

# Backflow Prevention Frequently Asked Questions

## **What is backflow?**

Gardnerville Water Company system is designed to keep the water flowing from our distribution system to you, the customer. When hydraulic conditions within Gardnerville Water Company's system deviate from "normal", the direction of the water flow can be reversed. This creates a backflow condition and the potential for contaminated water entering the distribution system.

## **How can backflow occur?**

Backflow can occur two different ways, by backsiphonage and backpressure.

## **What is backsiphonage?**

When there is a sudden reduction in the water pressure in the distribution system, such as during fire fighting or when a water main breaks, water flow can be reversed. This can create a suction effect, drawing potential contaminants into the potable water distribution system.

## **What is backpressure?**

Backpressure is created when pressure in a nonpotable system, such as in a recirculating system containing soap, acid, or antifreeze, exceeds the pressure in the potable system providing the make-up water. This can force the potable water to reverse its direction of flow through the cross-connection between the two systems. Potential contaminants can then enter the potable water system.

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

Gardnerville Water Company recognizes four methods of backflow prevention:

Air Gap

Double Check Valve Assembly

Reduced Pressure Principal Assembly

Pressure Vacuum Breaker Assembly

Gardnerville Water Company will determine which type of protection is required based on the degree of hazard that the property represents to the potable water supply.

**What is a backflow prevention assembly?**

A backflow prevention assembly is an approved, testable assembly which uses valves, in different configurations, to prevent potential contaminants from flowing into the potable water system.

**How is an assembly approved?**

An approved backflow prevention assembly has gone through an approval process at the Foundation for Hydraulic Research and Cross-Connection Control at the University of Southern California. This is a two-step process consisting of laboratory tests and a twelve-month field test. Only assemblies successfully completing the entire testing procedure are recognized by Gardnerville Water Company as approved backflow prevention assemblies.

**Who is required to have a backflow prevention assembly?**

Federal and State law requires that water suppliers protect their water systems from contamination. State regulations exempt single family residences used solely for residential purposes from the requirement to install a backflow prevention assembly. When a determination is made by Gardnerville Water Company that the potable water system may be subject to contamination through a backflow condition. Gardnerville Water Company makes these decisions on a case-by-case basis. Residential, commercial, and industrial customers, which meet the criteria must install and maintain backflow prevention assemblies.

**How do I know if I need a backflow prevention assembly?**

A Gardnerville Water Company Backflow Inspector will visit your property to do an evaluation for backflow requirements. The inspector will outline the actions you need to take.

**Who can install a backflow prevention assembly?**

The installation of the backflow prevention assembly may be done by a property owner/occupant (single family residents only), licensed contractor, or a government agency, subject to the rules and statutes of the Nevada Registrar of Contractors.

**Where should a backflow prevention assembly be located?**

Generally, the backflow prevention assembly must be located as close as possible to the potable water service connection, but it must remain on private property.

**Who is responsible for the testing and maintenance of the backflow prevention assembly?**

It is the responsibility of the customer to ensure that the backflow prevention assembly is in proper operating condition at all times. Backflow prevention assemblies must be tested annually. Gardnerville Water Company sends notices to customers reminding them when the annual test is due. The customer must contact a Gardnerville Water Company approved certified tester to perform the test. If any repair work or maintenance is performed on the assembly, a certified tester must retest the assembly immediately and submit the test results to Gardnerville Water Company.

**How do I find an approved certified tester?**

Gardnerville Water Company approved certified testers are listed in the telephone book under "Backflow Prevention" or "Plumbers". A list of Gardnerville Water Company approved certified testers is available here or from the Gardnerville Water Company Office at (775) 782-2339.