

## Backflow Prevention Outreach Program

The provision of safe drinking water to the consumers in Fort Bend County Municipal Utility District No. 25 (the District) is one of the District's highest priorities. Regulated by the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (EPA), the District follows strict standards to ensure that the public drinking water supply remains safe. Our customers are required to help keep the public water supply safe as well by taking steps to prevent cross connection contamination.

The District is responsible for enforcing the regulations that govern Fort Bend Municipal Utility District No. 25 as set forth in the District's Rate Order. Please refer to the District's Rate Order, **Section 17: PLUMBING REGULATIONS; PROHIBITION AGAINST CROSS-CONNECTIONS AND UNACCEPTABLE PLUMBING PRACTICES; PENALTY FOR VIOLATION**, which can be viewed on the District's website at <http://www.waterdistrict25.com/view/63>.

### Your Role as the Water Customer

By taking steps to control cross-connections and prevent the possibility of backflow at your home, you will help to protect the public water supply and ensure that your family continues to enjoy safe drinking water. Garden hoses and irrigation systems are common concerns, but there are other common residential sources of cross connections, too.

Methods to prevent backflow contamination include the following:

1. Don't use a garden hose to "open" a plugged drain or toilet.
2. Don't use a garden hose to spray fertilizer unless it is properly protected with a hose bib vacuum breaker, which should be installed on all hose bibs.
3. Don't submerge hoses in buckets, pools, spas, tubs or sinks, which may contain harmful cleansers or dangerous bacteria.
4. Use an approved testable backflow prevention device where required, schedule inspection with the District's inspectors once installed and then schedule follow-up inspections annually.

To prevent the potential for contamination, Customers must install an approved testable backflow prevention device (not a hose bib vacuum breaker, which is not testable) on actual or potential contamination sources. Wherever a source of water exists on your property, like an irrigation system or a pool, the possibility for contamination exists. Thus, to avoid contamination and to comply with the regulations that govern Fort Bend County Municipal Utility District No. 25, residents are required to:

1. Install an approved testable backflow device whenever there is an actual or potential hazard for a cross-connection to ensure the public water supply remains safe.

2. Notify the District once the devices are installed to have the devices tested by District Inspectors.
3. Schedule testing annually through the District's certified Inspectors.

For more information on backflow prevention, call any of these numbers: (281) 960-9312; (832) 435-3751; (281) 808-3543; (832) 256-0077; (281) 830-0138; or (832) 397-0232.

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

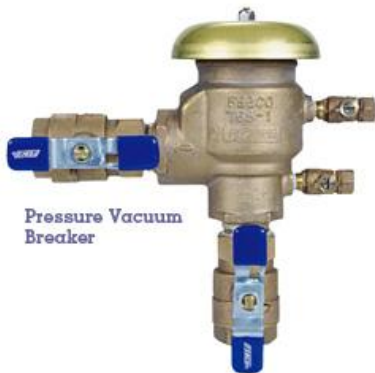
## **Common Backflow Devices in the District**

### **Hose Bibb Vacuum Breaker (HBVB)**



Customers are required to install a Hose Bibb Vacuum Breaker (HBVB) to each outside faucet to keep water that may be contaminated with fertilizer or insecticide from entering the public water supply system.

### **Pressure Vacuum Breaker (PVB)**



This device is used to keep contaminated water from entering the water supply. A PVB is similar to an atmospheric vacuum breaker (AVB), except that the PVB contains a spring-loaded poppet. This makes it acceptable for applications that are high hazard or where valves are downstream. Pressure vacuum breakers must be protected from freezing when installed outdoors. PVBs usually have test cocks, to which specially-calibrated gauges are attached, in order to ensure that they are functioning properly.

## **FREQUENTLY ASKED QUESTIONS:**

### **What is backflow?**

Under normal operation, water flows from the District's waterlines to our water customers. However, certain pressure variations in the public water supply can cause

water to flow in the opposite direction. The reversal of flow direction is known as backflow.

### **How can backflow be prevented?**

Although backflow itself is difficult to prevent, there are ways to protect the water supply from the dangers of contamination that can occur through cross-connections. A cross-connection may be eliminated by providing only an air gap or installing an approved testable backflow prevention device to create a physical separation between the water supply and a potential source of pollution, such as, your sprinkler system, swimming pool, hot tub or outside faucet.

### **What is a cross-connection?**

Actual or potential physical connection between a potable water system and any other source or system through which it is possible to introduce into any part of the potable system any contaminant and/or pollutant. For example, a cross-connection would be a garden hose submerged in a swimming pool.

### **What is the danger of a cross-connection?**

If a cross-connection exists and backflow occurs, the non-potable water will enter the public water supply. Depending on the degree of hazard of the non-potable water, the contaminated water supply may put the public's health in jeopardy.

It really happened in Texas:

- While mixing a batch of pesticide, a worker pushed a garden hose into the tank until it touched the bottom.
- Nearby, city utility workers opened a flush valve, releasing a large flow of water from a water main.
- Where the worker was mixing the pesticide, the water pressure dropped, and the flow in the hose reversed. Water and pesticides flowed from the pesticide tank back through the hose and into the water lines of his house.

Luckily, this is where it stopped: The worker mixing the pesticide realized the danger and alerted the utility workers, who closed the flush valve before the contamination reached the city's distribution line. Still, good water and time were wasted:

- To remove the pesticide from the water lines of the customer, utility workers flushed those lines.
- In case the water main had been contaminated, the utility workers had to flush the city's distribution line, too.
- Until testing showed authorities that the city's water was safe, they warned customers in the area not to drink it.

As shown by the [case histories of backflow incidents](#) maintained by the backflow-prevention education program of the University of Florida's TREEO Center, not all cases of cross connection and backflow end so smoothly.

### **Can I cover or hide the backflow preventer?**

Yes, there are several approved methods to cover and protect the backflow prevention assembly from weather, vandals, and lawn equipment. Please contact the District's Certified Backflow Inspectors for additional information.

### **How can I find out more information about backflow?**

Contact the District at (281) 277-0129, ext. 105.

For more information about backflow and cross-connection control, visit [www.tceq.state.tx.us/goto/cc](http://www.tceq.state.tx.us/goto/cc).