

## Our Commitment...

Washington Water Service Company is committed to providing a reliable water supply that meets stringent state and federal water quality standards. Our comprehensive water quality assurance program includes vigilant monitoring, best-available-technology treatment, and extensive water quality testing. Another important aspect of water quality assurance is cross-connection control...and that's where you come in.



## Cross- Connection Control

A Joint Effort  
to Protect  
Our Drinking  
Water



## What is cross-connection control?

Cross-connection control is a joint effort to ensure that public drinking water safety is not compromised by the backpressure or backsiphonage of contaminants from a customer's property through unprotected cross-connections in the plumbing system. This condition is referred to as backflow.

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## For more information:

Washington State Department of Health - 243 S. Israel Road SE, Olympia, WA 98504  
<http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemDesignandPlanning/CrossConnectionControlBackflowPrevention>

### Washington State Legislation

<http://http://app.leg.wa.gov/WAC/default.aspx?cite+246-290-490>

### How could contaminants from the customer's property get into the public drinking water system?

Backflow can occur when the pressure of the customer's plumbing exceeds the pressure of the public water system. Many customers use materials under pressure in the normal course of their business. When an unprotected domestic water line is connected to a container holding non-potable materials (such as soap, antifreeze, or other chemicals), these materials can be pumped back into the public drinking water system. This condition is called backpressure. Thermal expansion can also cause backpressure. Common causes of thermal expansion are pressurized garden hoses left in the sun and water piping in attic spaces.

Backflow can also occur when water is siphoned backward through the customer's plumbing due to a vacuum effect, causing the contaminated water from the customer's plumbing to enter the public drinking water system. This condition is called backsiphonage. The causes of backsiphonage include interruptions in water service, major leaks, fire-fighting operations, and rapid surges in customer usage.



### What types of cross-connections exist?

Contamination from the customer's plumbing can occur through direct piping connections, or even through indirect use of hoses.



### What types of contaminants can enter the public drinking water system as a result of backflow or backpressure?

The list of materials that could potentially contaminate the water system is vast. According to the U.S. Environmental Protection Agency, a wide variety of substances have contaminated drinking water systems throughout the country as a result of poor cross-connection control, including antifreeze from a heating system, human blood from a funeral parlor, sodium hydroxide from a chemical plant, and herbicide from an agricultural holding tank, just to name a few. Other examples include:

- Lawn chemicals backsiphoning from a garden hose or sprinkler head through the plumbing and into the public water system
- Blue water backsiphoning from a toilet tank into a building's water supply

- Carbonated water from a soda dispenser leaching unacceptable levels of copper from building piping
- Chemicals backsiphoning from industrial buildings into the water system due to a drop in the water system's pressure



### How can we protect the public drinking water system from contamination due to backflow conditions?

Customers must ensure that all plumbing is in conformance with local plumbing codes. Additionally, state law requires

certain types of facilities to install and maintain backflow prevention assemblies at the water meter. Washington Water's cross-connection control staff will determine whether you need to install a backflow prevention assembly based on water uses at your facility. We look forward to working with you to ensure the safety of our drinking water supplies.

*If you have any questions, please call your local Washington Water Customer Center at (877) 408-4060.*