Why be concerned?

Uncontrolled cross connections can contaminate your water supply. Uncontrolled cross connections have caused:

- Taste and Odor issues
- Gastroenteritis
- Chemical poisoning and burns
- Hepatitis
- Legionnaire's disease
- Explosions

The City conducts inspections of various industrial and commercial users throughout the year to ensure the City's water supply is protected from contamination which may be present at these regulated facilities. These water users are required to install and maintain sophisticated backflow prevention devices.

Residential users are not subject to the same level of enforcement or control. The scale at which residences can contribute pollution is smaller. Unprotected residential cross *connections* can contaminate both the residence where the cross connection exists and neighboring residences.

Photo Credit: http://www.sudburywater.com/wp-content/uploads/2018/06/AYP1201365.jpg

Additional information on cross connections and backflow can be found by visiting the following websites or contacting these organizations:

City of Framingham
Department of Public Works
Water Division
100 Western Avenue
Framingham, MA 01702
(508) 532-6050
www.framinghamma.gov

Irrigation Metering:

Backflow and Regulatory Devices:

Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108
(617) 292-5500
www.mass.gov/dep

Foundation for Cross Connection Control and Hydraulic Research
University of Southern California
USC Foundation Office
Research Annex 219
Los Angeles, CA 90089-7700
https://fccchr.usc.edu/

CITY OF FRAMINGHAM
PUBLIC WORKS DEPARTMENT
WATER DIVISION

Water System Pollution Prevention Guide for Residential Customers

You can help keep your drinking water safe and clean!

Review this pamphlet to learn what you can do in your home to protect yourself from inadvertently contaminating your drinking water through uncontrolled cross connections.

Photo Credit: http://www.ch2mhillblogs.com/water/wp-content/uploads/2013/10/ft_img_drinkingwater2.jpg

How can residential water use impact water quality?

Uncontrolled cross connections can contaminate both the residence where the cross connection exists and neighboring residences.

A cross connection is a point in a plumbing system where the potable water supply is connected to a non-potable liquid. Pollutants or contaminants can enter the safe drinking water system through uncontrolled cross connections when backflow occurs.

Backflow is an infrequent event that is often beyond the users control where the water flows in the opposite direction than intended which can lead to non-potable substances entering the house plumbing or even the water supply system. This can be caused by backsiphonage or backpressure.

Read on to learn about what you can do to control or eliminate a cross connection and prevent backflows in your home…

Three important rules to follow to prevent backflow:

1. *Never submerge a free running hose in water and never submerge a hose in standing water without backflow protection*
2. *Never use a hose to spray toxic chemicals without backflow protection*
3. *Always hire a licensed plumber for any changes or extensions to your home plumbing.*

How can you control a cross connection?

Air Gap: The best practice is to eliminate a cross connection whenever possible, by maintaining an air gap between any potable supply (i.e. hose, faucet) and a non-potable fluid (i.e. bucket, pool, sink). The gap should be above the lip or sidewall by a height of at least 2 times the pipe or hose diameter.

Photo Credit: https://aquamagazine.com/service/chloramines-in-source-water.html#lightbox/0/

Vacuum Breaker: Inexpensive backflow devices such as hose-bibb Vacuum Breakers are easy to install and readily available at any hardware store.

Photo Credit: http://waterandsewer.org

What can you do to protect your water supply?

1. Survey your home to identify all possible cases of cross connection.
   - Do not submerge a hose:
     ⇒Filling a swimming pool
     ⇒Filling a bucket to wash your car
     ⇒Dangling spray nozzle into a sink.
   - Pressure washer connected to a hose with cleaner or other additive.
   - Toilet tanks with incorrectly installed filling piping.
   - An irrigation system with standing water on the sprinkler heads.
   - An irrigation system connected to the City water supply as well as an alternate on site supply.
   - Solar heating systems.
   - Boiler heating system (not to be confused with hot water heater)
2. Do not attach any pesticide, fertilizer, soap, cleaner, chemical or any other non-potable liquid applicator to your sink or garden hose.
3. Install hose bib vacuum breakers on all outdoor faucets.
4. If you have an irrigation system, contact your plumber to inspect, test or install a backflow protection device.
5. Contact your water department to learn more about cross connection control and backflow prevention.