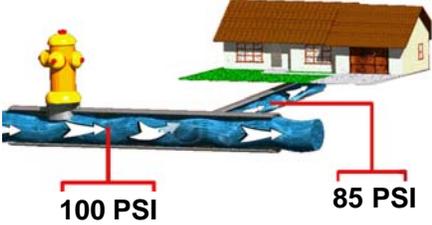
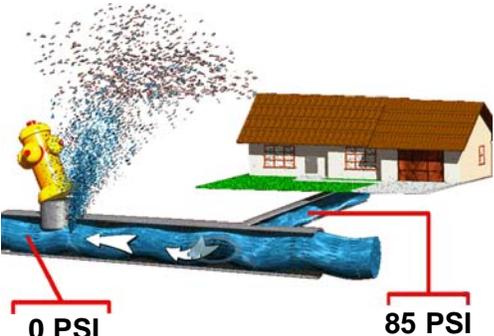




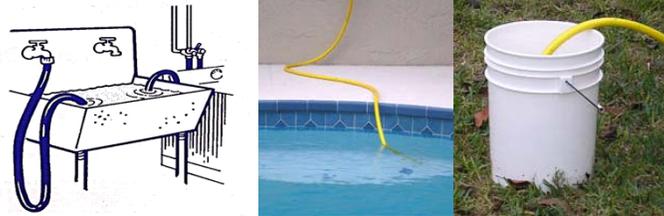
## Definition of backflow and cross-connection

**Backflow:** reverse flow of water or other substances into the drinking water distribution system.

<p style="text-align: center; color: blue; font-weight: bold;">Normal flow</p>  <p style="text-align: center;">100 PSI                      85 PSI</p> <p>Typically, water flows from the distribution system to customer's house</p>	<p style="text-align: center; color: red; font-weight: bold;">reverse flow</p>  <p style="text-align: center;">0 PSI                      85 PSI</p> <p>Backflow events can occur because of:</p> <ul style="list-style-type: none"> <li>- <b>Back pressure:</b> pressure in downstream piping is greater than distribution system pressure</li> <li>- <b>Back siphonage:</b> reverse flow caused by negative pressure (vacuum or partial vacuum) in the distribution system</li> </ul>
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**Cross-Connection:**

- An actual or potential connection between a potable (drinkable) water supply and any non-potable source or substance that could contaminate drinking water



Examples of cross connection

**Cross connections + Backflow events → potential contamination of drinking water**

Stop backflow

→ Install **backflow preventers** to prevent drinking water contamination

**A cross connection control (CCC) program:**

- Must be in place to control cross-connections and protect the drinking water supply from the possibility of contamination from the customer's internal plumbing system
- Is a state requirement (state water regulation and Plumbing Code)
- Requires periodic surveys of customers' water use and backflow hazards
- Requires installation of backflow preventers
- Required backflow protection depends on risk and degree of hazard
- Requires periodic testing of customers' backflow preventers
- Involves water company staff, health and plumbing officials, customers, plumbing contractors and testers
- Customers submit completed surveys and test reports to our CCC office,
- One person administers the CCC program and manages customer correspondence

Selection of appropriate safeguards for various situations

RISK assessment-degree of hazard	Type of health hazard (examples)	Method of backflow (flow conditions)	Device or safeguard
HIGH	Toxic (sewage, used water, toxic or hazardous material)	Back-pressure or Back-siphonage (continuous flow)	Reduced pressure principle backflow prevention assembly
		Back-siphonage only (continuous or non continuous flows)	Reduced pressure principle backflow prevention assembly
MODERATE	Leading to aesthetic issues or impacting water usefulness (food products, non-toxic, non hazardous chemicals)	Back-pressure or Back-siphonage (continuous flow)	Reduced pressure principle backflow prevention assembly
LOW	Leading to aesthetic issues	Back-siphonage only (continuous flow)	Reduced pressure principle backflow prevention assembly