

Apple Valley Ranchos Water Co. works to protect the public water supply against actual or potential cross connection by isolating a situation within the premises of a customer. AVRWC's job is to eliminate any existing connections between drinking water systems and other sources of water that are not approved as safe and potable for human consumption.

Backflow means the flow of any unwanted used or non-potable water or substance from any domestic or industrial piping system into the potable water of the distribution system. The direction of flow under these conditions is in the reverse direction from that intended by the system and normally assumed by the owner of the system.

There are a couple of scenarios that can cause a backflow condition. A loss of pressure in the supply main called backsiphonage, or by the flow from a customer's pressurized system through an unprotected cross-connection, which is called backpressure. The term backflow covers both a backsiphonage condition and a backpressure condition. A reversal of flow in a distribution main--or in the customer's system--can be created by any change of system pressure wherein the pressure at the supply point becomes lower than the pressure at the point of use. When this happens in an unprotected situation the water at the point of use will be siphoned back into the system; which can potentially pollute or contaminate the remainder of the customer's system. It is also possible that the contaminated or polluted water could continue to backflow into the public distribution system. The point at which it is possible for a non-potable substance to come in contact with the potable drinking water system is called a cross-connection. To prevent backflow from occurring at the point of a cross-connection a backflow prevention assembly must be installed. However, it is important the backflow prevention assembly match the particular hydraulic conditions at that location and is suitable to protect against the degree of hazard present.