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## **BYLAW NO. 3516**

# **CAPITAL REGIONAL DISTRICT CROSS CONNECTION CONTROL BYLAW NO. 1, 2008**

**Consolidated for Public Convenience**  
**(This bylaw is for reference purposes only)**

ORIGINALLY ADOPTED JUNE 11, 2008  
(Consolidated with Amending Bylaws 4047, 4340)

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**CAPITAL REGIONAL DISTRICT  
BYLAW NO. 3516**

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**CROSS CONNECTION CONTROL BYLAW**

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**WHEREAS** under Section 25 of the *Drinking Water Protection Act*, the Chief Medical Health Officer for the Vancouver Island Health Authority has determined that a significant risk of an imminent Drinking Water Health Hazard exists within the Public Drinking Water System because of the absence of regulatory control of Cross Connections and of Backflow Preventers to control contamination from Cross Connections and has issued an order to the Water Suppliers served by the Greater Victoria Drinking Water Supply System to implement a Cross Connection Control Program;

**AND WHEREAS** under Section 523 of the *Local Government Act*, subject to the *Health Act*, a regional district board may, by bylaw,

- (a) regulate and prohibit for the purposes of maintaining, promoting or preserving public health or maintaining sanitary conditions, and
- (b) undertake any other measures it considers necessary for those purposes;

**AND WHEREAS** under Section 796(1) of the *Local Government Act*, a regional district may operate any service that the Board considers necessary or desirable for all or part of the regional district, such as a Cross Connection Control Program for the Greater Victoria Drinking Water Supply System and all Drinking Water Systems supplied by or connected to it;

**AND WHEREAS** the Capital Regional District (CRD) established a water supply local service under Bylaw No. 2537, cited as 'Water Supply Local Service Area Bylaw No. 1, 1997', and a water distribution service under Bylaw No. 2538, cited as 'Water Distribution Local Service Area Establishment Bylaw No.1, 1997';

**AND WHEREAS** under Section 796(3) of the *Local Government Act* a regional district service may be operated directly by the regional district or through another public authority;

**AND WHEREAS** the Board deems it necessary and appropriate, as the Water Supplier to the Participating Area, to implement the Order of the Chief Medical Health Officer, Vancouver Island Health Authority, by enacting this Cross Connection Control Bylaw to be applicable to the Public Drinking Water System throughout the Participating Area and to enable it to be administered and enforced by the Municipalities and the CRD;

**NOW, THEREFORE**, the Board of the Capital Regional District, in open meeting assembled, enacts as follows:

**1.0 PURPOSE**

The purpose of this Bylaw is to:

**1.1 Protect the Public Drinking Water System from Cross Connections**

Protect the Drinking Water supplied by the Greater Victoria Drinking Water System from the possibility of Contamination by removing or isolating actual or potential sources of Contamination that may Backflow into the Public Drinking Water System.

**1.2 Provide Continuing Cross Connection Control Program**

Provide for the maintenance of a Cross Connection Control Program, which will systematically and effectively seek to prevent Contamination of the Public Drinking Water System.

### 1.3 Technical and Administrative Requirements for the Cross Connection Control Program

Enforce technical requirements for cross connection control set out by the British Columbia Building Code and the CSA Standard B64.10. Establish and enforce administrative requirements to ensure the long-term effectiveness of the cross connection control measures.

*(Bylaw 4340)*

## 2.0 DEFINITIONS

The following words, terms and phrases when used in the Bylaw shall have the meanings set forth in **Section 2**, whether appearing in capital or lowercase form. If not defined below, the words and phrases used in this Bylaw shall have their common and ordinary meanings to the degree consistent with the technical subject of this Bylaw. The statutory definitions referenced in the following list of definitions are replicated in the **Appendix** to this Bylaw.

**'Air Gap'** means the unobstructed vertical distance through air between the lowest point of the water supply outlet and the flood rim of the fixture or device into which the outlet discharges.

**'Apartment Building'** means a building containing more than two separate residential dwelling units with shared services including rental units and condominiums but not including townhouses or temporary accommodation such as hotels or motels.

**'Automatic detergent dispensers'** a system where detergents are injected in a way that the detergents are potentially able to become in contact with the portable water system.

**'Area Isolation'** means a method of confining the potential source of Contamination to a specific area within a Facility by providing a Backflow Preventer that isolates a section of the piping system which may include Potable and Non-Potable Water connections.

**'Auxiliary Water Supply'** means any supply of water which originates from a source other than the Public Drinking Water System and is available to Real Property via a constructed piping system which has the potential to be connected to the Customer's Drinking Water System. The source of water for an Auxiliary Water Supply can include water from a well, lake, spring, stream, river or harbour. An Auxiliary Water Supply can also include used water.

**'Backflow'** means a flow of water or other liquid, gas or solid from any source in a backward or reverse direction into a Drinking Water System that has been caused either by Back-Pressure or Back-Siphonage.

**'Backflow Preventer'** means a mechanical assembly, device, or method including approved air gaps that has been specifically designed and installed to prevent Backflow into a Drinking Water System. Backflow Preventers must meet the requirements of the current British Columbia Building Code and CSA standard B64.10

**'Back-Pressure'** means pressure that is higher than the ambient pressure in the Drinking Water System.

**'Back-Siphonage'** means a Backflow caused by a reduced or negative pressure in the Drinking Water System.

**'Board'** means the Board of the Capital Regional District.

- ‘Bylaw’** means this Cross Connection Control Bylaw.
- ‘Bulk Water Connection’** means a Service Connection to the Public Drinking Water System for the purpose of distributing Drinking Water to retail customers.
- ‘Certified Tester’** means an individual who is currently certified by the British Columbia Section, American Water Works Association as a Certified Backflow Preventer Tester) or similarly titled certification).
- ‘Contamination’** means an impairment of the Drinking Water in a Drinking Water System by the introduction or admission of a Foreign Substance that may compromise the safety or aesthetic characteristics of that Drinking Water.
- ‘CRD’** means the Capital Regional District
- ‘CRD CCC Portal’** means the CRD’s web presence [www.crd.bc.ca/service/drinking-water/cross-connection-and-backflow/ccp-portal/facility-contacts](http://www.crd.bc.ca/service/drinking-water/cross-connection-and-backflow/ccp-portal/facility-contacts) for the purpose of registered facility contacts to manage their facility backflow program.
- ‘Cross Connection’** means an actual or potential connection between any part of Drinking Water System and any other environment containing other substances which is allowing or has the potential to allow a Foreign Substance to enter a Drinking Water System. Bypass arrangements, jumper connections, removeable sections, swivel or changeover devices or any other temporary or permanent connecting arrangements through which a Backflow may occur are considered to be Cross Connections.
- ‘Cross Connection Audit’** means a high level inspection that is used confirm the degree of Cross Connection Hazard and to address obvious Cross Connections within an Existing Facility along with verifying that the Premises Isolation protection is commensurate with the types of Cross Connection Hazards present and confirming that any installed Backflow Preventers are suitable to the task and are being maintained and tested. A Cross Connection Audit is not a detailed Facility Survey and is not intended to detect all Cross Connections within a Facility.
- ‘Cross Connection Hazard’** means one of a Minor Cross Connection Hazard, Moderate Cross Connection Hazard or Severe Cross Connection Hazard in accordance with CSA standard B64.10.
- ‘Cross Connection Control’** means the enforcement of this Bylaw.
- ‘Cross Connection Control Officer’** and **‘CCCO’** means an individual appointed by the Board to administer the Cross Connection Control Program under this Bylaw.
- ‘Cross Connection Control Program’** means the program operated by the CRD to administer and regulate the selection, installation, testing and maintenance of Backflow Preventers.
- ‘CSA Standard B64.10’** referring to the Canadian Standards Association’s standard edition that is referenced in the current version of the British Columbia Building Code, as amended from time to time for specifying the Selection and installation of backflow preventers/maintenance and field testing of Backflow Preventers.
- ‘Customer’** means the Owner or Occupier of Real Property and/or Owner of a Drinking Water System having either a Service Connection or a Temporary Water Connection to the Public Drinking Water System.
- ‘Customer’s Drinking Water System’** means the entire water piping system, including any storage facilities and fixtures on a Customer’s Real Property that is used to distribute

Drinking Water downstream of the Service Connection.

**'Domestic Purposes'** has the same meaning as in the *Drinking Water Protection Act*.

**'Double Check Backflow Preventer (DCVA)'** means a testable Backflow Preventer that consists of two force-loaded, independently acting check valves and two shut-off valves assembled within one body and furnished with four test cocks. A Double Check Backflow Preventer is designed for use under continuous pressure and is typically used to provide protection against a Backflow from a Moderate Cross Connection Hazard.

**'Drinking Water'** has the same meaning as in the *Drinking Water Protection Act*.

**'Drinking Water Health Hazard'** has the same meaning as in the *Drinking Water Protection Act*.

**'Drinking Water System'** meaning a piping system that contains Drinking Water and includes the Public Drinking Water System and a Customer's Drinking Water System.

**'Dual Water System'** means a piping system that contains Drinking Water and includes the Public Drinking Water System and a Customer's Drinking Water System.

**'Dual Check Valve Backflow Preventer (DuC)'** means a non-testable Backflow Preventer consisting of two independently acting, spring-loaded check valves in series and commonly lacking shutoff valves and test cocks. A Dual Check Backflow Preventer is typically used to provide protection against a Backflow from a Minor Cross Connection Hazard.

**'Dual Check Valve with Atmospheric Port (Dcap)'** a non-testable backflow preventer that consists of two independently acting check valves separated by an intermediate chamber with an atmospheric port.

**'Engineer'** means the individual appointed by a Municipal Water Supplier as the Director (or similarly titled position) of Engineering Services (or similarly titled department), or any agent or employee of that Municipal Water Supplier appointed or delegated to act on behalf of the Engineer.

**'Existing Facility'** means a Facility for which construction is complete and either an occupancy permit has received final approval by the Municipality or other final approval process has been completed.

**'Facility'** means a site, building, building complex, installation, amenity or piece of equipment that is built, installed, or provided to serve a particular purpose.

**'Facility Survey'** means a detailed inspection of a Customer's Drinking Water System or the Public Drinking Water System for the presence of a potential risk to public health and the adverse effect of a Drinking Water Health Hazard upon a Drinking Water System arising from a Backflow into that system. A Facility Survey is intended to detect all potential cross connections within a Facility.

**'Foreign Substance'** means a substance such as a gas, liquid or solid including a chemical, waste product, steam, water from any Auxiliary Water Supply (Drinking Water or otherwise), or any other substance that may cause Contamination of the Drinking Water contained within a Drinking Water System.

**'General Manager'** means the individual appointed by the Board as the General Manager of the Capital Regional District Water Services Department, or any agent or employee of CRD Water Services appointed or delegated to act on behalf of the General Manager.

**'Greater Victoria Drinking Water System'** means the Public Drinking Water System in Greater Victoria that supplies Drinking Water to the Participating Areas that are part of the water supply local service area that was established by Bylaw No. 2537 including any new Participating Areas that may be added in the future.

**'Hose Connection Vacuum Breaker'** means a non-testable Backflow Preventer that consists of a single, force-loaded check valve biased to a closed position. A Hose Connection Vacuum Breaker is designed to be used under pressure only when water is being drawn from the Drinking Water System for short, intermittent periods and is typically used to provide protection against a Backflow from a hose connected to a hose bibb (tap).

**'ICIA'** means an industrial-commercial-institutional-agricultural Facility.

**'Irrigation System'** means a system of pipes and valves that carry water to various types of sprinklers for distribution over the surface of the soil with the piping located underground.

**'Minor Cross Connection Hazard'** means any type of Cross Connection or potential Cross Connection involving a Backflow of any substance that constitutes only a nuisance and results in a reduction in only the aesthetic qualities of the Drinking Water, with no possibility of becoming any health hazard.

**'Minor Hazard Facility'** means a Facility classified by CSA standard B64.10 as having a minor degree of hazard because of the prevalence of Minor Cross Connection Hazards within the Facility.

**'Moderate Cross Connection Hazard'** means any Minor Cross Connection Hazard that has a low probability of becoming a Severe Cross Connection Hazard and includes, but is not limited to, connections involving water where the aesthetic qualities of the water have been reduced and, under certain circumstances, can create a danger to health.

**'Moderate Hazard Facility'** means a Facility classified by CSA standard B64.10 as having a moderate degree of hazard because of the prevalence of Moderate Cross Connection Hazards within the Facility.

**'Multi-Family Residential Facility'** means a Facility containing four or more dwelling units.

**'Municipality'** means the current and future municipalities and portion of the Juan de Fuca Electoral Area within the Participating Area.

**'New Facility'** means a Facility that is under construction and either an occupancy permit has not been issued by the Municipality or CRD or, if another final approval process is required instead of an occupancy permit, that other final approval process is incomplete.

**'Occupier'** has the same meaning as in paragraph (b) of that word, as defined in the Schedule to the *Community Charter*.

**'Officer'** means a Cross Connection Control Officer, Cross Connection Control Inspector, Building Inspector or Bylaw Enforcement Officer appointed by a Water Supplier, Municipality or the Board to administer and enforce this Bylaw.

**'Owner'** has the same meaning as in the Schedule to the *Community Charter*.

**'Participating Area'** means the water supply local service area that was established by Bylaw 2537 and as amended from time to time.

**'Person'** has the same meaning as in the *Interpretation Act*.

**'Plumber'** means an individual who possesses a British Columbia tradesman's qualification certificate as a Plumber and is currently working in the field as a Plumber.

**'Point-of-use Isolation'** means a method of protecting the Drinking Water System by providing a Backflow Preventer at the source of the potential Cross Connection Hazard.

**'Premises'** means a tract of land, including all of the structures and Facilities thereon. (For the purpose of this definition, the tract of land is typically owned by a single Owner with the Facilities being as simple as a Single-Family Residence or as complex as, but not limited to, a large shopping plaza, university or Drinking Water System operated by private, municipal or federal agencies.)

**'Premises Isolation'** means protection provided at the entrance to a building, facility, or property. Preventing Backflow into the Public Drinking Water System from a Customer's Real Property by installing a suitable Backflow Preventer.

**'Pressure Vacuum Breaker'** means a testable Backflow Preventer that consists of an independently acting check valve force-loaded or biased to a closed position and an independently operating air inlet valve force-loaded or biased to an open position and located downstream of the check valve. A Pressure Vacuum Breaker is designed to be used under continuous pressure and is typically used to provide protection against a Backflow from a Moderate Cross Connection Hazard.

**'Public Drinking Water System'** means collectively the Greater Victoria Drinking Water System and all of the drinking water distribution systems comprising water reservoirs, treatment plants, pumping stations, feeder mains, service connections, valves, fittings, hydrants, meters, cross connection control assemblies and devices and other equipment and machinery.

**'Readily Accessible'** means capable of being reached for the purposes of operation, renewal, servicing, and inspection, without having to climb over or remove an obstacle or to use a portable ladder.

**'Real Property'** has the same meaning as in the Schedule to the *Community Charter*.

**'Reduced Pressure Backflow Preventer (RPBA)'** means a testable Backflow Preventer that consists of two independently-acting, spring-loaded check valves separated by a springloaded differential pressure relief valve, two shutoff valves and four test cocks. A Reduced Pressure Backflow Preventer is typically used to provide protection against a Backflow from Severe Cross Connection Hazards.

**'Restricted Access Premises'** are Premises where the British Columbia Building Code is not applicable or where access by an Officer is restricted or prohibited.

**'Severe Cross Connection Hazard'** means any Cross Connection involving a Backflow of any substance that could be a danger to health.

**'Severe Hazard Facility'** means a Facility classified by Canadian Standards Association standard B64.10 as having a severe degree of hazard because of the prevalence of Severe Cross Connection Hazards within the Facility.

**'Service Connection'** means the point of physical connection between the Public Drinking Water System and a private Service Line. Typically, the Service Connection is located at the downstream side of the water meter, and is located at or near the Customer's property boundary.

**'Service Line'** means the privately owned pipes and fittings used for the transmission of Drinking Water from the Service Connection to the Customer's Drinking Water System.

**'Single-Family Residence'** means a Facility that has been designed for residential occupancy by one family and is served by an individual Service Connection.

**'Small Residential Facility'** means a Facility containing fewer than three dwelling units.

**'Temporary Water Connection'** means a short-term connection to the Public Drinking Water System for the purpose of construction or expansion of a development or for other reasons approved by the Water Supplier.

**'Water Supplier'** means a Person who, at any time this Bylaw is in force, is the Owner or operator of a drinking water distribution system that distributes Drinking Water from the Greater Victoria Drinking Water System to Real Property within the Participating Area. At the date of adoption of this Bylaw, the Water Suppliers are the Capital Regional District (the Water Supplier under Bylaw No. 2538), the City of Victoria (also the Water Supplier to the Township of Esquimalt), the District of Oak Bay, the District of Saanich, the District of Central Saanich, the District of North Saanich and the Town of Sidney.

**'Zone Protection'** means protection provided for sections of a piping system within a building or facility with no potable connections downstream of the backflow preventer.

(Bylaw 4340)

### 3.0 APPLICATION

#### 3.1 Cross Connection Control Bylaw

The regulations and provisions in this Bylaw are applicable to each of the Water Suppliers and Municipalities in the Participating Area of the Greater Victoria Drinking Water System. The technical requirements in this Bylaw are consistent with the technical requirements for cross connection control established by the British Columbia Building Code and CSA incorporated by reference in the Building Code. This Bylaw only outlines technical details where the British Columbia Building Code and the CSA standard B64.10 are silent or vague and require further instructions for the practical application of effective cross connection control measures. In accordance with the *British Columbia Building Act*, this Bylaw establishes administrative requirements to ensure the long-term effectiveness of the cross-connection control measures.

#### 3.2 Canadian Standards Association (CSA)

The design, selection and installation of Backflow Preventers, along with the maintenance and field testing of new and existing Backflow Preventers, shall conform to the requirements of the **CSA Standard B64.10** edition that is referenced in the current British Columbia Building Code.

The Cross Connection Control Officer may reclassify a Facility on a Customer's Real Property as a Minor Hazard Facility, Moderate Hazard Facility or Severe Hazard Facility, following an inspection that reveals the otherwise unanticipated presence or absence of specific categories of Cross Connection Hazards within the Facility. If the classification of the Facility is changed, the Cross Connection Control Officer shall provide written notice of the reclassification to the Customer.

#### 3.3 British Columbia Building Code

Where a plumbing permit has been issued, the installation of Backflow Preventers on a Premises shall comply with the current edition of the British Columbia Building Code at the time of the issuance of the permit. The British Columbia Building Code shall be used to determine the **minimum** requirements. If the British Columbia Building Code is silent on any aspect, the direction provided by the Canadian Standards Association shall be used. In the event of a conflict between the British Columbia Building Code and the CSA, the stricter requirement shall apply.

### **3.4 Engineering Specifications and Standard Drawings**

The CRD Engineering Specifications and Standard Drawings (as posted on the CRD website) provide guidance and direction for the installation of Backflow Preventers in the drinking water systems operated by CRD Water Services. These Specifications and Standard Drawings can be used to provide guidance and direction for the installation of Backflow Preventers in all of the Municipalities supplied with Drinking Water from the Greater Victoria Drinking Water System. A Municipality may also have its own Engineering Specifications and Standard Drawings as an addendum to the Master Municipal Construction Documents (MMCD). In the event of a conflict between the documents, the stricter requirement shall prevail.

### **3.5 Policies**

Policies required to facilitate the operation of the CRD Cross Connection Control Program shall be approved by the Water Suppliers and posted on the cross connection control section of the CRD website.

*(Bylaw 4340)*

## **4.0 CUSTOMER RESPONSIBILITIES**

Backflow Preventers shall be a part of the Customer's Drinking Water System and the Customer is responsible to perform and pay for compliance with all matters prescribed by this Bylaw that are applicable to the Customer's Facilities or Real Property, unless the Bylaw expressly states otherwise.

*(Bylaw 4340)*

## **5.0 CROSS CONNECTIONS PROHIBITED**

### **5.1 Cross Connections Prohibited**

No Person shall connect, cause to be connected or allow to remain connected, any piping, fixture, fitting, container, appliance, or internal system in a manner that may allow any Foreign Substance to enter the Public Drinking Water System, unless the Water System is protected by an approved Backflow Preventer, which has been installed and tested and maintained in accordance as per BC Building Code, **CSA Standard B64.10** and this Bylaw.

### **5.2 Prohibit Connection to Unacceptable Plumbing System**

No Person shall install or maintain a Service Connection to any Customer's Drinking Water System in which the plumbing system, facilities and fixtures have not been constructed and installed under the authority of a permit where required by a local government, and by using the acceptable plumbing practices prescribed by the British Columbia Building Code and considered by the Water Supplier to be necessary for the protection of health and safety.

*(Bylaw 4340)*

## **6.0 CROSS CONNECTIONS AND CONTAMINATION**

## 6.1 Report Discovered Cross Connections

A Customer, Certified Tester or other Person discovering a Cross Connection that is contaminating or has the potential to contaminate the Drinking Water in the Public Drinking Water System shall notify the Cross Connection Control Officer about that Cross Connection without delay.

## 6.2 Cross Connection Audit

If the Cross Connection Control Officer believes that a Cross Connection exists in contravention of **Section 5**, the Cross Connection Control Officer may carry out a Cross Connection Audit of the Facility:

- a) Upon reasonable notice to the Customer; or
- b) Without notice to the Customer where the Cross Connection Control Officer has reason to believe that an actual or potential Cross Connection exists and poses a threat of Contamination to the Public Drinking Water System which may endanger public health.

## 6.3 Contaminating Condition Found

If, in the opinion of the Cross Connection Control Officer, any condition is found to exist which is or may be contaminating the Public Drinking Water System, the Water Supplier may take one or more of the following actions:

- a) **Give Notice.** Give notice to the Customer requiring correction of the fault within a specified time period according to the degree of Cross Connection Hazard.
- b) **Require Customer to Install Backflow Preventer.** Require the Customer to install an approved Backflow Preventer that isolates the Cross Connection Hazard at the Customer's expense within a specified time period according to the degree of Cross Connection Hazard.
- c) **Water Supplier Install Backflow Preventer.** In the absence of the Customer installing an approved Backflow Preventer within a specified time period that provides Premises Isolation according to the degree of Cross Connection Hazard, the Water Supplier may proceed with this installation at the Customer's expense.
- d) **Discontinue Water Service.** Discontinue any water service until the condition is corrected.

*(Bylaw 4340)*

## 7.0 TESTING BACKFLOW PREVENTERS

### 7.1 Ensure Testing of Backflow Preventers

Where an approved, testable, Backflow Preventer has been installed, the Customer shall, at his or her sole expense, ensure that the Backflow Preventer is inspected and tested by a Certified Tester upon installation and thereafter, annually, to determine whether or not it is fully operational or, as often as required by the Cross Connection Control Officer where conditions are encountered that may impede the satisfactory operation of the Backflow Preventer or that may compromise the level of protection required for that category of Cross Connection Hazard (see exception listed in **Section 7.7**).

## **7.2 Report Results of Testing**

Where an approved, testable, Backflow Preventer has been installed, the Customer shall ensure that a report in a format approved by the Cross Connection Control Officer and showing the results of any and all tests requested and performed, including detailed descriptions of any necessary repairs made, has been submitted and received by the Cross Connection Control Officer for review within thirty-five (35) calendar days following the date of the notice to test.

## **7.3 Backflow Preventer Test Failures**

If an approved Backflow Preventer fails the annual test, the Certified Tester shall immediately notify the Customer, and upon authorization by the Customer, shall immediately have a plumber or equally certified tradesperson repair or replace the Backflow Preventer.

Failed device tests requiring repair or replacement must be submitted to the CRD CCC Portal within 14 days. Information such as serial numbers of devices that are supplied to the facility contact via the **CRD CCC Portal** must not be changed without the use of "repair or replace" function on the **CRD CC Portal**.

## **7.4 Notify Repair/Replacement of Defective Backflow Preventers**

If the defective Backflow Preventer cannot be immediately repaired or replaced, the Certified Tester shall immediately notify the Customer and the Cross Connection Control Officer of this result. The repair or replacement of the defective Backflow Preventer along with the subsequent testing and notification of the Cross Connection Control Officer by the Certified Tester shall be completed within thirty (30) calendar days of the date of the failed test.

## **7.5 Display Proof of Testing**

The Customer shall ensure that a *CRD Backflow Preventer Test Report Tag* issued by the Certified Tester is displayed on or immediately adjacent to the Backflow Preventer indicating the required information and the dates of initial testing and thereafter, the dates of the annual inspections. The Customer shall ensure that the test date and tester identification as specified by the Cross Connection Control Officer have been recorded on the tag.

## **7.6 Maintain File of Test Results**

The Customer shall maintain a file of test results for all Backflow Preventers installed on the Real property and, upon request, shall make that file available for inspection by the Officer or Water Supplier.

## **7.7 Tri-Annual Testing of Single-Family Residence Irrigation Backflow Preventers**

Following the initial testing of a Backflow Preventer when a non-chemically injected Irrigation System is first put into operation at a Single-Family Residence, the Backflow Preventer installed on that Irrigation System shall require testing only once every three (3) years unless, on a case-by-case basis, the Cross Connection Control Officer determines that a more frequent testing regime is required based on the potential Cross Connection Hazard posed by that system.

## **7.8 Remove Backflow Preventer**

No Person shall remove, cause or permit to be removed an approved Backflow

Preventer that has been specifically installed to protect the Public Drinking Water System unless that removal is:

- a) Necessary to facilitate the repair of the Backflow Preventer and that the Backflow Preventer is immediately replaced by a temporary Backflow Preventer until the time that the original Backflow Preventer is satisfactorily repaired or replaced and tested; or
- b) For the purpose of immediately replacing the Backflow Preventer with another Backflow Preventer that meets or exceeds the requirements listed in this Bylaw; or
- c) Warranted due to alterations to the Customer's Drinking Water System, which completely removes the risk of contamination to the Public Drinking Water System for which the Backflow Preventer was originally required/ In such circumstances, the Backflow Preventer shall not be removed until the Cross Connection Control Officer provides written approval for the removal of the Backflow Preventer upon the receipt of the documentation listed below. The cost of obtaining the necessary documentation shall be the responsibility of the Customer and includes:
  - i. A written request from the Customer to permit the removal of the Backflow Preventer.
  - ii. A Cross Connection Audit report or Facility Survey report confirming that the Cross Connection Hazard no longer exists within that Facility; or
- d) Authorized by the Cross Connection Control Officer.

#### **7.9 Tampering with Backflow Preventer**

No Person shall tamper with an approved Backflow Preventer that has been installed to protect the Public Drinking Water System.

*(Bylaw 4340)*

### **8.0 PROTECTION OF WATER MAINS**

#### **8.1 Isolation of New Water Mains**

New water mains shall be kept isolated from the live water main of the active distribution system by using a physical separation method until satisfactory bacteriological test results have been received by the Water Supplier and the highly chlorinated disinfecting water has been flushed out of the new water main.

#### **8.2 Backflow Protection for Existing Water Mains**

Where water from a live water main is required to fill a new water main for hydrostatic pressure testing, disinfection and flushing purposes, the water shall be supplied through a Temporary Water Connection between the live water main and the new water main which includes a Reduced Pressure Backflow Preventer.

#### **8.3 Temporary Water Connections**

A contractor, developer or other Person requiring temporary water service may acquire water from the Public Drinking Water System provided that the Temporary Water Connection is fitted with a Backflow Preventer approved by the Water Supplier in accordance with the following requirements:

- a) With the exception of i) below, any outlet used to dispense potable water from the water distribution system to supply a temporary water service for construction or

other purposes shall be protected against backflow caused by back siphonage or back pressure with:

- i. An RPBA backflow preventer, where there is no final connection to a plumbing system.
  - ii. A DCVA backflow preventer, where the temporary service is connected to a plumbing system that would be regarded as a low or moderate hazard; or
  - iii. An RPBA backflow preventer, where the temporary service is connected to a plumbing system that would be regarded as a high or severe hazard.
- b) If a Temporary Water Connection using a fire hydrant, flush valve assembly or temporary connection is used to provide water, a shut off valve and Backflow Preventer (may include a temporary water meter) shall be installed on the hydrant, flush valve outlet or temporary connection.
- c) The Water Supplier may supply, install and test the temporary water meter, valve and Backflow Preventer at the Customers' cost. As an alternative, the Water Supplier may require the Customer to supply, install and test the Backflow Preventer.
- d) Prior to the Water Supplier turning on the supply of water to the Temporary Water Connection, the Customer shall demonstrate to the satisfaction of the Water Supplier that an appropriate Backflow Preventer is installed in and is functioning properly.
- e) The Customer shall protect the temporary water meter, valve and Backflow Preventer from freezing or other damage.
- f) If any loss or damage occurs to the temporary water meter, valve or Backflow Preventer, the Customer shall immediately notify the Water Supplier and shall pay all costs associated with the replacement or repair of the temporary water meter, valve or Backflow Preventer.
- g) If the Backflow Preventer either becomes missing or is damaged, the Water Supplier shall be entitled to immediately shut off the water supply from the Public Water System through the Temporary Water Connection to the Customer's Real Property until the Backflow Preventer is either replaced or repaired.
- h) The Customer shall be responsible for the safe return and proper working condition of any temporary water meter, valve and Backflow Preventer provided by the Water Supplier for the temporary water service.
- i) Temporary water services to Small Residential Construction Sites shall, have as a minimum level of protection both of the Backflow preventers listed below, connected in series, unless, on a case-by-case basis, the Cross Connection Control Officer or Water Supplier require a higher level of isolation based on the observed Cross Connection Hazards at the site:
- i. A Dual Check Backflow Preventer (typically located downstream of the water meter; and
  - ii. A Hose Connection Vacuum Breaker (typically located at the hose connection.

*(Bylaw 4340)*

## 9.0 BULK WATER CONNECTIONS TO CRD WATER MAINS

Customers with a Bulk Water Connection to a CRD water main shall ensure that the Greater Victoria Drinking Water System is protected by a Backflow Preventer appropriate for the hazard level in accordance with **CSA Standard B64.10**. A typical municipal Bulk Water Connection requires a Double Check Valve Assembly. The ownership of the Backflow Preventer and the responsibility for testing and maintaining the Backflow Preventer lies with the customer. In Severe hazard applications, the CRD Cross Connection Control Officer may require a higher level of protection. In Minor hazard applications, the CRD Cross Connection Control Officer may approve a lesser device.

*(Bylaw 4340)*

## 10.0 CONNECTIONS TO RESTRICTED ACCESS PREMISES

Premises that are outside the provincial jurisdiction or Premises into which access by an Officer is restricted or prohibited shall require Premise Isolation appropriate for the hazard level in accordance with **CSA Standard B64.10**. Restricted Access Premises include, but are not limited to First Nations Reserves and Federal Facilities.

If the owner of a Restricted Access Premises water connection does not comply with the backflow requirements of **CSA Standard B64.10**, the water supplier for this connection shall be responsible for providing and maintaining the appropriate level of backflow prevention upstream of the water meter.

*(Bylaw 4340)*

## 11.0 TURN ON WATER SERVICE FOR OCCUPANCY

No Person shall turn on a Service Line valve to provide water to any newly constructed, renovated or reconstructed Premises for occupancy purposes unless a Backflow Preventer that provides Premises Isolation has been installed and approved by the Water Supplier, Municipality or Officer.

*(Bylaw 4340)*

## 12.0 NEW FACILITIES

### 12.1 New Severe Hazard Facilities

A New Facility classified as a Severe Hazard Facility by **CSA Standard B64.10** shall require Premises Isolation using a Reduced Pressure Backflow Preventer, in addition to Point-of-Use Isolation and Area Isolation (if applicable) within the Facility, in accordance with **Section 3**.

### 12.2 New Facilities with Unknown Occupancy

A New Facility with unknown occupancy uses shall be classified as a Severe Hazard Facility and shall require Premises Isolation using a Reduced Pressure Backflow Preventer in addition to Point-of-Use Isolation and Area Isolation (if applicable) within the Facility, in accordance with **Section 3**.

### 12.3 New Moderate Hazard Facilities

A New Facility classified as a Moderate Facility by **CSA Standard B64.10** shall require Premises Isolation using a Double Check Backflow Preventer, in addition to Point-of-Use Isolation and Area Isolation (if applicable) within the Facility, in accordance with **Section 3**.

### 12.4 New Minor Hazard Facilities

A New Facility classified as a Minor Hazard Facility by **CSA Standard B64.10** shall require Premises Isolation just downstream of the water meter using a non-testable, Dual Check Backflow Preventer.

(Bylaw 4340)

### 13.0 EXISTING FACILITIES

#### 13.1 Existing Severe Hazard Facilities

- a) An Existing Facility classified as a Severe Hazard Facility by **CSA Standard B64.10** shall require Premises Isolation using a Reduced Pressure Backflow Preventer.
- b) Premises Isolation using a Double Check Backflow Preventer for an Existing Facility classified as a Severe Hazard Facility may be considered on a case-by-case basis by the Cross Connection Control Officer provided that **BOTH** Point-of-Use Isolation **AND** Area Isolation (if applicable) using Reduced Pressure Backflow Preventers have been installed to supplement the reduced level of Premises Isolation protection. To ensure that no Severe Cross Connection Hazards have been missed, the Cross Connection Control Officer may request a detailed Facility Survey be conducted at the Customer's cost.

#### 13.2 Existing Moderate Hazard Facilities

- a) An Existing Facility classified as a Moderate Hazard Facility by **CSA Standard B64.10** shall require Premises Isolation using a Double Check Backflow Preventer when one or more of the conditions listed below are present:
  - i. A plumbing permit has been issued for major plumbing modifications, the Facility.  
**Note:** If a plumbing permit has been issued for major plumbing modifications, the Facility shall require Premises Isolation at the discretion of the Cross Connection Control Officer.
  - ii. The Existing Facility has experienced one or more water quality issues related to Cross Connections.
  - iii. The Existing Facility contains complex piping arrangements or non-Drinking Water piping connected to the Drinking Water System.
  - iv. The Existing Facility contains an industrial-commercial-institutional occupant classified as a Severe Hazard Facility (e.g., photo lab or carwash located within a multi-tenant facility).  
**Note:** If a Severe Hazard Facility occupant is located within a multi-tenant facility classified as a Moderate Hazard Facility, the Severe Cross Connection Hazard process(es) shall be isolated at the Point-of-Use with a Reduced Pressure Backflow Preventer **AND** the occupant shall be Area Isolated with a Reduced Pressure Backflow Preventer.
  - v. The Existing Facility is a tall building (5 storeys or higher) that has the potential to cause Back-Pressure.
  - vi. A booster pump is installed to provide additional water pressure within the Facility

- b) Point-of-Use Isolation **OR** Area Isolation within an Existing Facility classified as a Moderate Hazard Facility without requiring Premises Isolation may be considered on a case-by-case basis by the Cross Connection Control Officer provided that **ALL** of the conditions listed below are satisfied:
  - i. A Cross Connection Audit of the Existing Facility has been conducted; and
  - ii. The Backflow Preventers used for Point-of-Use **OR** Area Isolation at or within an Existing Facility are appropriate to the Cross Connection Hazard; and
  - iii. Upon reasonable notice, full access to the Point-of-Use Isolation and Area Isolation Backflow Preventers located at or within an Existing Facility is provided by the Customer; and
  - iv. None of the conditions listed under **Section 13.2(a)** apply.

### **13.3 Existing Minor Hazard Facilities**

- a) An Existing Facility classified as a Minor Hazard Facility by **CSA Standard B64.10** shall require Premises Isolation using a non-testable, Dual Check Backflow Preventer.
- b) If an Existing Facility classified as a Minor Hazard Facility contains a Severe or Moderate Cross Connection Hazard process, Point-of-Use Isolation of the process is required using a Backflow Preventer appropriate to the type of Cross Connection Hazard **AND** the Premises Isolation requirements may need to be upgraded from a Dual Check Backflow Preventer to a Double Check Backflow Preventer or a Reduced Pressure Backflow Preventer.

*(Bylaw 4340)*

## **14.0 LOCATIONS FOR PREMISES ISOLATION**

### **14.1 Standard Installation Location for Premises Isolation**

The standard location for a Backflow Preventer that provides Premises Isolation is upstream of all connections to a facility.

### **14.2 Alternative Installation Locations for Premises Isolation**

In accordance with **CSA Standard B64.10**, the following general requirements shall apply when alternative installation locations for the Backflow Preventer that provides Premises Isolation are proposed:

- a) No water connections (eg., for fire hydrants, irrigation systems, hose connections, or other similar devices for the transmission of water) shall be made between the water meter and the Backflow Preventer unless those connections are protected by a Backflow Preventer, The Customer shall ensure that all piping between the water meter and the Backflow Preventer is clearly labeled 'No Connection Permitted'.
- b) Backflow Preventers shall be installed in Readily Accessible locations to facilitate safe inspection, field testing and maintenance.
- c) Manufacture and CSA Standard B64.10, the stricter recommendations shall govern the clearances provided for Backflow Preventers.
- d) Reduced Pressure Backflow Preventers shall not be installed in a pit or vault below

grade.

- e) Backflow Preventers shall be located so that they do not hinder the operation of other safety system devices such as fire protection systems.
- f) Backflow Preventers shall be protected from freezing.

*(Bylaw 4340)*

## **15.0 FIRE PROTECTION SYSTEMS**

### **15.1 Fire Protection System Isolation**

Fire protection systems shall be separately isolated by using an appropriate level of protection to the type of fire system installed within the facility conforming to the BC Building Code.

### **15.2 Hydraulic Performance**

Prior to the installation of a Backflow Preventer on an existing fire protection system, the Municipality may require that a Professional Engineer review the hydraulic calculations to ensure that the operation of the fire protection system will not be compromised and that it complies with **National Fire Protection Association (NFPA)** codes and standards. The cost of providing this assurance shall be borne entirely by the Customer, except where stated otherwise.

*(Bylaw 4340)*

## **16.0 BOOSTER PUMPS**

Where the available water pressure within a Facility does not meet the stated specifications of the Water Supplier, a booster pump may be required. The installation of a booster pump within a Facility shall require Premises Isolation using a Backflow Preventer appropriate to the Cross Connection Hazard category of the Facility.

*(Bylaw 4340)*

## **17.0 AUXILIARY WATER SUPPLY**

As per BC Building Code, Auxiliary Water Supply piping shall not be interconnected to the Drinking Water System piping.

### **17.1 Standard Requirement**

Where access to an Auxiliary Water Supply is available to Real Property but is not interconnected with the Customer's Drinking Water System, Premises Isolation shall be required using an approved Backflow preventer as referenced in **CSA Standard B64.10**

### **17.2 Alternative Requirement for Single-Family Residence**

Where access to an Auxiliary Water Supply is available to a Single-Family Residence but is not interconnected with the Customer's Drinking Water System, Premises Isolation shall be required using a Dual Check Valve.

*(Bylaw 4340)*

## **18.0 IRRIGATION SYSTEMS**

All in-ground Irrigation Systems shall be isolated against Backflow caused by Back-Siphoning or Back-Pressure with the following:

### 18.1 Irrigation Systems with Chemical Injection

Irrigation Systems with chemical injection shall be isolated from the Drinking Water System using a Reduced Pressure Backflow Preventer installed upstream of the Irrigation System.

### 18.2 Irrigation Systems without Chemical Injection

Irrigation Systems without chemical injection shall be isolated from the Drinking Water System using:

- a) A Pressure Vacuum Breaker installed upstream of the Irrigation System and at least 300mm (12") above the highest point of the irrigation system,

**OR**

- b) A Double Check Backflow Preventer installed upstream of the Irrigation System shut-off valve.

*(Bylaw 4340)*

## 19.0 CARBONATION SYSTEMS

All post-mix soft drink carbonation systems shall be isolated against Backflow caused by Back-Pressure using a Double Check Valve Assembly, in accordance with the following requirements:

### 19.1 Pipe and Fittings

Reinforced plastic or rubber or stainless steel tubing shall be used for the pipe between the carbonator and the Double Check Valve Assembly. This pipe and fittings shall not be made of copper or a copper alloy.

### 19.2 Backflow Preventer

A stainless steel-bodied Double Check Valve Assembly shall be installed in the water line supplying the carbonator beverage dispensing equipment.

**OR**

An approved Dual Check Backflow Preventer with atmospheric port rated for carbonators DCAPC (either stainless steel or plastic body) **AND** a brass-bodied Double Check Valve Assembly shall be installed in the water line supplying the carbonator beverage dispensing equipment.

*(Bylaw 4340)*

## 20.0 BOILER HEATING SYSTEMS

Water make-up to boiler heating systems installed in an industrial-commercial-institutional Facility shall be isolated against Backflow caused by Back-Siphonage or Back-Pressure with a Double Check Valve Assembly or Reduced Pressure as per **CSA Standard B64.10** requirements.

*(Bylaw 4340)*

## 21.0 HEAT EXCHANGES

### 21.1 Water make up to Heat Exchangers

Any water connection from the potable distribution system to the supply water make-up to the heat transfer fluid shall be protected against backflow caused by back siphonage

or back pressure with the following:

- a) When the system is installed with entirely potable water system materials, and when the system does not contain any chemicals and is not equipped with a means to add chemicals:
  - i. an approved DCAP or
  - ii. an approved DCVA
- b) When the system is constructed of non-potable water system materials and does not contain any chemicals and is not equipped with a means to add chemicals:
  - i. an approved DCVA
- c) An approved RPBA shall be installed in any system containing chemicals or the means to add chemicals

*(Bylaw 4340)*

## **21.2 Heat Exchanger**

- a) When the heat transfer fluid is potable water or food grade glycol that meets the Hodge and Sterner Scale rating of 6 – Relatively harmless, the heat exchanger shall be a single wall type or double wall type with visible means of leak detection.
- b) A double wall heat exchanger with a visible means of leak detection shall be used for all other heat transfer fluids.
- c) Shall submit a sample to a lab for testing and report the results to the CRD CCC or:
- d) Install a Reduced Pressure Backflow Assembly upstream of the potable make-up water.

- 21.3** All other heat exchangers installed in other facilities with a make-up water connection between the potable water supply and the heat transfer fluid shall be protected against backflow caused by siphonage or back pressure with a RPBA backflow preventer complying with **CSA Standards B64.10**

*(Bylaw 4340)*

## **22.0 DISHWASHERS/GLASSWASHERS**

- 22.1** Commercial Dishwasher, glasswasher, sanitizers shall be considered a moderate hazard and be protected by a device approved by **CSA Standard B64.10**

- 22.2** Commercial Dishwasher, glasswasher, sanitizers with automatic detergent dispenser, the detergent dispenser shall be considered a severe hazard and shall be isolated against Back-siphonage or Back-pressure using either:

- a) A CSA approved Reduced Pressure Backflow Assembly (RPBA), if the **automatic detergent dispenser** is integrated into the water delivery system via venturi or aspirator, or;
- b) A CSA approved and registered Air Gap. If Air Gaps do not comply, install an approved RPBA at the make-up water connection.

*(Bylaw 4340)*

## 23.0 DETERGENT DISPENSING UNITS

Detergent dispensing units shall be isolated against Backflow caused by Back-Siphonage or Back-Pressure using a Reduced Pressure Backflow Preventer or **CSA Standard B64.10** approved Air Gap at the make-up water connection.

*(Bylaw 4340)*

## 24.0 BULK WATER CARRIERS

### 24.1 Bulk Water Carriers

Bulk Water Carriers who to obtain Drinking Water from the Public Drinking Water System for the purpose of bulk water deliveries shall have their vehicles equipped with approved RPBA's or Air Gaps. These Backflow assemblies and Air Gaps shall be tested or inspected annually.

*(Bylaw 4340)*

## 25.0 CROSS CONNECTION AUDITS

### 25.1 Cross Connection Audit of Severe and Moderate Hazard Facilities

Without limiting the authority of the Cross Connection Control Officer to perform a Cross Connection Audit and subsequent follow up audits, as specified under section 6.2 of this bylaw, a Cross Connection Audit shall be conducted on all Existing Facilities classified by **CSA Standard B64.10** as Severe or Moderate Hazard Facility.

### 25.2 Isolation Requirements and Recommendations

In the absence of satisfactory Premises Isolation for an existing Moderate or Severe Hazard Facility, the Cross Connection Control Officer may direct the Customer to install Premises Isolation in accordance with **Section 12**. In addition, where obvious Cross Connection Hazards are observed within the Facility, the Cross Connection Control Officer may recommend that the Customer address these deficiencies as soon as possible and certainly prior to the next scheduled audit date. The Cross Connection Control Officer may also advise the Customer that:

- a) The Customer may be liable if a Backflow occurs that causes a health issue for either the workers within the Facility or for the public using the Facility.
- b) The Backflow Preventers installed within the Facility for Point-of-Use Isolation will provide additional protection against Contamination of the Public Water System in the event that the Backflow Preventer that provides Premises Isolation fails. Again, the Customer may be liable.
- c) The recommendation of the Cross Connection Control Officer to address the deficiencies within that Existing Facility will be on record in the CRD database.
- d) Backflow events may be reportable to either the Vancouver Island Health Authority or WorkSafeBC.

### 25.3 Audit Report

A copy of the results of the Cross Connection Audit shall be provided to the Cross Connection Control Officer within fourteen (14) days of the completion of the audit.

### 25.4 Re-audits

Shall be conducted after a reasonable time or as needed by the Cross Connection Control Officer.

(Bylaw 4340)

## **26.0 CERTIFIED TESTERS AND TESTING EQUIPMENT**

### **26.1 Credentials**

- a) All Certified Testers submitting Backflow Preventer test data to the Cross Connection Control Officer shall possess a valid, within date, BCWWA Certificate of Competency as a Backflow Assembly Tester showing a certificate number as a backflow device tester from an accredited institution acceptable to the Cross Connection Control Officer for the Capital Regional District.
- b) If the Certified Tester is unable to provide proof that he/she is a BCWWA Certified Backflow Assembly Tester (i.e., copy of BCWWA certificate), the Backflow Preventer test data shall not be accepted and the Backflow Preventer shall be considered to be untested.
- c) Backflow Preventer test data shall not be accepted from a Certified Tester if the BCWWA Certificate of Competency as a Backflow Preventer Assembly Tester has expired prior to the date of testing the Backflow Preventer.
- d) Testers must remain current with testing procedures and as thus are required to recertify their certification through an accredited institution every five (5) years. To maintain a current certified tester status, a copy of their successfully completed certification exam or a current tester's card must be submitted to the Cross Connection Control office prior to the expiration of their previous certification.

### **26.2 Registration and Renewal of Certified Testers**

Prior to conducting any testing on Backflow Preventers installed within the Greater Victoria Drinking Water System, all Certified Testers shall register with the Cross Connection Control Officer, and henceforth, shall renew their registration annually.

### **26.3 Maintenance of Testing Equipment**

Certified Testers shall ensure that their testing equipment is, at all times, maintained so that it performs within the manufacturer's tolerances and specifications.

### **26.4 Calibration of Testing Equipment**

Testing equipment shall be calibrated and certified by the manufacturer's representative authorized to do so, to meet the requirements of **CSA Standard B64.10**.

### **26.5 Annual Calibration of Testing Equipment**

The calibration of testing equipment specified in **Section 25.4** shall be conducted once every twelve (12) months, or as specified by the Cross Connection Control Officer, from the date of the previous calibration.

### **26.6 Equipment Calibration Notice to CRD**

All testing equipment calibrators shall provide a copy of the calibration results to the Cross Connection Control Officer within seven (7) days of the calibration.

(Bylaw 4340)

## 27.0 FACILITY SURVEY SPECIALTIES

### 27.1 Approval and Registration of Facility Survey Specialists

Prior to conducting Facility Surveys within the Greater Victoria Drinking Water System, all Cross Connection Control Facility Survey Specialists shall submit their credentials for approval to the Cross Connection Control Officer. All newly approved Cross Connection Control Facility Survey Specialists shall register with the Cross Connection Control Officer, and henceforth, shall renew their registration annually.

### 27.2 Minimum Requirements for Facility Survey Specialists

To be approved to work within the Greater Victoria Drinking Water System, a Cross Connection Control Facility Survey Specialist must have the following minimum level of education and experience:

- a) Active status for a minimum of three (3) years as a Certified Backflow Preventer Tester through the British Columbia Water and Waste Association (either a tester or administrator)

**AND**

- b) Completion within the past three (3) years of **ONE** of the following specialist courses in Cross Connection Control:
  - i. Cross Connection Control Specialist
  - ii. Cross Connection Control Program Manager

**AND**

- c) A minimum of five (5) years industrial-commercial-institutional experience in Drinking Water systems in **ONE** of the following professions or trades:
  - i. Professional Engineer
  - ii. Engineering Technologist
  - iii. Plumbing Inspector
  - iv. Trades qualifications (plumber, steam fitter/pipe fitter or fire protection sprinkler fitter)

*(Bylaw 4340)*

## 28.0 ENFORCEMENT

### 28.1 Enter Real Property

An Officer or other Person authorized by the Water Supplier or the Municipality may enter, at all reasonable times and upon presentation of proof of his or her identity, on any Real Property, including all areas within individual Facilities to inspect and determine whether or not all regulations, prohibitions and requirements under the BC Building Code and this Bylaw are being met.

### 28.2 Enforce Bylaw Provisions

An Officer or other Person authorized by the Water Supplier or the Municipality may enforce the provisions of this Bylaw.

### 28.3 Failure to Receive Test Results

- a) If the Customer fails to provide the Cross Connection Control Officer with the test results required under **Section 7.2** for Backflow Preventers isolating a Moderate or Severe Cross Connection Hazard within forty-five (45) calendar days of the deadline date specified in the initial test request notice sent to the Customer, the Backflow Preventer shall be deemed to be defective and the Cross Connection Control Officer may conduct an inspection to verify that the level of Backflow protection for the Public Drinking Water System is commensurate with the Cross Connection Hazards found within the Facility.
- b) If the Cross Connection Control Officer conducts an inspection under **Section 27.3(a)** and finds that:
  - i. The level of Backflow protection is **satisfactory**, but the Customer has failed to provide the Cross Connection Control Officer with the test results for the Backflow Preventers that provides Premises Isolation (including any supplementary Backflow Preventers), the Cross Connection Control Officer shall direct the Customer to complete the outstanding tests and advise the Customer that, in the absence of the Customer providing those test results within a specified period, **Section 28** of this Bylaw shall apply;

**OR**

- ii. The level of Backflow protection is **unsatisfactory**, the Cross Connection Control Officer shall direct the Customer to install and test Backflow Preventers appropriate to the level of Cross Connection Hazards found within the Facility within a specified period of time.

#### **28.4 Failure to Repair/Replace Defective Backflow Preventers**

- a) If the Customer fails to ensure that a defective Backflow Preventer for a Facility classified as a Moderate or Severe Cross Connection Hazard has been repaired or replaced and the Cross Connection Control Officer so notified within the time period specified in **Section 7.4**, the Cross Connection Control Officer, may conduct an inspection to verify that the level of Backflow protection for the Public Drinking Water System is commensurate with the Cross Connection Hazards found within the Facility.
- b) If the Cross Connection Control Officer conducts an inspection under **Section 27.4(a)** and finds that:
  - i. The level of Backflow protection is **satisfactory**, but the defective Backflow Preventer that provides Premises Isolation (including any supplementary Backflow Preventers that are defective) has not been repaired or replaced and tested, the Cross Connection Control Officer shall direct the Customer to complete the outstanding repairs or replacement and advise the Customer that, in the absence of the Customer completing those repairs or replacement and testing within a specified period, **Section 28** shall apply;

**OR**

- ii. The level of Backflow protection is **unsatisfactory**, the Cross Connection Control Officer shall direct the Customer to install and test Backflow Preventers appropriate to the level of Cross Connection Hazards found within the Facility within a specified period of time.

#### **28.5 Failure to Install or Maintain Backflow Preventer**

If a Customer fails to install or maintain a Backflow Preventer that provides Premises Isolation (including any Backflow Preventers that supplement Premises Isolation requirements) in accordance with the requirements and standards prescribed by the BC Building Code and this Bylaw for the Facility, **Section 413 and 418** of the *Local Government Act* and the penalties prescribed in **Section 28** of this Bylaw shall apply.

**28.6 Failure to Comply With Direction of CCCO**

If a Customer fails to comply with a direction of the Cross Connection Control Officer, or otherwise refuses to cooperate with written directives provided by the Cross Connection Control Officer, **Section 413 and 418** of the *Local Government Act* and the penalties prescribed in **Section 28** of this Bylaw shall apply.

(Bylaw 4340)

**29.0 PENALTIES**

**29.1 Contravention of Bylaw**

A Person who contravenes this Bylaw commits an offence, is punishable in accordance with the *Offence Act* and is subject to a minimum fine of Two Thousand Dollars (\$2,000.00).

**29.2 Continuing Offences**

An offence that continues to be committed for more than one day is deemed to be a separate offence for each day on or during which the offence continues to occur and separate fines may be imposed for each day on or during which the offence continues.

**29.3 Other Remedies**

Nothing in this Bylaw shall restrict a Water Supplier, the CRD or a Municipality from utilizing any other remedy that would otherwise be available to them at law.

(Bylaw 4340)

**30.0 BYLAW CITATION**

This Bylaw may be cited as “Capital Regional District Cross Connection Control Bylaw No. 1, 2008”

READ A FIRST TIME THIS	11 <sup>th</sup>	day of	June	2008
READ A SECOND TIME THIS	11 <sup>th</sup>	day of	June	2008
READ A THIRD TIME THIS	11 <sup>th</sup>	day of	June	2008
ADOPTED THIS	11 <sup>th</sup>	day of	June	2008

Original Signed by D. Blackwell  
CHAIR

Original Signed by C.Thiel  
SECRETARY

1. **DRINKING WATER PROTECTION ACT definitions:**

**‘Domestic Purposes’** means the use of water for

- (a) human consumption, food preparation or sanitation,
- (b) household purposes not covered by paragraph (a), or
- (c) other prescribed purposes.

**‘Drinking Water’** means water used or intended to be used for Domestic Purposes.

**‘Drinking Water Health Hazard’** means

- (a) a condition or thing in relation to drinking water that does or is likely to
  - (i) endanger the public health, or
  - (ii) prevent or hinder the prevention or suppression of disease,
- (b) a prescribed condition or thing, or
- (c) a prescribed condition or thing that fails to meet a prescribed standard

2. **COMMUNITY CHARTER definitions:**

**‘Occupier’** means a person

- (i) who is qualified to maintain an action for trespass,
- (ii) who is in possession of Crown land under a homestead entry or preemption record,
- (iii) who is in possession of
  - (a) Crown land, or
  - (b) land owned by a municipality or regional district under a lease, license, agreement for sale, accepted application to purchase, easement or other record from the Crown, municipality or regional district, or
- (iv) who simply occupies the land.

**‘Owner’** means, in respect of real property,

- (a) the registered owner of an estate in fee simple,
- (b) the tenant for life under a registered life estate,
- (c) the registered holder of the last registered agreement for sale,
- (d) the holder or occupier of land held in the manner referred to in section 228 [taxation of Crown land used by others] or section 229 [taxation of municipal land used by others] of the *Community Charter*, and
- (e) an Indian who is an owner under the letters patent of a municipality incorporated under section 12 [incorporation of reserve residents as a village] of the *Local Government Act*,

**‘Real Property’** means land, with or without improvements so affixed to the land as to make them in fact and law a part of it.

3. **INTERPRETATION ACT definitions:**

**‘Person’** includes a corporation, partnership or party, and the personal or other legal representatives of a person to whom the context apply according to law.