



## WHAT IS BACKFLOW?

Backflow happens when the normal flow of water is reversed from its intended direction in any pipeline or plumbing system. The danger of backflow comes with the potential for cross-contamination: when water that has contacted chemicals or hazardous compounds *flows back* into the drinking water system.

## WHEN IS A BACKFLOW PREVENTION DEVICE REQUIRED?

State law requires that a backflow prevention device be installed on *any water system that is connected to the drinking water system and carries the potential for cross-contamination.*

**For homeowners, these commonly include irrigation systems, private fire sprinkler systems, boiler systems, and pool or pond equipment.** Medical and restaurant facilities must protect against additional hazards.

Newport News Waterworks is responsible for providing safe drinking water to all of our customers. To ensure you receive clean, safe water to drink, Newport News Waterworks monitors backflow protection on known health hazards to meet the requirements of Virginia Department of Health Waterworks Regulations Code 12VAC5-590-630.

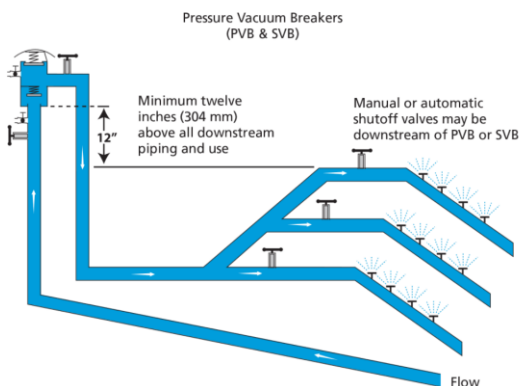
**HOW DOES BACKFLOW HAPPEN?** Backflow occurs when different levels of pressure exist between two different points within a plumbing system—water of high pressure flowing to water of lower pressure. A *backpressure* or *backsiphonage* situation may cause this reversal of normal flow direction.

**BACKPRESSURE** happens when the drinking water supply system is connected to a system with higher pressure levels. Without a proper backflow prevention device, potable and non-potable water or liquids can be forced into the drinking water system. Common causes include:

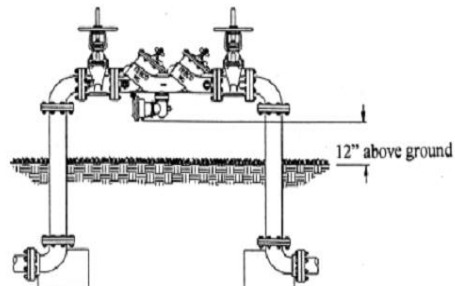
- Booster pumps
- Connections to boilers and other systems where thermal expansion is possible
- Interconnections with another system operated at a higher pressure Elevated piping

**BACKSIPHONAGE** is caused by negative pressure in the drinking water supply system. Common causes include:

- High velocities in a pipeline
- A line repair or break that is lower than a service point
- Lower main pressure due to high withdrawal rate such as firefighting or water main flushing



### Reduced Pressure Principle Backflow Preventers (RPs)



# COMMON BACKFLOW FAQs

## Is the backflow requirement a new law?

No, Virginia Department of Health Waterworks Regulations Code 12VAC5-590-630 requiring protection of public drinking water has been in effect for many years. If you are just learning of the requirement, it means a recent audit or other circumstance added your previously-unknown irrigation system to our records.

## Why is the backflow test required at initial installation and annually?

Like any other mechanical device, over time a backflow unit may fail. To ensure it is working properly to protect home and public drinking water systems, the code mandates an annual test.

## Where is my irrigation backflow device located?

Typically irrigation backflow units are located outside near your home or business water meter.

## Is there any way to avoid the test?

You may be exempt from an irrigation system backflow requirement if you physically disconnect (cap off) your irrigation system from the drinking water system. If you plan to do this, contact us at [wwbftestform@nnva.gov](mailto:wwbftestform@nnva.gov) so we may inspect the disconnection or provide a photograph showing the disconnection. If you performed the “cut and cap” previously, send us an email or letter indicating your service address and the approximate date the system was physically disconnected.

## Does Newport News Waterworks perform the test?

At this time, Newport News Waterworks does not offer a backflow testing service. Each property owner is responsible for contracting a certified backflow tester to perform the test and submit the satisfactory report to [wwbftestform@nnva.gov](mailto:wwbftestform@nnva.gov).

As a public entity, we cannot recommend any company over another. We advise consulting reviews and getting more than one bid for service.

## What do I do when the test is complete?

Your tester should submit the satisfactory test report to us on your behalf. You should keep a copy for your records in case the test report does not reach us.

## STILL HAVE QUESTIONS ABOUT YOUR BACKFLOW TEST?

More information on Cross Connection Control & Backflow Prevention is available at [https://library.municode.com/va/newport\\_news/codes/code\\_of\\_ordinances](https://library.municode.com/va/newport_news/codes/code_of_ordinances) Section 42-63

You can also contact our Cross Connection Control Office at (757) 234-4888