

Cross-Connection Control & Backflow Prevention Program

Program Overview



Every day, the St. Mary's County Metropolitan Commission proudly supplies an average of 3.5 million gallons of water to our customers. This drinking water meets or exceeds the requirements of the EPA. Before the drinking water is delivered to your home or business, it has gone through careful treatment and numerous tests to ensure its quality. Did you know that your tap water (drinking water) has to meet standards that exceed those for bottled water? Unlike tap water, the quality of finished bottled water is not as closely monitored and tested, so you can rest assured that your drinking water is safe, clean and reliable.

What is a cross connection? A connection between your drinking water and another source of water that combines the two when a backflow condition occurs. When this occurs, your drinking water can become contaminated.

Congress established the Safe Drinking Water Act (SDWA) in 1974 to protect human health from contaminants in drinking water and to prevent contamination of existing groundwater supplies. This act and its amendments (1986 and 1996) require many actions to protect drinking water and its sources. One of these actions is the **installation and maintenance of an approved backflow prevention assembly at the water service connection whenever a potential hazard is determined to exist in the customer's system**. Without proper protection devices, cross connections can occur.

To protect the public water system, two kinds of **backflow prevention assemblies** (devices that prevent the backflow of water) are required for all business customers that present a potential hazard to the City's water system:

- External devices – to protect the Commission's water from cross connection with the water on the customer's premises
- Internal devices– to protect the customer from potentially hazardous cross connections in his own system.

To keep your drinking water safe, we diligently check the plans of each new business for compliance with cross connection/backflow requirements. We test and repair all external backflow prevention assemblies annually. The Commission sends notices and test forms (via our contractor, HydroCorp) for completion requiring the annual testing and repair of all internal backflow prevention assemblies. We take pride in the water we provide and will continue to protect it and our customers. Now that you have some background, you may ask...What's the big deal? Well, the big deal is that backflows due to cross connections can cause sickness and death. Over half of the nation's cross connections involve unprotected garden hoses. Even in your own home, you can unwittingly create a cross connection:

- Putting the garden hose in a swimming pool to fill it
- Putting the garden hose in a pet's water bucket to fill it or the fish tank
- Putting the garden hose down the drain to flush out debris when it's backed up
- Connecting your garden hose to a plant fertilizer or bug spray unit

We, your Water Department, protect the water entering your system. However, it is your responsibility to protect the water on your property or in your home. If you need information on what you can do to protect it or have any questions, please call our office. We will be glad to assist you.

Cross-Connection Control & Backflow Prevention Program

Frequently Asked Questions (FAQs)

1. **Who is HydroCorp and what are they doing?** Hydrocorp is a MetCom contractor tasked with Cross Connection Control Compliance for our water system. <https://hydrocorpinc.com/>
2. **What is a cross connection?** A cross-connection is a direct arrangement of a piping line which allows the potable water supply to be connected to a line which contains a contaminant. An example is the common garden hose attached to a sill cock with the end of the hose lying in a cesspool. Other examples are a garden hose attached to a service sink with the end of the hose submerged in a tub full of detergent, supply lines connected to bottom-fed tanks, supply lines connected to boilers.
3. **What is backsiphonage?** Backsiphonage is the reversal of normal flow in a system caused by a negative pressure (vacuum or partial vacuum) in the supply piping.
4. **What factors can cause backsiphonage?** Backsiphonage can be created when there is stoppage of the water supply due to nearby firefighting, repairs or breaks in city main, etc. The effect is similar to the sipping of a soda by inhaling through a straw, which induces a flow in the opposite direction.
5. **What is backpressure backflow?** Backpressure backflow is the reversal of normal flow in a system due to an increase in the downstream pressure above that of the supply pressure.
6. **What factors can cause a backpressure backflow condition?** Backpressure backflow is created whenever the downstream pressure exceeds the supply pressure which is possible in installations such as heating systems, elevated tanks, and pressure-producing systems. An example would be a hot water space-heating boiler operating under 15-20 lbs. pressure coincidental with a reduction of the city water supply below such pressure (or higher in most commercial boilers). As water tends to flow in the direction of least resistance, a backpressure backflow condition would be created and the contaminated boiler water would flow into the potable water supply.
7. **What is a cross-connection?** A cross-connection is a direct arrangement of a piping line which allows the potable water supply to be connected to a line which contains a contaminant. An example is the common garden hose attached to a sill cock with the end of the hose lying in a cesspool. Other examples are a garden hose attached to a service sink with the end of the hose submerged in a tub full of detergent, supply lines connected to bottom-fed tanks, supply lines connected to boilers.
8. **What is the most common form of a cross-connection?** Ironically, the ordinary garden hose is the most common offender as it can be easily connected to the potable water supply and used for a variety of potentially dangerous applications.
9. **What is considered a high hazard facility?** High hazard facilities include, but are not limited to building with five (5) or more stories above ground, boiler and heat exchangers, bottling plants, car washes with recycling systems, commercial laundries, dental offices, dry cleaners, film laboratories, hospitals and clinics, laboratories, lawn care companies, mortuary or funeral homes, nursing homes, restaurants swimming pools and veterinary hospitals or clinics to name a few. For a complete list see the Metropolitan Commission's Cross Connection Control Program. All high hazard facilities shall have an approved Reduced Pressure Principle Assembly (ASSE 1013) as a minimum containment assembly.
10. **What is a moderate hazard facility?** Moderate hazard facilities include, but are not limited to, fire sprinkler systems without "Siamese" connections or chemicals, connections to tanks or

Cross-Connection Control & Backflow Prevention Program

vessels that handle non-toxic substances, irrigation systems without chemical injection and all industrial or commercial facilities not identified as high hazard facilities. For a complete list see the Metropolitan Commission's Cross Connection Control Program. All high hazard facilities shall have an approved Double Detector Check Valve Assembly (ASSE 1015) as a minimum containment assembly.

11. **Why do I have to comply?** By complying with the program, you assist in protecting the public water supply from the possibility of contamination or pollution by isolating such contaminants or pollution which could backflow or back-siphon into the public system.
12. **What happens if I don't comply?** If a customer doesn't comply with the Commission's Cross Connection Control Program, that customer will be risking the integrity of the public potable water supply that is served by the St. Mary's County Metropolitan Commission. The Commission also reserves the right to discontinue any water service to any non-compliant customer, until compliance with the program is complete.

