

DEPARTMENT OF PUBLIC WORKS

BACKFLOW PROTECTION AND YOUR DRINKING WATER

The Bureau of Utility Operations makes every effort to ensure that water delivered to your home and business is clean, safe and free of contamination. Utility Operations employees work to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers, throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? Is there still a need to protect the water quality and if so, how? Backflow is a problem that many water consumers are unaware of - a problem that each and every water customer has a responsibility to help prevent.

What is backflow and what causes it?

The county's public water system is designed so that water flows from our treatment plants through our distribution system to our customers. However, when the pressure in a specific plumbing system is higher than the water pressure in the distribution system, or when the pressure in the distribution system drops, water may flow backward into the water distribution system. This is referred to as backflow.

Backflow is caused by backsiphonage and/or backpressure. Backsiphonage is caused by a sudden reduction in water pressure in the distribution system, such as may occur during water main breaks and firefighting. Water tends to move from areas of high pressure to areas of low pressure. When the water distribution system is in a state of

lower pressure, toxic chemicals or other contaminants may flow backward into the public water system. Backpressure is created by private plumbing systems generally including sources such as recirculating systems, pumps, thermal expansion or elevation, etc. that can supply higher water pressures than the incoming water supply and therefore cause a reversal in the direction of the water.

A cross connection is any actual or potential connection between the potable (drinkable) water supply and potential sources of pollution or contamination. When backflow occurs through a cross connection, contaminants may be drawn into the public water supply.

What can I do to help prevent backflow?

Some seemingly harmless, everyday actions may actually be potentially dangerous. Leaving a garden hose in a bucket of soapy water while washing the car, spraying your garden with insecticide in a garden hose sprayer, or attaching a handsprayer to the faucet to wash your pet are all potentially harmful cross connections, that should the pressure drop in the water distribution system, cause potentially dangerous contaminants to enter the public water system.

By being aware of what a cross connection is and how it can affect the public water system, you can play an important role in helping to protect our public water system.

How to protect our public water system by preventing backflow...

- Do not allow hoses attached to the water system to lay in buckets of water, ponds, fountains, pet watering containers, chemicals, drains, garden sprayers, etc.
- Do not allow hand spray attachments for washing pets or shampooing hair to lie in standing water in sinks or buckets.
- Be aware when using automatic toilet bowl cleaners that some inferior float valves allow water to siphon back into the potable water system.
- Keep hoses out of buckets of soapy water when washing cars, lawn furniture, decks, etc.



- Avoid hoses lying in swimming and wading pools, and hot tubs. Hoses should be above the flood rim and out of standing water.
- Buy appliances and equipment with a backflow preventer - an approved testable assembly which uses valves in varying configurations to prevent contaminated water from reversing direction and flowing into the potable water supply.
- Have backflow preventers tested yearly by plumbers or certified backflow inspectors.



Consumer Tips

Protect Your Pipes from Freezing this Winter...



When water freezes, it expands. When this occurs in the plumbing pipes in your home, it can lead to serious damage and costly repairs. To keep your home and family safe and warm this winter, follow these easy tips to prepare your home from winter freezes:

- Seal all openings where cold air can reach unprotected water pipes, especially in basement crawl spaces, and around doors, windows, cracks or cable entries. If your air vents won't close, cover them from the inside with insulation, cardboard, plastic or newspaper.
- Repair any broken windows, doors, cracks, walls, etc. where wind can enter a unheated portion of your home. Most frozen pipes are caused by cold, blowing winds.
- Turn off the water to outside faucets, remove hoses and drain the pipes.
- Leave cabinet doors open under the kitchen and bathroom sink to allow warmer air to circulate around the

pipes.

- Insulate pipes in unheated parts of your home.
- If your home will be empty or the heat off for any length of time, have DPW shut off your water meter, and then drain the water in the pipes by opening the highest and lowest cold water faucets.
- If the forecast calls for a long freeze, let faucets drip slowly to keep water flowing through pipes that are vulnerable to freezing. Although some ice may form, an open faucet allows water to escape so that pressure does not build to the point of bursting the pipe. Even if ice blocks the pipe, keep the faucet open as a pressure relief to release vapor from melting ice.
- Keep meter box lids closed to prevent cold air from freezing the water meter. Report all broken or missing covers to Emergency Services at 410-222-8400.
- If you open a faucet and no water comes out, the safest thing to do is call a plumber. If a water pipe bursts, turn off the water at the main shut-off valve and leave the faucets open until repairs are completed.



Helpful Winter Tips from DPW

- ❏ To assist emergency personnel, keep fire hydrants and your street address number clear and visible at all times.
- ❏ If snowfall is forecasted, please make every effort to park in your driveway or garage so the roadway is clear for our road crews to plow curb to curb. Also, remove garbage cans, recycling bins or other obstacles that could interfere with snow removal equipment.
- ❏ Help improve safety in our community by keeping the sidewalk in front of your home clear for school children and other pedestrians.
- ❏ To ensure proper drainage during winter thawing, keep inlets to storm drains clear so that melting water can enter.
- ❏ Recycle your natural Christmas tree, and all your gift wrapping paper and boxes. Trees must be free of tinsel, ornaments, lights and tree stand and must be in pieces no longer than 4 feet. Paper must be in a recycling container with all your other paper, but in a separate container from your cans, bottles and jars. You may also bring these items to one of the county's convenience centers.
- ❏ Be sure your sewer cleanout is clearly visible and accessible in the unlikely event you experience a sewer backup. And, remember to call Emergency Services at 410-222-8400 before calling a plumber.

Helpful Telephone Numbers for The Department of Public Works

24-hour EMERGENCY service for water and wastewater, solid waste (after 3:30 p.m.) ... 410-222-8400 South County... 410-451-4118

After 3:30 p.m., weekends and holiday EMERGENCY Service for stormdrains, roads, traffic lights/signs... 410-222-6120

For weekday EMERGENCIES (between 7:00 a.m. and 3:30 p.m.) involving stormdrains, roads, or traffic lights/signs, please call the appropriate district office. If you do not know what district to call, please call any of these Customer Relations numbers...

Customer Relations... 410-222-7562
General Information... 410-222-7500
Billing Information ... 410-222-1144
Bulk Item Trash Service, Recycling Information, Trash Collection... 410-222-6100
Northern Roads District... 410-222-6120
Southern Roads District... 410-222-1933
Central Roads District...
Crownsville Yard... 410-222-7940
Central Roads District...
Odenton Yard... 410-222-6126

During snow emergencies (4" or more) customers in all roads districts please call...

410-222-4040



Anne Arundel County
Department of Public Works
2662 Riva Road
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www.aadpw.org

