CLEARBROOK WATERWORKS DISTRICT
Cross Connection Regulation Bylaw No. 143

A bylaw to regulate the installation of valves or other works to prevent the contamination of the District's water system as a result of a backflow or back siphon.

The Trustees of the Clearbrook Waterworks District (CWD) ENACT AS FOLLOWS:

1. Definitions

In this bylaw:

"Acceptable" means in accordance with the standard or as accepted by the Board of Trustees.

"Air Gap" means an acceptable piping arrangement designed to be a backflow preventer and as defined by the Plumbing Code.

"Backflow" means a flowing back or reversal of the normal direction of the flow of water to the District's waterworks system.

"Backflow Preventer" means an acceptable device or method that is designed to prevent backflow.

"Backflow Prevention Assembly" means a backflow prevention device designed to be tested and repaired in line, fitted with properly located, tightly closing, resilient seated test cock(s) and tightly closing, resilient seated shutoff valves located at each end of the assembly.

"Backflow Prevention Device" means an acceptable mechanical backflow preventer.

"Certified Tester" means a person holding a valid certificate from an approved organization such as the British Columbia Water and Wastewater Association for the purpose of testing and servicing all types of backflow prevention devices.

"Certified Operator" means a CWD employee holding a valid water distribution certificate from the EOCP.

"Consumer" means any person who is the owner, or agent of the owner, of any premises to which water is supplied or made available from any of the

works and shall include any person who is the occupier of such premises and any person who is a user of water supplied to any premises or by any service from the works.

"Cross Connection" means any physical arrangement whereby the District's waterworks system is connected, directly or indirectly, with any non-potable or unapproved private water system, sewer, drain, conduit, well, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain, contaminated water, liquid, gases, sewage or other water, of unknown or unsafe quality which may be capable of imparting contamination to the District's waterworks system as a result of backflow.

"District" means the Clearbrook Waterworks District.

"Fire Hydrant Use Backflow Assembly" means a backflow prevention assembly that is owned by the District and connected to the waterworks for permitted or operational short term water usages at changing locations.

"Foreign matter" means anything other than non-chlorinated potable water.

"Owner" means an owner of a parcel of real property including the registered owner of an estate in fee simple.

"Parcel" means any lot, block, or other area in which real property is held or into which real property is subdivided.

"Person" includes a corporation, partnership or party and the personnel or other legal representative of a person to whom the context can apply according to law and the singular includes the plural and masculine includes the feminine.

"Plumbing Code" means the Plumbing Services provisions of the British Columbia Building Code enacted pursuant to Section 298 of the Local Government Act, R.S.B.C., 1996, c.323 and as may be amended or replaced from time to time.

"Potable Water" means any water safe for human consumption as defined by the British Columbia Drinking Water Protection Act and Regulation.

"Premise Isolation" means the practice of protecting the waterworks from contamination due to backflow by the installation of one or more backflow preventers immediately downstream of the service connection or service connection (temporary) on the connecting pipe conveying water on a real property and upstream of the first outlet or connecting water pipe.

"Private Water System" means any water distribution or storage works located on private property connected to the District's waterworks system and without limiting the generality of the foregoing, includes any domestic use, irrigation system, greenhouse and hydroponic system.

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

"Registered Air Gap" means an air gap that is identified by the Trustees or by definition in the standard.

"Service" means the supply of water from the works to any person, including all pipes, taps, valves, connections, meters and other appurtenances necessary to or actually used for the purpose of the supply.

"Service Connection" means the connecting pipe and appurtenances between any water main and the property line of the premises served and shall include the necessary District valves and meters.

"Service Connection (Temporary)" means the connecting pipe between a water main and the property line of premises which do not front upon the water main from which service is provided and shall include the necessary District valves and meters.

"Standard" means the current standards and specifications established by the BCWWA, AWWA, Canadian Standards Association, and the BC Plumbing Code.

"Test Report" means the currently approved form used by the District and issued by the Trustees for the purpose of reporting the status, field test and inspection results, and other relevant information regarding a backflow prevention assembly or a registered air gap.

"Trustee" means the Board of Trustees for the District or any person authorized by the Board to act on their behalf.

"Water" means water supplied by the District.

"Waterworks" or "Works" means the waterworks system of the Clearbrook Waterworks District.

"Waterworks System" means all waterworks and all appurtenances thereto, including water mains, service connections, pumping stations, wells, reservoirs, hydrants, valves and meters owned, controlled, maintained and operated by the District.

2. For the purposes of this Bylaw the Trustee shall have charge and control of the waterworks system and the authorization to direct the implementation of measures to protect the waterworks system and existing systems supplied with water and those systems that have applied for service, from contamination through cross connections.

3. No person or owner or operator connected to the District's waterworks system shall permit the creation or continuance of a cross connection.

4. A person that is aware of a contravention of this Bylaw shall immediately give notice to the Trustee of the contravention.

5. The selection, installation, removal, replacement, repair, maintenance, field testing and inspection of backflow preventers/assemblies shall comply with this Bylaw, the standard and the Plumbing Code or be acceptable to the Trustee.

6. Where the usage of water or conditions exist within a real property such that premise isolation is required, either by the Plumbing Code or the standard or by determination of the Trustee, the consumer shall install backflow preventers or backflow assemblies as premise isolation downstream of each service connection or service connection (temporary) serving the real property.

7. When the usage of water or conditions within a real property has changed such that premise isolation is required or a change to the existing premise isolation is required, either by the Plumbing Code or the standard or by determination of the Trustee, the consumer shall install backflow preventers/assemblies as premise isolation downstream of each service connection or service connection (temporary) serving the real property.

8. Where an existing premise is found to be without adequate backflow prevention either through a premise survey and hazard assessment or upon discovery of an actual or potential cross connection, The District shall request the installation of an approved backflow prevention assembly or device at the owner/operator's expense. Further, The District will require the addition of an approved backflow prevention assembly or device when the existing water meter is changed or when any alterations or additions to the existing plumbing occur.

a) The owner or operator of any private water system shall install a type of backflow prevention device approved by the District on the private water system at the location of the service connection from the District or another location approved by the District.

b) The backflow prevention device shall be installed in accordance with the current edition of "British Columbia Water and Waste Association

(BCWWA) Accepted Procedure and Practice on Cross Connection Control", American Waterworks Association (AWWA) or as otherwise directed by the District.

c) The backflow prevention device shall be a device approved by the BCWWA or the Canadian Standards Association.

d) The owner or operator shall have the backflow prevention device inspected once in each twelve (12) month period by a certified tester to ensure that it is an approved device, installed correctly and in proper operating condition. If the device is found to be faulty, it must be fixed and retested. A copy of the test report shall be provided to the District within thirty (30) days of completion of the test.

e) The owner or operator will provide to the District within 30 days of initial installation of the backflow prevention device a certificate from a certified tester confirming:

i) the date of installation of the backflow prevention device,
ii) the type, model and size of backflow prevention device installed,
iii) that it is an approved device installed correctly and in proper operating condition.

9. No person, except a certified operator of the District, shall use water from a valve or outlet as part of the waterworks, a District owned fire hydrant or standpipe for any purpose other than for fire fighting without the connection of a fire hydrant use backflow preventer installed by a certified operator of the District for the authorized use.

10. Where a person has applied for service, an inspection of the real property shall be conducted by a Trustee, who shall determine if the provisions of this Bylaw and the Plumbing Code have been met prior to the commencement of service.

11. New service to a real property will be provided only when the Trustee is satisfied that:

a) any cross connections existing on the real property are controlled in an acceptable manner; and

b) where the usage of water within the real property is such that premise isolation is required as set out in this Bylaw, the consumer has installed backflow preventers/assemblies to address the premise isolation requirements.

12. The consumer shall control every cross connection on a real property in an acceptable manner and shall maintain every backflow preventer/assembly in good working order:

a) where a premise is deemed "residential", ie a single-family dwelling, with or without a suite, and/or duplexes. The District has installed a dual check valve backflow prevention device, which is non-testable. Therefore, there is no responsibility on the residential homeowner to test or maintain the device.

b) where a residential occupant alters the service to cause a cross connection with any non-potable sources including, but not limited to; irrigation systems, chemicals, water softeners, chlorinators or any other appurtenance, the District shall conduct a cross connection survey to determine whether or not additional premise isolation in the form of a testable backflow prevention assembly is required.

c) in the event that an uncontrolled cross connection has been detected, the District shall reserve the right to disconnect the service to protect the system.

d) the homeowner is responsible to take immediate action as prescribed by the District before water service will be reinstated.

13. When it becomes known or suspected that a backflow preventer/assembly is not in good working order, whether from inspection or field test results or other indications, the consumer shall arrange for the immediate repair or replacement of the backflow preventer/assembly.

14. The maintenance, field testing, inspection, repair, installation, removal or replacement of a backflow preventer/assembly shall be at the sole expense of the consumer.

15. No person connected to the District's waterworks system shall permit the introduction of any chemicals or foreign matter whatsoever into the water system:

16. The owner or operator assumes responsibility for the operation of the irrigation system and shall ensure that proper backflow prevention devices and or procedures are used at the connection to the District's water system.

17. The owner or operator of any sprayer tank filling station shall maintain a minimum air gap of 30 cm between the end of the filler hose and the top of the sprayer tank. If this air gap cannot be maintained or if in the opinion of the Trustee, the sprayer filling station is constructed or operated in a

manner that constitutes a cross connection with the District's waterworks system, the provisions of this Bylaw shall apply.

18. The District shall be entitled, at its determination to:

a) inspect the water system located on private property, with notice,

b) impose minimum standards which must be met and satisfied relating to the type of backflow preventer and the installation and maintenance of the same,

c) inspect the type of backflow preventer and the installation and state of maintenance and repair of the same.

d) access for inspection in the event that the Trustee has reason to believe that:

i) a condition exists within a real property that could be a danger to the public health or that may cause physical damage to the waterworks due to backflow, whether within the real property or through transmission by the waterworks; or

ii) an incidence involving backflow has occurred on a real property and that the results of such an incidence could cause damage to the waterworks or pose a risk to the public health, the consumer shall, at all hours, allow, suffer and permit the Trustee to enter the real property to inspect all backflow preventers, piping, connections, fixtures and other apparatus to determine if such a condition exists or incidence is occurring or has occurred.

19. Where any condition is found to exist, which, in the opinion of the Trustee constitutes a cross connection with the District's waterworks system, the Trustee shall shut off the water supply to the property immediately and notify the property owner that an approved backflow prevention device(s) shall be properly installed and tested prior to the water being turned on. If, in the sole opinion of the Trustee, a health hazard does not presently exist, but is imminent, the Trustee shall give notice to the property owner to correct the cross connection within a specific period.

20. Every construction site and vacant real property supplied with water shall require premise isolation. The District shall not provide service to a construction site or a vacant real property prior to the acceptable installation of the acceptable premise isolation backflow preventers.

21. The District shall discontinue service to a construction site or vacant real property when:

a) there is no premise isolation;

b) the premise isolation backflow preventer/assembly is not field tested in accordance of this Bylaw; or

c) the premise isolation backflow preventer/assembly fails the field test and is not immediately repaired or replaced and retested so that it passes the field test; or

d) the test report is not received and accepted in accordance with this Bylaw.

22. Other than for the required replacement of a backflow prevention device, once installed, no person shall remove a backflow prevention device from the potable water distribution system without the prior written approval of the District's Trustee. The consumer shall make an application to the District regarding such approval and supply all information as required for the removal of a backflow prevention device as set out in the standard.

23. Damage to or Alteration of Backflow Assembly or Preventer:

a) No person shall damage, destroy, or otherwise render inoperative a backflow assembly or preventer.

b) No person shall alter, modify, or otherwise retrofit a backflow assembly or preventer such that the backflow assembly or preventer no longer meets the requirements of the Plumbing Code or the standard.

24. Identification of Backflow Assembly or Preventer:

a) No person shall alter, damage, destroy, remove, paint, cover, or otherwise render the identification plate or marking of a backflow assembly or prevention device such that it can no longer be read by the Certified Tester or District's Trustee or District's employees.

b) In the event that the identification plate or marking of a backflow prevention assembly is missing or can no longer be read, the consumer shall either:

i) replace the backflow prevention assembly in accordance with this Bylaw; or
ii) upon the acceptance of the Trustee, attach an acceptable identification plate or tag to the backflow prevention assembly in accordance with the standard.
In the case of **(ii)**, the consumer shall apply in writing to the Trustee for permission to attach the identification plate and

shall supply all information that the Trustee requires concerning the backflow prevention assembly.

25. Damages Resulting From Backflow:

a) Any and all costs, damages or losses sustained by the District as a result of an incident involving backflow originating from a real property of a consumer shall be borne by the consumer, and the consumer shall indemnify and hold harmless the District, its agents, employees and officers from and against any and all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the backflow.

26. The District shall not be liable to any person for injury or damages:

a) or reduction or loss of water pressure, which may result from the installation of backflow preventers/assemblies;

b) which may result from the interruption of water pressure or supply within a real property or the interruption or discontinuance of service to a real property; or

c) which may result from an omission to notify a consumer to correct an inadequately controlled cross connection.

27. Any person whose water has been turned off pursuant to this Bylaw shall not have the water from the District turned on until such time as all of the provisions of this Bylaw have been complied with, and the said person pays to the District a turn-on fee of $250.00.

28. Any person who disobeys or fails to comply with any provision of this Bylaw shall be guilty of an offence and liable to a penalty of Two Thousand Five Hundred Dollars ($2,500) or, upon summary conviction, to imprisonment not exceeding six (6) months, or both; and if the offence is of a continuing nature, to a penalty not less than Five Hundred Dollars ($500) for each day the offence is continued.

29. This bylaw may be cited as the "Cross Connection Regulation Bylaw No. 143".

This bylaw repeals Bylaw No. 120.

INTRODUCED and given first reading by the Trustees on the 21st day of November, 2019

RECONSIDERED and finally passed by the Trustees on the 21st day of November, 2019

Seal

Chair of the Trustees

Corporate Administrator

I hereby certify that this is a true copy of Bylaw No.143.

Corporate Administrator

A true copy of Bylaw No.
registered in the office of the
Inspector of Municipalities this
24 day of December 2019

Deputy Inspector of Municipalities