

## How can you protect your drinking water?

1. Never place the end of a hose where it can suck contaminants into your drinking water.

If the water pressure drops while a tap is open, then contaminants could be sucked through the hose.

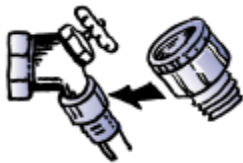
2. Leave at least a one-inch gap between the end of a tap and a source of contamination.

This eliminates the link to contaminants, preventing them from being siphoned up into your water supply.



3. Attach a hose connection vacuum breaker to threaded taps.

This easy-to-install device prevents contaminated water from being siphoned through the hose. A vacuum breaker can be found at hardware and plumbing supply stores. Just remember to drain the vacuum breaker before cold weather sets in, or else it will freeze and break.



## It's Up to You

Clean, safe drinking water. It's something we take for granted, but every home, including yours, has potential hazards that can contaminate the drinking water. These hazards are called cross connections. If you know what they are, then you can keep your water safe.

For more information on how to keep your drinking water safe, please contact the Whitesburg Water Department  
(606) 633-3710

Cross Connection Control Program:  
Letcher County Health Center  
(606) 633-2945



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For more information about backflow and cross-connection control, visit [www.abpa.org](http://www.abpa.org) or call 877-227-2127

# PROTECTING YOUR DRINKING WATER FROM CONTAMINATION



*“In the Heart of The Hills”*

Whitesburg Water Department

Whitesburg, Kentucky

Cross Connection Control Program

## AN INTRODUCTION TO CROSS CONNECTION HAZARDS AND CONTROL

Every day your water utility proudly supplies drinking water to its citizens and businesses -- water that exceeds the 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.

Did you know that your tap water exceeds the standards of most bottled water? Water that is bottled in Kentucky and tap water must meet the same water quality standards, but that is not true in other states.

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 water service connection whenever a potential hazard is determined to exist in the customer's system.** Without proper protection devices, cross connections can occur.

What is a **cross connection**? It is a connection between your drinking water and another source of water that combines the two when a backflow condition occurs. When this occurs, your drinking water can become contaminated.

OK. So what is **backflow**? Backflow occurs when the water in your pipes (the pipes after the water meter) goes backwards from its normal flow (the opposite direction from its normal flow). There are two situations that can cause the water to go backward (backflow):

- **Backpressure** – when the downstream side of the piping system is greater than the water source pressure.
- **Backsiphonage** – when the upstream source pressure is reduced to a lower pressure than the downstream pressure. The negative pressure will cause a siphon, much like drinking from a straw, and allow the flow to reverse to the lower pressure.

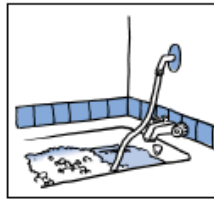
## What is considered a potential hazard?

A connection between your drinking water and another source of water that combines the two when a backflow condition occurs. When this occurs, your drinking water can become contaminated. For example: fire protection systems, irrigation systems, gasoline refineries and stations, restaurants, hospitals, manufacturers and the household garden hose just to name a few.

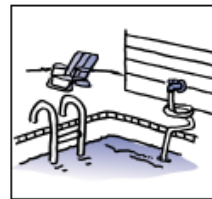
To keep your drinking water safe, we check the plans of each new water service for compliance with cross connection and backflow requirements. Homeowners should check all plumbing connections to discover water uses that may pose a hazard to the public water supply. The water utility maintains a list of certified backflow device testers for homeowners to utilize for the annual testing and repair of all 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 by:



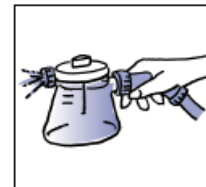
Putting an attached hose into a full bathtub.



Putting the garden hose in a swimming pool to fill it.



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.

## Here's the danger

If a drop in water pressure occurs, the hose could act as a siphon, and suck contaminants back up into your water supply. This makes the water unsafe to drink and is dangerous for you, your family, and your neighbors.

In fact, 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 had 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. It was enough to kill him when he took a drink from the garden hose after spraying. He had contaminated his own water system.

Considering the fact that half of all cross connections are from garden hose connections it is important that you or your plumber inspect all hose thread connections in your home or business to be sure they are all protected from backflows with either a built-in vacuum breaker or a hose-thread vacuum breaker that goes on the threaded outlet. These are inexpensive and available at many hardware or plumbing supply stores.

We, your water utility, protect 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 us. We will be glad to assist you.



[www.ABPA.org](http://www.ABPA.org)