



## Cross Connection Control

### What is a Cross Connection?

A cross connection is an arrangement of piping or appurtenances through which backflow could occur. Think of the items in and around your home which contain things you wouldn't want to drink, like sewer lines, bath tub, mop bucket, etc. Any water connection to these items forms an avenue through which the contents may backflow into the drinking water system. There are numerous instances where this has caused illness and death.



### What is Backflow?



Backflow is the reversal of the normal direction of flow which results in undesirable materials entering the water system. Backflow can occur whenever the water pressure is reduced enough to cause a vacuum or "back-siphonage". The same principle is involved when you drink through a soda straw. Some situations which may cause this include water main breaks or shut down for repairs, hydrants opened for flushing or fire fighting, undersized piping in your residence or your water shut off for repairs. Another form of backflow, called "backpressure", occurs when the downstream pressure becomes greater than the supply pressure. This can be caused by things like pumps, boilers, and heat exchangers.

### What is Being Done About It?

Cross connections are prohibited by State and local plumbing codes. Additionally, Michigan water utilities are required to have a cross connection control program. Our utility does have a comprehensive program for the inspection, elimination, and prevention of cross connections in industrial, commercial, and public facilities. However, like most utilities, the manpower is not available to carry out an effective residential inspection program. That is why we are asking you to help protect yourself and your neighbors by eliminating your cross connections.

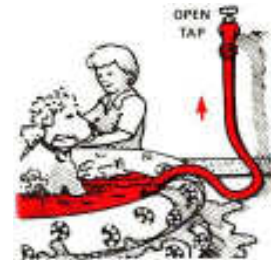


### What Cross Connections May Be In My Home?



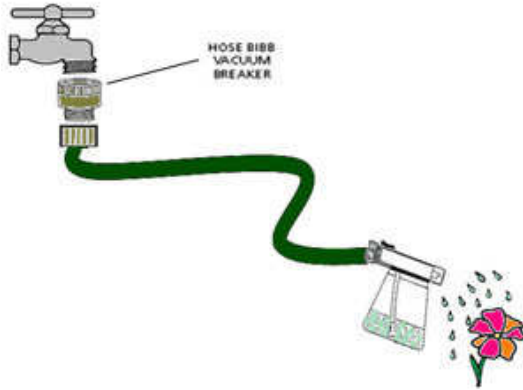
The most common cross connection(s) in residences are made with an ordinary garden hose. Hoses are used in a variety of potentially hazardous situations such as chemical sprayers, laundry tubs, detergent aspirators, radiator flushing, flushing clogged sewer pipes, swimming pools, and many more.

Some other cross connections to look for include underground lawn sprinkler systems, irrigation pumps, chemically-treated heating system, water softener drain-line to sewer, water operated sump drain devices, non-code (siphonable) ball cock assemblies in toilets, shower hoses, and solar heating systems.



## What Can I Do?

You should become familiar with the water system in your residence. Look at every usage point and visualize what might happen if the flow suddenly reversed from the normal direction.



You can install hose bib (faucet) vacuum breakers to prevent backsiphonage through hoses. The drain line from your water softener can be shortened or suspended so that there is an air gap between it and sewer pipe. In other instances, you may need professional assistance in determining the appropriate protection against backflow.



Hose Bib Vacuum Breaker

If at any time you suspect a backflow has occurred, notify the Public Services Department immediately.

## Who Can I Contact For More Information?

Cross Connection Control

City of Kalamazoo  
Department of Public Services  
Cross Connection Program  
1415 N. Harrison Street  
Kalamazoo, MI 49007  
269 337-8365  
<https://www.kalamazoo.org> (search for "Cross-Connections")

Michigan Department of Environment, Great Lakes, and Energy (EGLE)  
Drinking Water and Environmental Health  
Community Water Supply  
Cross connection Control  
<https://www.michigan.gov/egle/about/organization/drinking-water-and-environmental-health/community-water-supply/cross-connection-control>

Michigan Department of Labor and Economic Opportunity  
<https://www.michigan.gov/leo>

Learn more at Kalamazoo's Educational Website  
<https://ProtectYourWater.net/backflow-prevention/>

