

# **CITY OF SALMON ARM**

# Cross Connection Control Policy

Prepared by:

CITY OF SALMON ARM ENGINEERING & PUBLIC WORKS DEPARTMENT

September 2012

## **City of Salmon Arm**

### **Cross Connection Control Policy**

#### **Contents**

Α.	Introduction	3
В.	Purpose	3
C.	Goals and Objectives	3
D.	Enforcement Authority	3
E.	Administrative Authority	4
F.	Personnel	4
G.	Certification	4
Н.	<b>Definitions</b>	4
I.	Responsibilities of the Water supplier (the City of Salmon Arm)	11
J.	Facility Management	12
K.	Backflow Preventer Guidelines	13
L.	Bulletin Development and Program Structure	14
М.	Responsibilities of the Customer	14
N.	Fire Hydrant & Temporary Use	16
Ο.	Safety	16
P.	Forms & Letters	16
Q.	Public Education	17
R.	References	17
S.	Standards & Guidelines	17
т.	Contact Information	18
U.	Policy Amendments	19

#### A. Introduction

Safety of drinking water is a public health issue. In the province of British Columbia, the Ministry of Health Services provides leadership and assumes ultimate responsibility for providing safe drinking water for British Columbians.

The Ministry of Health Services is the lead agency for drinking water issues. As of February 2003, the Interior Health Authority, Ministry of Health Services, requires that every water supplier develop and implement a Cross Connection Control Program. This requirement is a condition of the Permit to Operate for the City of Salmon Arm, Water Utility. In addition to the requirements of the Health Authority, there are other considerations leading to the decision to implement a Cross Connection Control Program.

There are indications from the insurance industry that elevated insurance costs will result for water suppliers that do not address identified hazards in their water utility systems. Also there are liability issues.

#### B. Purpose

The City of Salmon Arm has developed a Cross Connection Control Program in compliance with the Interior Health Authority's - Permit to Operate a water system (Drinking Water Protection Act, Part 2, Section 8). The purpose of this program is to protect the public health by ensuring that the safe clean water provided by the City of Salmon Arm is not contaminated due to backflow after it is introduced into the water distribution system. A Cross Connection Control Program addresses the backflow threat as a result of cross connections by establishing operating policies and procedures as well as backflow preventer selection, installation, testing and maintenance practices and procedures. The Program tracks all installed testable backflow preventers connected to the City of Salmon Arm Water Utility to ensure that they remain in proper working order. The program also maintains a list of certified backflow preventer testers to help ensure qualified persons are testing the backflow preventers.

#### C. Goals and Objectives

Our goal is to develop and implement a Cross Connection Control Program, maintain and assess the program in an ongoing and objective manner, ensuring that clean safe water is delivered to the people of the City of Salmon Arm.

#### D. Enforcement Authority

The City of Salmon Arm Cross Connection Control Program receives its authority from the Cross Connection Control Bylaw No. 3934 and the British Columbia Building Code, Part 7, require that potable water be protected from contamination.

#### **E.** Administrative Authority

The Permits and Licensing Department has been delegated the responsibility to administer and manage the Cross-Connection Control Program

#### F. Personnel

The Cross Connection Control Coordinator will be the Manager of the Permits and Licensing.

#### G. Certification

One person at minimum working in the Cross-Connection Control Program must have taken and successfully passed the Cross-Connection Control Testers Course recognized by the BCWWA Cross-Connection Control Committee.

#### H. Definitions

- Air break- the unobstructed vertical distance between the lowest point of an indirectly connected waste pipe and the flood level rim of the fixture into which the waste pipe discharges.
- 2. Air gap- the unobstructed vertical distance through air between the lowest point of the water supply outlet and the flood level rim of the fixture or device into which the outlet discharges. The recommended vertical air gap shall be at least twice the inside diameter of the water supply inlet but never less than 25mm.
- **3. Area Protection-** protection provided for a section of a piping system with potable and non-potable connections (that may or may not be considered cross-connections) downstream of a backflow preventer. See **Zone protection.**
- 4. Approved Backflow Prevention Assembly- means a backflow preventer designed to be tested and repaired in-line and to meet the head loss and flow requirements of the approval agencies recognized by the City of Salmon Arm Cross Connection Control Policy.
- 5. Auxiliary Water Supply- any water supply on or available to the premises other than the CSA's approved public water supply. The auxiliary water may include water from another supplier's public water supply or from any natural source, such as a well, lake, spring, river stream, or harbor; auxiliary water may also include used waters or industrial fluids.
- **6. Back pressure-** a pressure higher than the supply pressure.
- **7. Back siphonage-** backflow caused by a negative or reduced pressure within the potable water supply line.

- **8. Backflow-** Means the reversal of flow from the private water system to the City of Salmon Arm waterworks system.
- **9. Backflow preventer-** a device that is a physical attachment to the potable water supply that prevents the reversal in direction of flow.
  - a. Double check valve assembly (DCVA)- a backflow preventer consisting of two force-loaded, independently acting check valves, including tightly closing resilient-seated shut-off valves located at each end of the assembly and fitted with properly located resilient-seated test cocks. This device is designed for use under continuous pressure.
  - b. Double check valve assembly for fire system (DCVAF)- a DCVA that is specifically designed for use only on water supplies to fire sprinkler and standpipe systems.
  - **c. Dual check valve (DuC)-** a backflow preventer consisting of two independently acting, force-loaded, soft-seated check valves in series. This device does not have a relief port or test cocks. This device is designed for use under continuous pressure.
  - **d.** Dual check valve for fire system (DuCF)- a DuC that is specifically designed for use on water supplies to residential fire sprinkler systems.
  - e. Dual check valve with atmospheric port (DCAP)- a backflow preventer consisting of two independently acting check valves separated by an intermediate chamber with an atmospheric port. A chamber pressure higher than the supply pressure is required to open the port when there is a positive pressure on the supply side. This device is designed for use under continuous pressure.
  - f. Dual check valve with atmospheric port for carbonators (DCAPC)- a carbonated beverage backflow preventer consisting of two independently acting check valves biased to normally closed positions and separated by an intermediate chamber with an atmospheric port. A chamber pressure higher than supply pressure is required to open the port when there is a positive pressure on the supply side. An integral strainer at the inlet ensures that debris does not foul the device's check valves or enter the carbonator unit. This device is designed for use under continuous pressure.

- g. Dual check valve with intermediate vent (DuCV)- a backflow preventer consisting of two independently acting check valves biased to a normally closed position. Between the check valves there is a relief port that is biased to a normally open position. This device is designed for use under continuous pressure.
- h. Reduced pressure principal assembly (RP) 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.
- i. Reduced pressure principal assembly for fire system (RPF)- an RP that is specifically designed for use only on water supplies to fire sprinkler and standpipe systems.
- 10. Certified Technician means a person holding a valid certificate from the British Columbia Water and Waste Association for the purpose of testing and servicing all types of backflow prevention devices;
- **11.Critical level (CI)-** the level of submergence at which a vacuum breaker ceases to prevent back siphonage.
- 12.Cross-Connection- any physical arrangement whereby the Municipality's water supply is connected, directly 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, of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow;
- **13.Cross Connection Control Program (CCCP)-** a program initiated by a regulatory authority (the City of Salmon Arm) to administer and regulate the selection, installation, testing, and maintenance of backflow prevention devices.
- **14. Enclosure -** an above-ground structure, designed to accommodate a backflow preventer that incorporates positive drainage to prevent submergence of the backflow preventer, provide security, increase accessibility for testing and repair, and possibly provide freeze protection.
- **15. Customer -** means the registered owner or occupier of the property.

- **16. Fire Protection System (class types)-** refer to CSA B64.1 0-11.
  - a. Residential "full flow through" type fire sprinkler system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and that is fully integrated into the potable water system to ensure a regular flow of water through all parts of both systems.
  - b. Residential "partial flow through" system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and in which flow (during non-functional periods of the fire system) only occurs through the main header to a water closet located at the farthest point of the system.
  - c. Class 1 system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and that has direct connections only from public water main, has no pumps, tanks, or reservoirs, and has all sprinkler drains discharging to atmosphere, dry wells, or other safe outlets.
  - d. Class 2 system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets, that is the same as a Class 1 system but also includes a booster pump in the connection from the street mains.
  - e. Class 3 system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and that has direct connections from the public water supply mains, elevated storage tanks (either open or closed), fire pumps taking suction from aboveground covered reservoirs or tanks, and pressure tanks. In Class 3 systems, storage facilities are only filled from, or connected to, the public water supply, and the water in the tanks is maintained in a portable condition. Class 3 systems resemble Class 1 systems in all other respects.
  - f. Class 4 system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and that has direct connections from public supply mains (similar to Class 1 and Class 2 systems) and an auxiliary water supply dedicated to fire department use and available to the premises, such as an auxiliary supply located within 518 m (1700 ft) of the pumper connection.
  - g. Class 5 system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and that has direct connections from public supply mains and that is also interconnected with an auxiliary water supply.

- h. Class 6 system- an assembly of pipe and fittings that conveys water from the water service pipe to the fire sprinkler outlets and that is a combined industrial and fire protection system and is supplied from the public water supply mains only, with or without gravity storage or pump suction tanks.
- **17.Fire Service Pipe-** a pipe that conveys water from a public water main or private water source to the inside of a building for the purpose of supplying a fire sprinkler or standpipe system.
- **18. Fixture -** a device that receives water, waste matter, or both and directs these substances into a sanitary drainage system.
- **19. Hazard -** shall be divided into three categories:
  - a. Minor Hazard any type of actual or potential cross-connection that involves a substance that constitutes only a nuisance and that results in a reduction in only aesthetic qualities of water. This includes water that might have been heated or cooled and connections that cannot create a danger to health.
  - b. Moderate Hazard any minor hazard connection that has a low probability of becoming a severe hazard. This includes, but not limited to, connections involving water where aesthetic qualities of the water have been reduced and, under certain conditions, can create a danger to health.
  - **c. Severe Hazard -** any type of cross-connection or potential cross-connection involving water that has additives or substances that, under any concentration, can create a danger to health.
- **20. Horizontal-** a plane perpendicular to a plumb line (±-2 deg.).
- **21.Individual protection-** protection provided at the connection to a fixture or appliance.
- **22.Irrigation system, above ground -** a system pipes and valves, installed above grade, that carry water for various irrigation uses: examples include garden and soaker hoses, portable lawn or garden sprinklers, and manually controlled micro/drip irrigation systems.
- **23.Irrigation system, in ground -** a system of pipes and valves that carry water to various types of sprinklers for distribution over the surface of the soil (piping located underground).
- **24. Pit -** a hole or a cavity constructed to house a backflow preventer in the ground, and not capable of being physically being entered by a person.

- **25.Potable water-** water safe for human consumption, free from harmful or objectionable materials, as described by the Safe Drinking Water Protection Act.
- **26. Potable water system materials-** any material acceptable under the British Columbia Building Code for use in a water distribution system.
- **27.Potable water system materials, not acceptable-** any material that is not acceptable under the British Columbia Building Code for use in a water distribution system.
- **28. Premises isolation-** protection provided at the entrance to a building or facility. (This type of protection does not provide protection to personnel on the premise.)
- **29. Readily accessible -** capable of being reached for operation, renewal, servicing, or inspection, without requiring the climbing over or removal of an obstacle or the use of a portable ladder.
- **30. Regulatory authority -** a federal, provincial, or municipal ministry, department, board, agency, or commission that has responsibility for regulating by statute the use of products, materials, or services.
- **31.Residential (applied to a building) -** intended for residential occupancy as defined in the British Columbia Building Code.
- **32.Vacuum breaker-** a device that will prevent backflow when pressure in the system upstream of the device falls below atmospheric pressure. Air is only admitted downstream of the device.
  - a. Atmospheric vacuum breaker (AV8)- a vacuum breaker designed to be under pressure only when water is being drawn from the water supply system and for a short, intermittent periods of time.
  - b. Hose connection dual check vacuum breaker (HCDV8)- a vacuum breaker consisting of two independently acting check valves, forcedloaded or biased to a closed position. Located between the checks is a means of venting to atmosphere that is forced-loaded or biased to an open position. HCDVB devices
    - i. are designed to be under pressure only when water is being drawn from the system and for short intermittent periods of time
    - ii. incorporates a means to manually test the operation of the downstream check valve
    - iii. are designed to be used where the backpressure generated by an elevated hose is 3 m (10ft) of head pressure or less.

- c. Hose connection vacuum breaker (HCV8)- a vacuum breaker that consists of a single force-loaded check valve biased to a closed position. Downstream of the check valve is a means of automatically venting to atmosphere that is force-loaded or biased to an open position. If there is no flow through the device, the check valve is closed and the vent is open. The device is designed to be under pressure only when water is being drawn from the system and for short, intermittent periods of time.
- d. Laboratory faucet vacuum breaker (LFV8)- a vacuum breaker consisting of two independently acting check valves force-loaded or biased to a closed position. Between the check valves there is an atmospheric vent that is force-loaded or biased to an open position. When the laboratory faucet is off, the check valves are closed and the vent is open; when the faucet is on, the check valves are open and the vent is closed.
- e. Pressure vacuum breaker (PV8)- a vacuum breaker that contains an independently acting check valve force-loaded or biased to a closed position, and an independently operating air inlet valve force-loaded or biased to an open position and located downstream of the check valve. PVB devices are
  - i. equipped with resilient-seated test cocks and resilient-seated shut-off valves located at each end of the vacuum breaker
  - ii. designed for use under continuous pressure
- f. Spill-resistant pressure vacuum breaker (SRPV8)- a vacuum breaker that contains an independently acting check valve force-loaded or biased to a closed position, and an independently operating air inlet valve force-loaded or biased to an open position and located downstream of the check valve. A diaphragm separates the flow from the atmospheric vent. SRPVB devices are equipped with a resilient-seated test cock, a bleeder, and resilient-seated shut-off valves located at each end of the device. SRPVB devices are designed for indoor use under continuous pressure.
- **33. Vault -** a room or space that is constructed to house a backflow preventer and that is capable of being entered by a person.
- **34. Vertical-** a plane parallel to a plumb line C±.2deg.).
- **35.Water Distribution System-** an assembly of pipes, fittings, valves, and appurtenance that conveys water from the water service pipe or private water supply system outlets, fixtures, appliances and devices.

- **36.Water Authority-** includes any municipality, regional district, improvement district, irrigation district, water users community, waterworks district, water utility and any other corporation that have the authority to supply water for the purposes of domestic, irrigation or other uses as reflected in the City of Salmon Arm Permit To Operate.
- **37. Water Supplier-** referred to as the City of Salmon Arm in this document.
- **38.Water Service Pipe-** a pipe that conveys water from a public water main or private water source to the inside of the building.
- **39.Zone Protection-** protection provided for sections of a piping system within a building of facility with no potable connections downstream of a backflow preventer. See **Area protection**.

#### I. Responsibilities of the Water supplier (the City of Salmon Arm)

#### 1. Provide a Cross Connection Control Program

The City of Salmon Arm shall endeavor to prevent the contamination of the water distribution system through their cross connection control program. Proactive measures such as; facility assessments, compliment the program by identifying cross connections and providing guidance for the installation & testing of new and existing backflow preventers then maintaining records on these devices. The City of Salmon Arm will also respond to Customer inquiries in an effort to meet the goals and objectives of the Cross Connection Control Program.

#### 2. Program Implementation

The Cross Connection Control Program will be implemented in a manner that will address the high and severe hazard water use processes first. Industrial, Commercial, Institutional and Agricultural (ICIA) Customers will be assessed and surveyed first. Following the survey, a letter will be sent to the Consumer or the property owner explaining the result of the survey and the requirements, if any, for cross connection control. If no response is received from the Consumer or property owner, a second letter will be sent explaining the importance of the compliance. Ultimately, if no response is received in the allotted time frame, a final letter will be sent outlining the enforcement action to be taken. Surveys will follow a consultation and education process. The program will then address the moderate and minor hazard uses.

Public education programs will be delivered to inform residential Consumer of the dangers of backflow. A survey of a residence will only be undertaken if there is a real or perceived higher than normal risk to the water utility from the residents.

The City of Salmon Arm's responsibility for cross connection control will begin at the water supply source. It will include all municipal water treatment, storage and distribution facilities, and end at the downstream private property line.

#### 3. Emergency Response

An Emergency Response Plan will be in accordance with the Drinking Water Protection Regulations, to address any incident arising from a backflow occurrence.

#### 4. Program Maintenance

The City of Salmon Arm will keep records of all backflow prevention assemblies as the assemblies are inventoried or installed.

#### 5. Record Keeping

All records will be maintained in both hard copy file where applicable and in an electronic database.

A record of each testable backflow prevention assembly installed on the water distribution system will be maintained. This includes the date of installation, the cross-connection the assembly is protecting, location, make, model, size, serial number and test results.

A record of certified backflow assembly testers will be maintained in conjunction with BCWWA, and will include proof of certification and test equipment calibration.

A copy of each survey assessment report, notices and all other correspondence will be kept by the City of Salmon Arm.

A Cross-Connection Control software program will track all backflow prevention assemblies, test reports, letters of correspondence plus provide reminders of annual test report due dates and notices to Consumers.

#### J. Facility Management

#### 1. Inspection of New Facilities

All applications for new Industrial, Commercial, Institutional & Agricultural (I.C.I.A.) services and enlarging of existing services must be routed through the Cross Connection Control Coordinator.

The site plan, mechanical plan and the plumbing fixture schedules must be checked for actual and potential cross-connections jointly by the Building / Plumbing Inspector and/or the Cross-Connection Control Coordinator.

A record will be made of all identified cross-connections along with the approval methods used to eliminate or control the cross-connections.

When reviewing plans for cross-connection control, CSA 8.64.10-11 (or most current) Standards will be used as a guideline.

Required backflow preventers will be listed and attached to the final plans before they are approved.

During final inspection the Building / Plumbing Inspector and/or the Cross Connection Control Coordinator will confirm the installation of all required backflow preventers previously listed on the final plans.

An Occupancy permit will not be issued until all backflow prevention devices have been properly installed and copies of all applicable backflow assembly test reports, confirming the assembly has passed, have been submitted. Testing of backflow prevention assemblies must be provided by a certified backflow assembly tester holding a valid certification issued from the BCWWA.

#### 2. Inspection of Existing Facilities

All I.C.I.A. facilities shall be inspected for cross-connections and documented in a survey assessment or plan review report.

Inspections of the above facilities will be provided by the City of Salmon Arm beginning with facilities with the most hazardous potential for cross connections that may pose a high degree of hazard to the drinking water distribution system through cross-connections.

All City of Salmon Arm municipal buildings, parks and irrigation systems have been surveyed for cross-connections and deficiencies identified are being rectified.

All existing City of Salmon Arm municipal backflow assemblies are being properly maintained and have been tested routinely by a certified backflow assembly tester.

#### K. Backflow Preventer Guidelines

The City of Salmon Arm Cross Connection Control Program provides guidelines for the selection, approval and installation of backflow devices as outlined by the recognized approval agencies and adopted standards.

The City of Salmon Arm Cross Connection Control Program provides guidance for premise, zone and fixture isolation as stipulated in the adopted standards and the BC Building Code.

#### L. Bulletin Development and Program Structure

The City of Salmon Arm Cross Connection Control Program will be structured to allow for updates in policy. This structure will include bulletins that will be posted and/or distributed to apprise the general public and contractors of the requirements for cross connection control that may or may not be specifically addressed in the adopted standards.

These bulletins shall also specify the requirements of the Cross Connection Control Program. In the case of a discrepancy between the accepted standards and a bulletin of the Cross Connection Control Program, the intent of the bulletin will prevail.

#### M. Responsibilities of the Customer

#### 1. Control Cross Connections

It is incumbent upon the Consumer to insure that onsite water use practices or processes do not affect the City of Salmon Arm water utility in a negative manner. This requirement is a condition of water service from the City of Salmon Arm. The Consumer shall be responsible for controlling cross connections through the installation, testing and maintenance of approved backflow prevention measures on any permanent or temporary connection to the water distribution system. The type of backflow prevention measures required shall depend upon the degree of hazard that exists, the probability of a backflow incident occurring, and the type of circumstance causing potential or actual backflow to occur (back siphonage or back pressure).

#### 2. Access to Premises

The Consumer shall be responsible for providing the necessary information, scheduling, and access for inspection to allow a determination of backflow potential and the appropriate cross connection control measures.

The Consumer's system should be open for inspection at all reasonable times to authorized representatives of the City of Salmon Arm to determine whether cross connections or other structural or sanitary hazards, including violations of this article, exist. When such a condition becomes known, the City of Salmon Arm shall notify the Consumer and provide a logical/reasonable period of time to correct the condition based on the potential degree of hazard.

#### 3. Backflow Prevention

All Backflow Assemblies and Devices will be selected and installed in compliance with the Canadian Standards Association CSA-B64.10-11 (as amended) Manual for the Selection and Installation of Backflow Preventers.

The Consumer is responsible for all costs associated with the installation, inspection, testing, repair, replacement and maintenance of backflow preventers servicing their water system.

The Consumer is responsible for notifying the City of Salmon Arm of any backflow preventer that the Customer believes is no longer necessary.

#### 4. Backflow Assembly Testing

All assemblies installed at the request of the City of Salmon Arm or the Plumbing/Building Inspector on behalf of the City of Salmon Arm, shall be tested in accordance with the CSA-B64.10.1-11 (current edition) Manual for the Maintenance and Field Testing of Backflow Preventers by a certified backflow assembly tester when the assembly is installed, repaired or relocated and then annually thereafter, or more frequently if required by the City of Salmon Arm.

All air gaps and atmospheric vacuum breakers shall be inspected, respectively, at the request of the City of Salmon Arm.

In the event an assembly fails a test, the Consumer must have the assembly repaired or replaced as soon as possible. The assembly must then be tested again to ensure that it is in proper working order. The test result must be submitted, within thirty (30) days of the test date, to the office of the Cross Connection Control Program Coordinator or Authorized Agent. After review and acceptance of the test report, the assembly is considered in proper working order if it passes the applicable test in accordance with the CSA-B64.10.1 standard listed above.

#### a. Test Report Form

All test results must be submitted on an approved City of Salmon Arm backflow assembly test report.

#### b. Test Report Acceptance

The City of Salmon Arm Cross Connection Control Program retains the right to accept or reject submitted backflow preventer test reports based on errors, discrepancies and / or omissions. This process will be complete within thirty (30) days from the receipt of the test record. If consecutive errors or omissions are noted on test forms submitted by a certified backflow assembly tester, the City of Salmon Arm reserves the right to refuse recognition of the tester as certified.

#### c. Test Tag

A tag or label must be securely attached to every assembly containing the following information:

Side A
Name of Owner
Location of Assembly
Cross Connection Protected
Type of Assembly

Manufacturer Serial # Size Side B
Test Date
Tester Initial
Certification #
Company Tested By

It is the responsibility of the certified backflow assembly tester to ensure that this tag is fully completed after each test with a **permanent** waterproof pen.

#### N. Fire Hydrant & Temporary Use

The City of Salmon Arm will provide policies regarding the commercial temporary use of water withdrawal through a City of Salmon Arm fire hydrant connection or fill station standpipe to prevent contamination of the water distribution system.

#### O. Safety

The City of Salmon Arm will provide programs to help ensure the safety of personnel involved with the Cross-Connection Control Program (Occupational Health & Safety Regulations).

#### P. Forms & Letters

The City of Salmon Arm will provide letters and notifications to the Consumer, including program announcements, survey summary, intent of compliance request letter, backflow test required and reminder notification etc. Changes in policy and related program announcements will be distributed to pertinent municipal departments, engineering and commercial service providers.

The City of Salmon Arm has developed a test report form for all testable backflow assemblies that are installed on the water distribution system(s) within the municipal boundaries.

#### Q. Public Education

The City of Salmon Arm will provide information to the Consumer informing them of the hazards of cross-connections and backflow to help educate and protect the users of the water distribution system from contamination.

#### R. References

A reference library of cross-connection control industry related publications will be maintained by the City of Salmon Arm that will continue to provide up to date information relating to cross-connection control issues and best management practices.

#### S. Standards & Guidelines

#### 1. British Columbia Building Code

All new construction and renovations undertaken in the City of Salmon Arm are subject to the requirements of B.C. Building Code Part 7.6.2 of the B.C. Building Code, "Protection from Contamination", refer to backflow prevention. Section 7.6.2.1.3 states that "Backflow preventers shall be selected and installed in conformance with CAN/CSA B64.10 Manual for the Selection and Installation of Backflow Prevention Devices."

#### 2. Accepted Standard - CSA B64.10-11/864.10.1-11 (or most current edition)

The selection, installation, maintenance and field-testing of backflow preventers in the City of Salmon Arm shall be in accordance with CSA B64.10-11 or the latest updated version of this standard. In case of a discrepancy between the accepted CSA standard and a bulletin of the City of Salmon Arm Cross Connection Control Policy, the criterion of the bulletin will prevail.

#### 3. Accepted Standards - CSA B64 Series 01

All backflow preventers installed in the City of Salmon Arm shall be approved in accordance with CSA standard B64 Series-01. The backflow preventers must be approved for the application for which they are being used.

# 4. Accepted Procedure and Practice AWWA Canadian Cross Connection Control Manual

Outlines the testing procedures recognized by the American Water Works Association, British Columbia Section (BCWWA) for testing backflow prevention assemblies and will provide additional standards not addressed by the above aforementioned.

#### 5. Chemigation Guidelines for British Columbia - a BCMAF publication

The Chemigation Guidelines for British Columbia provide information on backflow prevention requirements for all types of water supplies and additional safety information pertaining to chemigation.

Producers obtaining water from streams or other natural sources are not under the authority of a water supplier. The chemigation manual should be used by agricultural producers as a chemigation standard in instances where a higher authority has not established a standard.

#### T. Contact Information

The City of Salmon Arm Cross Connection Control Coordinator can be contacted At:

The City of Salmon Arm Contact Name: Maurice Roy

**Department:** Permits and Licensing

Address: Box 40, 500-2 Ave NE, Salmon Arm, B.C. V1E 4N2

**Phone:** (250) 803-4013 **Fax:** (250) 803-4041

**Email:** mroy@salmonarm.ca **Web site:** www.Salmonarm.ca

## **U. Policy Amendments**

Date of Change	Update or Amendment