

Two types of conditions cause **backflow**. One condition is called backpressure, where the pressure on the customer's side becomes higher than the water systems pressure and may force the water to reverse direction. This can occur when the city water system pressure drops below that of the customer's home, and can siphon contaminants and pollutants back into the water system, like a soda straw effect. Another condition, **back-siphonage** occurs when there is a drop in the supply pressure of the water system, due to a water line break or fighting a fire. This creates a vacuum, which may pull or siphon the contaminants or pollutants back into the drinking water supply.

Every home has potential hazards that threaten to contaminate the drinking water system. These hazards are introduced to the water system through unprotected cross connections.

A **cross connection** is a connection between the public drinking water supply and anything else which may affect the quality of the drinking water. Examples of cross connections can range from a boiler in an office building, a chemical process in an industrial plant, to something as common as a landscape sprinkling system or threaded hose connections at your home. Unprotected cross connections can and may allow contaminants and pollutants backflow back into our drinking water supply.

All facilities, commercial or residential, do have at least one potential or actual cross connection. Cross connections are allowed, provided they have proper protection against backflow. The customer's responsibility is to protect cross connections against backflow by installing and maintaining backflow prevention devices and **assemblies**. These devices and assemblies insure that the water flows in one direction, and doesn't allow for pollutants or contaminants to flow back into the drinking water supply.

Common water usages where contamination can easily occur are your landscape sprinkling system and threaded hose connections such as garden hoses.

Garden hoses have accounted for almost 80% of the documented backflow incidents in the nation. Garden hoses have many uses, which can cause problems such as chemical and fertilizer dispensers, cleaning out sewer systems, filling pools, ponds and animal troughs. Threaded hose connections are easy and inexpensive to correct by equipping each threaded hose connection with a hose bib vacuum breaker. Hose bib vacuum breakers can be found at most home and garden stores.