

# REGIONAL DISTRICT OF NORTH OKANAGAN

## BYLAW No. 2106

### A bylaw to regulate cross connections to the Greater Vernon Water Utility

**WHEREAS**, Section 796 of the Local Government Act authorizes the Regional District Board to operate any service that the Board considers necessary or desirable for all or part of the Regional District;

**AND WHEREAS**, the Board has by Bylaw No. 1262, 1994 established the local service of Regional Water Supply;

**AND WHEREAS**, the Board has by Bylaw No. 2063, 2005 established a bylaw to regulate the Greater Vernon Water Utility waterworks;

**AND WHEREAS**, the Board deems it necessary and wishes to regulate cross connections to the Greater Vernon Water Utility;

**NOW THEREFORE**, the Board of the Regional District of North Okanagan, in open meeting assembled, ENACTS AS FOLLOWS:

#### 1. CITATION

This Bylaw may be cited for all purposes as "*GVWU Cross Connection Control Regulation Bylaw No. 2106, 2005*".

#### 2. DEFINITIONS

In this Bylaw:

**"Approved Backflow Prevention Assembly"** means a backflow preventer that is designed to be tested and repaired in-line and to meet the design and installation criteria requirements of the CSA standards B64.10-01 / Series-01, as amended from time to time, and the USC FCCCHR approval criteria.

**"Authorized Agent"** includes a Person, Firm or Corporation authorized by the Greater Vernon Water Utility to act on its behalf.

**"Backflow"** means the reversal of flow from a private water system to the Greater Vernon Water Utility waterworks system.

**"Backflow Assembly Test Report"** means a form provided by or approved for use by the Greater Vernon Water Utility to be used when testing backflow assemblies to record all pertinent information and test data.

**"Backflow Assembly Tester"** means a person holding a valid certificate from the American Water Works Association, British Columbia Section for testing backflow prevention assemblies and approved by the Greater Vernon Water Utility.

**“Backflow Preventer”** means a mechanical apparatus installed in a water system that prevents backflow of contaminants into the potable water system.

**“Building Inspector”** means a person designated by the Council or Board as a building inspector for the respective Municipality or Regional District to administer the building and plumbing regulations.

**“Commercial User”** shall mean any user other than a residential customer.

**“Customer”** means the owner, or a person authorized by the owner, of any premises to which water is supplied from the Greater Vernon Water Utility waterworks system, and also any person who is the occupier of any such premises, and also any person who obtains water from a Fire Hydrant or by any service from the waterworks system.

**“Contaminant”** means any physical, chemical, biological or radiological substance or matter in water which may render the water non-potable, according to regulations of the Province of British Columbia Drinking Water Protection Act & Regulations.

**“Cross Connection”** means any actual or potential physical connection whereby the Greater Vernon Water Utility’s waterworks system is connected, directly or indirectly, with any non-potable or unapproved private water supply system, sewer, drain, conduit, well, pool, storage reservoir, pond, plumbing fixture, or any other device which contains, or may contain contaminated water, liquid, gases, sewage, or other waste, of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow.

**“Cross Connection Control Program”** means the Greater Vernon Water Utility Cross Connection Control Program and Guidelines which provide standard operating procedures, bulletins and other program updates relevant to this bylaw.

**“CSA”** is the abbreviation for the Canadian Standards Association.

**“Discontinue Service”** means to terminate the arrangement between Greater Vernon Water Utility and the Customer for the supply of water and to Shut Off the service pipe, disconnect it, or remove it.

**“Fire Hydrant Use Permit”** means a permit issued by Greater Vernon Water Utility for any Person requesting water from a Fire Hydrant for purposes other than emergency fire protection.

**“Inspect”** means an on-site review of the water use, facilities, meters, piping, equipment, operating conditions and maintenance records for the purpose of evaluating for conformity with the terms and conditions of this bylaw.

**“Owner”** means the owner of real property assigned under the “Local Government Act” and/or Land Registry Act and includes that person’s authorized agent.

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

**“Potable Water”** means water that is fit for human consumption as defined in the Drinking Water Protection Act and Regulations.

**“Premises”** means any real property and buildings on it.

**“Private Water System”** means any privately owned pipe and fittings intended for the delivery or distribution of water within a premise or to a property and includes any domestic use, irrigation system, greenhouse and hydroponics system, and any other use of water supplied by the Greater Vernon Water Utility Waterworks System.

**“Reclaimed Water System”** means treated effluent water system that disposes of water from a waste water treatment plant.

**“Reduced Pressure Backflow Assembly”** means a backflow preventer consisting of a mechanically independent acting, hydraulically dependent relief valve located in a chamber between two independently operating, force-loaded check valves, the intermediate chamber pressure always being lower than the supply pressure when there is a positive pressure on the supply side. The unit includes properly located resilient-seated test cocks and tightly closing resilient-seated shut-off valves at each end of the assembly. This device is designed for use under continuous pressure.

**“Residential User”** means any connection to the Greater Vernon Water Utility’s waterworks system from a building used exclusively for residential purposes containing not more than two (2) residential units.

**“Shut Off”** means to turn off the water supply by closing a Greater Vernon Water Utility owned valve or by any other means approved by the Greater Vernon Water Utility.

**“Temporary Use Of Greater Vernon Services Fire Hydrant And Application”** is a Greater Vernon Services - Water operations policy that outlines the guidelines to be followed when a request is received for temporary use of fire hydrants.

**“Turn On”** means to allow the flow of water by opening a Greater Vernon Water Utility owned valve or by any other means approved by the Greater Vernon Water Utility.

**“USC-FCCCHR”** is the abbreviation for the “University of Southern California Foundation for Cross Connection Control and Hydraulic Research” which is a testing and approval agency providing a list of approved backflow prevention assemblies.

**“Used Water”** means any potable water which is no longer in the waterworks distribution system including potable water that has moved downstream or past the service connection and/or the property line to the private water system.

**“Waterworks System”** means the Greater Vernon Water Utility and the water distribution systems previously known as North Okanagan Water Authority, District of Coldstream and City of Vernon.

**“Water Service”** means the supply of water by means of the waterworks system.

### 3. WATER SUPPLY AND PRESSURE

3.1. Greater Vernon Water Utility does not guarantee pressure or continuous supply of water, or accept responsibility at any time for the maintenance of pressure in its water mains or for increases or decreases in pressure. Greater Vernon Water Utility reserves the right at any and all times, without notice, to change operating water pressure and to *shut off* the water supply for the purposes of making repairs, extensions, alterations or improvements, or for any other reason, or to increase or reduce pressure.

- 3.2. Greater Vernon Water Utility, its officers, employees or agents shall not incur any liability of any kind whatsoever by reason of the cessation in whole or in part of water pressure or water supply, or changes in operating pressures, or by reason of the water containing sediments, deposits, or other foreign matter.
- 3.3. Where steam or hot water boilers or other equipment is fed with water by pressure directly from the *waterworks system*, Greater Vernon Water Utility shall not be liable for any injury or damage which may result from such pressure or from lack of such pressure or for any injury or damage resulting from the improper installation of a backflow preventer.

#### 4. INSPECTION

- 4.1. The Greater Vernon Water Utility and/or a *Building Inspector* is hereby authorized to:
  - 4.1.1. Access the *private water system* located on private property at all reasonable hours in order to carry out inspections and surveys of the *premises* to determine the existence of connections or *cross connections* prohibited by this bylaw and as stated in the Greater Vernon Water Utility *Cross-Connection Control Program*.
  - 4.1.2. Impose minimum standards that must be met and satisfied relating to the type of *backflow preventer* and the installation and maintenance of the same in accordance with the Greater Vernon Water Utility *Cross Connection Control Program*.
  - 4.1.3. *Inspect* the type of *backflow preventer*, the installation and state of maintenance and repair of the same;
- 4.2. No person shall *turn on a waterworks valve* to provide *water service* to the occupants of any newly renovated or constructed or reconstructed Premise(s) until the *private water system* in such *premise(s)* has been inspected for *Cross Connections* by the *Building Inspector* and /or Greater Vernon Water Utility, and until it is confirmed that all required *Backflow Preventers* have been installed and all *Approved Backflow Prevention Assemblies* have been tested in accordance with this bylaw.

#### 5. CONTAMINATION

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 Greater Vernon Services Water Utilities *waterworks system* any device, piping, fixture, fitting, container, appliance or any other chattel or thing which may under any circumstances allow non-potable water, used water, wastewater or any chemical, liquid, gas or other substance to enter the *waterworks system*.

## 6. CROSS CONNECTIONS AND BACKFLOW PREVENTION

- 6.1. No *owner* or other *person* shall permit the introduction of any *contaminant* or foreign matter whatsoever into any *private water system* that is connected *the waterworks system*.
- 6.2. Where Greater Vernon Water Utility or *Authorized Agent* determines that there exists a connection or *cross connection* prohibited by this Bylaw and/or the Greater Vernon Water Utility *Cross Connection Control Program*, written notice may be given to the *customer* to correct the connection or *cross connection* at the expense of the *customer* within the time specified in the notice.
- 6.3. An *owner* or *customer* to whom notice has been given under this section shall correct the connection or *cross connection* by installing an *Approved Backflow Prevention Assembly* conforming to the CSA Standards B64.10-01/B64.10.1-01 (or the most current edition of this document) for the selection, installation, maintenance and field testing of backflow preventers and as described in the Greater Vernon Services *Cross Connection Control Program*.
- 6.4. The *owner* or *customer* shall install a type of *backflow preventer* commensurate with the degree of hazard and that is approved by Greater Vernon Water Utility on the *private water system* at the location of the service connection from the *waterworks system* or other location(s) approved by Greater Vernon Water Utility.
- 6.5. Notwithstanding anything contained herein, if, in the opinion of Greater Vernon Water Utility, the configuration of any water connection creates a high risk of contamination to the *waterworks system*, the *customer* shall install on the *private water system*, at the location of the service connection from the *waterworks system*, an *Approved Backflow Prevention Assembly*, in addition to any *backflow preventers* installed in the *customer's private water system* at the source of the potential contamination.
- 6.6. The failure to be sent a notice(s), or the failure to receive a notice(s), shall not excuse the mandatory duty of the premise owner or other responsible party to comply with this Bylaw and/or the Greater Vernon Water Utility *Cross Connection Control Program* and all other applicable bylaws.
- 6.7. Where any condition is found to exist which, in the opinion of the Greater Vernon Water Utility, constitutes a *cross connection* with the *waterworks system*, The Greater Vernon Water Utility or *Authorized Agent* may either:
  - 6.7.1. Shut off the water supply service(s) to the premises and notify the *owner* or *customer* that an approved backflow prevention assembly(s) must be properly installed and tested at the expense of the *owner* or *customer* prior to the water service(s) being turned on;
  - 6.7.2. Give notice to the *owner* or *customer* to correct the *cross connection(s)* at the expense of the *owner* or *customer* within a specified period. If the notice is not complied with, Greater Vernon Water Utility may then *discontinue water service* or services;

- 6.7.3. Install an *approved backflow prevention assembly* at the service connection with all costs being charged to the *owner* or *customer*.
- 6.8. Any *person* whose water has been turned off pursuant to this Bylaw shall not have the water from the Greater Vernon Water Utility waterworks system turned on until all requirements of Greater Vernon Water Utility have been met and the *owner* or *customer* has paid to Greater Vernon Water Utility all costs associated with the *shut off of water service*, the cleanup of contamination and until the customer's default under this section has been remedied.

## 7. TESTING OF BACKFLOW PREVENTION ASSEMBLIES

- 7.1. The *owner* or *customer* will provide to Greater Vernon Water Utility within thirty (30) days of initial installation, repair or relocation of an *approved backflow prevention assembly*, a *backflow assembly test report* from a certified *Backflow Assembly Tester* confirming the following:
  - 7.1.1. The installation date of the *Approved Backflow Prevention Assembly*;
  - 7.1.2. The specific location of the assembly and what *cross connection* or hazard it is intended to isolate;
  - 7.1.3. The manufacturer, model, size and serial number of the *backflow preventer* installed; and
  - 7.1.4. That it is an *approved backflow prevention assembly*, installed correctly and in proper operating condition.
- 7.2. *Approved backflow prevention assemblies* are required to be inspected and tested by a certified *Backflow Assembly Tester* at least once in every twelve (12) month period or more often if required by Greater Vernon Water Utility.
- 7.3. Where an *owner* or *customer* fails to have an *Approved Backflow Prevention Assembly* tested, Greater Vernon Water Utility may notify the *owner* or *customer* that the backflow assembly must be tested within ninety-six (96) hours, or within a specified period. If the customer fails to comply with such notice Greater Vernon Water Utility or an *authorized agent* shall *discontinue* the *water service* or services and the owner or customer may be subject to penalties listed under this Bylaw.
- 7.4. Where there is a visible or other indication that a *backflow preventer* is malfunctioning, it is the responsibility of the *owner* or *customer* to immediately notify Greater Vernon Water Utility, and further, to stop using the *private water system* until the *backflow preventer* is replaced or repaired and re-tested. This includes but is not limited to damage by: freezing, hot water, fire or otherwise due to neglect.

## 8. COMMERCIAL AND AGRICULTURAL IRRIGATION USE AND TURN ON

- 8.1. Where a cross connection exists between the Greater Vernon Services Water Utilities *waterworks system* and a *private water system*, in addition to the other

provisions stated in this bylaw, the owner or customer shall also comply with the following:

- 8.1.1. No person except the duly authorized agents of the Greater Vernon Water Utility shall turn on an agricultural irrigation system.
- 8.1.2. Prior to commencement of operation of the *private water system* in each irrigation season, the owner or any person operating a commercial or agricultural irrigation system shall have the *Approved Backflow Prevention Assembly* inspected and tested, at the *customer's* expense, by a certified *Backflow Assembly Tester*. A copy of the test report shall be provided to Greater Vernon Water Utility within thirty (30) days of completion of the test.
- 8.1.3. An Approved *Reduced Pressure Backflow Assembly (RPBA)* shall be used whenever fertilizers, chemicals or any other substance detrimental to health are introduced to a *Private Water System*.

## 9. RECLAIMED WATER SYSTEMS

9.1 In addition to the other provisions stated in this bylaw, the *owner* or *customer* operating a *private water system* where reclaimed water is accessible shall also comply with the following:

- 9.1.1 There shall be no direct connection between a reclaimed water system and the Greater Vernon Services Water Utilities waterworks system.;
- 9.1.2 Where both reclaimed water and potable water are provided on a customers premises, a *Reduced Pressure Backflow Assembly* shall be installed at the *customer's* expense on the *private water system* at the location of the service connection from the *waterworks system* or other location approved by Greater Vernon Water Utility; and
- 9.1.3 Where the *customer* uses potable water to supplement a *reclaimed water system*, the water must be supplied through an approved air gap or an alternative approved by the Greater Vernon Water Utility and shall be inspected by Greater Vernon Water Utility or an *authorized agent* at least every twelve (12) months.

## 10. TEMPORARY USE OF FIRE HYDRANTS

10.1 No person shall connect, cause to be connected, or allow to remain connected, any piping, fixture, fitting, container or appliance to a Fire Hydrant, stand pipe or any other temporary service connection:

- 10.1.1 In a manner which, under any circumstances, may allow water, wastewater or any liquid or substance of any kind to enter the Greater Vernon Services Water Utilities waterworks system; and
- 10.1.2 Without using an Approved Backflow Prevention Assembly which has been approved and installed in accordance with Water Operations Policy

“Temporary Use Of GVS Fire Hydrant And Application”, and the Greater Vernon Services Water Utilities Cross Connection Control Program; and

10.1.3 Without first obtaining a Fire Hydrant Use Permit.

10.2 Any person who violates and provisions of Section 10 of this bylaw will be refused access to water service through the use of a Fire Hydrant or temporary service connection and may be subject to penalties listed under this Bylaw.

## 11. PENALTIES

11.1. Every person who disobeys or fails to comply with any provision of this Bylaw shall be guilty of an offence and liable on summary conviction to:

11.1.1 a fine not exceeding Ten Thousand Dollars (\$ 10,000.00);

11.1.2 to imprisonment not exceeding six (6) months;

11.1.3 to both a fine and imprisonment; and

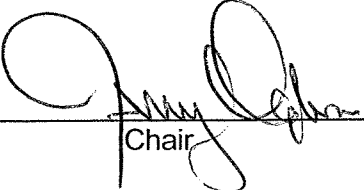
11.1.4 to restitution of costs incurred by the Regional District to enforce the Bylaw as certified by the Chief Financial Officer.

11.2. In addition to the penalties in Section 11.1 of this Bylaw, if the offence is of a continuing nature, every person who continues to disobey or fails to comply with any provision of this Bylaw shall be liable to a fine not exceeding Five Hundred Dollars (\$500.00) for each day the offence is continued after the date of the first offence.

**Read a FIRST and SECOND TIME** this 8th day of November , 2005.

**Read a THIRD TIME** this 8th day of March , 2006.

**Reconsidered and ADOPTED** this 8th day of March , 2006.

  
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Chair

  
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Corporate Officer