

Commercial, Institutional and Industrial Cross-Connections

The City of Parkville is responsible to provide the safest water possible. However, once the water enters private property, common problems may arise due to improper changes or misuse of the plumbing system and these problems may affect the quality of the water provided by the City.

In order to keep the potable water safe from harmful substances, the City has implemented a cross-connection control program to prevent contamination of the potable water.

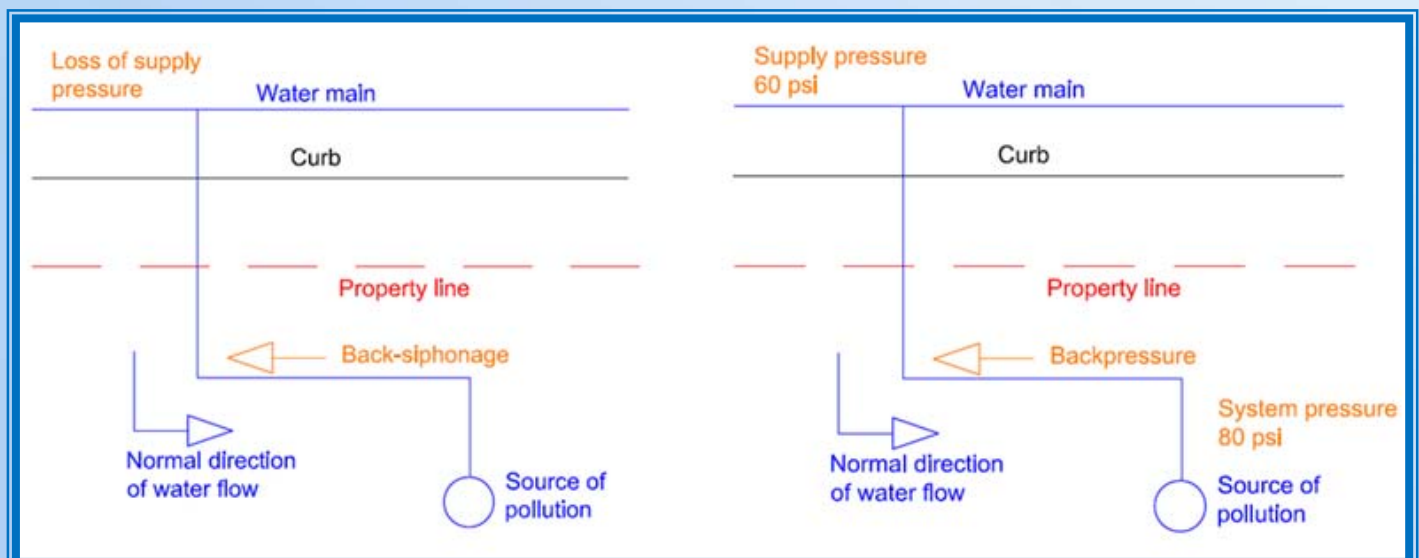
What is a Cross-Connection?

A cross-connection is a temporary or permanent connection between the potable water system and any other source which may contain a substance which will degrade the quality of the water (e.g. chemicals, pathogens) when backflow occurs.

Backflow is a hydraulic condition in the water piping system which causes water to flow in the reverse direction. There are two types of backflow conditions:

Back-siphonage is caused by negative or reduced pressure in the supply piping which can occur due to water main break or repair, hydrant flushing, firefighting, etc.

Backpressure is caused when a potable water system is connected to a non-potable water system operating under higher pressure. This may be caused by booster or recirculating pumps, boiler or heating systems, elevated piping or holding tanks, etc.



Non-Testable Backflow Preventers



Dual Check Valve is used to isolate minor residential hazards only where there is no health hazard involved.

Hose Connection Vacuum Breaker is used for minor hazards only. HCVB is effective against backflow caused by back-siphonage and low head pressure due to terminal end of a hose being at an elevation above the HCVB.



Atmospheric Vacuum Breaker is used to isolate minor to moderate hazards only. AVB is effective against backflow caused by back-siphonage only and should not be used if backpressure can develop in the downstream.



Testable Backflow Preventers



Pressure Vacuum Breaker is used for minor and moderate hazard application. PVB is effective against back-siphonage only and should not be used if backpressure can develop in the downstream piping.

Double Check Valve Assembly is used for moderate or minor hazard application.



Reduced Pressure Assembly is used for severe hazard application where an approved air gap is impractical.

Annual testing

Testable devices are required to be tested annually, small amounts of matter are capable of plugging up the devices and causing them to malfunction, these problems can be avoided with a well scheduled maintenance program.

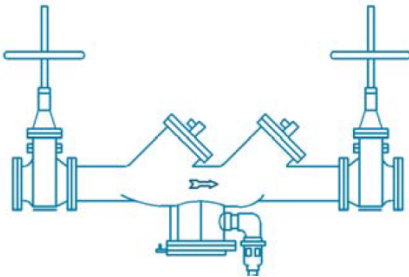
Severe Degree of Hazard

Examples of facilities in this category:

- Automotive repair shop
- Hospitals
- Dry cleaning
- Carwashes
- Laboratories
- Beverage processing facility (e.g. brewery)

Required device:

Reduced Pressure principle backflow preventer (RP)



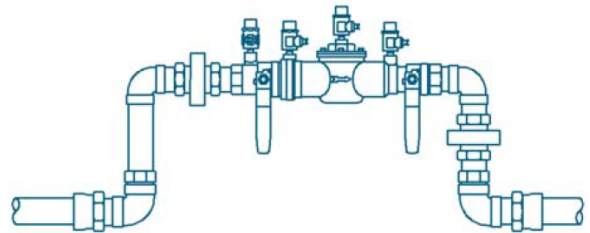
Moderate Degree of Hazard

Examples of facilities in this category:

- Restaurants
- Schools
- Hotels
- Commercial office spaces
- Shopping malls
- Apartment buildings

Required device:

Double Check Valve Assembly (DCVA)



Backflow preventers shall be selected, installed, maintained and field tested in conformance with CSA B64.10. All works must be performed by an individual certified by the BC Water and Waste Association (BCWWA).

It is essential every testable backflow preventer be tested annually by a certified tester (certified by BCWWA) and the test reports be sent to the City within **thirty days of completion. The City of Parksville will provide blank copies of the test reports and display tags upon request.**

For more information, contact Barbara Silenieks at BSilenieks@parksville.ca or 250 951-2489