



TOWN OF BLACKFALDS CROSS-CONNECTION CONTROL PROGRAM

PURPOSE

This report will outline the inception and implementation of the Town's current Cross Connection Control Program including the implemented Utility bylaw revisions, initial and ongoing investigation and processes, operating practices, inspection of the Town Facilities, and will include the Town requirements regarding inspection record keeping and continued notifications to our customers to ensure compliance.

This report will also provide insight to other municipalities that are considering implementation of a similar program to comply with the Canadian Cross Connection Control Manual while limiting initial and overall administrative costs.

INTRODUCTION

This CCC Program was based upon the principles outlined in the AWWA Canadian Cross Connection Control Manual including; guidelines for installation, testing and maintenance of approved backflow devices. The Canadian Standards Association (CSA) B64.10-01 Manual is the Federal guideline used when defining and dealing with Cross Connection Control.

A "cross connection" refers to an actual or potential link from the Town's potable water system to a contaminated source that could render the Town's water non-potable or lethal. This cross connection contamination can be either a localized incident (one house/business or one block) but could migrate throughout the Town's water system resulting in a boil water order or in the case of a chemical contamination, completely unusable water. Examples of common potential cross connections are as follows:

- Garden hose attached to weed and feed dispenser or submerged in a swimming pool or pail of chemicals;
- Residential or commercial sprinkler systems;
- A greenhouse system complete with chemical feed systems;
- Boiler systems with glycol or antifreeze for in floor heating;
- Reverse osmosis water treatment units;
- Fire sprinkler systems

INVESTIGATION

At the request of Council, Administration was tasked to review the Town's current water bylaw and any existing cross connection control systems in place within the Town and the surrounding municipalities. The result of this investigation concluded that the majority of the major municipalities within Alberta (Calgary, Red Deer and Medicine Hat) do have a Cross Connection Program and backflow prevention measures in place.



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Unfortunately, the Town of Blackfalds and the majority of smaller municipalities in the Central Alberta Region at the time of this investigation had little to no Cross Connection Control Program and very limited, if any cross connection controls in place.

The investigation results above were brought back to Standing Committee and then Council. A recommendation from Administration to proceed with the development of a Cross Connection Bylaw was carried unanimously.

PROCESSES

Administration designed the Town's Cross Connection Control Program which included the following:

1. The Town of Blackfalds current water bylaw was revised to include a section on cross connection control which allowed the Town to start a Cross Connection Control Program (see attached Bylaw 1131/11, section 45 in Appendix A).
2. In practice, the Director required Backflow Protection Assemblies* on all commercial/ industrial premises that have the potential to backflow containments into the Town's potable water connections and ultimately into the Town's water system. These assemblies have to be inspected upon installation and re-inspected by a certified inspector** once a year to ensure they are working properly.

The owners pay for the inspections however; the Town will track the assemblies and send out notices each year (see Appendix B for template). The administration, notices and tracking are done by the Town's Utilities and Tax Clerk at the same time as the utility bill is mailed out. By integrating the Cross Connection Control Program notices into the Town's current workload, the additional time required to complete this task was absorbed into the normal work stream.

3. The Residential services in the majority of new houses require that a single check valve be installed on the main plastic water service lines when connecting a hot water tank to the system by the National Plumbing Code of Canada.

However, these single check valves can be easily tampered with or fail and therefore, the Director mandated that all new residential water services will require a double check valve. IJD, the Town's building inspector will inspect for these valves as part of their normal permit inspection process.

4. All existing commercial and industrial businesses were contacted by mail to determine if they currently have any existing backflow assemblies and to notify them of the newly required backflow prevention assemblies and testing requirements as outlined in the current water bylaw and their required action to submit a inspection form under the bylaw. We also included a copy of the CCC brochure and a "What if I don't comply" pamphlet. (see Appendix C)



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*Double check valve assemblies or a pressure vacuum breaker assemblies are to be used).

**Administration maintains a list of qualified inspectors. This list is populated when each inspector applies to the Town for their business licenses.

There was some initial confusion and lack of response by customers, however after explaining the importance of backflow prevention and the liability associated with the being responsible for a backflow incident, all customers were eager to comply with the bylaw.

INSPECTION OF TOWN FACILITIES

Once the CCC Program was implemented, Administration, with the help of Dean Wigmore, Councillor and certified plumber, inspected the Town Office, the Arena, the All-Star Park Facility and the Community Centre to determine what type of Backflow prevention was required at each site. This was determined by using the AWWA Backflow table by noting the use of each facility and what type of processes were in each facility. The backflow devices have been installed by a certified backflow inspector and will be maintained in accordance with the above CCC Program and current guidelines.

RECORD KEEPING

As discussed above under processes, the Town has populated a simple excel spread sheet to track the customers, the assemblies, testing results and send out notices yearly for inspections. The administration of the program, notices and tracking are done by the Town's Utilities and Tax Clerk at the same time as the utility bill is mailed out. See Appendix D for spread sheet template.

The Town did investigate the feasibility of using XC2, a software program (<http://www.engsoft.com/>) designed for Backflow Prevention Management, however, we have under fifty commercial and industrial customers that require yearly inspections and this tracking was easily accomplished using excel software.

RESPONSIBILITY

Safeguarding Blackfalds drinking water is everyone's responsibility.

The Province of Alberta meets its responsibility by setting high standards for water quality and by monitoring Blackfalds water supply system.

As part of all municipalities' operational licenses, we all are responsible for protecting the public water supply from contamination due to backflow of pollutants through water service connections.



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The Town of Blackfalds in partnership with the NWRWSC meets its responsibility by supplying excellent drinking water and testing that meets or exceeds the “Recommended Canadian Drinking Water Guidelines” and the “License to Operate”, issued by Alberta Environment.

Owners and occupants have a responsibility too. They must ensure that no cross connections exist on their property as stated in the Town of Blackfalds utility bylaws, the Alberta Safety Codes Act, National Plumbing Code of Canada, and the Canadian Standards Association (CSA) B64.10 “Manual for the Selection, Installation, and Field Testing of Backflow Prevention Devices.”

Installation of backflow devices and compliance with the requirements set out in this report as part of Blackfalds’ Cross Connection Control Program is now a commonly recognized condition of continued water service from the Town. With this program in place, the Town will be able to limit backflow potential occurring within the Town, in turn protecting our residents and our potable water against contaminated water which could result in major health concerns and major disinfection costs associated with a backflow incident.

RESOURCES

- Alberta Safety Codes Act
- National Plumbing Code of Canada
- AWWA Canadian Cross Connection Control Manual
- The Canadian Standards Association (CSA) B64.10 “Manual for the Selection, Installation, and Field Testing of Backflow Prevention Devices
- City of Medicine Hat
- City of Calgary
- City of Red Deer

For further information, please contact Preston Weran, Director of Infrastructure and Property Services, Blackfalds, 403-885-6242



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APPENDIX A



TOWN OF BLACKFALDS BYLAW 1131/11

BEING A BY-LAW OF THE TOWN OF BLACKFALDS IN THE PROVINCE OF ALBERTA TO REGULATE THE SUPPLY AND DISTRIBUTION OF WATER AND TO REGULATE THE SANITARY SEWAGE COLLECTION SYSTEM

Being a By-Law of the Town of Blackfalds to provide for the supply of water and sewer services to the residents and customers of the Town of Blackfalds:

WHEREAS Section 7(g) of the Municipal Government Act, R.S.A. 2000, c. M-26 provides a Municipal Council with the authority to pass By-Laws respecting public utilities;

NOW THEREFORE the Municipal Council of the Town of Blackfalds, in the Province of Alberta, duly assembled, enacts as follows:

TITLE DEFINITION

1. This By-Law may be referred to as the "Water and Sewer By-Law".
2. In this By-Law:
 - a. "Cross Connection" refers to an actual or potential connection from the Town's potable water system to any source of pollution or contamination that could render the Town's water non- potable or lethal.
 - b. "Cross connection control device" means a device or method that prevents backflow.
 - c. "Backflow" means the reversal of flow of any water, wastewater, or any other liquid, chemical, or substance back into the potable water supply system.
 - d. "Testable cross connection control device" means a cross connection control device which is capable of being inspected and tested in accordance with the National Plumbing Code of Canada, as amended or replaced.
 - e. "Commercial" includes residential buildings consisting of three or more units, as well as all outlets used for the purpose of business.
 - f. "Customer" means any person who is the owner of any premises connected to or provided with utility services under this bylaw or a building contractor who requests services as contemplated in section 52.
 - g. "Council" means the Municipal Council of the Town of Blackfalds.
 - h. "Director" means Director of Infrastructure and Property Services.
 - i. "Minimum Rate" means the rate established in Schedule B of this By-Law.
 - j. "Owner" means the registered owner of a property and includes the purchaser thereof.
 - k. "Town" depending on its context, means either:
 - i. the Municipal Corporation of the Town of Blackfalds, its administration and staff, agents or representative: or
 - ii. the territory contained within the corporate boundaries of the Town of Blackfalds
 - l. Storm Water Discharge system means a system, including sump, sump pump and related piping used to convey water collected by drainage in weeping tile, eaves trough, roof spouts, or foundation drain."



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DELEGATION OF AUTHORITY

3. Council hereby delegates to the Chief Administrative Officer (CAO) authority to do all things necessary in order to fulfill the responsibilities and duties of the Town with respect to the delivery of utility services under the Municipal Government Act and this By-Law.

The CAO is responsible for the operation of the water and sewer system in accordance with:

- a. Provincial and Federal Statutes and Regulations;
- b. this By-Law and related regulations and policies;

CONSTRUCTION AND REPLACEMENT OF WATER AND SEWER WORKS

4. The Town may operate a water supply and distribution system for the purposes of supplying the residents and customers within the Town with potable water and fire protection.
5. No person except the Town may drill a water well within Town limits on private or public land for other than Municipal use with the following exceptions:
 - a. properties which operated a water well prior to annexation or are not presently connected to the Town water distribution system.

INSTALLATION OF WATER AND SEWER MAINS

6. The Town may operate a sewer collection and disposal system for the purposes of collecting, treating and disposing of sewage produced by any person within the Town.
7. No person except the Town may operate a sewer collection and disposal with the following exceptions:
 - a. the owner of a property which operated a sewer collection and disposal system prior to annexation by the Town or
 - b. the owner of a property which is not presently connected to the Town sewer collection and disposal system.
- 7.1 Notwithstanding the foregoing, the CAO may require that property owners mentioned in section 7 disconnect from their private water and/or sewer services and connect to the Town's utility system when the Town's utility system is built adjacent to that property.
8. Council may by resolution enter into agreements with other Municipalities, private corporations or citizens for the supply of water or sewer services beyond the corporate limits of the Town, subject to such provisions, regulations or rates as may be deemed appropriate.
9. The installation of all water and sewer mains and related facilities shall be in accordance with the standards and specifications set out in the Town's Minimum Design Standards for development.
10. Where the Town undertakes work pursuant to this part the costs to be charged to, and to be payable by, the owners of property shall be calculated in accordance with costs and charges as set out in Schedule "A".
11. All properties that generate sewage and waste water shall be connected to the Town's sewer system except where exempted by the Municipal Planning Commission in the Development Permit application process. Such exemption may be allowed for the following reasons:



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- a. The location of the properties in relation to an existing sewer main is such that the extension of the main is precluded because of excessive cost or engineering difficulty;
 - b. The sewer main adjacent to the property is of insufficient size of capacity to handle the proposed effluent and enlarging of the main is deemed excessive in cost; or
 - c. The type of wastes to be generated by the property are not permitted by this By-Law or Provincial Regulation to be disposed of through the Town's sewer system, and provided that an alternative sewage disposal system is approved by the Municipal Planning Commission.
12. An alternative sewage disposal installation permitted under Section 11(c) may without limiting the generality of the foregoing, include a sewage pump out tank or septic tank, such installations subject in all cases to applicable Provincial Regulation and Town approval.
13. Where an alternate sewage disposal installation has been permitted pursuant to Section 11 (a) or (b) and where subsequent to that installation a sewer main is constructed or upgraded such that the disposal of sewage from the property to the Town system is now practical, the owner of the property shall discontinue the use of the alternate sewage installation and make connection to the Town sewage main within one (1) year from the date upon which the owner has received notice of the installation or upgrading of the sewer main.
14. Each lot or parcel and each principal building or occupancy, shall be provided with a separate water and sewer service where feasible.
15. No person shall install a utility service line without making an application for approval of such installation to the Town, and obtaining approval of such service.
16. No service line shall be installed until a development or servicing agreement is signed by the owner in form satisfactory to the Chief Administrative Officer.

INSTALLATION OF SERVICE LINES

17. For water and sewer systems:
- a. The developers of Multiple Housing and Commercial Developments shall submit private water and sewer system design plans, duly signed by a Professional Engineer, to the Town for review and approval prior to the construction start. Each unit must have an outside curb stop readily available near the front property line.
 - b. The Town may provide technical advice for private water and sewer system designs to ensure acceptable standards in design, materials and construction.
 - c. The developer shall furnish two (2) sets of "as built" plans to the Town within 30 (thirty) days of completion of the private water and sewer system and accompanying these "as built" plans shall be a letter indicating that the private water and sewer system is fully operational.
18. For multi-lot subdivision:
- a. Where any new lot or group of lots is developed, the developer shall arrange at his own cost the installation of approved water and sewer service lines.
 - b. Each development will be governed by development or servicing agreements.
19. Service for lot or lots in developed area:
- a. Where a lot is within a developed area the Town may install the service lines to the property boundary only and shall charge the owner of the property the costs incurred as contained in Schedule "A".



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- b. The Town may cause the installation to be performed by a private contractor at the cost of the owner.
20. Installation of the service line:
- a. Where the Town does not install the service lines the Town shall have the right of inspection.
 - b. The owner shall advise the Town of the time of installation and shall allow the Town reasonable opportunity to inspect the installation for conformance to Town standards and specifications.
 - c. Persons excavating for service lines and connections shall not backfill until a request for inspection has been made to the Town and the Town has done an inspection and approved the installation.
 - d. When making a request for an inspection, a 24 hour notice will be required by the Town and inspection will only be done during regular work hours.
 - e. Persons backfilling before requesting and receiving an inspection may be required by the inspector to dig out and expose the service lines required and or arranged at landowners cost so that a proper inspection can be done.
21. The owner shall be responsible to arrange and pay for the laying of services within his own property.
22. For multi-residential buildings:
- a. Permission will not be granted to supply two (2) or more buildings fronting on the same street with a single service unless the service is divided within the street and separate shutoff is provided for each service.
23. For temporary service:
- a. Persons who wish temporary water service shall make application and enter into an agreement in accordance with Section 17, and shall pay the Town in advance the whole cost of service construction, including the cost of removal when no longer required.
 - b. If required by the Town a person requiring temporary water service shall provide a meter attachment meeting the requirements of the Town.
24. For the testing of the water line:
- a. A plumber may after obtaining permission by the Director or his designate from the Town, operate a curb shut off valve up to 1" (25 mm) in diameter for the purpose of:
 - i. the testing of his own piping in the case of new installations:
 - ii. the replacing or renewing of a service line.
 - b. If water is required to test plumbing before a meter is installed a plumber may temporarily install a meter spacer pipe.
 - c. After completion of work under this clause the authorized plumber shall immediately close the valve and remove the temporary meter spacer pipe.
 - d. A plumber shall not operate any of the service control valves of 40 mm (1-1/2") or larger in size for any purpose.
25. For special fire protection works:



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- a. When a property owner wishes to provide fire protection by means of sprinkler heads, fire hydrants, or outlets for hose lines, or some other manner, the owner must apply for a special service pipe in accordance with Section 17.
 - b. When an application is approved by the Town for a separate special service pipe to be utilized for fire protection, all costs are at the property owner's expense.
 - c. The Town shall maintain at its expense that portion of the special service pipe between the main and property line where a tapping valve and sleeve from the connection of the main, or between the main and control valve when the control valve is located within 1.2 meters (4 feet) of the property line.
 - d. Portions of the public service piping constructed on Town lands shall become the property of the Town.
26. For repair of water line:
- a. The Town shall be responsible for the maintenance and repair of the water service line on Town lands including the thawing of frozen lines from the main up to and including the curb stop valve.
 - b. Should the damage to the line be caused by the negligence or improper action of the occupant the costs for repairing or thawing lines and curb stop valve will be charged to the owner.

REPAIR AND MAINTENANCE OF EXISTING WATER SERVICE LINE

27. The property owner shall be responsible for the repair of the water service line within his own property.
28. Repair of water lines on own property:
- a. Where the exact location of a problem cannot be determined to be either clearly within the Town street or on private property the Town may undertake to determine the location of the problem.
 - b. If a problem exists within the street the Town will continue to complete repairs.
 - c. If it is found to exist on private property the owner shall be responsible for the costs incurred by the Town to that point and shall be responsible for the completion of the repairs.
29. Where the owner undertakes the repair of the service line on his own property and finds that the problem exists on the portion of line for which the Town is responsible, the Town may complete the repairs.
30. The owner or occupant of a property shall ensure that the water service curb stop valve remains accessible and exposed. Where the owner or occupier damages or causes the curb stop valve to become inoperative, he shall be responsible for costs incurred by the town.
31. Any obstructions restricting access to the curb stop or water meter touchpad will be removed. Removal of these obstructions shall only be orchestrated by the Town, at the cost of the homeowner or occupant.
32. The owner shall be responsible for clearing any blockages in the sewer service line from the building to main.

REPAIR AND MAINTENANCE OF EXISTING SEWER SERVICE LINES

33. Repair of existing sewer lines:
- a. If an owner, believes that the service is performing poorly or that it repeatedly causes problems the owner may request the Town to repair or replace the line within the street. Owner may be requested to camera the sewer line to determine



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the nature of the problem at the owner's expense before action is taken by the town

- b. If damages are found to be on both private and Town property it will be the responsibility of the owner of the property to repair his side before the Town will undertake repairs to the Town property.

34. Replacement of lines:

- a. If the owner of a property wishes to replace a water or sewer service line it shall be at the owner's expense.
- b. Where a service line needs replacement because it can no longer be economically repaired, the replacement must be undertaken by the owner at his own expense.
- c. Installation of replacement service lines shall be governed by those provisions in Section 17 through 26.

WATER METERS

35. All water meters shall be supplied and installed by the municipality with all costs outlined in Schedule "A" being charged to the owner or general contractor of the property to which the meter has been installed.

36. All water outlets from a water service connection to any building within the Town must be metered using a meter specified in Schedule "A".

37. Where at the time of passage of this By-Law a water service is non metered the Town shall install a meter at a cost to the owner as specified in Schedule "A".

38. Placement of water meters:

- a. The Town will supply, as per Schedule A and maintain all water meters as required, and may install remote readout indicators where necessary or desirable.
- b. The property owner will be responsible for managing the installation of the meter for his building with the Town.
- c. The Town may undertake any repairs necessary to the meter and remote readout to ensure proper operation.

39. All customers and occupants of buildings or land shall give access to all parts thereof to the Town for the purposes of installing, maintaining or reading a meter.

40. Installation of water meters:

- a. Every owner shall make allowance for the installation of water meters in accordance with the Town's specifications and shall protect the same from frost or other damage when placed upon their premises.
- b. Every owner shall make allowance for the installation of a remote reading device on the outside of the building at the front of the building in an easily accessible location between one (1) to one (1) and a half meters from ground level in accordance with the Town's specifications and shall protect the same from frost or other damage when placed upon their premises.

41. Where the owner fails to protect the meter, remote reading device and service lines from frost or other damage, such owner or occupant shall pay the cost of repairs to the Town.



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42. The Town may seal meters installed and no person except as authorized by the Town shall break or tamper with any such seal. It is an offence to tamper with a meter and the offender is liable to the penalties provided in Schedule A.

43. Reading of water meter:

- a. The Town may undertake to read the actual consumption from the meter rather than from the remote read units, in which case, the next utility billing will be calculated using the actual consumption.

44. Disturbance of water meters:

- a. If a meter reading is disputed by either the Town or the customer, a written notice shall be given to the other.
- b. Following written notice, a meter situated on the premises of such customer may be tested or calibrated by a proper official delegated by the Town.
- c. If the said meter is found to be accurate within 98.5% to 101.5% of the water passing through the same, the expense of such test or calibration shall be borne by the party giving such notice in the amount designated in Schedule "A".
- d. If a meter is found not to be accurate within the above limits, the same shall forthwith be repaired or replaced by another meter and the expenses of so doing shall be borne by the Town.
- e. If a meter is found not to be accurate, the accounts based upon the reading of that meter for the maximum of 12 (twelve) monthly bills (consumption portion of monthly bill) preceding the date of such test shall be corrected in proportion to the error of the meter in excess of the above limits and the customer shall pay or there shall be refunded payment or refund shall be accepted by both the Town and the customer as settlement in full to the date thereof of all claims because of the inaccuracy of such meter.

CROSS CONNECTIONS AND BACKFLOW PREVENTION

45. Cross Connections and Backflow Prevention

- a. No person shall connect, cause to be connected, or allow to remain connected to the water system any piping, fixture, fitting, container or appliance, in a manner which, under any circumstances, may allow water, waste water or any other liquid, chemical or substance to enter the water system
- b. Customers must allow a Town sanctioned inspector full access to their residences or facilities in order to evaluate and/or inspect possible cross connections and existing or newly installed backflow preventers.
- c. For the purposes of preventing a cross connection as prohibited in Section 45, the Director may require any consumer to install a testable cross connection control device or devices.
- d. At the time of installation and thereafter as required by the Director, every consumer required by any Act, regulation or code or by the Director pursuant to Section 45 to install a testable cross connection control device or devices shall:
 - (i) ensure that the testable cross connection control device or devices installed are inspected and tested on a yearly basis;
 - (ii) report the results of the inspection and testing on the form prescribed by



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the Director to the Director within the time frame specified by the Director.

- e. Every consumer required by the Director pursuant to Section 45 to install a testable cross connection control device or devices shall install only testable cross connection control device or devices approved by the Director.
- f. Every consumer required by this Section to ensure that testable cross connection control device or devices installed are inspected and tested shall ensure that only persons approved by the Director to inspect and test the testable cross connection control device or devices. In approving persons to inspect and test cross connection control devices, the Director may take into consideration the following qualifications:
 - (i) a certificate from an accredited organization as a Certified Backflow Prevention Device Tester;
 - (ii) a calibration certificate for test equipment;
 - (iii) another trade or professional qualification (e.g. Plumbing Certificate, Sprinkler Fitter Certificate, etc.); and
 - (iv) liability insurance coverage.
- g. If a consumer fails to have a testable cross connection control device or devices inspected or tested or fails to report the results of the inspection or testing to the Director: the Director may notify the consumer that the testable cross connection control device or devices must be inspected and tested and a test report must be submitted to the Director within the time frame specified by the Director; and
 - (i) the Director may discontinue providing water service to the consumer until the consumer has the testable cross connection control device or devices inspected and tested and the consumer submits a report with results satisfactory to the Director.
- h. Every consumer shall display an up to date information record card issued by the Town on or immediately adjacent to the testable cross connection control device or devices.

RATES, BILLING AND COLLECTION

- 46. Rates for water and sewer:
 - a. The various rates to be charged to customers for the purchase of water and the disposal of sewage shall be as prescribed in Schedule "B" to this By-Law.
 - b. Each customer shall pay the minimum fees specified in Schedule "B".
- 47. A utility bill showing the value of water and sewer service provided by the Town for one month period for non-residential and residential, shall be calculated in accordance with the prescribed rates as soon as is practical. The person registered as the owner of the building for which the service is supplied will be responsible for notifying the Town of occupancy date and billing information.
- 48. Where the calculation of a utility billing is based on the consumption of water, the quantity used shall be determined from the present and previous meter readings as recorded by the Town, or if an actual reading is not available, by an estimated consumption based on the consumption history of the service or customer of similar characteristic.
- 49. No reduction in rate or charges shall be made for any interruption in water or sewer services during a billing period.
- 50. Obtaining water and sewer services:
 - a. Under the provisions of the Municipal Government Act, the Town is not obliged to provide utility service to an occupant of property, but must provide service to the



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owner of property on request. As the Town has experienced significant uncollectable utility accounts when dealing with occupants, the Town will no longer supply utilities at the request of an occupant.

51. Termination of Service to Occupants

- a. Where an existing utility account is in the name of an occupant, the Town will give 3 months notice to the occupant that the utility account will be closed and utility service will be shut off. At the end of that time, the utilities will be disconnected unless an account has been opened in the name of the property owner.
- b. A property owner who requires utility services may apply to the Town and upon payment of the deposit or application fee set forth in this By-law, the Town shall open a utility account in the name of the property owner.

52. Notwithstanding the general policy not to supply utility service at the request of an occupant of property, the Town may agree to supply utility services to building contractors, subject to the contractor applying to the Town and paying the deposit and application fee set forth in this By-law.

53. The opening of a utility account constitutes a binding agreement between the customer and the Town for the utility service applied for, and this bylaw shall constitute the terms and conditions of such agreement.

54. The Town shall supply a copy of the utility bills for an account to:

- a. a property manager or agent of the owner at the request of the owner of the property; and
- b. to a tenant of the property at the request of the owner.
- c. A utility account holder shall be responsible for all rates and fees charged under this By-Law.

55. Utility bill payments:

- a. Payments of utility accounts are to be made payable at the Town of Blackfalds using any method of payment approved by the CAO.
- b. Non-receipt of a utility bill will not exempt the owner or owners from payment for the service received.

56. All water or sewer utility bills, including interim billings, shall be due and payable on or before the fifteenth (15th) day of each month, there shall be added thereto a penalty in the amount of 5% interest on the current monthly billing balance.

57. If payment is not received on the due date of the second month, the town will mail out to the owner a utility arrears reminder notice. If payment is not received on the due date of the third month, The Town will mail out to the owner a utility arrears final reminder notice that if not paid within 30 days may be added to the tax roll plus penalties. Only the CAO or his or her designate may authorize partial payments until the outstanding debt is collected.

58. Where the owner of a property is the recipient of the utility service and where a utility account and other charges under this by-law remain unpaid the outstanding account balance will be transferred to the corresponding tax roll.

59. Where an outstanding account balance has not been collected, the CAO may instruct such collection action as he or she deems appropriate including shutting off the service.



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60. Where service to a customer is to be discontinued or a customer is vacating the premises a final billing will be calculated on a pro rata basis from the date of the last billing to the date of discontinuance.
61. The Town may discontinue the supply of all utility services for any of the following reasons:
- a. non-payment of any utility accounts, or
 - b. inability of the Town to obtain access to a residential premises to read any meter for a period of six (6) months, or to a non-residential premises to read any meter for a period of three (3) months, or
 - c. failure by, or refusal of, a customer to comply with any provision of this By-Law, or
 - d. failure by, or refusal of a customer to comply with any provisions of any Provincial Acts, the Building Code, or any regulations there under
 - e. in any other case provided for in this By-Law, and in such event the Town, its officers, employees or agents shall not be liable for any damages of any kind from such discontinuance of service; or
 - f. upon request of the customer, although minimum charges will apply
62. Governing of use of water:
- a. In case of making repairs or in construction of new works or in connecting or repairing service pipes, the Town shall have the right to shut off the water from any customer or customer without notice and keep it off as long as may be necessary.
 - b. The Town shall endeavor to provide notice to customers of such interruption of service and shall seek to minimize the inconvenience to customers as may be possible and reasonable.
 - c. The Town does not guarantee the pressure nor the continuous supply of water, and the Town reserves the right at any and all times without notice to change operating water pressures and to shut off water. The Town, its officers, employees or agents shall not be liable for any damages of any kind due to changes in water pressure, the shutting off of water, or by reason of the water containing sediments, deposits or other foreign matter.
63. Except where authorized by the Town in writing no person shall open, close or interfere with any hydrant or valve connected to the Town water system.
64. No customer, or owner, and occupant of any building or property which are supplied with water by the Town shall sell or otherwise dispose of water there from, give away or permit the same to be taken or carried away from the property unless specifically authorized by the Town.
65. The Town may have the water shut off to the property of any owner or customer breaching any of the provisions of this By-Law, and in cases where the water has been shut off for allowing waste due to leaks or defects in pipes or connections may refuse to restore water services until the defects have been repaired.
66. Water shall be shut off at the curb stop valve and no person shall turn on or attempt to turn on the water except where authorized by the Town in writing.



**TOWN OF BLACKFALDS
BYLAW 1131/11**

67. When an emergency in water supply occurs:
- a. The Council may restrict the use of water from the Town supply system.
68. Connecting to water line:
- a. No person shall connect, cause to be connected, or allow to remain connected to the water system any piping, fixture, fittings, container or appliance, in a manner which under any circumstances, may allow contaminated or polluted water, waste water, or any other liquid, chemical or substance to enter the domestic water system.
 - b. If a condition is found to exist which is contrary to Section 67(a), the Chief Administrative Officer may issue such order or orders to the owner of the property as may be required to obtain compliance with Section 67(a).
 - c. The owner of the property is required to install cross connection control devices and shall be responsible for the costs of the device, installation and maintenance.
69. No person shall throw, deposit or leave in or upon any Town sewer or any trap, grating, or manhole, any material that may cause blockage of the sewer main.
70. No person shall discharge into any sewer any liquid or liquids that would prejudicially affect the sewers.
71. No person shall make any connection with any Town sewer, or house drain, for the purpose of conveying any inflammable or explosive material.
72. No person shall make any connection with any Town sewer, house drain, or yard drain for the purpose of conveying any surface water collected by drainage in weeping tile, eaves trough or roof spouts.
73. No person shall discharge the contents of any privy vault, manure pit or cesspool, directly or indirectly, into any Town sewer, or house drain connected.
74. No person shall turn, lift, remove, raise, or tamper with the cover of any manhole, or ventilator of any Town sewer, except where authorized by the Town.
75. No person shall cut, break, pierce or tap into the Town sewer.
76. The Town may upon reasonable notice and at reasonable times enter buildings or other places which have been connected with Town sewers, and facilities to ascertain whether or not any improper material or liquid is being discharged in sewers, and the Town shall have the right to use any test or other means necessary to determine compliance with this By-Law and to stop or prevent the discharge of any substances that are liable to injure the sewer or obstruct the flow of sewage.
77. Discharges from trade, industrial or manufacturing process:
- a. No waste or discharge resulting from any trade, industrial or manufacturing process, shall be directly discharged into any Town sewer without such previous treatment as shall be prescribed by the Town for each such case.
 - b. The necessary treatment works so prescribed shall be completely installed by the customer at his expense, prior to the construction of the sewer connection and shall be continuously maintained and operated by the customer.
78. Grease traps of sufficient size and approved design shall be placed on the waste pipes from all hotels, restaurants, laundries, and such other places as the Town may direct. The owner will be responsible for the maintenance of the grease traps.
79. Commercial building sumps:



**TOWN OF BLACKFALDS
BYLAW 1131/11**

- a. Interceptors of sufficient size and approved design shall be placed on the waste pipes from all car washes and any other buildings that may cause excess dirt and debris to pass in the sewer service.
- b. The owner of any dwelling shall install a Storm Water Discharge System such as to allow discharge to the storm sewer with relief discharge to the surface. The Storm Water Discharge System shall be installed by the owner in such a manner as to comply with all Town By-laws and policies and other applicable regulatory authorities and without causing excessive pooling or icing on public or private property. The owner shall be solely responsible for ensuring the Storm Water Discharge System is properly designed, installed and operated.

80. Fines for contravention:

- a. Every person who contravenes any provision of this By-Law is guilty of an offence and on conviction, is liable for a fine of not less than \$200.00 and not more than \$1000.00.
- b. If a person is guilty of a conviction for an offence, which offence occurs after the date of conviction of an earlier offence under this By-Law, the person is guilty of an offence, and on conviction is liable for every day or part thereof upon which a subsequent offence occurs or continues to a fine of not less than \$500.00 and not more than \$1000.00.
- c. No person who is convicted of offence pursuant to this By-Law is liable to imprisonment.
- d. When a person has been convicted of an offence or offences under this By-Law and the contravention has been remedied by the person convicted, the person may be refunded 80% of the fines collected in furtherance of the convictions, up to a maximum of \$800.00.

81. By-Law 1119/11 is repealed.

82. This By-Law shall come into full force and effect on the date of its passage.



TOWN OF BLACKFALDS
BYLAW 1131/11

READ for the first time this 13th day of December, 2011

(RES.)



MAYOR MELODIE STOL

for 

C.A.O. CORINNE NEWMAN

READ for the second time this 13th day of December, 2011

(RES.)



MAYOR MELODIE STOL

for 

C.A.O. CORINNE NEWMAN

READ for the third and final time this 13th day of December, 2011

(RES.)



MAYOR MELODIE STOL

for 

C.A.O. CORINNE NEWMAN



**TOWN OF BLACKFALDS
BYLAW 1131/11**

SCHEDULE "A"

Meter Installation Cost	
5/8" Meter	At Cost + 25%
3/4" Meter	At Cost + 25%
1" Meter	At Cost + 25%
1 1/2" Meter	At Cost + 25%
2" Meter	At Cost + 25%
3" Meter	At Cost + 25%
4" Meter	At Cost + 25%
6" Meter	At Cost + 25%
Water Line Connection Permit Rates	
1" from main to property	At Cost + 25%
1 1/2" from main to property	At Cost + 25%
2" from main to property	At Cost + 25%
Sewer Line Connection Permit Rates	
4" from main to property	At Cost+ 25%
6" from main to property	At Cost+ 25%
Pavement Restoration	
To cut and patch	At Cost+ 25%
Sidewalk or curb cuts	At Cost+ 25%
Miscellaneous Rates	
Request service call and Town employee unable to enter premises or make connection	\$ 35.00 (per call)
Turn water off and/or on for construction purposes up to and including 1 1/2"	\$ 35.00
over 1 1/2"	\$ 35.00
Water turn off and/or on for repairs	
during regular hours	\$ 35.00
during after hours	At Cost
Water Kill - in pavement or other	At Cost+ 25%
Repairs to water Meters (Damaged by homeowner or tenant)	
smaller than 1"	At Cost+ 25%
1" or larger	At Cost+ 25%
Thawing water service	At Cost+ 25%
Repair to damaged stand pipe	At Cost+ 25%
Cleaning plugged sewer	At Cost+25%
after hours	At Cost+25%
Water turn off/on requested	
during regular hours	\$ 35.00
after regular hours	At Cost
Meter testing/calibration	At Cost+ 25%
Administration fee: (initiating account)	\$ 15.00
Fines for tampering with water meter	\$ 250.00
Touch Pad installation	\$ 30.00
Water Meter Installation	\$ 20.00
Meter Testing – in house	\$ 50.00
Meter Testing – out sourced	At cost
Miscellaneous Items at cost plus 25% as determined by administration.	



**TOWN OF BLACKFALDS
BYLAW 1131/11**

SCHEDULE "B"

**COMMERCIAL AND RESIDENTIAL RATES
Rates Effective January 1, 2012**

Each customer shall pay for water services supplied to him the aggregate of amounts determined as follows:

A fixed base rate monthly charge shall be determined by the size of the meter supplied to each customer as follows

5/8"	(16 mm)	\$ 16.09
3/4"	(19 mm)	\$ 25.70
1"	(25 mm)	\$ 45.81
1 1/2"	(38 mm)	\$ 106.15
2"	(50 mm)	\$ 256.98
3"	(75 mm)	\$ 430.16
4"	(100 mm)	\$ 910.60

** For larger size service, base rate to be determined by administration.

** Fixed base rates to be adjusted annually based on the Canadian Consumer Price Index.

Each customer shall pay for water services supplied to him the aggregate of amounts determined as follows:

Minimum Rate: Fixed base rate as defined above.

Plus an infrastructure costs of: \$11.35

Plus an Additional Consumption Rate: Rate established by the North Red Deer River Water Services Commission plus an additional \$0.10 for every cubic meter (220.1 gallons) used.

Each customer shall pay for sewage services supplied to him the amounts as follows:

Minimum Rate: \$6.30 per month to be adjusted annually based on the Canadian Consumer Price Index.

Plus an infrastructure costs of: \$11.46

Plus an Additional Rate: 20% of water rate.

For the purpose of calculating the sewerage charge payable by a customer, the volume of waste water contributed by the customer to the sewage works shall be deemed to be equal to 100% of the water delivered to the customer's premises, whether the water was received from the Town or from sources other than the Town.

The above monthly minimum rates will apply to all properties in Town that have water and/or sewer services available in the land abutting the property.

A deposit of no greater than three months estimated billing may be required at the discretion of the CAO.

For the purposes of selling bulk water to contractors, developers and private companies, at the discretion of the CAO and/or their delegate. The Town of Blackfalds will sell bulk water at a rate of the Rate established by the North Red Deer River Water Services Commission plus an additional \$0.75 for every cubic meter. A minimum charge of \$110.00 per sale will apply to all bulk sales.



TOWN OF BLACKFALDS CROSS-CONNECTION CONTROL PROGRAM

APPENDIX B



TOWN OF BLACKFALDS
Box 220, 5018 Waghorn Street
Blackfalds, AB T0M 0J0
Phone: (403) 885-4677

INSPECTION FORM DUE NO LATER THAN: _____ 2012

_____, 2012

Re: Backflow Prevention Assembly- Inspection and Work Report Due

To whom it may concern,

To protect the public and consumers' water supply, the Town of Blackfalds, under the National Plumbing Code and Bylaw #1123/11 require all commercial businesses to install and maintain any required cross connection control devices on site. Depending on the processes and operations of your facility, there is a real potential for cross contamination into the Towns' water system. A potential cross contamination can be a public health hazard and the property owner could be held liable for damages.

Under this Bylaw you are required to have a completed inspection report of your plumbing system done by a professional plumber in accordance with CSA B64.10. This inspection report must outline any requirements under the CSA code to install acceptable backflow assemblies. Acceptable assemblies are Reduced Pressure Principle Backflow Prevention Assemblies (R.P.A), Double Check Valve Assemblies (D.C.V.A.), approved air gaps and/or Vacuum Breakers (V.B).

The inspection report and a permit application for any required work outlined under the report must be returned to our office by _____, **2012**. The work required under the permit must be inspected by IJD within a reasonable timeframe as per the permit requirements.

Furthermore, in order to maintain compliance with the National Plumbing Code and the Town of Blackfalds Bylaw; any required backflow prevention assemblies on your site must be inspected and tested at this time and annually by a certified and licensed tester. The Town will track each commercial site and send notifications as required to ensure the testing and inspections are carried out each year.

If you have any questions, do feel free to contact the Director of Infrastructure and Property Services at the above address or you may phone 403-885-4677 for further information.

Together, protecting our drinking water, now and into the future.

Preston Weran
*Director of Infrastructure
and Property Services*



TOWN OF BLACKFALDS CROSS-CONNECTION CONTROL PROGRAM

APPENDIX C

What if I don't comply?

Now that your operation has been notified of inspection and testing requirements, you are given a limited time to comply with the immediate requirements of the Town's Cross Connection Control (CCC) Program. **Failure to comply will result in discontinuation of water service.** This is necessary to protect the public water system. The notification process is as follows:

- 1st Notice: Inspection or Test Requirements Letter – The first letter may require either installation of new device(s), replacement of unsuitable device(s) in addition to mandatory testing & reporting of all testable devices (new & existing) to be done **within 2 months** (60 calendar days) of the date of this letter;
- 2nd Notice: Reminder Letter – If, after 2 months, we have not received all your passed test reports, a reminder notice will be sent out. This notice states that 3 month ago you were provided notice that we must receive the test report(s) as identified. Delivery of test reports is **extended 30 days** from the date of the 2nd letter (90 days from first notice).
- 3rd Notice: Third & Final Notice - If, after 90 days, we have not received all your passed test reports, the third and final notice will be sent out. Third notice will be hand-delivered with a copy of your Water Shut-Off Order. This notice states that, unless test reports are received immediately, **water will be shut off in 48 hours** from delivery of 3rd notice.

The goal of this program is to help provide safe potable water...for all consumers.



The Town of Blackfalds, in conjunction with the Red Deer Regional Water Service Commission meets our responsibility by supplying excellent drinking water that is well within the "Recommended Canadian Drinking Water Guidelines" and the "License to Operate", issued by Alberta Environment.

You now must complete the steps that are required of you to protect yourself, your occupants and your community.

The Town requires your cooperation. Although it is not our desire to shut-off anyone's water, this significant action will ultimately occur to protect the water supply from the hazards posed from any facility. We look forward to our customers being partners with us in safe drinking water.

The Town of Blackfalds and you... Together, protecting our drinking water, now and into the future.

TYPICAL CROSS CONNECTIONS

Cross connections are typically made by connecting the drinking water supply directly to the following:

Commercial Examples

- wash basins and service sinks.
- laboratory equipment (i.e. medical, industrial, etc.).
- processing tanks.
- industrial fluid systems and compressors.
- boilers; (i.e. hydronic, steam, etc.).
- water re-circulating systems, etc.

Residential Examples

- lawn irrigation and sprinkler systems.
- garden hoses connected to weed and feed dispensers or laying in pools of water.
- water conditioners, etc.

CROSS CONNECTION CONTROL PROGRAM

The purpose of the program is to safe guard the public water supply from backflow occurrences at the water service. Under the Town of Blackfalds cross connection control program, licensed inspectors will inspect your commercial or business facility to ensure compliance with this program. Subsequent to this, a Dual check valve for Backflow Protection is now required on all new residential properties. The Town encourages existing home owners to install a Dual check valve after the water meter if there is no other method of backflow prevention present.

RESPONSIBILITY

Safeguarding Blackfalds' drinking water is everyone's responsibility.

The Province of Alberta meets its responsibility by setting high standards for water quality and by monitoring Blackfalds water supply system.

The Town of Blackfalds in partnership with the NWRWSC meets its responsibility by supplying excellent drinking water and testing that is meets or exceeds the "Recommended Canadian Drinking Water Guidelines" and the "License to Operate", issued by Alberta Environment.

Owners and occupants have a responsibility too. They must ensure that no cross connections exist on their property as stated in the Town of Blackfalds utility bylaws, the Alberta Safety Codes Act, National Plumbing Code of Canada, and the Canadian Standards Association (CSA) B64.10 "Manual for the Selection, Installation, and Field Testing of Backflow Prevention Devices."

Together, protecting our drinking water, now and into the future.



Contact the Infrastructure and Property Services Department at 403-885-4677 for further information.

June, 2011



CROSS CONNECTION CONTROL PROGRAM

COMMERCIAL
&
RESIDENTIAL



Together, protecting our drinking water, now and into the future.

WATER CONTAMINATION

Improper plumbing connections on private property can contaminate the public water supply with harmful chemicals and/or bacteria which could result in a boil water order or in the case of a chemical contamination, completely unusable water.

LIABILITY

If an improper plumbing connection caused a public health hazard, the cross connection can be traced back to the source and the responsible property owners and occupants may be held liable for extensive damages.

CROSS CONNECTIONS

A “cross connection” refers to an actual or potential link from the Town’s potable water system to a contaminated source that could render the Town’s water non-potable or lethal. This can be as simple as a cross connection between our drinking water and a contaminated source such as a garden hose connected to a weed and feed dispenser. To protect our drinking water, you should eliminate all avoidable cross connections in your plumbing and protect the water supply. At any unavoidable cross connections an approved cross connection control assembly /device needs to be installed.

BACKFLOW

A backflow is a flowing back or reversal or the normal direction of flow. This reverse flow or ‘backflow’ can force harmful chemicals or dirty water into the Towns public water supply. A

backflow can be caused by a heating system or any other system that operates at a higher pressure than the public water supply. Backflow can also be caused when a siphon is created by undersized piping or by an interruption of the water supply during plumbing or water utility repairs. Since all water supplies are subject to backflow, they need to be protected by CSA approved backflow prevention devices.

CSA APPROVED BACKFLOW DEVICES

The potential health hazard created by a cross connection determines the type of device that is required for backflow prevention. Listed are some common backflow preventers. Contact a plumber or the Town for further details.

*Reduced Pressure Principle Backflow Prevention Assembly (R.P.A.)



*Double Check Valve Assembly (D.C.V.A.)

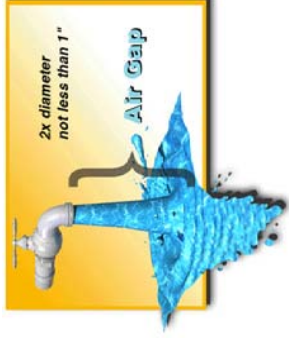


***The industrial or business owner must have the above backflow prevention assemblies tested upon installation and annually**

thereafter to ensure that they function continuously as designed.

The Town of Blackfalds registers and provides a list of qualified Commercial Cross Connection Inspectors as backflow prevention assembly testers. See our website at www.blackfalds.com for our current list of registered inspectors or for further information.

Approved Air Gap (A.G.)



Dual Check Valves (Du.C.V.)



Double Check with Atmospheric Port (D.C.A.P.)



Hose Connection/Facet Bib Vacuum Breakers (H.C.V.B./F.B.V.B.)





TOWN OF BLACKFALDS CROSS-CONNECTION CONTROL PROGRAM

APPENDIX D



BLACKFALDS
ALBERTA
*a nice place
to grow!*

TOWN OF BLACKFALDS - CROSS CONNECTION CONTROL DATABASE

OPERATING AS	COMPANY	COMPANY ADDRESS	CITY	MUNICIPAL ADDRESS	STATUS	STATUS DETAILS	Date Installed	Date Inspected
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