

## Who is required to install backwater valves?

According to City of Cambridge Regulations and State Plumbing Code (248 CMR 10.15 (11) 1 & 2), all fixtures and appliances below the roadway (dishwashers, sinks, showers, toilets, washing machines) are required to be protected by a backwater valve.

## Who installs and maintains backwater valves?

- Property owners are responsible for the installation and maintenance of backwater valves.
- Property owners must first get a permit from Inspectional Services, and should work with a licensed plumber to install backwater valves.

## How do I maintain my backwater valve?

Maintenance\* should be performed on a regular schedule, or following the manufacturer's recommendation. A standard inspection procedure should include:

1. Removing the cover on the backwater valve chamber.
2. Attaching a short garden hose to the sink and slowly turning on the tap, gradually increasing the flow to clean out the backwater valve.
3. Ensuring the flap can move with ease.
4. Replacing the cover on the backwater valve chamber.

*\*Only do maintenance when it is NOT raining.*

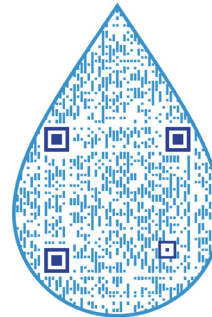
## For more information on backwater valves:

City of Cambridge  
Department of Public Works  
617-349-4800  
[www.cambridgema.gov/theworks](http://www.cambridgema.gov/theworks)

City of Cambridge Inspectional Services  
617-349-6100  
[www.cambridgema.gov/inspection](http://www.cambridgema.gov/inspection)

Massachusetts State  
Uniform State Plumbing Code  
248 CMR, 10.15 (11) 1 & 2  
[www.mass.gov](http://www.mass.gov)

To learn more about stormwater management efforts, scan the QR code to the right.



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2023

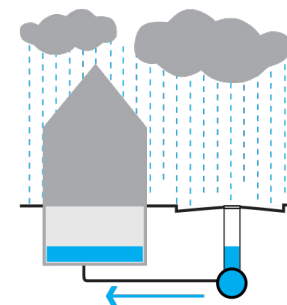
# PROTECT YOUR HOME FROM SEWER BACKUPS

## Sewer Backwater Valves

*Do you have a sink, shower, toilet, dishwasher, washing machine, or floor drain in your basement?*

*Do you own a basement-level apartment or condo?*

***If so, you need to install backwater valves to help protect your property from sewer backups.***



Backup Flow



Backwater valve

City of Cambridge  
Department of Public Works

## Overview

During heavy rain or a blockage in the municipal sewer system, sewage can surcharge or “build up” in pipelines causing sewage to flow backwards into basements. A backwater valve can help protect your property from back-ups.

## What is a backwater valve?



A backwater valve is a device installed to prevent sewage from flowing backwards into basement fixtures, such as sinks, showers, toilets, washing machines, dishwashers, or floor drains.

## How does a backwater valve work?

A backwater valve has a flap door inside that allows wastewater to flow in one direction, out toward the street (Figure 1), but closes automatically and does not allow sewage flow backwards through your pipe and into the basement (Figure 2).

When the backwater valve closes because of surcharging in the municipal pipeline, wastewater from basement fixtures will not be able to exit (Figure 2).

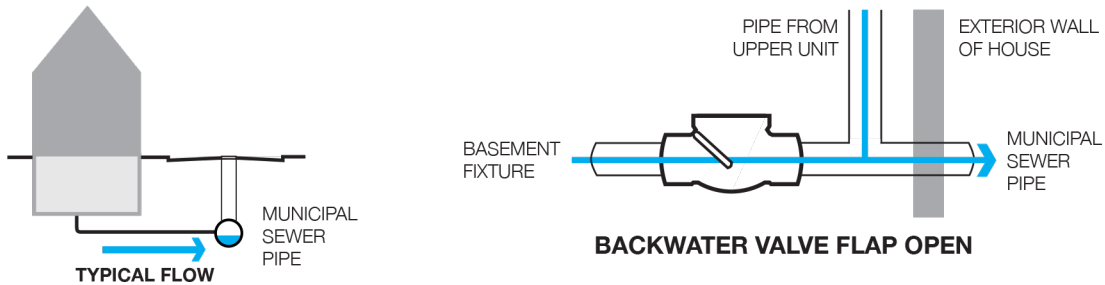
*Use of basement-level fixtures should be minimized during heavy rain.*

## Where is a backwater valve installed?

Proper placement of backwater valves is critical.

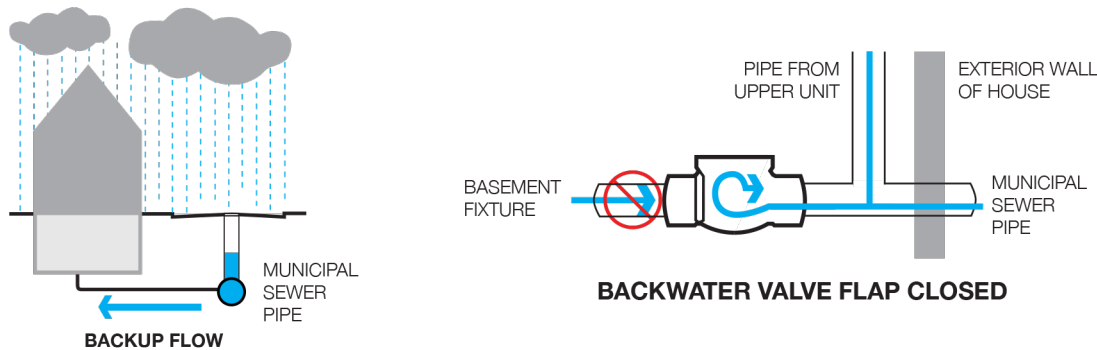
- Never install a backwater valve on plumbing that services units above the basement or services roof drains (Figure 3).
- The backwater valve should be easily accessible for maintenance.
- A licensed plumber can determine appropriate installation location.

### Normal Conditions

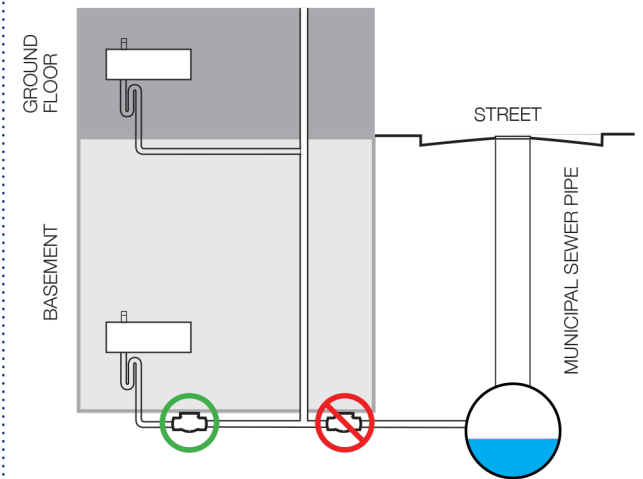


**Figure 1:** Under normal conditions, water flows from basement fixture through backwater valve to municipal sewer pipe.

### Rainfall/Sewer Backup Event



**Figure 2:** During rainfall or sewer backup event, backwater valve flap closes to block sanitary sewage from entering basement fixtures. **Note:** Closed valves also prevent basement wastewater from exiting to municipal sewer pipe.



**Figure 3:** Never install backwater valve on pipes servicing units above basement.