



Township of Southgate

Backflow Prevention and Cross-Connection Control Program

Purpose of the Program:

The Township of Southgate has established a Backflow Prevention and Cross-Connection Control Program to help ensure the supply of safe, clean drinking water to its users.

This program:

- monitors compliance of Bylaw 12-2011 Part 8 Cross Connections and Backflow Prevention;
- identifies cross-connections where potential contamination of potable (drinking) water may occur;
- enforces the required installation of suitable backflow prevention devices;
- maintains a database of licensed backflow prevention device testers;
- maintains a database of locations that have backflow prevention devices installed; and
- ensures testing of installed devices on a yearly basis.

Definitions:

“Backflow” means the flowing back of, or reversal of the normal direction of flow water.

“Backflow Prevention Device” means a device that prevents backflow such as Air Gap (AG) Reduced Pressure Principle Assembly (RP), Double Check Valve Assembly (DCVA), Atmospheric Vacuum Breaker (AVB), Pressure Vacuum Breaker (PVBA), Hose Connection Vacuum Breaker (HCVB), or Dual Check Valve (DCV).

“Cross Connection” means any actual or potential connection between a potable water supply or system and any source of pollution or contamination and includes any by-pass, jumper connection removable section of pipe, swivel or changeover device and any other temporary or permanent connecting arrangement through which backflow may occur.

Background:

Backflow prevention ensures that potable water is protected against the entry of any infectious agents or other materials and substances. This is achieved through the backflow prevention device, which if properly installed and maintained, allows water to flow in only one direction.

Backflow occurs as a result of back siphonnage, back pressure, or both.

Water pressure on the supply side (street) drops, usually as a result of water main breaks or repairs, or the use of hydrant water for fire fighting. Low water pressure can cause suction on the potable supply side and without adequate protection, can actually siphon or pull contaminants back with it, otherwise known as “back siphonnage”. An example would be if a hose were sitting in a mop bucket during a water main break, dirty water could be siphoned back into the potable water supply.

High pressure on the “non-potable side” could also force contaminants into the supply line if the pressure were greater than the town’s water pressure, known as “back pressure”. An example of this would be if a pressure washer were connected to the water supply without an

approved back flow prevention device installed, detergent laden water could be forced into the potable water supply.

Premise Isolation

Premise isolation is having a backflow prevention device installed at the point where the water service enters a building or facility. The following properties are required to have premise isolation:

1. industrial;
2. commercial;
3. institutional;
4. multi-unit Residential; and
5. any other property (including residential) with a moderate-to-severe and severe hazard rating.

Zone Isolation

Zone isolation is having a backflow prevention device installed that protects the rest of a building from one particular area.

Fixture (Source) Isolation

Fixture isolation is having a backflow prevention device installed at the source of potential contamination. This provides protection for only a section of the piping system.

Flow Reversal Detection

Your Neptune E-coder-900i water meter has the ability to detect leaks and also flow reversal. If flow reversal is detected through your meter, investigation and monitoring will be carried out by the Township of Southgate waterworks staff.

Some possible sources of backflow are:

- water boiler heat sources
- solar water heating
- spa or swimming pool filling
- irrigation systems
- fish ponds and waterfalls or fountains
- reclaimed or recycled water systems
- sprinkler system

If flow reversal continues to be detected the property owner will be required to install the appropriately rated premise isolation backflow prevention device at the owner's cost and will be subject to the testing requirements of that device to ensure compliance with the Township of Southgate Backflow Prevention and Cross-Connection Control Program.