The goal of the Cross Connection Control Program (CCCP) is to protect your drinking water system and the city’s distribution system from various forms of contamination.

What is a “Cross Connection”? 

A cross connection is an actual or potential physical connection between the public water system and any source that could contaminate the public water supply.

Actual: open valve between potable and non potable

Potential: closed valve between potable and non potable

Where are Cross Connections found?

Whenever a plumbing fixture is connected to the drinking water supply, a potential cross connection exists. Most of the time these cross connections are controlled by the use of a backflow prevention devise. These devises are usually installed by a plumber when the building is constructed and all of them need to be maintained and teste annually by a licensed Backflow Assembly Tester (BAT).
What is Backflow?

“Backflow” means the undesirable reversal of flow of water or other substances through a cross connection into the public water system or consumer’s potable water system.

Some examples of typical residential Cross Connections could be:

- Hose Bibs
- Lawn Irrigation
- Jacuzzis
- Swimming Pools
- Toilet Ball-cocks
What causes water to flow backwards?

“Backsiphonage” means backflow due to a reduction in system pressure in the purveyor’s distribution system and/or consumer’s water system.

“Backpressure” means a pressure (caused by a pump, elevated tank or piping, boiler, or other means) on the consumer’s side of the service connection that is greater than the pressure provided by the public water system and which may cause backflow.
Public Water system’s method of Protection

“Premises Isolation” means a method of protecting a public water system by installation of approved air gaps or approved backflow prevention assemblies at or near the service connection or alternative location acceptable to the purveyor to isolate the consumer’s water system from the purveyor’s distribution system.

“In Premises Isolation” means a method of protecting the health of consumer’s served by the consumer’s potable water system, located within the property lines of the consumer’s premises by the installation of an approved air gap or backflow prevention assembly at the point of hazard, which is generally a plumbing fixture.
PROTECTION DEVICES

Air Gaps and Approved Backflow Prevention Assemblies

“Approved air gap” is a physical separation between the free flowing end of a potable water supply pipeline and the overflow rim of an open or non-pressurized receiving vessel.

“Approved Backflow Prevention Assemblies” means an RPBA, RPDA, DCVA, DCDA, PVBA, or SVBA of make, model, and size that is approved by the department. Assemblies that appear on the current approved backflow prevention assemblies list developed by the University of Southern California Foundation for Cross Connection Control and Hydraulic Research or other entity acceptable to the department are considered approved by the department.

Example of a RPBA:
Example of a DCVA:

THE LEVEL OF PROTECTION REQUIRED

The level of protection required is determined by the degree of hazard as outlined in WASHINGTON ADMINISTRATIVE CODE (WAC 246-290-490). The general guidelines include:

HIGH HAZARDS:

- Agricultural (farms and dairies)
- Beverage bottling plants
- Car washes
- Chemical plants
- Commercial laundries, dry cleaning
- Premises where both reclaimed water and drinking water is provided
- Film processing plants
- Food processing facilities
- Hospitals, nursing homes, veterinary, medical, and dental clinics, and blood plasma centers
- Premises with separate irrigation systems using the purveyor’s water supply with chemical addition
- Laboratories
- Metal plating industries
- Mortuaries
- Petroleum processing or storage plants
- Piers and docks
- Radioactive material processing plants or nuclear reactors
- Survey access denied or restricted
- Wastewater lift stations and pump stations
• Wastewater treatment plants
• Premises with an unapproved auxiliary water supply interconnected with the potable water supply

LOW HAZARDS:

• Wash basins and service sinks
• Hose bibs (inside and outside garden hose faucets)
• Lawn irrigation systems
• Auxiliary water supplies
• Laboratory and aspirator equipment
• Processing tanks
• Boiler
• Water recirculation systems
• Swimming pools
• Solar heat systems
• Fire sprinkler systems

For more information about cross-connection and the City’s requirements, please contact the Public Works Department at 360-829-1631.