

WHAT IS A CROSS CONNECTION CONTROL PROGRAM?

The City of Hickman's Water System is required by the Nebraska Department of Health and Human Services to conduct a cross connection control program using the specific components list below:

- **A public education program to inform water customers of the potential harm that plumbing cross connections can cause to the public water supply**
- **A survey and inspection every five (5) years of each home and building connected to the public water supply** - Inspections of the plumbing system by the property owner or tenant is required to determine if cross connections exist.
- **Installation of backflow protection devices** - Installing backflow protection on cross connections safeguards the public water supply.
- **Annual testing of backflow preventers** - Testing backflow devices by a certified tester ensures proper operating and is required once each year.



RESIDENTIAL CROSS CONNECTION TYPES

1. PRIVATE WELLS & SECONDARY WATER

A well or secondary source of water on a property is a potential cross connection. Wells or secondary water sources are prohibited from being connected to the public water supply. A backflow preventer on the public water supply is always required when secondary sources of water are present on a customer's property.

2. LAWN IRRIGATION SYSTEMS

Underground irrigation systems are a direct cross connection and the public water supply must be protected with a suitable backflow device.



Surface water can be siphoned back into your plumbing system through an automated lawn irrigation system unless a proper backflow device is attached. If the system uses a pump or has fertilizer or chemical injection, additional backflow protection and backflow testing is required.

3. SWIMMING POOLS OR HOT TUBS

Pools and hot tubs that are permanently connected to the home plumbing system are direct cross connections and must be protected with a suitable backflow device. An unprotected cross connection could draw pool water and chemicals back into your household plumbing system and public water supply. When filling a pool or hot tub with a hose never submerge the end as this is another cross connection. Always leave an air gap when filling pools, tubs, sinks or containers.

4. PHOTO, CHEMICAL, BIOLOGICAL, VETERINARIAN OR OTHER LAB FACILITIES

Home use of photographic chemicals, process chemicals, biological laboratory supplies, veterinarian supplies or other laboratory chemicals can cause contamination due to an unprotected cross connection. A suitable backflow device is necessary to protect the home plumbing system and public water supply. Digital Imaging without the use of chemical processing does not require reporting.

5. BOILER SYSTEMS FOR HEATING

Boiler systems are not common but do exist in some homes. Water is used to replenish the boiler which may also have chemicals. This cross connection must be protected with a suitable backflow device to prevent contamination of the home plumbing system and public water supply.

6. HOME MEDICAL, DENTAL OR DIALYSIS EQUIPMENT

Similar to equipment found in medical offices, these devices are sometimes used in the home. When connected to the water supply these cross connections must be protected with a suitable backflow device to prevent contamination of the home plumbing system and public water supply

7. OTHER POTENTIAL CROSS CONNECTIONS:

- A garden hose submerged in a sink or connected to a container containing chemicals or fertilizer is a serious cross connection.
- A sudden drop in water pressure from a water main break or from water being used to fight a fire can siphon water back into your home plumbing system or the public water supply. A vacuum breaker is a simple inexpensive device that can be installed on the faucet or hose to prevent contamination.
- Most bathtubs and sinks have an air gap. An air gap is the space between the highest water level in the fixture and the outlet of the water, which is the best form of backflow protection. Never leave the end of a hose submerged in a tub, pool or container.
- A toilet flush valve without an anti-siphon device can allow contaminated water to get into the plumbing system.
- Residential fire protection systems, in-home water treatment systems, car washes, decorative ponds and soaking tubs are other possible cross connection locations.



WHAT ARE CROSS CONNECTIONS?

A cross connection is defined as an actual or potential connection between a public water supply and a source of possible contamination or pollution.

All homes have potential cross connections.

The water pipes and plumbing fixtures that make up cross connections can be the link for contamination to get back into the drinking water supply. They can be a serious health hazard within your home and be harmful to the public water supply if a backflow condition occurs. Backflow happens when the flow of water into your home is reversed due to a sudden drop in pressure or if a pump causes backpressure.

The result of cross connection contamination is that chemicals, poisons and bacteria might find their way into the water you drink.

Help yourself, your family and your community by eliminating unprotected cross connections. Help the Hickman Water System and your neighbors by filling out the attached Residential Cross Connection Survey form and return it to the City Office.

WHAT GOES WRONG?

Water pressure can suddenly drop because of heavy usage, a fire in the area, or a broken water main. When that happens, contaminated water could be siphoned back into your plumbing system from unprotected cross connections within your home. Even though Hickman has a very reliable water distribution system, these pressure drops can occur.

The enclosed *Residential Cross Connection Survey* is designed to identify some common residential cross connections.

BE WATER-WISE ABOUT CROSS CONNECTIONS

The City of Hickman's Water System delivers safe, high quality water to your home. The goal is to keep it that way -- right into your glass of drinking water.

That's why the Hickman Water System has adopted a Cross Connection Control Program. Its goal is to protect the public health -- yours and that of families throughout the city. That is also why the Nebraska Department of Health requires each water system to have such a program.

In addition, Hickman's Plumbing Inspectors check all new building construction for proper protection and the Lancaster County Health Department Inspectors check restaurants and food preparation areas for cross connections.

HELP IS AVAILABLE

Our Public Works Department or your plumber can tell you what type of backflow prevention devices you may need.

Call 402-792-2212 during regular business hours with any questions.
(8:00 a.m. to 5:00 p.m., Monday through Friday)

CROSS CONNECTION CONTROL

PROTECT OUR WATER SYSTEM



HOW TO FILL OUT THE RESIDENTIAL CROSS CONNECTION SURVEY

Every five (5) years the Nebraska Department of Health and Human Services requires customers connected to a public water supply to inspect their plumbing system and identify if any of the cross connections listed in this brochure are present or not. If a cross connection does exist customers need to indicate if there is a backflow preventer in use.

This brochure is provided to all Hickman Water Customers to provide information and awareness on the hazards of cross connections and how customers can safeguard the quality of water within their home and the public water supply by using proper backflow protection when necessary.

Please complete the enclosed survey and return to the Hickman City Office.