# Cross-Connection Control and Backflow Prevention Program
# Agawam Water Department · PWS ID#: 1005000

Protection of the Public Water Supply is very important and a vital component is proper backflow prevention and cross-connection control. Cross-connections are potential sources of backflow and are something that we need to prevent because of the potential adverse effects to public health and safety. If water backflows into the public water system, the system could become contaminated. Therefore, we urge you to implement proper cross-connection controls.

The Agawam Water Department is required by Massachusetts Regulations (310 CMR 22.22) to have a cross-connection control program to prevent backflow. As part of this program, members of the Department survey properties (largely non-residential) to look for potential cross-connections and require proper backflow prevention devices when a need is determined. Backflow prevention devices (BPD) are tested by the Department at a minimum of an annual basis or greater depending on the BFD and hazard to which the BFD protects.

The Agawam Water Department requires notification of the installation, repair, replacement, relocation, and removal of backflow prevention devices and approval needs to be granted **before** work can proceed. Please contact the Deputy Superintendent Water/Sewer, John Decker at (413) 821-0600 x8627 or the Plumbing Inspector, Michael Day at (413) 821-0600 x8636. Work on backflow prevention devices may require a plumbing permit, please contact the Plumbing Inspector to verify the need.

**Cross-connection:** any actual or potential physical connection or arrangement between a pipe conveying potable water from a public water system and any non-potable water supply, piping arrangement or equipment including, but not limited to, waste pipe, soil pipe, sewer, drain, other unapproved sources.

Cross-connections can be found at heating and ventilation equipment, fire suppression systems, factory or plant equipment, Irrigation systems, hose spigots, utility sinks, chemical processing facilities, etc.… Cross-connections hazards such as these can be prevented though the installation of a backflow prevention devices.

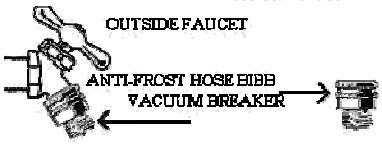
**Backflow:** the flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply from any source other than the intended source; either by **Backsiphonage** or **Backpressure.**

**Backsiphonage:** when water pressure in the water distribution system decreases, for example: a water main break; firefighting (use of fire hydrants); or other high demand uses. When this happens, water from your building's plumbing may backflow, via backsiponage, into the public water system if proper cross-connection control and prevention practices are not followed. Installing hose bibb vacuum breakers are an easy way to retrofit threaded fixtures at your property that are not already equipped to prevent backsiponage.

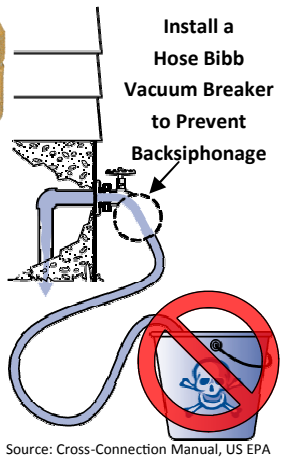
Hose Bibb Vacuum Breaker

(Watts Series 8)

Source: Watts.com




Source: oakgov.com, Oakland County, Michigan




Source: Cross-Connection Manual, US EPA

**Backpressure:** when water pressure in a building's plumbing is increased above the pressure in the public water system, say by an improperly connected pump in a factory; if this happens, the water in the building's plumbing can be forced back into the public water system.

**Some Simple steps to take around your home and yard to avoid cross-connections and backflow:**

→ Install hose bib vacuum breakers on all exterior spigots. These are available at hardware stores and plumbing supply houses.

→ Toilets should be equipped with a ballcock with an integral anti-siphon valve. **

→ Boilers should be equipped with approved backflow preventers and expansion tank(s) to prevent backflow of boiler water (which may be treated with chemicals).**

→ Install and maintain an approved (by Agawam Water Dept.) backflow device on your irrigation system. Please resister the device with the Agawam Water Dept.. **

→ All sinks, tubs and tanks should have a proper air gap to prevent backsiponage. Typically 1-inch or more (as required by plumbing code) between bottom of the faucet/spout and rim or edge. **

**** Work may be required to be done by a MA Licensed Plumber and a Plumbing Permit may need to be issued, contact the Plumbing Inspector for more information.**

**Informational Links:**

- Agawam Water Department Cross Connection Control and Backflow Prevention: http://www.agawam.ma.us/backflow
- MassDEP Cross Connection Control Program Regulations: http://www.mass.gov/dep/water/ccdefreg.pdf
- Foundation for Cross-Connection Control and Hydraulic Research: http://fccchr.usc.edu/introduction.html
- USC Cross-Connections Study: http://www.watts.com/pages/learnAbout/usc_study.asp?catId=1160

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