

5- RESIDENTIAL CUSTOMER REQUIREMENTS

The State requires each public water system owner to establish a program for cross connection control and backflow prevention. Such program is designed to prevent contamination of drinking water.

Contamination of the drinking water may occur under backsiphonage or backpressure conditions, whereby contaminants are siphoned or forced back into the drinking water supply. Backsiphonage of contaminants may occur when there is a pressure drop, creating a suction or partial vacuum in the system. It may happen during a waterline break or high usage in the water system, such as heavy consumption of fire fighting situations (when fire hydrants are available). Backpressure may occur when there are pumps or boilers on the water system, which produce pressures higher than water system pressures.

At the residential level, various means of protection are available to protect against backflow and avoid contamination of the drinking water supply

Examples of potential cross connection and prevention



Frost-proof yard hydrant



Hose bib vacuum breaker



Hose bibs



Frost-proof hose bib vacuum breaker



Water operated aspirator used to spray chemicals



Hose bib with vacuum breaker installed

Residential facility	
Potential Cross connection sites	Protection
Swimming pool	Air gap separation between water supply line and top edge of swimming pool
Hose bib connectors (outside water spigots) where water aspirators are used to spray chemicals and detergents.	Hose bib vacuum breaker or atmospheric vacuum breaker downstream of the last cutoff valve.
Water softeners	Air gap separation between water supply line and brine tank
Frost-proof hydrants	An approved hydrant or approved backflow preventer (pressure-type vacuum breaker, double gate double check valve, or other system recommended by manufacturer) in the waterline leading to the hydrant.
In-ground lawn sprinklers	Atmospheric or pressure-type vacuum breaker
Connections to other water sources such as springs, individual wells, cisterns...etc	NO connection is allowed between the public and private water supply
Hose bibs at laundry tub	Hose bib vacuum breaker or atmospheric vacuum breaker downstream of last cutoff valve
Booster pump	Low pressure cut-off switch on pump suction line or other device, depending on installation
Storage tank (other than hot water tank)	Air gap separation between water supply outlet and top edge of tank
Photo developing sink	Air gap separation between water supply outlet and top edge of sink, or atmospheric vacuum breaker downstream of last cutoff valve
Lawn irrigation system	Pressure vacuum breaker (PVB), or reduced pressure principle assembly (RPZ)

