

Cross Connection and Backflow Prevention

Backflow is the reverse flow of water or other substances through a cross connection into the treated drinking water distribution system. There are two types of backflow: backpressure and backsiphonage.

Backpressure happens when the pressure on the customer system is greater than the pressure in the public system. An example would be when a drinking water supply main has a connection to a hot water boiler system that is not protected by an approved and functioning backflow preventer. If pressure in the boiler system increases to where it exceeds the pressure in the water distribution system, backflow from the boiler to the drinking water supply system may occur.



Backsiphonage is caused by a negative pressure (vacuum or partial vacuum) in the water distribution system. This situation is similar in effect to the sipping of water through a straw. Negative pressure in the drinking water system can happen because of a water main break or when a hydrant is used for firefighting and this can suck contaminants into the public system without proper protections.

Either of these situations can be very dangerous or even deadly. The Indiana Department of Environmental Management requires water users have backflow prevention devices installed when backflow risks are present. The risks that require protection and the type of device required are specified in the guidelines that are part of the Indiana Administrative Code (327 IAC 8-10). More information on Indiana's requirements can be found on IDEM's web site <http://www.in.gov/idem/6927.htm>

Customers who have backflow prevention devices are required to have these devices tested annually by an Indiana-registered backflow tester. A list of registered testers is available here.

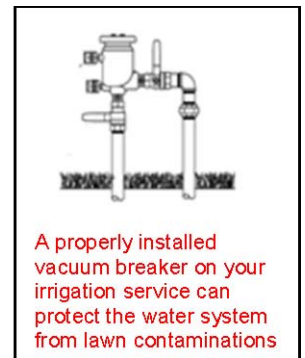
http://www.in.gov/idem/cleanwater/files/dw_inspection_backflow_testers_indiana.pdf

The Columbus City Utilities is required to keep records of all devices attached to our system and to maintain records of all test results that are submitted to us. The test results will be reported to [ArchonSafe](#), who maintain the records on behalf of Columbus City Utilities.

Failure to comply with the requirements of the Indiana code, may ultimately result in the discontinuance of your water service.

Irrigation Systems

Indiana code specifically mentions lawn irrigation systems as potential backflow risks. Irrigation systems must be isolated from potable (drinkable) water by either vacuum breaker device (see figure) or a reduced pressure device. These devices must be tested annually.



Residential Customers



Outside hose bibs should be protected with a vacuum breaker device. In newer homes the hose bib will likely have this built in. These faucets can be identified by the circular disk on the top as shown the figure to the left. If your home does not have this type of hose bib you should consider adding a screw on type vacuum breaker to each outdoor faucet. These add-on devices are relatively inexpensive and can be found in most hardware stores.

