



## FREQUENTLY ASKED QUESTIONS

# BACKFLOW

### What is backflow, and how does it occur?

Backflow is the undesirable reversal of flow of water or mixtures of water and other substances back into the public drinking water system. This is usually caused by backpressure, which occurs when downstream pressure rises above the supply pressure. Examples of backpressure would be: pumps, temperature increases in boilers, and elevation of water piping and fittings. Backflow can also be caused by back-siphonage, which is negative pressure that can cause a vacuum in the water system. Examples of events that can cause back-siphonage are water pipe/main breaks and flowing of a fire hydrant.

### How often do backflow events occur?

Backflow events occur daily in water systems. Where backflow events become a concern is when a water line is connected to a source of pollution without the proper separation provided by a backflow prevention assembly.

### What is a cross-connection?

A cross-connection is a temporary or permanent connection between the public potable drinking water system and a consumer's water system that could potentially introduce contamination or pollution into the public or private drinking water system.

### What is a cross-connection program?

The Safe Drinking Water Act of 1986 and California regulations state that the water purveyor has the primary responsibility for preventing water from unapproved sources from entering the drinking water. Marin Municipal Water District meets these regulations through its cross-connection program. A Certified Cross-Connection Control Specialist conducts commercial and residential surveys to determine if there are any hazards to the drinking water system. If a situation exists where pollutants or contamination can enter the drinking water system, the Cross-Connection Specialist can determine the appropriate steps to ensure that hazard does not affect the drinking water.

### What are some examples of hazards at my home that need to be protected with a backflow assembly or device?

Irrigation systems, hose bibs, boilers, radiant heat systems, wells, docks, ponds, fountains, pressure boosting systems, pools, spas, graywater systems, rain water collection systems, reclaimed water, and solar heating systems are just a few examples of hazards that need to have backflow protection.

### What is a backflow prevention assembly and which one is best to install?

A backflow prevention assembly in a drinking water system is a testable and repairable in-line assembly that is used to keep undesirable water from entering the drinking water system during a backflow event. There are four different types of assemblies: pressure vacuum breaker (PVB), spill resistant vacuum

breaker (SVB), double check valve assemblies (DC), and reverse pressure principle assemblies (RP). If the district has done a survey of your residence or business you will receive a letter letting you know which type of assembly is best suited for you and the location of where it must be installed. There are many brands to choose from, but your assembly must be on Marin Water's list of approved backflow assemblies found on our website. Keep in mind that California bill 1953 states that an assembly must be lead free if it is installed on a water line that will be used for human consumption.

### Does having a backflow preventer at my meter mean that my home/business is protected?

No. Having a backflow preventer installed at your meter only protects the public water system. There may be unprotected cross-connection issues within your property. You may email the backflow group if you have any questions. Or you may refer to our [List of Certified Testers](#) to find a cross-connection specialist that can meet with you and conduct an in-depth survey of your home or business.

### Will installing a backflow preventer affect the water pressure in my home?

Possibly. It depends on the location of the assembly, the type of assembly installed, and the amount of water flowing through the assembly.

### Why can't my backflow assembly be installed below ground?

California plumbing code sets installation standards for all assemblies. All assemblies must be installed so that they are easily accessible and have plenty of clearance around them so they can be tested and maintained.

### Why must I have my backflow assembly tested annually?

Backflow preventers are mechanical assemblies that have internal seals, springs, and moving parts. Like everything else that is mechanical, the assemblies are subject to fouling, normal wear, and fatigue. Sometimes backflow assemblies and air gaps are bypassed. Annual inspections are necessary in order to ensure the public drinking water system is protected from possible contaminants. A visual inspection of an air gap is sufficient, but backflow assemblies must be tested by a Certified Backflow Prevention Assembly Tester using a properly calibrated gauge.

### What happens if I do not have my backflow assembly tested and maintained as required?

To comply with California Administrative Code Title 17, Marin Municipal Water District requires that all backflow assemblies are tested as soon as they are installed or relocated, and annually. If the backflow assembly is not tested, maintained, or removed from its approved location, the district may discontinue water service to the premises, per Municipal Water District Code 11.14.090.

### Who is authorized to test my backflow assembly?

Marin Water recognizes certified testers holding either AWWA-CA/NV or ABPA Certification. Along with providing evidence of being certified, the testers must also attend a tester class at Marin Water. Only after meeting these requirements is a tester added to our list of certified testers. For your convenience you can find the [List of Certified Testers](#) on our website. If your backflow assembly is tested by someone who is not on the list of approved testers, the district can not accept the test report.

## How will I know if it is time for me to test my backflow assembly?

Marin Water will mail out reminder notices 45 days before your assembly is due to be tested. These notices are the size of postcards and printed on recycled paper to limit the use of paper. If you think your test is due, you lost your notification or are just curious about when your test date is, feel free to send us an email at [Backflow@MarinWater.org](mailto:Backflow@MarinWater.org).

## Why can't you send the notice to test directly to the tester?

For some time Marin Water did send the notices directly to the testers. However, too often, the tester would not test the backflow preventer and submit the report in a timely manner. In addition, people would move or sell their home or business and not let the tester know. The tester would perform work and send the bill to the current owner and not be paid. If you would like to make an agreement directly with your tester to schedule testing on an annual basis, you are certainly able to do that. You will still receive the notice to test directly from Marin Water.

## Why do I have a backflow assembly and my neighbor does not?

There can be many reasons. Your neighbor may not have the cross-connection hazards that you do. It is possible that your neighbor has backflow protection with a non-testable assembly. If you believe your neighbor's water system poses a hazard to your drinking water and the public's, please let us know via [email](#), and we will conduct a cross-connection survey of your neighbor's property to ensure that we all have safe drinking water.

## I have a well that is not being used. Is a backflow assembly necessary?

Yes. A backflow assembly must be installed if there is a well on the property. Even if the well is not being used or is only used for irrigation, there must be a backflow assembly installed at the water meter. If you decide you no longer want use of the well and have it destroyed, you may forward a copy of the Well Destruction Permit, obtained from the County of Marin to Marin Water's Backflow Department. After receiving the completed destruction permit, the Backflow Department will conduct a survey of the property to see if any other hazards exist. After the survey is completed, the district will decide whether or not backflow protection is still necessary on the property.