

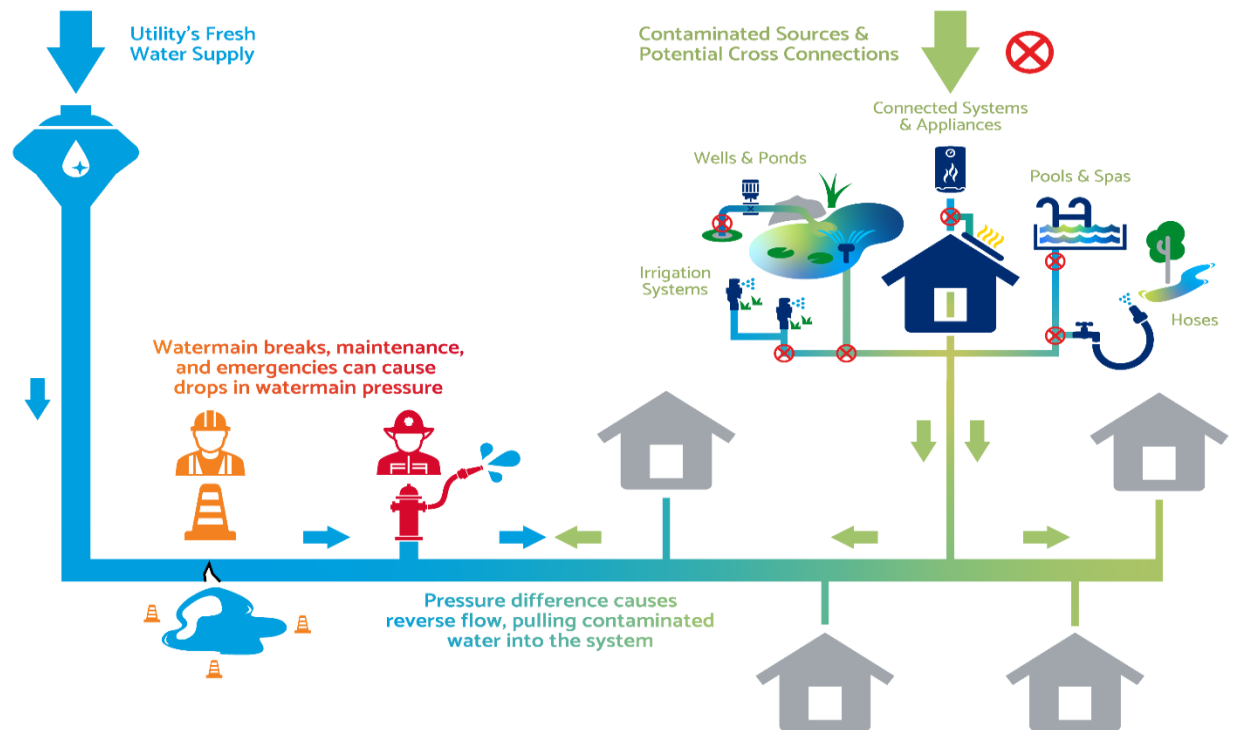
City Utilities of Richland Center

Cross Connection Prevention and Inspection Customer Information

Did you know your water could become contaminated if connections to your plumbing system are not properly protected? The purpose of our local Cross Connection Control Program is to insure that everyone in the community has safe, clean drinking water.

In accordance with Wisconsin Administrative Code NR 811 and Richland Center City Ordinance 2013-1 (Chapter 432) The City of Richland Center has a Cross Connection Ordinance to protect the public drinking water supply from contamination due to backflow of contaminants into the water system.

When you turn on your faucet you expect the water to be safe, however certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water or even the public water supply. A **Cross Connection** is any physical actual or a potential connection between the cities safe drinking water (potable water) supply, and a source of contamination or pollution, which may flow back into the safe water system. Potential contaminants are stagnant water, lawn chemicals, or even sewage. These connections are prohibited. The most common residential cross connection is a simple garden hose. This is an easy fix with a vacuum breaker.



Water normally flows in one direction, however under certain conditions water can actually flow backwards. This is known as **Backflow**. Backflow is a condition when water in a hose or pipe reverses the normal proper direction of flow. There are two situations that can cause water to flow backwards. They are known as **back-siphonage** and **backpressure**.

Back-siphonage can occur if pressure in the water system drops creating a vacuum in the plumbing system. This may be because of a hole or leak in a pipe, the Utility is flushing water mains, the fire department uses water from a hydrant, or a large customer draws a large amount of water at once. This loss of system pressure can create a vacuum and draw water (just like drinking water from a glass with a straw) from a hose in a bucket, or left in a puddle back into your home and into the public water system.

Backpressure is created when a source of pressure, most commonly a boiler system for heating creates pressure greater than the pressure supplied by the public water system. This may cause contaminated water to be pushed back into the water system.

Common cross connections to avoid

- Garden hoses left in puddles, buckets or near floor drains in the basement. All hose bibs should have a vacuum breaker that discharges water from the hose side of use prior to it entering the hose bib fitting and fixture. Keep the ends of hoses away from possible contaminants.
- Chemical spray devices on the end of hoses without a backflow prevention device.
- Do not use a hose to unclog a blocked toilet, drain, or sewage pipe.
- Improper water softener drain air gaps. Water softener drains should have a two times the pipe diameter (1" minimum) air gap. The drain hose should never be placed into a floor drain or other plumbing drain that is plumbed to sewer use without an air gap. A drain hose placed into a sink or tub is a cross connection and should be elevated above the sink or tub so if that container is full the drain hose would not be submerged.
- Bathtub fixtures need a minimum 1" air gap between the highest potential water level and any faucets. If a shower head is of the free-hanging type it must not reach lower than 1" above the flood level rim of the bathtub.
- Toilet tanks must use parts that meet the ASSE #1002 standard when repairs are made. The water level in the tank above the bowl should be kept one inch below the top of the overflow tube.
- Do not leave hoses in a swimming pool; maintain an air gap above the pools overflow point.
- Private Wells interconnected to buildings served with municipal water. There must be separation between the systems.
- Boiler heat systems without a backflow device.

This is not an all-inclusive list of potential cross connection hazards. A residence that has one or two of these situations, or any other cross connection is seriously jeopardizing its own potable water system and that of the community.

For more information on cross connections and backflow contact us at City Utilities, or visit the following websites and search for cross connections. Thank you for helping keep our communities water safe.

- 🚧 WI Department of Safety and Professional Services www.dsps.wi.gov
- 🚧 WI Department of Natural Resources www.dnr.wi.gov
- 🚧 Environmental Protection Agency (EPA) www.epa.gov