

# Cross Connection Control Program

## What is a Cross Connection?

Cross Connection means any actual or potential physical connection between a public water system or the consumer's water system and any source of non-potable liquid, solid or gas that could contaminate the potable water supply by backflow.

How does a cross connection occur?

For a drinking water (potable water) supply to become contaminated via a cross connection, three things need to happen simultaneously:

- 1) The potable water supply piping must be unprotected (or improperly protected from a cross connection);
- 2) A physical cross connection must be made between the potable water supply piping and a contaminant source; and
- 3) Backflow conditions must occur.

## What is a Backflow?

Backflow means the undesirable reversal of flow of water or other substances through a cross connection into the public water system or consumer's water system.

Backflow may be due to either: *Backsiphonage* or *Backpressure*.

*Backsiphonage* occurs when negative or reduced pressure exists in the supply piping allowing undesirable substances to be "drawn" in the potable water supply. The effect is similar to drinking water through a straw. Backsiphonage can occur when there is a stoppage of water supply due to nearby fire fighting, a break in a water main, etc.

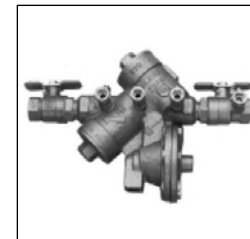


*Backpressure* occurs when the user's system is at a higher pressure than the supply water, allowing the undesirable substances to be "pushed" into the potable water supply. Backpressure can result from an increase in downstream pressure, a reduction in the potable water supply pressure, or a combination of both. Increases in downstream pressure can be created by pumps; temperature increases in boilers, etc. Reductions in

potable water supply pressure occur whenever the amount of water being used exceeds the amount of water being supplied, such as during water line flushing, fire fighting, or breaks in water mains.

## What is a Backflow Preventer?

A backflow preventer is a means or mechanism to prevent backflow. The basic means of preventing backflow is an air gap, which either eliminates a cross connection or provides a barrier to backflow. The basic mechanism for preventing backflow is a mechanical backflow preventer, which provides a physical barrier to backflow. The principal types of mechanical backflow preventers are the reduced pressure principle assembly, the pressure vacuum breaker assembly and the double check valve assembly. The standard device required by the Immokalee Water & Sewer District is a reduced pressure principle assembly, or RPZ.



**What type of building would require a backflow preventer?**

The District began requiring backflow preventers on commercial buildings, and multi-family residential buildings several years ago. We are now requiring them on all residential buildings

**Why do the Backflow Preventers have to be installed:**

Water pressure can suddenly drop because of heavy usage, a fire in the area or a broken water main. When that happens, contaminated water could be siphoned back into your plumbing system from unprotected cross connections within your home. This is referred to as backflow. Even though Immokalee Water & Sewer District has a very reliable water distribution system, these pressure drops do occur somewhere in the area almost every day.

The Immokalee Water and Sewer District (IWSD) has hired MAJ Contracting Inc. to install backflow preventers on all residential water services. This work is being done so that the District will be in compliance with the Florida Department of Environmental Protection’s (FDEP’s) cross connection control program, which is aimed at providing a safe water supply by reducing the risks of contamination. This project is being funded by the American Reinvestment and Recovery Act (ARRA). Your yard will be restored to its present condition within 30 days after your backflow preventer has been installed.

**Implementation of Monthly Cross Connection Fees:**

The Immokalee Water & Sewer District Board of Commissioners adopted Resolution 10-05 – Cross Connection Control Program at their meeting on April 21, 2010. This resolution amends the previous Cross Connection Control Program (Resolution 95-8) that was adopted on September 19, 1995. *Previously, the backflow preventers were only required for commercial and multifamily residential accounts.*

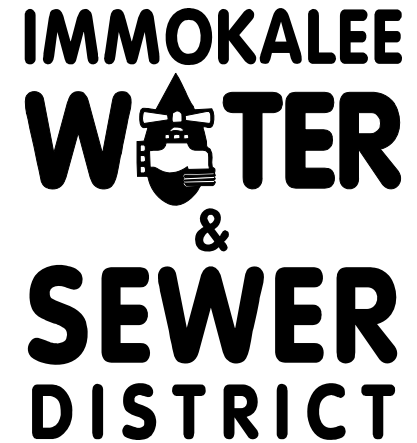
IWSD personnel, certified in backflow testing, will perform a physical inspection each year at each customer service location, to make certain that the backflow prevention device is working properly.

The District has implemented monthly cross connection control fees based on the meter size, to recoup the costs associated with inspecting, maintaining and repairing the backflow prevention devices.

5/8 inch to 2 ½ inch meters	-	\$5
3 inch to 4 inch meters	-	\$7
6 inch to 8 inch meters	-	\$10
10 inch to 12 inch meters	-	\$15

The District may disconnect water service to any site that is not in compliance with the Cross Connection Control program.

If you have any questions, please contact the office of the IWSD at 239-658-3630.



**CROSS CONNECTION CONTROL PROGRAM**

*PROTECTING OUR WATER SUPPLY*

