

What is a Cross Connection?

A **Cross Connection** is a connection between the drinking water system and any source of possible pollution or contamination. An example would be the end of a garden hose that could be put into various different situations including a decorative fish pond, a spray can with toxic chemicals, a sewer clean out, etc. Of course as long as there is positive pressure on the drinking water supply there is no reversal of the direction of flow (backflow). However, if the water main is shut down due to a power failure, water line construction, or a line break, then backflow could occur due to backsiphonage. Backsiphonage is a form of backflow resulting from a reduction in system which allows a reversal of the flow of water.

Do these situations really happen?

In 2005 the Division of Drinking Water was notified of 24 different situations where a backflow had allowed pollutants and/or contaminants to flow into public drinking water systems. Many more similar situations occurred that were not reported. In some cases, toxic chemicals have backflowed into drinking water systems causing sickness and even death.

Am I required to install protection by Law?

In Utah, the Plumbing Code prohibits interconnections between the drinking water system and any non potable water system. The Utah Public Drinking Water Rules also require that Public Drinking Water Systems prohibit unprotected cross connections to their systems. Where these connections must exist, protection must be installed. When a backflow prevention assembly is used, it shall be tested initially and at least on an annual basis there after. As an example, boilers which are used in schools, churches and other buildings may use toxic chemicals like water conditioners, and as such require a backflow protection assembly.

What specific types of problems could exist at my home?

The most frequently occurring cross connection problems are hose bibbs and lawn sprinkling systems. As mentioned previously, hoses can be put into many different situations, and as such they must be protected with a hose bibb vacuum breaker. Many new homes have hose bibb vacuum breakers already installed, but older homes do not. When purchasing hose bibb vacuum breakers, look for self-draining models to minimize outdoor freezing problems.

What protection is required on Lawn Sprinkler Systems?

The Utah Plumbing Code requires that atmospheric vacuum breakers be installed on lawn sprinkler systems. If it is determined that an atmospheric vacuum breaker assembly will not provide adequate protection, then a pressure vacuum breaker or a reduced pressure principle backflow assembly may be installed. Either of these two assemblies must be tested within 10 days of initial usage and at least on an annual basis thereafter. Correctly installed atmospheric vacuum breakers do not require testing.

What hazards could possibly exist from a lawn sprinkler system?

Many people apply weed killers, fertilizers and other chemicals to their lawns. Dogs, cats and other animals also drop waste on lawns. In the event that a sprinkler is on, with water standing on the lawn, and a system shutdown occurs, bacteria, viruses and/or toxic chemicals could flow with the sprinkler water back into the drinking water supply system through the sprinkler heads. Some newer sprinkler systems inject chemicals into the water as it is applied to the lawn. These systems must use a Reduced Pressure Principal Backflow Prevention Assembly.

Although there is cost involved in installation and testing of backflow prevention assemblies, the alternative of hospitalization due to illness from drinking polluted and contaminated water can be much more expensive. Most people are not aware of the potential for backflow contamination in the drinking water system, and yet every day throughout the country these incidents occur. Protecting the quality of our drinking water will have a significant effect on the overall health and well being of our community.

The Utah State Division of Drinking Water and your water system are working for you with abundant supply of clean and safe drinking water today and long into the future.

If you have any questions concerning this information, please call:
801-536-4200

Check the Drinking Water website for a list of available testers in your area.

<http://www.drinkingwater.utah.gov/>

Dammeron Valley Water Works, LLC
1 Dammeron Valley Drive East
Dammeron Valley, UT 84783
(435) 574-2295
water@dammeronvalley.com

Working Together to Protect the Quality of our Drinking Water



A Public Service Message from
the Utah State Department of
Environmental Quality Division of
Drinking Water, and Your
Drinking Water System