# WHAT DO BACKFLOW PREVENTERS LOOK LIKE?

There are many manufacturers, types, sizes and configurations of backflow devices, each suited for different applications.



## REDUCED PRESSURE ZONE (RP)

May be used on direct connections that may be subject to backpressure or backsiphonage, and where there is the possibility of low or high hazard contamination.



## DOUBLE CHECK VALVE ASSEMBLY (DCVA)

May be used as protection against all direct connections where there is the possibility of low hazard contamination only. These are typically used on fire suppression systems.



## PRESSURE VACUUM BREAKER (PVB) or SPILL RESISTANT VACUUM BREAKER (SVB)

May be used on direct connections where there is the possibility of low or high hazard contamination. These devices are designed to protect against backsiphonage only. Installation locations are also limited.



## ATMOSPHERIC VACUUM BREAKER (AVB)

May be used on direct connections where there is the possibility of low or high hazard contamination. These devices are designed to protect against backsiphonage only. Locations for installation are limited.

## WHO CAN INSTALL AND TEST BACKFLOW PREVENTERS?

Approved backflow prevention assemblies must be installed by licensed plumbers and contractors. Installation must comply with local and state plumbing codes, Marion Utilities' regulations and other local ordinances. Only a person who is a certified backflow prevention device tester, registered with IDEM, may inspect and/or test backflow preventions assemblies.

We understand that installing, testing and maintaining backflow prevention devices does involve investment of time and resources. But protecting public health and safety is everyone's responsibility and is a commitment we make to our community.

Marion Utilities has contracted with Aqua Backflow to assist with the Water Utility's Cross Connection Control Program.

Aqua Backflow may contact you to request information, require a backflow test, or more. Your cooperation and courtesy is appreciated. Please note that you may be asked to test or install backflow protection where needed in accordance with Indiana Plumbing Code.

Let's keep our drinking water safe.

## Aqua Backflow

977 Elizabeth Street Elgin, IL 60120 Phone (847) 742-2296 Fax (847) 214-9696

www.AquaBackflow.com www.TrackMyBackflow.com



# What is Backflow?

Information about Cross Connections and how to prevent backflow.



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#### WHAT IS A CROSS CONNECTION?

A "cross-connection" is any actual or potential connection between the public water supply and a source of contamination or pollution. Common examples of this would be: having a garden hose attached to a faucet with the other end submerged

in a tub of detergent; using a hose to apply lawn fertilizer or insecticide; or connecting to a secondary water source, such as a well or pond, while already having a city water supply present.

That is a cross-connection.

## WHAT IS BACKFLOW?

Backflow is when the water in your pipes (the pipes after the water meter) goes backwards (the opposite direction from normal flow). There are two situations that can cause a backflow condition.

"Back Pressure" – a pressure greater than the supply pressure that may cause backflow. (Highpressure boiler or pressure washer)

"Back Siphonage" – the creation of a backflow as a result of negative pressure.

(Water main break or use of fire hydrants)

Along with the required backflow preventers and their regular maintenance, site inspections or surveys may be performed at properties that present a potential hazard to our water systems:

\* External ("site", or "containment") – to protect the City's water supply from cross connections on the customer's premises.

\* Internal ("hazard", or "isolation") – to protect the customer from potentially hazardous crossconnection in their own system.

## WHAT IS CONSIDERED A POTENTIAL HAZARD

Cross-connections can occur at many points throughout a distribution system and a community's plumbing infrastructure. Crossconnections can be identified by looking for physical interconnections (or arrangements) between a customer's plumbing and the water system. Some examples of backflow incidents that occur are:

- Chemicals backflowing (back-siphoning) through a hose into indoor plumbing.
- Over ½ of the nations cross-connections are from unprotected garden hoses!



- Carbonated water from a restaurant's soda dispenser entering a water system due to backpressure.
- Back siphonage of chemicals from industrial buildings into distribution system mains.

• Backflow of boiler corrosion control chemicals into a building's water supply.

There are numerous, well-documented cases where cross-connections have been responsible for contaminating drinking water, and have resulted in the spread of disease. The problem is a dynamic one, because piping systems are continually being installed, altered, or extended.



November, 2011 – Columbia, SC

(WLTX) News19 anchor Andrea Mock discovered her home was missing an irrigation system backflow preventer after brown water ran through her tap. When she had her water tested, they found an elevated level of 2, 4, D, an herbicide.

Mock said, "As soon as I found out we didn't have this part, I called (for a test) because I wanted to see what we had been drinking. And that test would only show what was in the water on that particular day. There's no telling what we might have consumed over the past five years. Without this part, anything we put on our grass had the potential to come into our water."