

COMMON BACKFLOW PREVENTERS

Hose Bibb Vacuum Breaker (HBVB):



One of the least expensive and most commonly used backflow preventers. When attached to an outside water tap, these backflow preventers keep water that may be contaminated with fertilizer or insecticide from entering your drinking water.

You should attach an HBVB if you have a sprayer on your hose.

Double-Check Valve Assembly (DCVA):



This device protects water from substances that may pollute but not contaminate the water.

For instance, sprinkler/irrigation systems are required to be protected by these devices. They are normally installed near the meter in an underground box.

Reduced Pressure Zone Assembly (RPZA):



This device protects water from substances that may contaminate water causing illness or death.

A sprinkler/irrigation system that has a chemical feed requires this device. It is also commonly used in commercial establishments to protect against numerous contaminants. These devices must be installed above ground.

WHAT ARE THE RISKS OF BACKFLOW?

The risks of backflow can range from feeling a little ill to death.

Here are some examples of backflow that have occurred in other water supplies:

- Parasitic worms were found in the water of two homes after a malfunctioning lawn sprinkler coupled with a main break sucked nematodes into the water system. A homeowner found the worms swimming in his tub. Had he been using a faucet with a screen on it, he would never have noticed them.
- Pesticide contaminated the public drinking water in a North Carolina town. Households were told not to use water. Authorities stated that the problem occurred when a water main broke at the same time a pesticide truck was filling a tank from a residence hose. The reduction in pressure caused the pesticide to be sucked back into the building and the city water supply.
- Death occurred when a man attached an insecticide spray device to his hose. During a drop in the main water line's pressure, backflow occurred and caused the poisoned water to flow back into his hose . . . enough to kill him when he later took a drink from the hose. He had contaminated his own water system.

An investment in the protection of your water system is a small price to pay when you consider the risks.

CITY OF SAN MARCOS BACKFLOW PREVENTION PROGRAM



For more information please contact:

City of San Marcos
Water/Wastewater Utilities
630 East Hopkins
San Marcos, TX 78666
(512) 393-8010

Full text of rules are available on our website
www.ci.san-marcos.tx.us/Departments/WWW

WATER IS PRECIOUS

Our water supply is our lifeline – it cannot be taken for granted. We need to be confident that the water we drink, bathe in or cook with is the purest possible. The City of San Marcos is committed to providing water that will meet your high expectations.

Under the provisions of the Safe Drinking Water Act of 1974, the federal government has established, thru the Environmental Protection Agency national standards of safe drinking water. The states are responsible for enforcement of these standards as well as the supervision of public water supply systems and the sources of drinking water. The Texas Administrative Code 30 Chapter 290 Rule gives Texas Commission on Environmental Quality the authority to enforce these programs.

WHAT IS BACKFLOW?

Backflow is when water flows backward into the distribution system. This is usually caused when pressure in a plumbing system is higher than the pressure in the distribution system.

The difference in pressure could be due to a pressure drop in the distribution system. For example, if there is a main break in your area or if water is drawn from a hydrant near your home, the pressure in the distribution system will be less than that in your plumbing system.

Customer side well pumps may also cause the plumbing system to be at a higher pressure than the distribution system.

Backflow preventers keep pollutants and contaminants from flowing into the public water system.

WHAT IS THE CITY'S RESPONSIBILITY?

The City is responsible for enforcing the Backflow Prevention Program requirements and ensuring that all customers of the City water system comply with the City ordinance, the State's 290 Rule and federal mandates.

The City ordinance regarding this rule may be viewed on the City's web-site:

www.ci.san-marcos.tx.us/Departments/WWW

WHAT IS THE CUSTOMER'S RESPONSIBILITY?

You are responsible for protecting the water on your property. This responsibility starts at the water meter and includes your entire property's water system.

All costs associated with installation, operation, testing and maintenance of backflow prevention devices are the responsibility of the customer. Any re-piping or relocation of water lines requires re-testing.

Accurate records must be maintained. Copies of the installation, tests, and any repairs must be forwarded to the Backflow Prevention Office at City of San Marcos Water/Wastewater Utilities.

WHOM SHOULD I CONTACT TO LEARN MORE?

Unsure if you need a backflow preventer?

Call #512-393-8008 to speak with the City's Backflow Prevention Program Coordinator.

The Coordinator can inspect your system at no charge to determine if you need a device.

Our goal is to make sure our water and customers are safe.

HOW CAN I PREVENT BACKFLOW?

1. Avoid practices in which backflow may occur.
 - Don't use a garden hose to open a plugged drain or toilet.
 - Don't use a garden hose to spray fertilizer unless it is properly protected.
 - Don't submerge hoses in buckets, pools, spas, tubs or sinks. They may contain harmful cleansers or dangerous bacteria.
2. Use a backflow prevention device when necessary.
 - Protect your hose with an HBVB. See the picture on the other side of the brochure.
 - Install a backflow prevention device on your irrigation/sprinkler system. The City can help determine which kind you need.
 - If your swimming pool or hot tub is plumbed into your system, you must install a backflow preventer.

POLLUTION vs. CONTAMINATION

Pollution of the water supply does not mean an actual health hazard, although the taste, odor or quality of the water is impaired.

Contamination of the water supply means an actual health hazard has occurred. The consumer is subjected to potentially lethal water borne disease or illness.