

Frequently Asked Questions

What is a cross-connection?

Cross-connections are connections between drinking water and other water or fluids of unknown quality. When that occurs, the drinking water supply can become contaminated during a backflow condition.

Irving's backflow prevention program, **required** by the State of Texas, is designed to identify and prevent cross-connections.

A backflow preventer may be required if water or fluids of unknown quality co-exists on the same property with drinking water. Indirect cross-connections are made by garden hoses and temporary connections that may be connected for only a short time. Direct cross-connections are permanent hard pipe installations.

What is backflow?

Backflow is the backward flow of water through a pipe. The normal direction of water flow is from the utility water main into homes or businesses. The backflow of water from home plumbing systems into the community drinking water supply happens when water is pulled backward due to a pressure loss in the utility main pipe or pushed back by a pressure source like a well pump.

- Back siphonage creates a vacuum as water drains toward the community water system. Water or fluid can be siphoned or pulled into the utility main water line. Example: a garden hose with one end immersed in a pail of soapy water or a hose immersed in a swimming pool
- Back pressure can develop when irrigation well pumps are connected to drinking water for pump priming or blending drinking water with well water to reduce a "rotten egg" odor or driveway staining.

Why are backflow preventers needed?

Backflow preventers are designed and installed to prevent the flow of water backwards through a pipe. Two commonly required backflow preventers are the Double Check Valve Assembly (DC) and the Reduced Pressure Zone Assembly (RP). Both of these protect your public utility drinking water system from backflow created by back siphonage and back pressure.

The RP backflow preventer is used to protect against potential health hazards such as sewage, medical fluids, and chemicals.

The double check or DC is used to protect the utility system from non-health hazards such as odor, color and taste. These include well water, swimming pool water or nontoxic industrial fluids such as dye or food products.

Who needs a backflow preventer?

Backflow preventers will be required if there exists an actual or potential hazard for a cross-connection. Some of these hazards include:

- Commercial and Residential Irrigation systems
- Fire sprinkler systems
- Medical facilities
- Processing plants

What is a backflow prevention program?

A progressive program required by the State of Texas, to detect and prevent possible sources of non-drinking water from entering your public utility drinking water system.

How can this contamination happen?

Contamination of drinking water is usually the result of cross-connections of piping between your drinking water and some other source such as irrigation well or pond. The American Water Works Association (AWWA) estimates over 100,000 cross-connections occur each day - half of these from garden hoses.

What is an indirect cross-connection?

This is a temporary cross-connection that may exist for a short time. A good example of an indirect cross-connection is a garden hose with the end of the hose submerged in a pail, sink, swimming pool or pesticide dispenser. Some people use the garden hose to flush out sewers and drain pipes.

Why does this backflow preventer need to be installed in front of my house?

To protect the community water system as much as possible and meet state requirements, the backflow preventer needs to be installed as close to the water meter as possible.

Can I cover or hide the backflow preventer?

Yes, there are several methods to cover and protect the backflow prevention assembly from weather, vandals and lawn mowing equipment.

Why do some backflow preventers need to be tested every year?

The backflow preventer is a mechanical device that needs maintenance just like a car. The annual test indicates if the parts are working properly to protect your water supply.

My backflow preventer sometimes leaks water from a relief valve. Can I remove or plug the valve to prevent water loss?

The relief valve is installed to prevent water pressure from building up too high when the water in a water heater expands. The relief valve can be replaced with a small expansion tank that does not leak. Plugging or removing the relief valve, however, could cause damage to your water heater or plumbing.