

## How to Prevent Contamination of Your Drinking Water

### Do:

- Keep the ends of hoses clear of all possible contaminants.
- If not already equipped with an integral (built-in) vacuum breaker, buy and install hose connection vacuum breakers on all threaded faucets around your home. These devices are inexpensive and are available at hardware stores and home improvement centres.
- Install an approved backflow prevention assembly on all underground lawn irrigation systems. Please contact your irrigation specialist to ensure a backflow prevention device is in place.

### Don't:

- Submerge hoses in buckets, pools, tubs, sinks, ponds, etc.
- Use spray attachments without a backflow prevention device.
- Use a hose to unplug

### Questions or concerns?

Please feel free to contact us if you are unsure of any unprotected cross-connections within your residence and we would be glad to assist.

**Providing  
Sarnia  
residents with  
safe drinking  
water is OUR  
responsibility,  
keeping it safe  
is EVERYONES.**

To learn more about Sarnia's Backflow Prevention Program, please contact:

**Engineering Department  
Public Works**

651 Devine Street  
Sarnia ON Canada N7T 1W9  
519-332-0330 ext. 2245 (phone)  
519-332-2664 (TTY)  
[www.sarnia.ca](http://www.sarnia.ca)

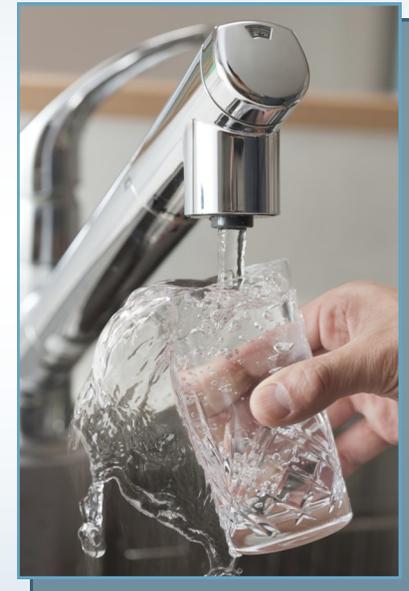


**The Corporation of  
the City of Sarnia**



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**ACTION PLAN FOR CROSS  
CONNECTION CONTROL  
AND  
BACKFLOW PREVENTION IN  
SARNIA**



**Important  
information for  
Residential  
Property Owners  
and Occupants  
(considered a minor hazard)**

## What is a cross connection?

A cross-connection is “any actual or potential connection between a potable water system and any source of pollution or contamination” (CSA, 2011). For example a hose submerged in a sink or container full of dirty water or chemicals, under the right circumstances could draw the water from the sink or container back into the Municipal Drinking Water System. Cross-connection control, or Backflow Prevention, helps to ensure our drinking water is protected.

## How does contamination occur?

Water normally flows in one direction, from the Municipal Drinking Water System through a home’s cold or hot water plumbing to a sink tap or other plumbing fixture. Under certain conditions, water can flow in the opposite direction. This is known as backflow. Backflow occurs when back siphonage or a back pressure condition is created in a water line.

**Back siphonage** can cause backflow if there is a drop in pressure or a negative pressure in the water line.

**Back Pressure** can cause backflow when a source of pressure, such as a pump, creates a pressure greater than the one supplied by the municipal water system.

## Backflow Prevention

The best way to prevent hazardous backflow is to eliminate all existing cross-connections. If a cross-connection cannot feasibly be eliminated, it must be protected by an approved backflow prevention device selected and installed in conformance with the Canadian Standards Association (CSA B64.10).

## Residential responsibility and drinking water protection

In general, residential homes are considered a low hazard and therefore, may not require the installation of a backflow prevention device at the water meter.

A backflow prevention assembly will be required where a single-family residence has special conditions that increases the hazard from low to medium or high/severe. Examples of special conditions are a home photo processing lab, a well, a mechanic or any direct connections to chemicals or other auxiliary water sources.

For the safety of the people in your home, it is necessary to properly protect or eliminate all individual cross-connections.

## Protecting drinking water systems from actual or potential cross connections

Install a suitable backflow prevention device approved by the Canadian Standards Association B64 10 Standards.

Below are examples of common residential backflow preventers approved by the CSA. Consult with a Contractor who is Certified to obtain a complete list of available backflow preventers.

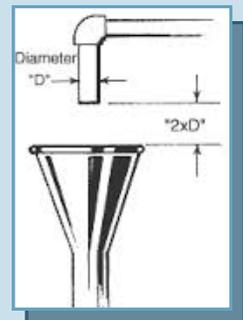


Hose Connection Vacuum Breaker



Dual Check Valve

Pressure Vacuum Breaker



Air Gap