

Village of Howard Water Utility

Cross Connection Control Program

What is a Cross Connection?

Internet Resources:

- Village of Howard
Web Site
www.villageofhoward.com
- Wisconsin Department of Natural Resources
www.dnr.state.wi.us/

On the Reverse Side:

- How Contamination Occurs
- How to Prevent Contamination of Your Drinking Water
- Hose Connection Vacuum Breaker
- Water Closet Air Break

The Howard Water Department staff is committed to providing quality, cost efficient service in the production, treatment, testing and delivery of safe drinking water to all residential and commercial users.

Safe and reliable drinking water is a carefully manufactured product. In order to help ensure safe drinking water the Howard Water Department has adopted a Cross Connection Control Program. This Program is a part of our effort to ensure safe and reliable drinking water and is required under Wisconsin Administrative Code NR 811.09 and Comm 82.41.

A cross connection is a point in a plumbing system where the potable water supply is connected to a non-potable source.

Briefly, a cross connection exists whenever the drinking water system is or could be connected to any non-potable source (plumbing fixture, equipment used in any plumbing system, exterior faucet). Pollutants or contaminants can enter the drinking water system through uncontrolled cross connections when backflow occurs.

Backflow is the unwanted flow of non-potable substances back into the consumers plumbing system and /or public water system (i.e., drinking water).

The Howard Water Department Staff will perform the cross connection inspections for homes. The Howard inspectors will possess proper identification and have undergone training to perform the necessary



inspections.

Questions regarding this program may be directed to the Howard Water Department .

Howard Water Department

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Protection of the Public Water Supply System



Hose Bibb with **Backflow Prevention DEVICE #ASSE 1011**

In general, the installation of plumbing in compliance with the plumbing code will provide adequate protection for your plumbing system. Also, washing machines and refrigerator ice makers already incorporate backflow prevention.

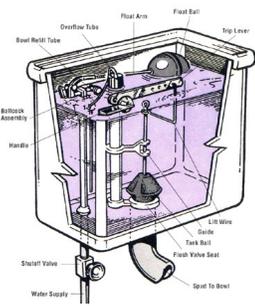
The Water Utility will inspect each home to ensure there is adequate protection for the

public water system. A hose connection vacuum breaker may be required where a residence has outside plumbing connections.

The Howard Water Utility Cross Connection Inspection Program will result in home inspections at time of sale of homes, when water meter battery replacement or water meter service is required, or

when a resident schedules an inspection. An inspection form will be filled out and a copy provided to the resident. If a follow-up inspection is necessary, there will be a charge. Vacuum breaker devices for use on faucets will be available for purchase from the Village and may be installed at the time of inspection.

How Contamination Occurs



Water Closet with properly functioning **Air Break**

Water normally flows in one direction, from the public water system through the customer's cold or hot water plumbing to a sink connection or other plumbing fixture. The plumbing fixture is the end of the potable water system and the start of the waste disposal system.

Under certain conditions water can flow in the reverse direction. This is known as **backflow**. Backflow occurs when a backsiphonage or backpressure condition is created in a water line.

Backsiphonage may occur due to a loss of pressure in the water distribution system during a high withdrawal of water for fire protection, a water main or plumbing system break, or a shutdown of water main or plumbing system for repair. A reduction of pressure below atmospheric pressure creates a vacuum in the piping. If a hose bibb was open and the hose was submerged in a wading pool during these conditions, the non-potable water in the pool would be siphoned into the house's

plumbing and back into the potable water supply.

Backpressure may be created when a source of pressure, such as a pump, creates a pressure greater than that supplied from the distribution system. If a pump supplied from a non-potable source, such as a landscape pond, were accidentally connected to the plumbing system, the non-potable water could be pumped into the potable water supply.

How to Prevent Contamination of Your Drinking Water

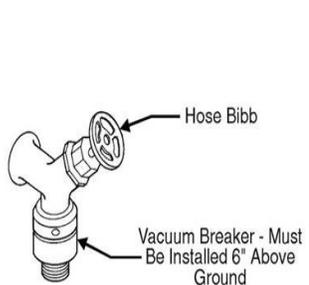
Protect your drinking water by taking the following precautions:

DON'T:

- **Submerge hoses in buckets, pools, tubs, sinks, or ponds.**
- **Use spray attachments without a backflow prevention device.**
- **Connect waste pipes from water softeners or other treatment systems to the sewer or submerged drain pipe.**
- **Use a hose to unplug blocked toilets or sewers.**

DO:

- ✓ **Keep the ends of hoses clear of all possible contaminants.**
- ✓ **If not already equipped with an integral (built-in) vacuum breaker, buy and install hose bibb type vacuum breakers (see the illustrations) on all threaded faucets around your home.**
- ✓ **Install an approved backflow prevention assembly on all underground lawn irrigation systems. Remember, a plumbing permit is required for the connection of an underground lawn irrigation system to your plumbing system.**



Hose Bibb with recommended self draining **Vacuum Breaker**
DEVICE #ASSE 1011



Hand-held Shower head requires the proper installation of a visible standard hose connection **Backflow Preventer**
DEVICE #ASSE 1014.

Hose Connection Vacuum Breaker

Hose connection vacuum breakers are specifically made for portable hoses attached to hose thread faucets. Their purpose is to prevent the flow of contaminated water back into the drinking water. These devices screw directly to the faucet outlet. They can be used on a wide variety of installations, such as service sinks, hose faucets near a wading pool, laundry tub faucets, etc.

Some units are designed for manual draining for freezing conditions. Some are furnished with breakaway set screws as a tamper proof feature.

All hand-held shower heads shall be hung up properly to prevent possible cross connection.

These devices are not intended for operation under continuous pressure.