

# The Corporation Of The City of Grand Forks

## **BYLAW NO. 1817**

### **A Bylaw to Establish a Cross Connection Control Program and Process For the City of Grand Forks**

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**WHEREAS**, Provincial legislation requires water suppliers to establish regulations to ensure provisions for the elimination and prevention of cross-connections between their potable water and any non-potable sources.

**NOW THEREFORE**, the Council of the City of Grand Forks, in open meeting assembled, **ENACTS AS FOLLOWS**:

#### **1. CITATION**

This Bylaw may be cited for all purposes as “**Cross Connection Control Bylaw No. 1817, 2006**”

#### **2. DEFINITIONS**

In this Bylaw:

- 2.1. “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 and the USC FCCCHR approval criteria.
- 2.2. “Authorized Agent” includes a Person, Firm or Corporation representing the City of Grand Forks by written consent;
- 2.3. “Backflow” The flow of water or other liquids, gases or solids from any source back into the *Customer’s* plumbing system or the City of Grand Forks Waterworks System;
- 2.4. “Backflow Assembly Test Report” means a form provided by or approved for use by the City of Grand Forks to be used when testing backflow assemblies to record all pertinent information and test data;
- 2.5. “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 City of Grand Forks;

- 2.6. "Backflow Preventer" means a mechanical apparatus installed in a water system that prevents backflow of contaminants into the potable Waterworks System;
- 2.7. "Building Inspector" means a person designated by the Council as a building inspector for the City of Grand Forks to administer the building and plumbing regulations.
- 2.8. "City" means the City of Grand Forks
- 2.9. "Commercial User" shall mean any user other than a residential user.
- 2.10. "Customer" means any person who is the *Property Owner* or agent for the *Property Owner* of any premises to which water is supplied from the City of Grand Forks *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;
- 2.11. "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;
- 2.12. "Cross Connection" means any actual or potential physical connection whereby the City of Grand Forks Waterworks System is connected, directly or indirectly, with any non-potable or unapproved private water supply system, sewer, drain, conduit, well, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain contaminated water, liquid, gases, sewage, or other waste, or unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow;
- 2.13. "Cross Connection Control Program" means the City of Grand Forks Cross Connection Control Program and Guidelines which provide further reference and direction, standard operating procedures, bulletins and other program updates relevant to this bylaw;
- 2.14. "CSA" is the abbreviation for the Canadian Standards Association;
- 2.15. "Discontinue" means to terminate the arrangement between the City of Grand Forks and the *Customer* for the supply of water and to Shut Off the service pipe, disconnect it, or remove it;
- 2.16. "Fire Hydrant Use Permit" means a permit issued by the City of Grand Forks for any Person requesting water from a Fire Hydrant for purposes other than emergency fire protection;

- 2.17. "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;
- 2.18. "Property Owner" means the registered Property Owner of any lands and premises within the City and shall, where applicable, include the executor or administrator of an estate;
- 2.19. "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;
- 2.20. "Potable Water" means water that is fit for human consumption as defined in the Drinking Water Protection Act and Regulations;
- 2.21. "Premises" means any Real property and buildings on it;
- 2.22. "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 City of Grand Forks Waterworks System;
- 2.23. "Reduced Pressure Backflow Assembly" 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.
- 2.24. "Residential User" means any connection to the City of Grand Forks Waterworks System from a building used exclusively for residential purposes containing not more than two (2) residential units;
- 2.25. "Shut Off" means to turn off the water supply by closing a City of Grand Forks owned valve or by any other means approved by the City of Grand Forks;
- 2.26. "Turn On" means to allow the flow of water by opening a City of Grand Forks owned valve or by any other means approved by the City of Grand Forks;
- 2.27. "Trustee" means the Trustee of the City of Grand Forks or any person authorized by the Trustee to act on their behalf;

- 2.28. "USC-FCCHR" is the abbreviation for the "University of Southern California Foundation for Cross Connection Control and Hydraulic Research". A testing and approval agency providing a list of approved backflow prevention assemblies;
- 2.29. "Temporary Use Of the City of Grand Forks Fire Hydrant And Application" a water operations policy that outlines the guidelines to be followed when a request is received for temporary use of fire hydrants;
- 2.30. "Used Water" means any potable water which is no longer in the water distribution system including potable water that has moved downstream or past the Water Connection (water meter) and/or the property line to the private water system;
- 2.31. "Water Connection" means a connection of at least three-quarter inch pipe connecting to a main supply line and extending to the property line for the purpose of conveying water to the said property, and may or may not include a water meter but shall include a shut-off valve;
- 2.32. "Water Service" means works and services provided by the City and include;
- 2.32.1. supply of water for consumption or other use
  - 2.32.2. water connection installation, repair or replacement
  - 2.32.3. water main extension
- 2.33. "Waterworks System" means all water pipes, fittings, valves, reservoirs, pumps, treatment or purification facilities or fire hydrants within a right-of-way, easements or property under the control of or title to the City;

### **3. WATER SUPPLY AND PRESSURE**

- 3.1. The City of Grand Forks 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. The City of Grand Forks 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. The City of Grand Forks, its officers, employees or agents shall not incur any liability of any kind what so ever 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 *water system*, the City of Grand Forks shall not be liable for any injury or damage which may result from such pressure or from lack of such pressure or any injury or damage resulting from the improper installation of a backflow preventer.

#### 4. INSPECTION

4.1. The City of Grand Forks and/or a *Building Inspector* shall be entitled, at its determination 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 City of Grand Forks *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 as specified by the City of Grand Forks *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 *water 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* and approved by the *Building Inspector* and /or the City of Grand Forks.

#### 5. CONDITION OF SERVICE

5.1. *Water Service* supplied by the City of Grand Forks *Waterworks System* to a *Customer* shall only be provided where, in the opinion of the City of Grand Forks, the *Waterworks System* has been effectively protected from any actual or potential *cross connections* existing at or within the *Customer's private water system*.

#### 6. CONTAMINATION

Subject to the provisions of this Bylaw:

6.1. No person shall create a *cross connection* by connecting, causing to be connected, or allowing to remain connected to the City of Grand Forks

*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*.

## 7. CROSS CONNECTIONS AND BACKFLOW PREVENTION

- 7.1. No *person* shall permit the introduction of any *contaminant* or foreign matter whatsoever into any *private water system* that is connected to the *Waterworks System*.
- 7.2. Where the City of Grand Forks or *Authorized Agent* determines that there exists a connection or *cross connection* prohibited by this Bylaw and/or the City of Grand Forks *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.
- 7.3. A *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 most current edition, for the selection, installation, maintenance and field testing of backflow preventers and as described in the City of Grand Forks *Cross Connection Control Program (Policy)*.
- 7.4. The *Customer* shall install a type of *backflow preventer* commensurate to the degree of hazard and that is approved by the City of Grand Forks on the *private water system* at the location of the *Water Connection* from the *Waterworks System* or other location(s) approved by the City of Grand Forks.
- 7.5. Notwithstanding anything contained herein if, in the opinion of the City of Grand Forks, the configuration of any *private water system* which creates a high risk of contamination to the *Waterworks System*, the *Customer*, shall install on the *private water system* at the location of the *Water Connection* from the *Waterworks System* an *Approve Backflow Prevention Assembly*, in addition to any *backflow preventers* installed in the *Customer's private water system* at the source of the potential contamination.
- 7.6. The failure to be sent a notice(s), or the failure to receive a notice(s), shall not excuse the mandatory duty of the *Customer* or other responsible party to comply with this Bylaw and/or the City of Grand Forks *Cross Connection Control Program* and all other applicable bylaws.
- 7.7. Where any condition is found to exist which, in the opinion of the City of Grand Forks, constitutes a *cross connection* with the *Waterworks System*, the City of Grand Forks or *Trustee* shall either:

- 7.7.1. Shut off the water supply service(s) to the premises and notify the *Customer* that an approved backflow prevention assembly(s) shall be properly installed and tested at the expense of the *Customer* prior to the water service(s) being turned on;
  - 7.7.2. Give notice to the *Customer* to correct the *cross connection(s)* at the expense of the *Customer* within a specified period. If the notice is not complied with, the City of Grand Forks may then *discontinue water service* or services;
  - 7.7.3. Install an *approved backflow prevention assembly* at the *Water Connection* with all costs being charged to the *Customer*.
- 7.8. Any *person* whose water has been turned off pursuant to this Bylaw shall not have the water from the City of Grand Forks Waterworks System turned on until all requirements of the City of Grand Forks have been met and the *Customer* has paid to the City of Grand Forks all costs associated with the *shut off / turn on of water service*, the cleanup of contamination and the *Customer's* default under this section has been remedied.

## **8. TESTING AND MAINTENANCE OF BACKFLOW PREVENTION ASSEMBLIES**

- 8.1. The *Customer* will provide to the City of Grand Forks 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:
  - 8.1.1. The installation date of the *Approved Backflow Prevention Assembly*;
  - 8.1.2. The specific location of the assembly and what *cross connection* or hazard it is intended to isolate;
  - 8.1.3. The manufacturer, model, size and serial number of the *backflow preventer* installed; and
  - 8.1.4. That it is an *approved backflow prevention assembly*, installed correctly and in proper operating condition.
- 8.2. *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 the City of Grand Forks.
- 8.3. Where a *Customer* fails to have an *Approved Backflow Prevention Assembly* tested, the City of Grand Forks may notify the *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 the City of Grand Forks

or *Trustee* shall *discontinue* the *water service* or services and may be subject to penalties listed under this Bylaw.

8.4. Where there is a visible or other indication that a *backflow preventer* is malfunctioning, it is the responsibility of the *Customer* to immediately notify the City of Grand Forks, 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.

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

9.1. Where a cross connection exists between the City of Grand Forks *Waterworks System* and a *private water system*, in addition to the general provisions stated in this bylaw, the *Customer* shall also comply with the following:

9.1.1. No person except the duly authorized agents of the City of Grand Forks shall turn on an agricultural irrigation system.

9.1.2. Prior to commencement of operation of the *private water system* in each irrigation season, the *Customer* 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 the City of Grand Forks within thirty (30) days of completion of the test.

9.1.3. 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*.

## 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 *Water 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 City of Grand Forks *Waterworks System*; and

10.1.2. Without using an *Approved Backflow Prevention Assembly* which has been approved and installed in accordance with the City of Grand Forks *Cross Connection Control Program*; and

10.1.3. Without first obtaining a *Fire Hydrant Use Permit*.



10.2. Any person who violates this section will be refused access to *water service* through the use of a Fire Hydrant or temporary *Water Connection* and may be subject to penalties listed under this Bylaw.

## 11. AUXILIARY WATER SUPPLIES

11.1. No connection shall be installed or maintained whereby water from an auxiliary water system may enter the *Waterworks System* or *Customer's private water system* unless such auxiliary water system and the method of connection and use of such system shall have been approved by the City of Grand Forks

## 12. PENALTY SECTION

12.1. 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 a fine not exceeding Two Thousand Dollars (\$ 2,000.00) or to imprisonment not exceeding six (6) months, or both and if the offence is of a continuing nature, to a fine not exceeding Five Hundred Dollars (\$ 500.00) for each day the offence is continued.

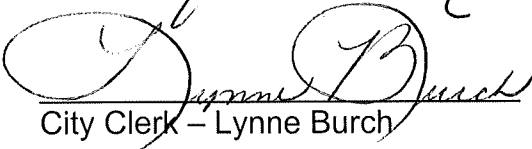
Read a **FIRST** time this 16th day of October, 2006

Read a **SECOND** time this 16th day of October, 2006

Read a **THIRD** time this 16th day of October, 2006

**FINALLY ADOPTED** this 6th day of November, 2006

  
\_\_\_\_\_  
Mayor Neil Krog

  
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City Clerk – Lynne Burch

**CERTIFICATE**

I hereby certify the foregoing to be a true copy of "**Cross Connection Control Bylaw No. 1817, 2006**".

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Clerk of the City Council of the  
City of Grand Forks