

## REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN

### BYLAW NO 2851, 2020 - CROSS CONNECTION CONTROL

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A Bylaw of the Regional District of Okanagan Similkameen to protect public health by controlling backflow and cross connections to water supply systems owned and operated by the Regional District of Okanagan-Similkameen.

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**WHEREAS** the Regional District of Okanagan-Similkameen may by bylaw operate and maintain a *Water Supply System Cross Connection Control Program*.

**AND WHEREAS**, under the *Local Government Act*, subject to the *Public Health Act*, a Regional District 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 these purposes;

**AND WHEREAS**, the Regional District wishes to protect public health by minimizing *Backflow* and controlling *Cross Connections* in all Regional District *Water Supply Systems* owned, operated and maintained by the Regional District; by providing for the oversight of installation, testing and maintenance of *Backflow Preventers* and other devices required by this Bylaw

**NOW THEREFORE**, the Regional District of Okanagan-Similkameen in open meeting assembled, hereby enacts as follows:

#### **1. CITATION**

- 1.1. This Bylaw may be cited as the "Cross Connection Control Bylaw No. 2851, 2020"

#### **2. ADMINISTRATION**

- 2.1. This Bylaw applies to all agricultural, industrial, commercial, and institutional *Water Service Connections* in a *Water Service Area*. This Bylaw also applies to residential buildings and structures that are evaluated to have a high *Degree of Hazard* and are supplied with water by the Regional District within the *Water Service areas*.
- 2.2. The *Manager* is responsible for administration and oversight of the operation of the Regional District *Water Supply Systems* and to administer and enforce this *Bylaw*.

#### **3. INTERPRETATION**

- 3.1. In this Bylaw:

- “Approved Backflow Prevention Assembly”* or *“Assembly”* means a *Backflow Preventer* containing two isolation valves and test ports that is designed to be tested and repaired while in service;
- “Authorized Personnel”* means a Regional District employee or agent appointed by the *Manager* for the purposes of this Bylaw;
- “Auxiliary Water Supply”*- any water available on or to a premises originating from a source or system, other than that from the Regional District *Water Supply System*
- “Backflow”* means a flowing back or reversal of the normal direction of flow;
- “Backflow Preventer”* means an assembly, device or method to prevent *Backflow* as selected and installed in conformance with the CSA B64.10 or a standard otherwise required under the *BC Plumbing Code*;
- “Backflow Prevention Assembly Test Report”* means a form provided by or approved for use by the Regional District to be used when testing an *Approved Backflow Prevention Assembly* to record all pertinent information and test data;
- “Backflow Prevention Assembly Tester”* means a person holding a valid certificate from a recognized approval agency as approved by the Regional District for the purpose of testing *backflow prevention assemblies*;
- “Backflow Prevention Device”* or *“Device”* means a non-testable type of *Backflow Preventer*;
- “Board”* means the Board of Directors of the Regional District of Okanagan-Similkameen;
- “Bylaw”* means the *Regional District of Okanagan-Similkameen Cross Connection Control Bylaw No.2851, 2019* as amended from time to time;
- “Contaminant”* means any physical, chemical, biological or radiological substance or matter in water which may render the water *Non-Potable* under the *Drinking Water Protection Act* (British Columbia) and Regulations;
- “Contamination”* means an impairment of the water in a *Water Supply System* or *Private Waterworks* by the introduction or admission of a foreign material that may compromise the safety or aesthetic characteristics of that water;
- “Cross Connection”* means any actual or potential physical arrangement whereby a *Water Supply System* is connected, directly or indirectly, to any device or source which is capable of imparting *contamination* into the *Water Supply System* as a result of *Backflow*;
- “Cross Connection Control Inspector”* means a person holding a valid certificate from British Columbia Water and Wastewater Association or as approved by the Regional District for the purpose of identifying new or existing *cross connections* within a facility by conducting a comprehensive cross connection risk assessment;
- “Cross Connection Control Program”* means the most current Regional District Cross Connection Control Program and Guidelines which provide further reference and direction, standard

operating procedures, bulletins and other program updates and amendments relevant to this *Bylaw*;

“CSA” is the abbreviation for the Canadian Standards Association;

“CSA B64.10” is the CSA “Selection and Installation of Backflow Preventers/Maintenance and Field Testing of Backflow Preventers” as adopted in the *Plumbing Code* and amended from time to time. This document will be referenced for degrees of hazard, device selection and installation requirements.

“Customer” means an owner or occupant whose land or premises is being provided *Water Services*, or who has filed an application for *Water Services* with the Regional District that has been approved by the Regional District;

“Degree of Hazard” means a minor, moderate or severe hazard as determined by *Authorized Personnel* as referenced in the CSA B64.10;

“Discontinue” means to terminate the arrangement between the Regional District and the *Customer* for the *Water Services*;

“Farm Use” means the use of land for farm operations, including farming of land, plants and animals and any other similar activities designated as farm uses by enactment, including the *Agricultural Land Commission Act*, and the *Farm Practices Protection (Right to Farm) Act*;

“Inspect” means an on-site review conducted by the *Authorized Personnel* of a premise’s water use, meters, piping, equipment, *Auxiliary Water Supply*, operating conditions and maintenance records for the purpose of evaluating conformity with the terms and conditions of this *Bylaw*;

“Irrigation Service” means the provision of *Water Service* to an *Irrigation System* for a *Farm Use* pursuant to the *Water Use Regulation Bylaw*;

“Irrigation System” means the *Private Waterworks* delivering and distributing water for *Farm Use* on a parcel;

“Irrigation Water Service Connection” means the point where a *Water Supply System* connects to any parcel and includes all pipes, taps, valves, connections and other things used to connect the *Irrigation System* to the *Water Supply System*, typically located at the downstream side of a *Water Meter* near the boundary or property line of the parcel;

“Manager” means the Chief Administrative Officer or their designate;

“Non-Potable Water” means water that is not approved by Interior Health Authority as *potable water*;

“Non-Potable Water System” means an assembly of pipes, fittings, valves, and appurtenance that collects and distributes *non-potable water*;

“Plumbing Code” means the part of the *British Columbia Building Code* currently in force that pertains to plumbing systems;

“*Potable Water*” means water that has been deemed fit for human consumption by the Interior Health Authority as defined in the *Drinking Water Protection Act* and Regulations;

“*Premise Isolation*” means a *Backflow Preventer* for protection provided at the entrance to a building or property;

“*Private Waterworks*” means any privately owned pipe and fittings intended to receive water from a *Water Service Connection* and deliver or distribute the water to and within a parcel;

“*Regional District*” means the Regional District of Okanagan-Similkameen;

“*Test Tag*” means an approved identifier attached to and displayed on an *Approved Backflow Prevention Assembly* displaying the purpose of the device, type of device, manufacturer, serial number, size, test date, and tester’s company, initials and testers certification number;

“*Temporary Water Use Permit*” means a permit issued by the Regional District authorizing the use of a Regional District owned fire hydrant, stand pipe, or temporary *Water Service Connection*, for purposes other than emergency fire protection, for a specified period of time and under specified conditions;

“*Used Water*” means any *Potable Water* which is no longer in the water supply system including *Potable Water* that has moved downstream or past the *Water Service Connection* (water meter) to the premises or parcel;

“*Water Meter*” means a device supplied, owned and maintained by the Regional District which measures the quantity of water delivered to a parcel;

“*Water Meter Pit*” means an underground enclosure and related equipment (including pipes, valves and couplers) to house a *Water Meter* or *Backflow Preventer* at or near a *Water Service Connection*;

“*Water Use Regulation Bylaw*” means the *Regional District of Okanagan-Similkameen Water Use Regulation Bylaw No. 2824, 2019* as amended from time to time;

“*Water Service*” means the supply of water from the Regional District to a *Customer* pursuant to the *Water Use Regulation Bylaw No 2824, 2019*;

“*Water Service Area*” means the areas identified in Schedule “A” of the *Water Use Regulation Bylaw*;

“*Water Service Connection*” means the point where a *Water Supply System* connects to any parcel and includes all pipes, taps, valves, connections and other things used to connect the *Private Waterworks* to the *Water Supply System*, typically located at the downstream side of a *Water Meter* near the boundary or property line of the parcel;

“*Water Supply System*” means the Regional District owned system of all physical works used to provide and deliver water in all *Water Service* areas.

- 3.2. Except as otherwise defined in this Bylaw, words or phrases herein have the same meanings as in the *British Columbia Building Code*, the *Plumbing Code*, the *Interpretation Act*, the *Community Charter*, and the *Local Government Act*.
- 3.3. The headings used in this Bylaw are for convenience only and shall not affect the construction or interpretation of this Bylaw.
- 3.4. Any enactment referred to in this Bylaw is a reference to that enactment and its regulations, as amended, revised, consolidated or replaced from time to time, and any bylaw referred to herein (as may be cited by short title or otherwise) is a reference to a bylaw of the Regional District, as amended, revised, consolidated or replaced from time to time.
- 3.5. The word "person" includes an individual, partnership, firm, body corporate or politic, government or department thereof.
- 3.6. The words "include" and "including", when following any general statement, term or matter, shall not be construed to limit that general statement, term or matter to the specific items or matters set forth immediately following those words or to similar items or matters following those words or to similar items or matters.

#### **4. REQUIREMENT FOR CROSS CONNECTION CONTROL**

- 4.1. Every applicable *Customer* of a property supplied with water by the Regional District must ensure that:
  - (a) a *Backflow Preventer* is installed and maintained in good working order for every *Water Service Connection*; and
  - (b) a *Cross Connection* inspection and hazard assessment survey is conducted by a *Cross Connection Control Inspector* for every building, structure or parcel where a *Backflow Preventer* is required in accordance with this Bylaw.
- 4.2. Any failure to have delivered or received a notice under this Bylaw, or any failure of a *Cross Connection Control Inspector* to identify a *Cross Connection* or related hazard does not relieve a *Customer* from meeting the requirements of this Bylaw.

#### **5. CROSS CONNECTION PROHIBITED**

Subject to the provisions of this Bylaw:

- 5.1. No person shall create a *Cross Connection* by connecting, causing to be connected, or allowing to remain connected to the *Water Supply 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, *contaminant* or other substance to enter the *Water Supply System*.

#### **6. NOTICE OF CROSS CONNECTIONS**

- 6.1. If the *Authorized Personnel* determines that the configuration of any *Private Waterworks* creates a risk of *contamination* to the *Water Supply System*, the *Customer*, on being notified by *Authorized Personnel*, must promptly and at the sole expense of the *Customer*, have installed a *Backflow Preventer* on the *Private Waterworks* in accordance with *CSA B64.10* at a location where the *Water Service Connection* enters the premise and downstream of the *water meter*, at the property line of the parcel, or at another location as directed by the *Authorized Personnel*.
- 6.2. Where any *Cross Connection* condition is found to exist that exposes the *Water Supply System* to risk of *contamination*, or the *Water Service* of any *Customer* is at such risk, the *Manager* or *Authorized Personnel* may take one or more of the following actions:
  - (a) if the risk of *contamination* appears to be imminent, shut off the *Water Service* immediately, providing notice to the *Customer* or others who may be affected as soon as possible thereafter;
  - (b) in other circumstances, notify the *Customer* to correct the condition or *Cross Connection(s)* within 30 days or a time period that *Authorized Personnel* considers reasonable in relation to the Degree of Hazard that is identified;
  - (c) shut-off *Water Service*, after providing notice under paragraph (b), until satisfied that the condition has been fully remedied, and that any amount of costs and expenses incurred by the Regional District and owed by a *Customer* are fully paid.
- 6.3. A person to whom a notice under subsection 6.2 is delivered must promptly comply with requirements set out in the notice so as to eliminate, mitigate and prevent the condition or *Cross Connection* identified in the notice by installing, maintaining or repairing a *Backflow Preventer* approved by *Authorized Personnel*.
- 6.4. The *Customer* whose *Water Service* has been shut-off pursuant to this *Bylaw* is solely responsible for all costs associated with remedying a condition on their property resulting in shut-off, and, as a condition of the *Water Service* being restored, must:
  - (a) ensure the condition resulting in the shut-off is fully remedied, inspected and reported as approved by a *Backflow Preventer Assembly Tester*; and
  - (b) pay to the Regional District all costs and expenses incurred by the Regional District associated with the restoration of *Water Service*, including the cost of the water shut-off, in the amount set out on an invoice, within 30 days of an invoice being delivered to the *Customer*
- 6.5. Any and all costs, damages or losses sustained by the Regional District as a result of an incident involving *Backflow* of a *contaminant* originating from a *parcel* or premises shall be borne by the *Customer*.

## **7. TESTING, MAINTENANCE AND REPAIR OF APPROVED BACKFLOW PREVENTION ASSEMBLIES**

- 7.1. Every *Customer* must arrange for an *Approved Backflow Prevention Assembly* required under this *Bylaw* to be inspected and tested by a certified *Backflow Preventer Assembly Tester*, upon

installation, after repair and at least once in every twelve (12) month period, or more often if required by the *Manager* or *Authorized Personnel*. The *Customer* or *Backflow Assembly Tester* shall ensure that the completed *Backflow Assembly Test Report* is submitted to the Regional District or its *Authorized Personnel* within thirty (30) days of the test date confirming the following:

- (a) the installation and test date of the *Assembly*;
- (b) the specific location of the *Assembly* and what *Cross Connection* or hazard it is intended to isolate;
- (c) the manufacturer, model, size and serial number of the *Assembly* installed; and
- (d) that it is an *Assembly*, installed correctly and in proper operating condition.

7.2. A *Backflow Preventer Assembly Tester* is required to physically attach a *Regional District Test Tag* to the *Approved Backflow Prevention Assembly* initially installed or tested indicating the information required in paragraphs (a) to (c) of subsection 7.1.

7.3. Where a *Customer* fails to have an *Approved Backflow Prevention Assembly* tested, the *Manager* or *Authorized Personnel* may notify the *Customer* that the *Assembly* must be tested within a specified time period or further actions would be taken.

7.4. Before removing an *Approved Backflow Prevention Assembly* from a plumbing system, a person must obtain prior written consent of the *Manager* or *Authorized Personnel* unless an *Assembly* is removed and is immediately replaced with an equivalent *Assembly*, in which case the details of removal and replacement must be submitted to the Regional District on a *Backflow Prevention Assembly Test Report*.

7.5. Where an *Approved Backflow Prevention Assembly* appears to be malfunctioning or damaged, fails to function as designed or does not meet the test criteria set forth by the CSA B64.10.1, the *Customer* must notify the *Manager* and have the *Assembly* repaired or replaced and then retested within thirty (30) days of the initial test date in accordance with this section 7.

7.6. Further to the testing requirements of section 7.1, the *Manager* or *Authorized Personnel* may require more frequent testing of an *Approved Backflow Prevention Assembly* if concern arises as to the *Degree of Hazard* associated with a *Cross Connection* or related condition at a property.

## **8. ASSEMBLIES FOR COMMERCIAL, AGRICULTURAL IRRIGATION AND SPRAYER USE**

8.1. Where the *Water Supply System* provides *Irrigation Services* to a parcel, in addition to the general provisions stated in this *Bylaw* and the *Water Use Regulation Bylaw*, the *Customer* shall also comply with the following:

- (a) No person, other than *Authorized Personnel*, shall turn on an *Irrigation Water Service Connection* to be used for *Farm Use* purposes;

- (b) A Customer operating the *Irrigation System* shall have an *Approved Backflow Prevention Assembly* in accordance with CSA B64.10 and with the provisions of this *Bylaw* prior to obtaining an *Irrigation Water Service Connection*;
- (c) A Customer must install and use an *Approved Backflow Prevention Assembly* for high *Degree of Hazard* conditions;
- (d) A Customer must apply for and receive prior written approval from *Authorized Personnel* before installing and using substance injection or mixing equipment in accordance with this *Bylaw*;
- (e) A Customer wishing to change, modify or vary the previously approved injection equipment in the *Private Waterworks* must notify the *Manager* or *Authorized Personnel* in writing of their intentions to do so and receive prior written approval from the *Manager* or *Authorized Personnel*; and
- (f) For Seasonal Irrigation: A Customer must ensure that testing, inspection and submission of the test report on seasonal *Approved Backflow Prevention Assemblies* used for the seasonal *Irrigation Water Service Connection* has been completed and submitted within fourteen (14) days after the *Irrigation Water Service Connection* is turned on. Bench testing of the *Approved Backflow Prevention Assembly* is not allowed unless pre-approval has been obtained from *Authorized Personnel* prior to turning on the *Irrigation Water Service Connection*.

8.2. Any person operating a sprayer tank filling station shall maintain a minimum air gap vertical separation of 30cm (12in.) between the end of the filler hose and the top overflow rim of the sprayer tank. If this air gap cannot be maintained or if the sprayer filling station is constructed or operated in a manner that constitutes any actual or potential *Cross Connection* with the *Water Supply System*, an *Approved Backflow Prevention Assembly* for high *Degree of Hazard* conditions must be installed in accordance with *CSA B64.10*, and the provisions of this *Bylaw*.

## 9. ASSEMBLIES FOR TEMPORARY WATER USE CONNECTION

- 9.1. No person shall connect, cause to be connected, or allow to remain connected, any piping, fixture, fitting, container, tanker truck or appliance to a fire hydrant, stand pipe or any other temporary water connection:
- (a) 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 *Water Supply System*;
  - (b) without using an *Approved Backflow Prevention Assembly* which has been approved and installed in accordance with the Regional District's *Cross Connection Control Program*; and
  - (c) without first obtaining a *Temporary Water Use Permit*.

- 9.2. A person who wishes to use a Fire Hydrant, standpipe, or temporary water connection, for purposes other than emergency fire protection, must apply to the *Manager* in a form approved by the *Manager for a Temporary Water Use Permit*, and must pay all fees that apply for the use.
- 9.3. The *Manager* may issue a temporary permit for such use if satisfied as to its safety and consistency with this and other applicable bylaws; and may specify the period of time for which the hydrant, standpipe or water connection may be used and impose such terms, conditions, restrictions and requirements that the *Manager* deems appropriate in the circumstances.

## **10. AUXILIARY AND NON-POTABLE WATER SUPPLIES**

- 10.1. A *Customer* of a premise that contains or has access to an *Auxiliary Water Supply* system must ensure *Premises Isolation* of such facility with a *Backflow Preventer* corresponding to the *Degree of Hazard* as stipulated in CSA B64.10.
- 10.2. A *Customer* must ensure there is no direct connection between a *non-potable Auxiliary Water Supply System* and any other *Potable Water* system except with the approval in writing of the *Manager* or *Authorized Personnel*.
- 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. ACCESS AND ENFORCEMENT**

- 11.1. The *Manager* or *Authorized Personnel* is provided the authority to enter on property, and to enter into property, without the consent of the owner and occupier, when the *Community Charter*, Section 16, applies.
- 11.2. Except in the case of an emergency, the *Manager* or *Authorized Personnel* may only exercise the authority at reasonable times and in a reasonable manner and must take reasonable steps to advise the owner or occupier before entering the property.
- 11.3. The *Manager* or *Authorized Personnel* may enter on property for the purpose of:
  - (a) inspecting a portion of a *Water Supply System* that is located on the parcel;
  - (b) inspecting, investigating or repairing *Private Waterworks* if they are reasonably believed to be creating a disturbance with a *Water Supply System*;
  - (c) identifying or inspecting potential or existing *Backflow* into the *Water Supply System*;
  - (d) issuing notifications, warnings, or educational materials pursuant to the provisions of this Bylaw; and
  - (e) verifying that the *Customer* is compliant with the provisions of this Bylaw.

## **12. OFFENCE AND PENALTY**

12.1. Every person who:

- (a) contravenes any provision of this Bylaw;
- (b) causes, suffers, or permits any act or thing to be done in contravention of any provision of this Bylaw;
- (c) neglects or refrains from doing anything required to be done by any provision of this Bylaw;
- (d) fails to comply with any order, direction, or notice given under this Bylaw; or
- (e) fails to grant access for an inspection

is guilty of an offence.

12.2. Each day that an offence continues amounts to a separate and distinct offence.

12.3. Offences listed in the Regional District's Bylaw Notice Enforcement Bylaw, as amended from time to time, are designated for enforcement.

12.4. In addition to any prosecution and penalties imposed in relation to a violation of this Bylaw, where any *Customer* fails to comply with a provision of this Bylaw, or a requirement contained in any notice issued pursuant to this Bylaw, the *Manager* may arrange to have carried out any physical works considered necessary to remedy the violation. The Regional District may recover all costs and expenses incurred by it from the *Customer*. An amount owing for work done or services provided by the Regional District is payable by December 31<sup>st</sup>. Any amount not paid by December 31<sup>st</sup> will be treated as for taxes in arrears.

12.5. Any penalty imposed pursuant to this Bylaw will be in addition to, and not in substitute for, any other penalty or remedy imposed pursuant to any other applicable statute, law, or legislation.

### **13. SEVERABILITY**

13.1. If any provision of this Bylaw is held to be invalid by a court of competent jurisdiction, the provision may be severed from the Bylaw, and such invalidity shall not affect the validity of the remaining portions of this Bylaw.

READ A FIRST, SECOND AND THIRD TIME this 21<sup>st</sup> day of January, 2021.

ADOPTED this 21<sup>st</sup> day of January, 2021



Chair



Corporate Officer