# Thornton has implemented an operational backflow and cross-connection control program.

Through compliance of section 11.39, Thornton can ensure that we are providing safe drinking water to all our customers.

Section 11.39 requires water suppliers that own and/or operate public water systems protect the drinking water from potential contamination through cross connections. The CDPHE and Thornton Water Quality are responsible for ensuring that water suppliers comply with Section 11.39.

It's up to all of us to ensure that all backflow prevention assemblies within the water distribution system are being tested and maintained annually.



Thornton Cross-Connection Control and Backflow Prevention Program, 720-977-6586 backflow@ThorntonCO.gov WWW.ThorntonCO.gov



# City of Thornton Cross-Connection Control & Backflow Prevention Program



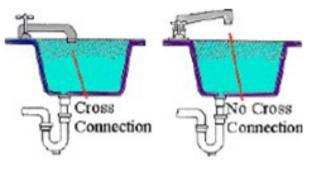


## Here's why a cross-connection control program is impor-

A program to control cross-connections and prevent backflow is critical to ensuring the safety of the drinking water we provide to our residents.

### What is cross connection?

A cross-connection is a direct arrangement of a piping line that allows the potable water supply to be connected to a line that contains a contaminant. An example is the common garden hose attached to a sill cock with the end of the hose lying in a cesspool. Other examples are a garden hose attached to a service sink with the end of the hose submerged in a tub full of detergent, supply lines connected to bottom-fed tanks, supply lines connected to boilers.



#### **Back Siphonage**

Reverse flow caused by a loss of supply pressure

#### WATER SUPPLY





### What is backflow?

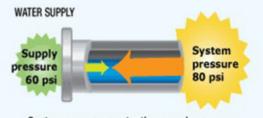
Backflow is unwanted flow of water in the reverse direction. Back pressure and back siphonage are the two types of backflow.

### **Backflow Protection**

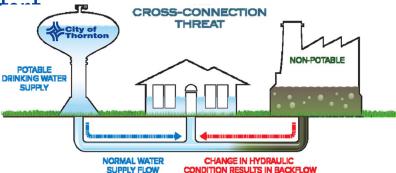
& Methods Air Gap is a nonmechanical backflov preventer and is the highest form of backflow prevention AIR GAP when properly installed. Needs to be 2x the diameter of the outlet and never less than 1-inch.

#### **Back Pressure**

An increase in water pressure caused by elevation or mechanical pumping that raises the system pressure above the supply pressure



System pressure greater than supply pressure



### **Reduced Pressure Princip** Backflow Assembly (RP)

This assembly is designed to protect against a non-he hazard (pollutant) or a hea....

backpressure and backsiphonage.

hazard (contaminant). It protects against



### Double Check Valve Assembly

This assembly is designed to protect against non-health hazard (pollutant). Protects against back pressure and back siphonage.

Pressure Vacuum Breaker

NON POTABLE

This assembly is designed to protect against he hazard (contaminant) acceptable for non-healt (pollutant). Protects against back siphonage or



# Hose Bib Vacuum Breaker

This is not a testable assembly but is commonly used in residential or commercial hose bibs. This device protects against high hazards, and protects against back siphonage and a max of 10 feet of head of back pressure.