New Sewickley
TOWNSHIP

Municipal Authority

Cross-Connection Control

4/28/2020

Public Safety and Cross-Connections

The Pennsylvania Department of Environmental Protection requires all public water suppliers to maintain an ongoing Cross-Connection Control Plan that involves public education.

The purpose of the Cross-Connection Control Plan is to safeguard public water systems.

The purpose of this document is to educate customers about potential Cross-Connection hazards, why it is important to prevent them, and how to do so.

Responsibility of Public Water Users

All users of public water are responsible for Cross-Connection Control to prevent backflow and potential contamination of the public water supply.

What is a Cross-Connection?

All plumbing systems have Cross-Connections.

A Cross-Connection is a point in a plumbing system that could allow unsafe water to backflow into a public water supply, unless proper equipment and safe practices are used.

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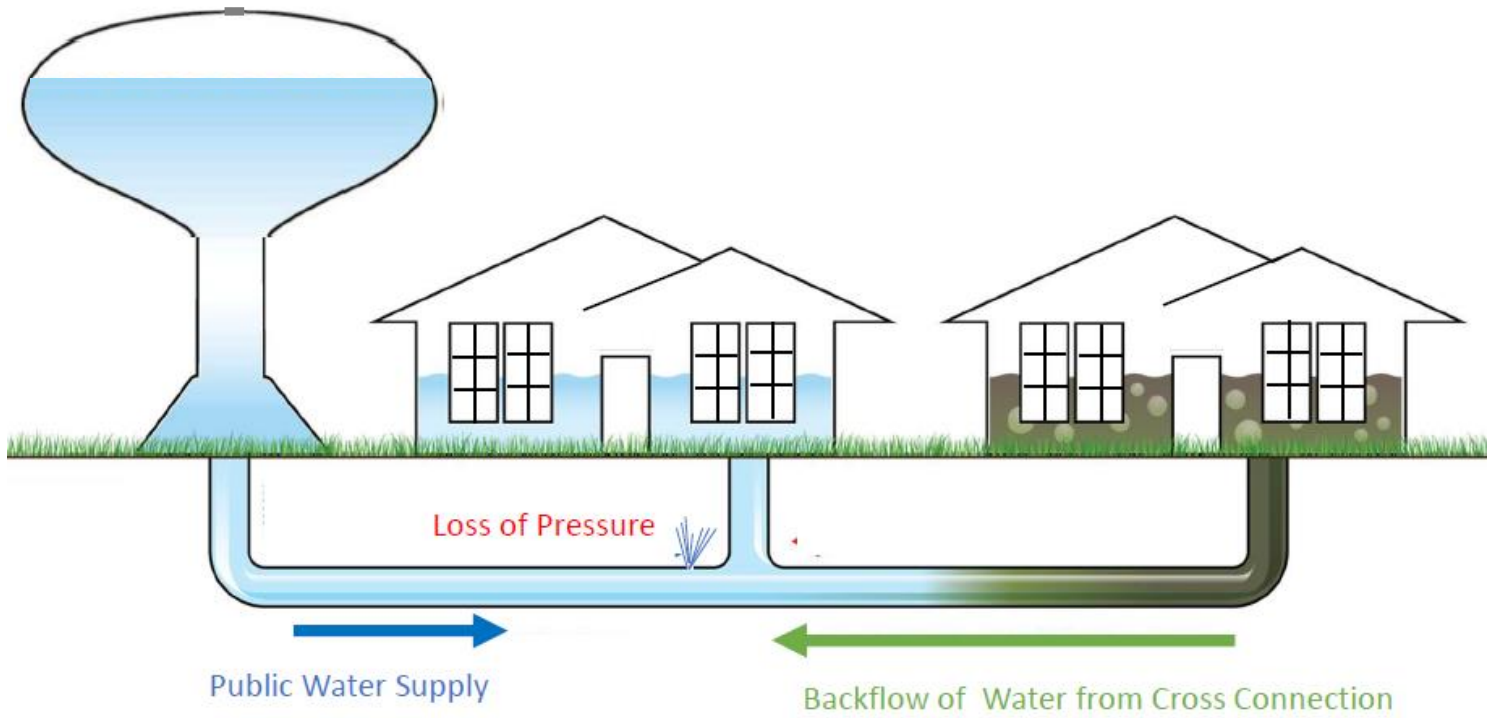
What Is Backflow?

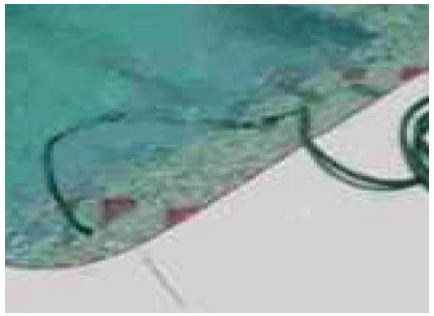
Backflow is water that travels backward from a private plumbing system into the public water supply. Backflow can occur if the public water system looses pressure. Causes of pressure loss include damaged fire hydrants and water line breaks.



Common Locations of Cross-Connections

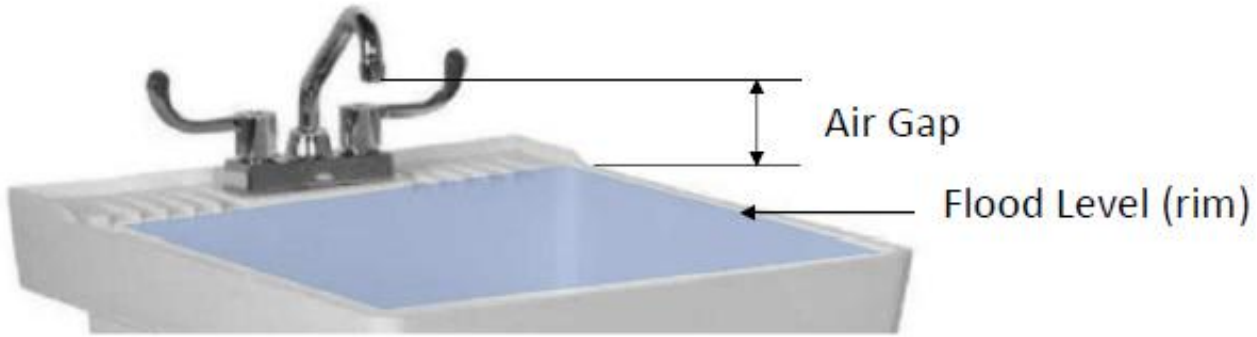
A common Cross-Connection is the garden hose. Hoses are easily connected to the drinking water supply, and are used for many applications. If there is a loss in water pressure, a garden hose can allow hazardous water to siphon backwards into the public water supply.

- Wash basins and sinks
- Buckets or other containers
- Standing water on the ground
- Swimming pools
- Floor drains
- Underground irrigation systems



How to Reduce Cross-Connection Risks

For sinks, ensure that an air gap exists between the faucet nozzle and the highest possible water level.



Ensure that all systems, such as, underground sprinkler systems and hydronic heating systems are properly installed to prevent backflow.

How to Reduce Cross-Connection Risks

Safe practices can help to prevent contamination from cross-connections.

Do not place the end of a hose in bucket, pool, tub, sink, floor drain, or where standing water can occur. Keep ends of hoses away from all possible contaminants, including chemical sprayers.

Purchase hose bib vacuum breakers and install them on all outdoor and indoor threaded faucets.[1]

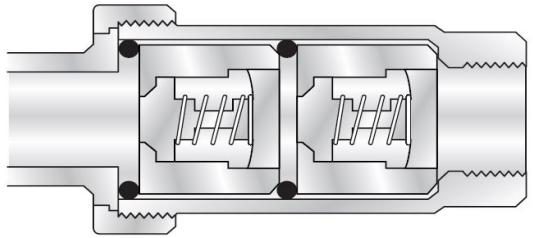
Alternatively, install sill cocks equipped with integral vacuum breakers. If a faucet has a hose connection, install a faucet equipped with an integral vacuum breaker.

Vacuum breakers prevent siphoning and provide additional protection, They do not take the place of backflow preventers installed on the water pipe entering the building and safe practices.

1. Additional information about how hose bib vacuum breakers work can be found in Appendix A.

Recommended Method for Reducing Cross-Connection Risks

Installing an approved backflow preventer in the water supply pipe entering your building is the recommended way to protect the public water supply from Cross-Connection contamination.



When installing a backflow preventer, a thermal expansion tank is also needed to protect your plumbing and hot water tank. The approved equipment should be selected and installed by a qualified plumber.

Installing backflow prevention equipment is required for new construction and when obtaining new water service in New Sewickley Township.

Installing backflow prevention equipment is required for specific commercial, industrial, and institutional facilities.

Summary

Cross-Connections present risk of contaminating the public water supply.

It is your responsibility to adopt best practices and install equipment needed to prevent backflow, ensuring that Cross-Connections do not cause contamination of the public water supply.

If you have questions, please contact the New Sewickley Township Municipal Authority, or attend a regular meeting of the Municipal Authority, scheduled for the first Monday of every month.

Contact information:

New Sewickley Township Municipal Authority
233 Miller Road
Rochester, PA 15074

Phone: 724-774-2461

Thank you for helping to keep our community safe.

Appendix A – Hose Bib Vacuum Breaker

Hose bib vacuum breakers are an extra safeguard. They do not take the place of backflow preventers installed on the water pipe entering the building.

A hose bib vacuum breaker is designed to prevent water backflow from a hose into a building plumbing system. It threads onto a hose bib where a hose can be connected. Tightening the set screw prevents the vacuum breaker from turning when a hose is being connected to or disconnected from the vacuum breaker.

The vacuum breaker contains a spring-loaded check valve and air vents. The check valve is forced open by water pressure when the faucet is turned on. The water then flows to the hose. When the check valve opens, the air vents are blocked to prevent water from flowing through the vents.

If water pressure is lost while the faucet is on, the spring forces the check valve to close, preventing backflow. The air vents are opened to allow air to enter the vacuum breaker, preventing siphoning.

Sill cocks, boiler drains and faucets with integral vacuum breakers work similarly to hose bib vacuum breakers.