

## PROTECTING YOUR WATER

The potential hazards to our drinking water outlined in this brochure demonstrate the importance for consumers to recognize and control cross-connections at your home or place of business. The health dangers and potential liability associated with these incidents are additional reasons to ensure your water lines are adequately protected. Colorado Springs Utilities regularly examines systems at commercial customer facilities. Through these assessments, we can determine the most effective backflow protection needed to further protect our water system from potential contaminants.

**If you think your system may need a protective device installed to prevent non-potable substances from entering your water lines, please contact our Cross-Connection Program at 448-4800 for a free survey.**

*Note: Once a device is installed, it must be tested annually to ensure it is operating properly. You may also contact us to request a list of certified testers.*

Colorado Springs Utilities continually strives to deliver a reliable supply of high quality drinking water to our customers. Together we can protect our drinking water from cross-connection hazards.

FOR MORE INFORMATION, CONTACT THE  
COLORADO SPRINGS UTILITIES  
CROSS-CONNECTION PROGRAM AT 448-4800



Colorado Springs Utilities

*It's how we're all connected*

448-4800  
[www.csu.org](http://www.csu.org)

NATURAL GAS ► ELECTRICITY ► WATER ► WASTEWATER  
YOUR COMMUNITY-OWNED UTILITY



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# Help Protect Our Water

LEARN HOW TO RECOGNIZE AND CONTROL  
CROSS-CONNECTION HAZARDS





In 1974, the United States Congress passed the Safe Drinking Water Act to help ensure that tap water is safe to drink. At Colorado Springs Utilities, we are committed to providing our customers with a superior and reliable supply of high quality water. However, there are still potential risks to the water distribution system that we all should learn to recognize and control.

## CROSS-CONNECTIONS

Colorado Springs Utilities goes to great lengths to protect our water from potential contamination or pollution as it flows through the distribution system. One area that poses a significant risk to the quality, integrity and safety of our water is *cross-connections*. These can occur when a water supply line is connected to any other water supply or equipment containing a non-potable (unfit to drink) substance. For example, a water line connected to a tank filled with chemicals. These connections, whether they are permanent or temporary, can contaminate our water supply if no protective measures are taken. The following information is provided to raise awareness and understanding of cross-connections.

## BACKFLOW

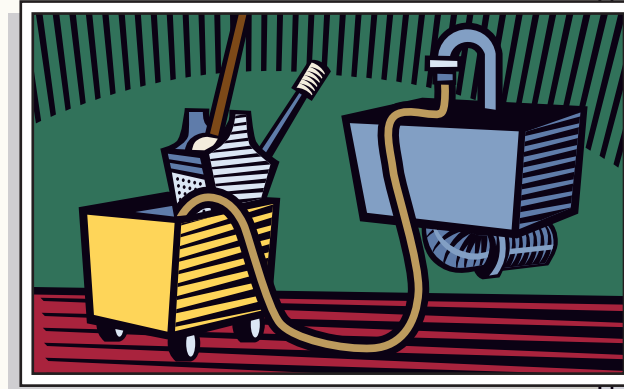
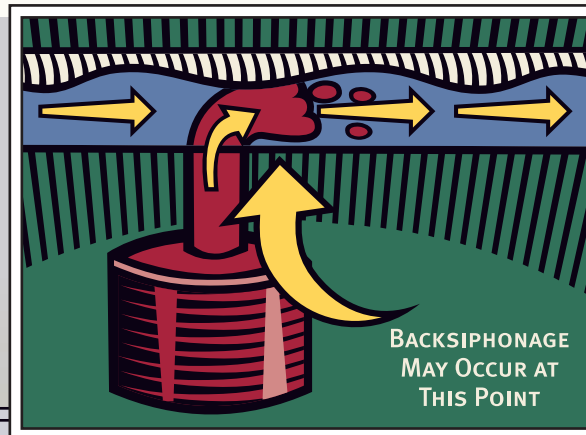
Water distribution systems are designed with the intent for water to flow in one direction — from the distribution system to the

consumer. However, hydraulic conditions within the system can change, causing water to flow in the opposite direction. This condition, called *backflow*, can inadvertently introduce contaminants from unprotected systems into our drinking water supply.

## BACKSIPHONAGE

When pressure in the distribution system drops, causing water from the consumer's system (and any hazardous substance) to siphon into the main water distribution system, it is called *backsiphonage*. This type of backflow can occur when there is an unusually high use of water or undersized piping in a particular area. For example, during fire fighting, water is “sucked” to the point of high usage, possibly pulling non-potable substances with it into the water

### THE ASPIRATOR EFFECT



### CROSS-CONNECTION

line. Backsiphonage contamination can also occur through unprotected cross-connections, such as a hose from a mop bucket connected to a maintenance sink.

## BACKPRESSURE

Some water customers have non-potable substances stored under pressure at their business or residence. When an unprotected water line is attached to these containers or pipes holding pressurized substances, hazardous contaminants may be “pumped” back into the water line. This is a type of backflow called *backpressure* and may occur through a cross-connection such as an auxiliary supply connected to a re-circulating system containing detergents, acid, antifreeze or any other non-potable substance.