



# TOWN OF SMYRNA CROSS CONNECTION CONTROL PROGRAM

## PROTECT OUR WATER SYSTEM

### *WHAT IS A CROSS CONNECTION CONTROL PROGRAM?*

The Smyrna Water System is implementing the following components:

**Public Education Program** — Educating our water customers using this brochure. Visit our website at [www.townofsmyrna.org](http://www.townofsmyrna.org), click on Cross Connection Program.

**Survey of each water customer's facilities** — Evaluating the plumbing system by the water customer to determine if cross connections exist.

**Installation of protective devices** — Installing backflow prevention devices where known unprotected cross connections exist.

**Annual testing of backflow preventers** — Testing by a certified technician of all testable backflow prevention devices once each year.

### WHAT ARE CROSS CONNECTIONS?

Technically, a **cross connection** is defined as an actual or potential connection between a public water supply and a source of possible contamination or pollution.

All homes have potential cross connections. The water pipes and plumbing fixtures that make up cross connections can be the link for contamination to get back into the drinking water supply. They can be a serious health hazard. The reversing of the flow direction in the pipes is called a **backflow**.

The result of cross connection contamination is that chemicals, poisons, and bacteria might find their way into the water you drink.

Help yourself, your family and your community by eliminating unprotected cross connections. Help the Smyrna Water System and your neighbors by filling out the Cross Connection Survey form when it comes to you.

## **WHAT GOES WRONG?**

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 in your home. This is referred to as backflow. Even though Smyrna has a very reliable water distribution system, these pressure drops do occur somewhere in the city almost every day.

The Smyrna Water System delivers safe, high quality water to your home. The goal is to keep it that way —right into your glass of drinking water.

## **BE WATER-WISE ABOUT CROSS CONNECTIONS**

That's why the Smyrna Water System has adopted a Cross Connection Control Program. Its goal is to protect the public health — yours and that of families throughout the city. That is why the Tennessee Department of Environment & Conservation requires each water system to have such a program.

In addition the Town of Smyrna's Codes department checks all new building construction for proper protection.

## **HELP IS AVAILABLE**

Our Cross Connection Control Program technician can tell you what type of backflow prevention devices you may need.

Help is as close as your telephone. Please call Randy Roberts, Cross Connection Technician at 459-9752 during regular business hours. (8:00 a. m. to 4:30 p. m. Monday through Friday

## **TYPES OF CROSS CONNECTIONS**

### **PRIVATE WELLS AND SECONDARY WATER SERVICE LINES**

Whenever two sources of water enter a property, the potential exists for the pressure in one to be greater than the other. A private well operating at 100 psi could force contaminated water back into the public water system operating at 80 psi.

### **LAWN AND GARDEN CHEMICAL SPRAYERS ATTACHED TO HOSES**

Anytime a garden hose is submerged in or connected to a container a potentially harmful substance, like lawn and garden chemicals, and there's a sudden drop in pressure, contamination can occur unless a hose bibb vacuum breaker is used. This is a simple inexpensive device installed on the faucet to which the hose is attached. A vacuum breaker is built into all new hose bibbs installed in new housing since 1992.

### **UNDERGROUND LAWN IRRIGATION SYSTEMS**

Contaminated lawn surface water can be siphoned back into your plumbing system through an automated lawn irrigation system unless a proper backflow device is attached to your system. Either a Pressure Vacuum Breaker (PVB) or Reduced Pressure Zone (RPZ) device should be installed to protect from backflow. Both of these devices need to be tested annually. On all lawn irrigation systems installed since 1987, the contractor should have installed a PVB or RPZ device. Older systems equipped with an atmospheric vacuum breaker need to be re-plumbed with either a PVB or RPZ.

### **SWIMMING POOLS OR HOT TUBS**

Built in pools and hot tubs usually are connected with permanent water fill piping. An unprotected cross connection could draw disinfectant chemicals back into your household plumbing systems, these should be protected by a testable device like a PVB or RPZ.

### **PHOTO, CHEMICAL, MEDICAL OR OTHER LAB FACILITIES**

Any in-home use of photographic chemicals, other process chemicals or medical or biological laboratory supplies could cause contamination due to an unprotected cross connection. Any of these in-home uses should be protected with a testable backflow preventer.

#### ***Other potential cross connections:***

*Almost every **bathtub** and **sink** are equipped with the best known backflow prevention device - an air gap, the space between the highest water level in the fixture and the outlet of the water from the faucet. However, care should be taken to avoid leaving attached hoses submerged in contaminated water.*

*A **toilet flush valve** without an anti-siphon device permits contaminated water to get into the household plumbing system and into the water you drink. Require an anti-siphon device when this valve needs replacing. Other possible cross connection locations include: boilers, fire protection systems, in-home water treatment systems, solar heating, car washes, decorative ponds and soaking tubs in laundry areas.*