

The Deadly Garden Hose



You are in the shower. Someone turns on the water in another part of the house. The flow reduces in either the cold or hot water lines and the water is no longer the temperature you set it at. Now it is too cold or too hot, because of the reduction in flow of water through the showerhead. This is normal for water in a pressurized system. Only so much water can flow through the pipes feeding the system. Each use of water reduces the flow of water to other open faucets. The effect can be so small that you don't notice when a neighbor turns water on or off, but it is still there.

This effect is very evident, however, when there is a large use of water, such as when a fire hydrant is turned on or a main breaks. It can be so extreme as to actually create a vacuum that can reverse the flow of water. Most people expect that water from the main will only move in one direction -- from the main to the customer. Under certain conditions, water can move in the other direction -- from a customer's private system to the main. This can be dangerous if there is a connection between any part of the water distribution piping, whether permanent or temporary, and a source of contaminated water. A connection between potentially contaminated water or other liquid and the water system is called a cross-connection.

Mixing chemicals with water in a bucket seems like an ordinary thing to do. But it can create a hazard not only to your family but also to your neighbors if you make a simple mistake. Dropping a hose into the bucket so that the end is below the liquid surface creates a cross-connection. Contaminants can be pulled into the water main without warning, just like drinking through a straw

The best protection for water systems is to make sure there is always an air break between the source of clean water and any source of potentially contaminated water. Plumbing codes require the outlet of any faucet to be at least two times the spout diameter above the highest level that water can reach in a sink or bathtub.

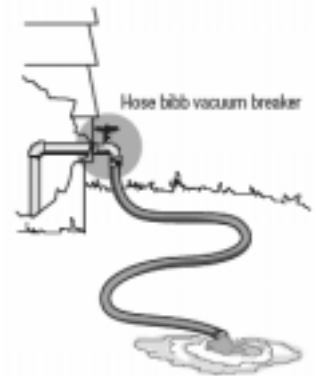
Commercial and industrial users of the City of Brunswick's water system are required to install, test and maintain backflow prevention devices consistent with the level of hazard they present to the system. Installations of meters for new residential connections include backflow prevention devices to protect the water mains.

The goal of the City of Brunswick Cross-connection Control Program is to protect the water in the distribution system mains. The program is designed for protection by containment of any water that has a potential for contamination. Customers are responsible for the water once it passes through the meter. It is recommended that customers, especially industrial and commercial sites, add to

their own protection by avoiding creating cross-connections and by installing additional backflow prevention devices.

One simple backflow device is the hose bibb vacuum breaker. They are readily available inexpensive devices that install between the hose bibb and garden hose. The devices consist of a spring-loaded check valve that seals against an atmospheric outlet when

water supply pressure is turned on. When the water supply is interrupted, the device vents to the atmosphere, thus protecting against anything being siphoned back into the hose.



The City is dedicated to providing safe drinking water to all our customers. Do your part to protect yourself and others.

The only way to prevent backflow is to install an approved backflow prevention device or eliminate the source of the cross-connection. However, the following tips may help to reduce the potential for backflow:

- **Don't** submerge hoses in buckets, pools, tubs, or sinks.
- **Don't** use a garden hose to clear a stoppage in a sewer.
- **Don't** use spray attachments without a backflow prevention device. The chemicals used on your lawn can be fatal if ingested.
- **Do** keep the end of the hose clear of possible contaminants.
- **Do** buy and install inexpensive backflow prevention devices (also called vacuum breakers) for all threaded faucets around your home.
- **Don't** put a garden hose in anything you wouldn't want to drink.

