Backflow Prevention

Backflow is when water in your water lines runs backwards (the opposite direction from its normal flow). There are two situations that can cause this to happen.

- ***Backpressure*** – the pressure in your pipes is greater than the pressure coming in. Some of these causes include:
    1. Booster pumps
    2. Potable water connections to boilers and other systems where thermal expansion is possible
    3. Interconnections with another system operated at a higher pressure.
    4. Elevated piping (example: 30' above finished grade)
- ***Backsiphonage*** - a negative pressure in one of the pipes. Some of these causes include:
    1. High velocities in pipe lines.
    2. Line repair or break that is lower than a service point.
    3. Lowered main pressure due to high water withdrawal rate such as fire fighting or water main flushing.
    4. Reduced supply pressure on the suction side of the booster pump.

To protect the water system, two kinds of backflow prevention assemblies are required for all business customers that present a potential hazard to the Public water system:

- ***External*** - to protect the public's water from cross connection with the water on the customer's premise
- ***Internal*** – to protect the customer from potentially hazardous cross connections in his own system.

Potential hazards include fire protection systems, irrigation systems, gasoline refineries and stations, restaurants, hospitals, and manufacturers are just a few examples.

When backflow occurs due to cross connections it can cause sickness or even death. Even in your own home, you can unwittingly create a cross connection:

- Putting the garden hose in a swimming pool to fill it
- Putting the garden hose in a pet's water bucket to fill it, or the fish tank
- Putting the garden hose down the drain to flush out debris when it's backed up
- Connecting your garden hose to a plant fertilizer or bug spray unit

Over half of the nation's cross connections involve unprotected garden hoses.

AWWU is mandated by law to protect the public water system. This is why AWWU requires the installation and maintenance of an approved backflow prevention assembly whenever a potential hazard is determined to exist in the customer's system.