

How the hazards of cross-connections and backflow can affect your drinking water

Your property has a connection to public water NOT protected by a backflow device.

Stage 1

Water pressure is reduced due to a main break or fire event that requires a lot of water.

Stage 2

The sudden drop of water pressure creates a reverse pressure situation.



Connection to potentially hazardous source.



No Backflow device.

Contaminants from the unprotected connection can potentially enter the drinking water.





Normal Flow

Reverse Pressure



Our water can become contaminated if connections to plumbing systems are not property protected. Now that's nasty! To avoid contamination, the State of Michigan requires backflow preventers where there is an actual or potential hazard for a cross-connection.

WHAT'S A CROSS-CONNECTION?

A cross-connection is an actual or potential connection between the safe drinking water (potable) supply and a source of contamination or pollution. State plumbing codes require approved backflow prevention methods to be installed at every point of potable water connection and use. Cross-connections must be property protected or eliminated! See the do and don'ts on the next page.

HOW DOES CONTAMINATION OCCUR?

When you turn on your faucet, you expect the water to be as safe as when it left the Great Lakes Water Authority (GLWA) treatment plant. However, certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water or even the public water supply.

Water normally flows in one direction. However, under certain conditions, water can actually flow backwards; this is known as backflow. There are two situations that can cause water to flow backward: back siphonage and backpressure.

BACK SIPHONAGE:

This may occur due to a loss of pressure in the municipal water system during a fire fighting emergency, a water main break or system repair. This creates a siphon in your plumbing system which can draw water out of a sink or bucket and back into your water or the public water system. .

BACKPRESSURE:

This may occur when a source of pressure (such as a boiler) creates a pressure greater than the pressure supplied by the public water system. This may cause contaminated water to be pushed into your plumbing system through an unprotected cross-connection.

WHAT ARE SOME TIPS ON HOW TO PROTECT MY WATER?

DO

Ensure that lawn irrigation systems have proper backflow protection. Backflow Prevention Assemblies must be tested at appropriate intervals by a certified tester, as required by your local water provider and plumbing codes.

Verify and install a simple hose bibb vacuum breaker on all threaded faucets around your home.

Make sure water treatment devices such as water softeners have the proper "air gap", which is a minimum of one inch above any drain.

DON'T

Submerge hoses in buckets, pools, tubs, sinks, or ponds.

Use spray attachments without a backflow prevention device.

Connect waste pipes from water softeners or other treatment systems directly to the sewer or submerged drain pipe. Always be sure there is a one-inch "air gap" separation.

WHAT IS VBT DOING TO PROTECT CROSS-CONNECTIONS?



The Michigan Department of Environment, Great Lakes, and Energy (EGLE) requires all public water suppliers to maintain an on-going Cross-Connection Control Program involving public education, onsite commercial, industrial inspections and residential sprinkler systems. Van Buren Township has implemented an inspection program, which began with commercial and industrial customers, and will now include residential irrigation systems in 2021.

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