valves and outlets for non-potable water systems must be permanently identified and marked in conformance with the CSA B128.1 “Design and Installation of Non-Potable Water Systems”.

11. Commercial and Agricultural Irrigation Use

- 11.1 Where a Cross Connection exists between the City of Nanaimo Waterworks System and a Private Water System, in addition to the general provisions stated in this Bylaw, the Owner or Occupant shall also comply with the following:
- 11.1.1. All agricultural use properties shall be subject to premise isolation with a Backflow Preventer corresponding to the degree of hazard as stipulated in the CSA B64.10.
  - 11.1.2. Prior to commencement of operation of the Private Water System in each irrigation season, the Owner or Occupant or any Person operating a commercial or agricultural irrigation system must cause the Approved Backflow Prevention Assembly to be inspected and tested, at the

Owner's or Occupant's expense, by a Backflow Assembly Tester, in accordance with section 8.2 of this Bylaw.

11.1.3. An Owner of property must install and use an approved reduced pressure principal backflow assembly whenever fertilizers, chemicals or any other substance detrimental to health are introduced into an irrigation piping system.

12. Penalty  
(Bylaw 7249.01)

12.1 Every person who violates any of the provisions of this Bylaw, or who causes, suffers or permits any act or thing to be done in contravention or in violation of any of the provisions of this Bylaw, or who neglects or refrains from doing anything required to be done by any of the provisions of this Bylaw, or who carries out or who suffers, causes or permits to be carried out any development in a manner prohibited by or contrary to any of the provisions of this Bylaw, or who fails to comply with any order, direction or notice given under this Bylaw in addition to any other penalties provided for in this Bylaw, shall be liable on summary conviction to a fine not exceeding Ten Thousand Dollars (\$10,000.00), or to imprisonment of not more than six (6) months, or both; or if an information is laid by means of a Municipal Ticket Information in accordance with the procedure set out in Part 8, Division 3 of the Community Charter, a fine as stipulated in Schedule "A" this Bylaw; or if the Local Government Bylaw Notice Enforcement Act applies, and a Bylaw Notice is laid in accordance with that Act, a penalty in accordance with Bylaw Notice Enforcement Bylaw 2012 No. 7159, Schedule "A". (Bylaw 7249.01)

12.2 Each day the Offence against this Bylaw continues or exists shall be deemed to be a separate and distinct offence. (Bylaw 7249.01)

13. Schedules  
(Bylaw 7249.01)

13.1 Council authorizes that Schedule "A" may be omitted and established by resolution where the schedule can be more conveniently contained in a resolution. (Bylaw 7249.01)

**Schedule "A"**  
**Fine Schedule**

SECTION	DESCRIPTION OF OFFENCE	PENALTY
6.1	Allow Entry of Non-Potable Water or other Substances into the Waterworks System	\$200.00
7.3	Fail to Install Approved Backflow Preventer	\$500.00
8.1	Fail to Provide a Backflow Assembly Test Report	\$200.00
8.2	Fail to Inspect and Test Approved Backflow Preventer	\$200.00
8.4	Remove Backflow Preventer without Consent	\$200.00
8.5	Fail to Repair Non-Functioning Backflow Preventer	\$200.00
9.1.2	Fail to Install a Backflow Preventer on a Temporary Connection	\$200.00
9.1.3	Install Temporary Water Connection Without Permit	\$200.00
10.1	Fail to Provide Premises Isolation with Backflow Preventer	\$500.00
10.2	Connect Non-Potable and Potable Water Systems Without Approval	\$500.00
10.3	Fail to Permanently Mark Apparatus For Non-Potable Water System	\$500.00
11.1.3	Fail to Install or Use Approved Reduced Pressure Principal Backflow	\$500.00