

Every day, the City of McHenry proudly supplies an average of 2.5 million gallons of water to its citizens; water that exceeds the minimum quality requirements of the EPA. Before the water is pumped to your home or business, it has gone through careful treatment and numerous tests to ensure its quality.

IEPA Title 35 Part 653 requires that customers of a municipal water system be required to report potential cross connection hazards to the water system once each 5 years. Each customer must complete this questionnaire. Failure to complete and return this form is a violation of municipal code and may result in penalties or interruption of water service.

Congress established the Safe Drinking Water Act (SDWA) in 1974 to protect human health from contaminants in drinking water and to prevent contamination of existing groundwater supplies. This act and its amendments (1986 and 1996) require many actions to protect drinking water and its sources. One of these actions is the installation and maintenance of an approved backflow prevention assembly at the water service connection whenever a potential hazard is determined to exist in a customer's system. Without proper protection devices, cross connections can occur. A cross connection between your drinking water and another source of water that combines the two can result in a backflow condition which can cause contamination. Backflow is when the water in your pipes (the pipes after the water meter) goes backward (the opposite direction from the normal flow).

The following are some conditions where pollutants, contaminants and plumbing hazards might occur:

Underground Lawn Irrigation Systems

Contaminated lawn surface water can be siphoned back into your plumbing system through an automated lawn irrigation system unless a proper backflow device is attached to your system. A Reduced Pressure Zone (RPZ) device should be installed to protect from backflow, and must be tested annually. On all lawn irrigation systems installed since 1987, the contractor should have installed an RPZ device. Older systems equipped with an atmospheric vacuum breaker need to be re-plumbed with an RPZ.

Swimming Pools or Hot Tubs

Built in pools and hot tubs usually are connected with permanent water fill piping. An unprotected cross connection could draw disinfectant chemicals back into your household plumbing system. These should be protected by an RPZ.

Photo, Chemical, Medical or other Lab Facilities

Any in-home use of photographic chemicals, other process chemicals or medical or biological laboratory supplies could cause contamination due to an unprotected cross connection. Any of these in-home uses should be protected with a testable backflow preventer. You may wish to consult your plumber about these devices.

Private Wells and Secondary Water Service Lines

Whenever two sources of water enter a property, the potential exists for the pressure in one to be greater than the other. A private well operating at 100 psi could force contaminated water back into the public water system operating at 80 psi.

Lawn and Garden Chemical Sprayers Attached to Hoses

Anytime a garden hose is submerged in or connected to a container containing a potentially harmful substance, like lawn and garden chemicals, and there's a sudden drop in water pressure, contamination can occur unless a hose bibb vacuum breaker is used. This is a simple inexpensive device installed on the faucet to which the hose is attached. A vacuum breaker is built into all new hose bibbs installed in new housing since 1992.

Other potential cross connections:

Almost every bathtub and sink are equipped with the best known backflow prevention device -- an air gap, the space between the highest water level in the fixture and the outlet of the water from the faucet. However, care should be taken to avoid leaving attached hoses submerged in contaminated water.

A toilet flush valve without an anti-siphon device permits contaminated water to get into the household plumbing system and into the water you drink. Require an anti-siphon device when this valve needs to be replaced.

Other possible cross connection locations include: boilers, fire protection systems, in-home water treatment systems, solar heating, car washes, decorative ponds and soaking tubs in laundry areas.

To keep your drinking water safe, we diligently check the plans of each new business for compliance with cross connection/backflow requirements. The City of McHenry sends notices for completion of the annual testing and repair of all internal backflow prevention assemblies.

We take pride in the water we provide and will continue to protect it and our citizens.

Now that you have some background, you may ask ... What's the big deal? Well, the big deal is that backflows due to cross connections can cause sickness and 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 nations cross connections involve unprotected garden hoses. In Kansas, a man died from drinking out of his garden hose. He had been spraying the yard with poison to get rid of bugs and connected his garden hose to the spraying device. Unknown to him, during the spraying, a drop in pressure occurred in the main water system causing the poisoned water to backflow into the hose. Enough to kill him when he took a drink from the garden hose after spraying. He had contaminated his own water system.

Your Water Division protects the water entering your system. However, it is your responsibility to protect the water on your property or in your home. If you need information on what you can do to protect it or have any questions, please call 815-363-2170. We will be glad to assist you.

Please take a few minutes to complete the survey and return it by _____ to:

Guy Smale, Plumbing Inspector
City of McHenry, 333 S. Green Street, McHenry, IL 60050

Or, you may drop off at City Hall, place it in the drop box in the parking lot at City Hall or fax it to 815-363-2173.

Residential Cross Connection Survey

Name	
Address	
Date	
Telephone Number	

Answers

Yes: This potential cross connection exists at this property.

No: This type of cross connection does not exist at this property.

Don't Know: Water pipes may be concealed.

Place a check mark in the box that best fits your answer per question.

CROSS CONNECTION SURVEY

Does your home have any of the following items:	Please check one for each question.		
Questions	Yes	No	Don't Know
1. Underground Lawn irrigation system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Swimming pool or hot tub?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Photo lab, chemical, medical, or other lab facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Private well or second water service line?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Lawn or garden chemical sprayer attached to hose?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Water softener?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Boiler/Hot water heat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. If you answered yes to any of the questions does your home have a backflow device?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Need help completing the survey call Guy Smale, Plumbing Inspector 815-363-2170.			

Thank you for completing the Cross Connection Survey.