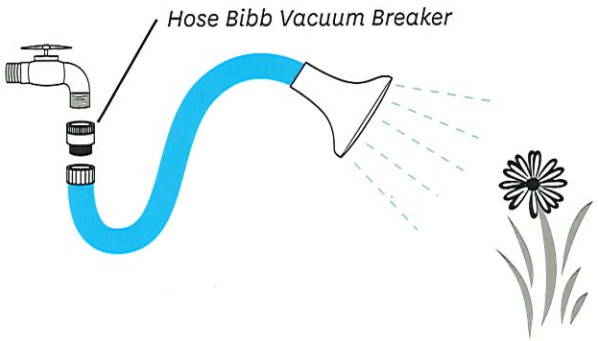
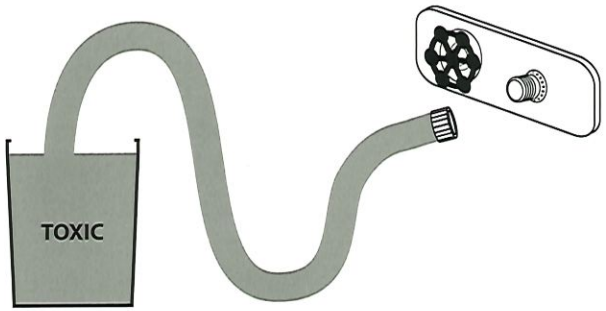
Hose bibbs

Hose bibbs are part of our everyday life. They allow us to hook up a garden hose to water the plants, wash the car, clean out the gutters, fill the swimming pool, etc. However, every time you connect a garden hose to a hose bibb, you are extending the end of the water line. To make



sure that no harmful materials are drawn back into the garden hose, a vacuum breaker should be installed on each hose bibb. When the hose bibb is exposed to freezing conditions, make sure to use a self draining, frost-proof vacuum breaker.

Self Draining, Frost Proof Vacuum Breaker

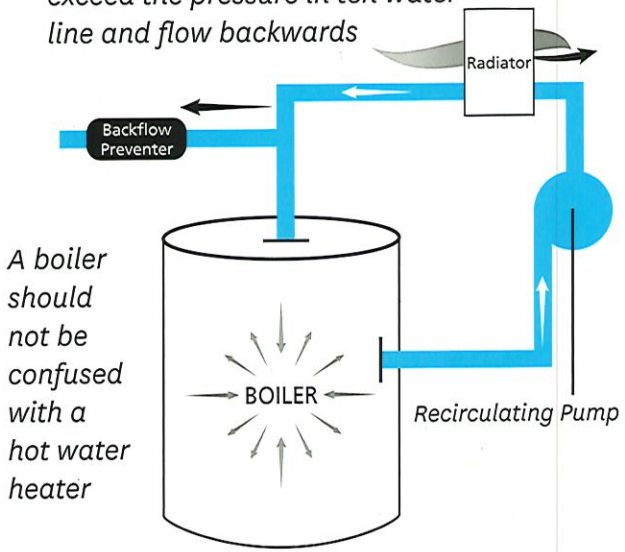


NOTE: Make sure to use only listed or approved products acceptable to your water or health agency. Should you have any questions check with your local water agency, health agency, or building and safety department.

Boilers

Due to the pressure that may build up inside of a boiler, the pressure of the boiler water may exceed that of the water feeding the boiler. The boiler water (which may be chemically treated with poisonous anti-corrosion compounds, etc.) may be pushed, or backpressured, into the make-up water line. This chemically contami-

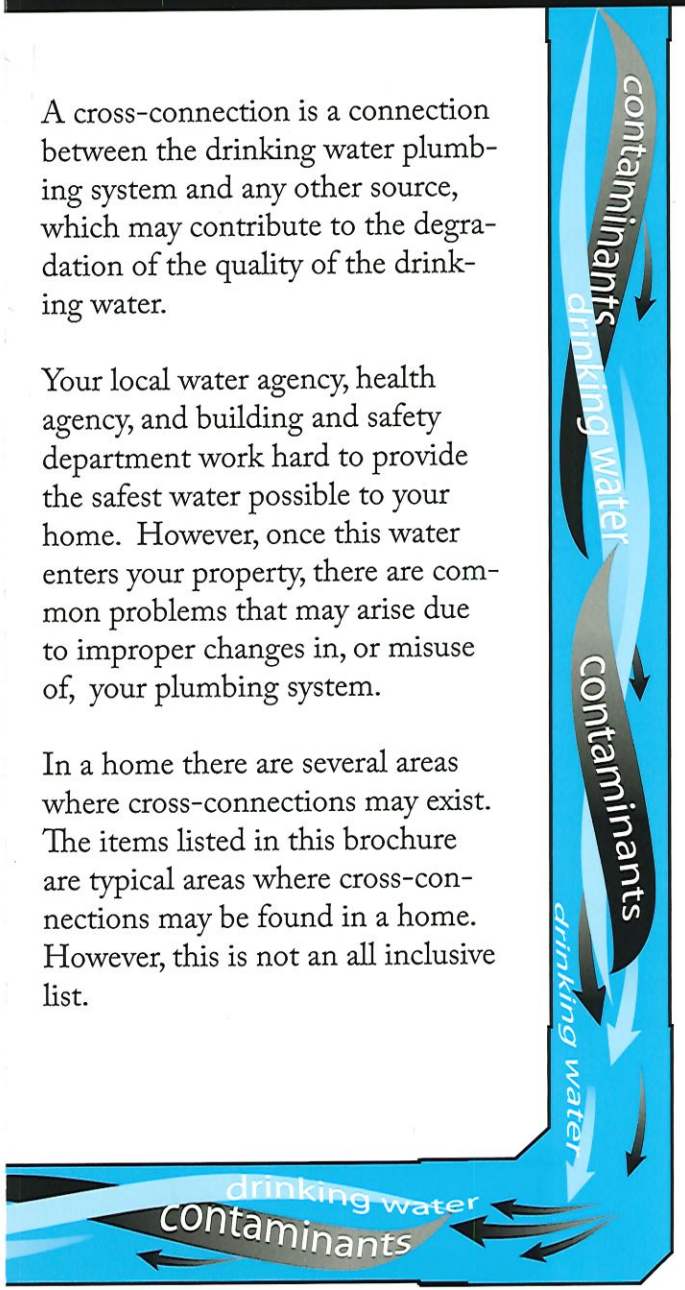
If a backflow preventer is not present, pressure in the boiler may exceed the pressure in teh water line and flow backwards



A boiler should not be confused with a hot water heater

nated water may be forced back into your home's drinking water system, unless there is an appropriate backflow preventer that is designed for backpressure.

Cross-Connections in Household Plumbing



A cross-connection is a connection between the drinking water plumbing system and any other source, which may contribute to the degradation of the quality of the drinking water.

Your local water agency, health agency, and building and safety department work hard to provide the safest water possible to your home. However, once this water enters your property, there are common problems that may arise due to improper changes in, or misuse of, your plumbing system.

In a home there are several areas where cross-connections may exist. The items listed in this brochure are typical areas where cross-connections may be found in a home. However, this is not an all inclusive list.

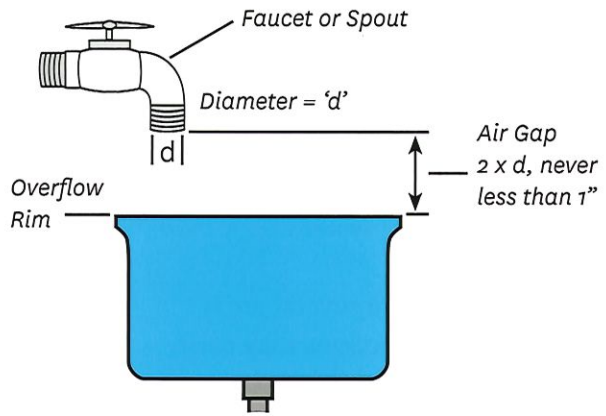
Our Homes...

Have you ever considered all of the places that you use water in your home? You may be surprised how many different ways water can be used, and possibly misused.

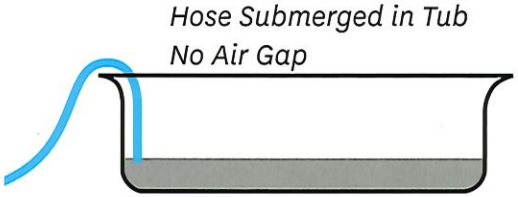
This brochure discusses a few of the uses of water that you might want to pay more attention to in order to protect the purity of the water you drink, cook with, or bath in. Let's look at a few examples.

Sinks, Tubs, Tanks

The faucets in your bathroom or kitchen must be located so that the end of the faucet is above the overflow level of the sink or tub. Fill lines to water troughs or tanks must also be physically

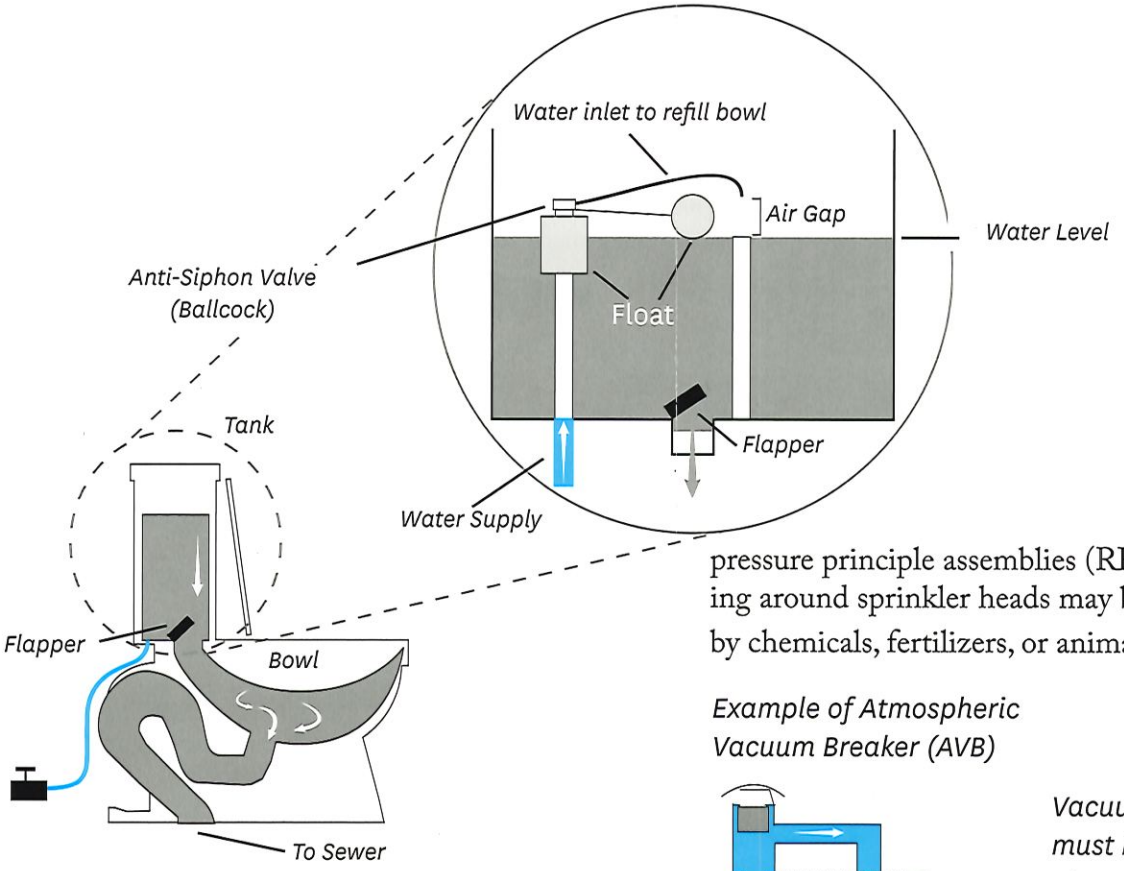


separated or "air-gapped." If there is no air-gap, then the contents of the sink, tub, or tank may be sucked or "backsiphoned" into the water line during a loss of water pressure.



Toilets

Toilets need water to flush the waste material into the sewer system. The water that flushes the toilet enters into the toilet tank from the small hose or pipe connected to the bottom of the toilet tank. It is essential that the float-valve (or anti-siphon ballcock) inside of the toilet tank is

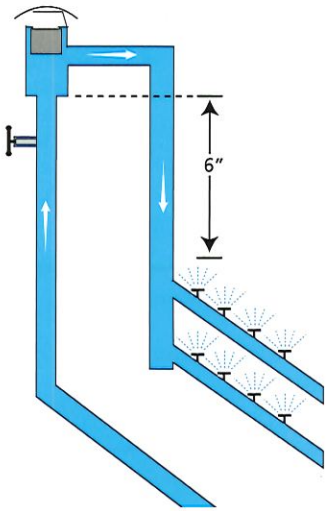


the correct type so that the contents of the toilet tank don't get back into the drinking water system in your house. As shown in the illustration, the anti-siphon ballcock and refill tube must be above the water level in the tank.

Irrigation

Irrigation systems make watering of your lawn or garden much easier, but if not properly constructed, contaminants may backflow into your drinking water. Backflow protection may be provided with vacuum breakers: atmospheric (AVB) or pressure (PVB or SVB), or reduced pressure principle assemblies (RP). Water pooling around sprinkler heads may be contaminated by chemicals, fertilizers, or animal waste.

Example of Atmospheric Vacuum Breaker (AVB)



Vacuum Breakers must be installed above ground and above all sprinkler heads--a minimum of 6" for an AVB and 12" for a PVB and SVB

All shutoff valves must be upstream of AVBs