

What is a backflow assembly?

Backflow assemblies are devices placed on cross connections to prevent water from backflowing into the public water system. The most common type of backflow assembly is a double check valve assembly, which consists of two independent check valves, two resilient seated shut off valves and test cocks. To ensure they work correctly, all backflow assemblies must be tested annually with the exception of atmospheric vacuum breakers.

How often do backflow assemblies need to be tested?

Backflow assemblies must be tested at the time of installation, annually (once a year) after installation, after repairs and after relocating. When TVWD customers test their backflow assemblies, a test report must be submitted to the District by the tester.

Who can test the backflow assembly?

Testing in Oregon must be done by Oregon Health Division certified backflow testers. A partial list is provided when we mail out the annual test required letter and is available on our Web site at www.tvwd.org.

What happens if I do not test a backflow assembly that I have received a notification to test?

If for some reason you do not test your backflow assembly, there are two options:

- (1) If the assembly being required to be tested is a plumbing code assembly, TVWD may require you to install, test and maintain a backflow assembly behind the water meter to protect the public water system.
- (2) Your water service may be terminated to protect the public water system.

You Can Help!

Fortunately, there are many things you can do to help prevent contamination of the public water system due to backflow.

- **Irrigation systems:** Ensure an approved backflow assembly is installed, is in good working condition and is tested annually.
- **Swimming pools and hot tubs:** Ensure that if a water hose is used to fill these units, it is protected with a hose bib vacuum breaker installed on the faucet.
- **Residential boilers:** Ensure an approved backflow assembly is installed, is in good working condition, and is tested annually.
- **Private wells:** Ensure that well systems are not connected to a public water system. If it is connected, it must have a backflow assembly at the meter, be in good working condition, and tested annually.

For more information about backflow and cross connections, contact our Cross Connection Program at (503) 848-3029 or backflow@tvwd.org. You can also visit our Web site at www.tvwd.org and click on “Backflow Prevention” under the “Your Water” tab.



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Residential Backflow Protection and Cross Connections



What You Need To Know About Backflow Prevention

Residential Backflow Protection and Cross Connections

As a Tualatin Valley Water District customer, you expect your drinking water to be safe. We are committed to providing you the healthiest, highest quality water, but we need your help to prevent contamination through backflow to keep our water safe throughout the system.

Customers who have cross connections are responsible for preventing contaminants from entering the public water system through their individual plumbing system by installing and maintaining approved backflow prevention assemblies. The following is a list of the most frequently asked questions about cross connections and backflow prevention.

What is a *cross connection*?

A **cross connection** is any connection between piping that carries drinking water (also known as **potable**) and the piping or fixtures that carry other types of water or substances that are not safe to drink (also known as **non-potable**). Substances include gases, liquids, or solids, such as chemicals, water products, steam, water from other sources (potable or non-potable), and any matter that may change the color, taste, quality or odor to water.

What are some common examples of residential cross connections?

Examples include residential fire systems, wells or auxiliary water systems, lawn irrigation systems, boilers, and swimming pools and hot tubs that are hard piped for filling purposes.

What is *backflow*? Why is backflow protection necessary?

Drinking water normally flows in one direction (from the meter to the house), although under certain circumstances it can flow in the opposite direction, or “**backflow**.”

A backflow incident can happen at any time. All that is needed is a water pressure drop in the public water system main line, most commonly caused by fire fighting, hydrant flushing, flow testing, a water main break, or extreme high usage on the water system.

Any connection to a non-potable source not protected could be siphoned back into the public

water system, which can pollute or contaminate the water system.

Backflow protection is important because we assume that when we turn on the water tap, we have safe drinking water. This is a luxury we enjoy, but not without very strong regulations and considerable expense. Our drinking water is among the safest in the world. Water protection and conservation requires the effort and cooperation of everyone.

What is the legal basis for a local cross connection control program?

The federal Safe Drinking Water Act (SDWA) 42 U.S.C 300f to 300j-26 has jurisdiction over the public health aspects of the drinking water supply. The Oregon Health Division regulates public water systems in our state, including cross connection control, through Oregon Administrative Rules (OARs). One such rule is OAR 333-61-0070, which requires water districts to administer a cross connection control program that will protect the potable water supply, and TVWD has passed an ordinance on cross connection control. For more information, visit www.tvwd.org.



NEVER submerge a hose connected to the water system.

Do I currently have adequate backflow protection? How can I find out?

If your irrigation system, boiler, fire system, swimming pool, or spa was permitted through your local building department, adequate backflow protection was required. If you installed or had the fixture installed without proper permits, or you are not sure if you have adequate backflow protection, please contact our Cross Connection Program at (503) 848-3029 or backflow@tvwd.org and we will perform a survey for you.

What is the responsibility of a building owner, property manager and water supplier?

Legally, the water supplier is responsible for water quality and for implementing and maintaining a cross connection control program to prevent pollution or contamination of the public water system.

The water supplier's responsibility ends at the outlet side (the customer's side) of the water meter. Once the water is on the outlet side of the water meter or service connection, responsibility and liability falls to the owner.

