

In keeping with our pledge to sustain an ongoing investment in our customers, communities, and partners to help us all enjoy a cleaner lifestyle - and realize a bright green future, BDWSC is updating its records regarding its cross-connection control program and backflow prevention program for its commercial customers to ensure that our relentless focus on quality and accountability provides a proven source of drinking water that you can count on.

The United States Environmental Protection Agency (EPA) and the Texas Department of Environmental Quality (TCEQ) define a "cross-connection" as any point in the water supply system where non-potable, or non-drinkable, water can be introduced to potable or clean sources. All service lines connected to public water systems are therefore potential "cross-connections".

The BDWSC water distribution system is designed to ensure that water flows from the water main through a service line to the premises of its customers. Certain conditions such as frozen pipes, a water main break, or even extreme and unexpected demand on the system can cause water pressure to fail. When that happens, water from customer service lines can flow back into the distribution system, potentially contaminating the local public water supply, and thereby creating a hazardous situation which is commonly referred to as "backflow." To avoid such dangerous incidents, and as a matter of public safety, federal and state laws require certain customers to install backflow prevention assemblies on their water services and to test and maintain these assemblies periodically.

Accordingly, BDWSC is responsible for adopting and implementing a Cross-Connection Control ("CCC") Program for its commercial customers to survey the water distribution system and communicate with customers to determine the existence of cross-connection hazards and to enforce rules for the customers to install backflow prevention assemblies and have those assemblies tested regularly.

At no cost to Bluff Dale Water Supply, you are required to hire a licensed, TCEQ-approved inspector to come and inspect your connection. The inspector will discuss with you what is required to comply, and if additional equipment is needed, you will need to hire a certified plumber to do the installation. When your connection has passed the requirements, a form will be filled out and signed by the inspector and a copy will be given to you. You will need to supply Bluff Dale Water Supply Corp with a copy of the "passed" certification as soon as possible.

Please have this inspection done within 15 days of the date of this letter.

Cross-Connection Control - Questions and Answers

What is a cross-connection?

A cross connection is a physical connection between a possible source of contamination and the public drinking water system. This connection, if not properly protected, can lead to the contamination of the drinking water system through a backflow event. Any service connection is a cross-connection.

What is backflow?

Backflow is the reversal of water flow through a cross-connection from a possible source of contamination into the public drinking water system. Backflow may be caused by either back pressure or back siphonage. A loss of pressure in the public drinking water system may lead to back siphonage through unprotected cross connections, or backpressure may be created when the water pressure of a facility's internal water system is elevated above the supply pressure of the public drinking water system resulting in backflow through unprotected cross connections.

What is back-siphonage?

Back siphonage occurs when there is a partial vacuum (negative pressure) in a water supply system, which draws the water from a contaminated source into a potable water supply. The water pressure within the distribution system falls below that of the plumbing system it is supplying. The effect is like siphoning or drinking water through a straw. For example, during a large fire, a pump is connected to a hydrant. High flows pumped out of the distribution system can result in significantly reduced water pressure around the withdrawal point. A partial vacuum has been created in the system, causing the suction of contaminated water into the potable water system. During such conditions, water can be withdrawn from nonportable sources such as irrigation systems, fire sprinkler systems, air-conditioning systems, water tanks, boilers, fertilizer tanks, hair salon wash bowls, fountain drink machines, sinks used for chemical disposal, and commercial washing machines. A water main break can cause the same conditions.

Garden hoses, toilets, or similar devices create most household cross-connections. Under certain conditions, the flow in household water lines can reverse and siphon contaminates the water supply. A toilet installed incorrectly without a "plumbing-code approved" toilet ballcock (air gap) will allow contaminated water to backflow to other water outlets in your house, including the kitchen sink.

Anyone who has a private well that is hooked up to the same building or dwelling as the public water system can also be a condition of contamination. If this is a condition that exists at your property, you must disconnect immediately. This is a violation that Bluff Dale Water can fine you or terminate your water connection.

What is a backflow prevention device?

A backflow prevention device 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 principal assembly, the pressure vacuum breaker assembly, and the double-check valve assembly. A secondary type of mechanical backflow preventer is a dual check valve.

As a water customer in BDWSC, you are required to have an approved backflow device installed and tested on an annual basis. These customers must certify to BDWSC that these devices have been maintained and are in working order. This should include a test performed by a qualified technician and a completed backflow prevention device test form submitted to the Cross-Connection Control department.

Who gives the authority to implement the program?

The authority to enforce Cross-Connection Control comes from Texas Safe Drinking Water Watch, the TCEQ Title 30 Texas Administrative Code (30 TAC), Chapter 290. The rules found in 30 TAC Chapter 290, Subchapter D, specify water treatment plant design, operation, and maintenance requirements for public water systems. Rule: 30 TAC 290.38-47, and the Texas Control of Environmental Quality (TCEQ).

What kind of backflow device do I need?

The type of backflow device depends upon the degree of hazard present at your location. The degree of hazard depends on the use of water at your location and what could potentially enter the system. If you are unsure, please contact the TCEQ Cross-Connection Control department at **512-239-6696** to determine the type of device needed at your facility or ask your TCEQ Approved Inspector.

Who should install and test a backflow device?

While there are no standards set for who can install a backflow prevention device, repairs and tests to backflow preventers must be performed by certified technicians with a BPAT license approved by the TCEQ.

Where should the backflow device be installed?

The backflow device must be installed on the customer's water service line immediately after the meter and before any branching of the service line.

How much does a backflow device cost?

The cost of a backflow device varies based on the size, type and location.

Who is responsible for paying for the device and testing?

It is the customer's responsibility to ensure that no contaminants or pollutants do not enter the water distribution system from their location. All costs related to the installation, maintenance, and testing are the customers' responsibility.

Are all non-residential customers required to comply?

Yes. All, nonresidential customers are required to comply. There are no exceptions.

Are residential customers required to have cross-control/backflow prevention measures in place?

Yes. All new construction/new residential service connections are required to have appropriate backflow protection in place before service is provided. Existing customers also must have appropriate backflow protection in place. Most fire sprinklers and lawn sprinklers require a testable backflow prevention device to be installed. If you are unsure, please call the TCEQ Cross-Connection Control Department at **512-239-6696**.

What happens if I do not comply?

The water company has the right under the BDWSC Water Agreement and Application to shut off your water service until you are complying.

Once I have my device tested, where do I submit a completed test form each year?

Test forms will only be accepted from the technician, who has sole responsibility for providing the form to the Bluff Dale Water Supply Corp.

What can you do to prevent backflow situations in your home or business?

- Be aware of and eliminate and/or protect cross-connections.
- Maintain air gaps on sinks and when using hoses.
- Do not submerge hoses or place them where they could become submerged.
- Use hose bib vacuum breakers on fixtures (hose connections in the basement, laundry room, and on outside faucets/spigots).
- Install approved backflow prevention devices on lawn irrigation systems and fire sprinkler system services.
- Do not create a connection between an auxiliary water system (well, cistern, body of water) and the water supply plumbing.

Why should you be concerned?

- Backflow may affect the quality of the drinking water at your facility and has the potential to create health hazards if contaminated water enters your water supply plumbing system and is used for drinking, cooking, or bathing.
- Unprotected cross-connections with water supply plumbing or public drinking water piping systems are prohibited by law.
- You are responsible for protecting your water supply plumbing from backflow that may contaminate your drinking water and the drinking water of others. This includes complying with the plumbing code and not creating unprotected cross-connections.

Who is responsible for having the backflow device tested?

It is the responsibility of the property owner to have the backflow device tested by a qualified tester. It is also the responsibility of the property/business owner to schedule their test appointment.

I have an in-ground lawn sprinkler system at my residence. Am I required to have a backflow device, and have it tested?

In-ground sprinkler systems are required to have a testable backflow prevention device installed on the water line servicing the system

I have a fire sprinkler system at my residence. Am I required to have a backflow device, and have it tested?

Fire sprinkler systems connected to the public water supply are required to have either a reduced pressure zone (RPZ) backflow preventer or a double check (DC) backflow prevention device installed on the water line servicing the system. The type of device needed will depend on the type of fire sprinkler system in the residence.

All Customers who are members of the Bluff Dale Water Supply Corporation must have a shut-off installed on their side of the meter. ONLY Water department personnel are allowed to enter the meter box and access the meter itself. You may view your meter to check your meter reading but not to turn off or on the water meter.

Thank you for your time and assistance in reading this lengthy notice, scheduling your testing, and taking the necessary steps to make sure you comply. We appreciate you being a part of the Bluff Dale Water Supply Corporation.

Sincerely,
Bluff Dale Water Supply
Cross Connection Program