Apache Junction Water District Backflow Frequently Asked Questions

What is backflow?

The Apache Junction Water District's water distribution system is designed to keep the water flowing to the customer. However, when hydraulic conditions within the water distribution system deviate from "normal" flow patterns, water flow to the customer can be reversed. When this undesirable reversal of flow happens, contaminated water can enter the distribution system through a cross connection.

What is a cross connection?

A cross connection is an actual or potential connection between potable* water plumbing to a non-potable pipe system, to water that has been discharged from the potable water plumbing not separated by an air gap, or any fluid or substance that originated from outside the potable water plumbing.

**Potable: Water from any source which has been investigated by the health agency having jurisdiction, and which has been approved for human consumption.*

Water are some examples of cross-connection?

- A swimming pool auto fill line
- A landscape sprinkler or drip system
- A decorative fountain that has an auto fill line
- A hose bib or any outlet that will accommodate the attachment of a hose
- Most fire sprinkler systems
- Plumbing connected equipment or apparatus

What causes backflow?

Backflow is caused by the presence of an unprotected cross-connection to the public water supply or a customer's potable water plumbing during a back-siphon or backpressure event.

What is back-siphonage?

Back-siphonage is a sudden reduction in the water pressure in the distribution system, such as during firefighting activities, or when a water main breaks, vigorous water main flushing events, electric power interruption, or distribution system equipment failure. These events may drastically lower distribution system pressure and create a suction effect. This can draw a non-potable substance or water that has been contaminated by contact with the environment into the potable water system through a cross connection.

What is backpressure?

Backpressure is created when pressure in a non-potable system, such as in a re-circulating system containing soap, acid or antifreeze, exceeds that in the potable system that provides makeup water to the system. This can force the potable water to reverse its direction of flow through the cross connection. Non-potable substances can then enter the potable water system.

How can backflow be prevented?

Backflow can be prevented by the installation of backflow assemblies, methods, or devices, such as: Air Gap (AG); Double Check Valve Assembly (DC); Reduced Pressure Assembly (RP); Pressure Vacuum Breaker Assembly (PVB); and Spill Resistance Pressure Vacuum Breaker (SVB0. A backflow prevention assembly is effective in prevention of backflow only if installation criteria are strictly followed. The type of assembly needed is based on the degree of hazard to the potable water supply.

What is a backflow assembly?

A backflow assembly is an approved, testable assembly which uses valves, in different configurations, to prevent polluted or contaminated water from reversing direction and flowing backward into a customer's potable water plumbing or in the municipal water distribution system.

Who is required to have a backflow prevention assembly?

Any water customer with a cross-connection is required to install appropriate backflow protection. Federal and State laws require that water suppliers protect their water systems from contamination by requiring the installation and testing of appropriate backflow assemblies. Commercial and industrial customers and homes with dedicated landscape meters are required by Arizona Administrative Code Rule R18-4-215 to install, test, and maintain backflow prevention assemblies.

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

If you maintain a cross-connection on your property, you must protect your family and neighbors, as well as other water customers, from a backflow event by isolating the cross-connection as required by code with a properly installed backflow assembly. Specific questions or concerns can be addressed by calling our office at (480) 982-6030.

I have access to auxiliary* water on my property. Do I need backflow protection?

Yes. Customers receiving auxiliary water must install a Reduced Pressure Assembly (RPA) backflow preventer on all potable water connections, including fire services.

**Auxiliary water is water not under the sanitary control of the Apache Junction Water District. For our definition this will include: reclaimed water (treated wastewater); well water; impoundments containing raw, municipal or any other water; municipal water from another purveyor; grey water; or recycled rain water.*

Who can install a backflow prevention assembly?

The installation of the backflow prevention assembly is the responsibility of the customer. The assembly may be installed by a property owner, plumbing contractor, or a general contractor, subject to the Rules and Statutes of the Arizona Registrar of Contractors.

Where should a backflow assembly be located?

Generally, the backflow prevention assembly must be located as close as possible to the water service connection, but must remain on private property. Individual cross-connections must be isolated with a properly installed backflow assembly at the connection point to the potable water supply.

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

It is the sole responsibility of the customer to ensure that the assembly is in satisfactory operating condition at all times. The Apache Junction Water District will send notices to regulated customers advising them when an annual test is required on their backflow assembly. The customer must contact a recognized Backflow Assembly Tester to perform the test. If any repair work or maintenance is performed on the assembly, a recognized Tester must retest the assembly immediately and submit the test results to the Apache Junction Water District.

How do I find an approved Certified Tester?

The Apache Junction Water District maintains a list of approved Backflow Assembly Testers. Due to the fact that prices vary among testers, you may want to call several Certified Testers to obtain quotes for your test.