



CRANBERRY TOWNSHIP built for you.

# *Sewer Backwater Valves*

# What is a Backwater Valve?

A Backwater Valve is a one way valve that is installed on a building sewer to prevent the private sewer system from backing up and flooding a building.

# Sewer Backwater Valves

Most properties are connected to public sewers. The majority of these properties have been built so that an obstruction in the public sewer will not cause sewage backup into the property.

Other properties, however, may need the protection of a backwater valve in the owner's drain line.

# Sewer Backwater Valves

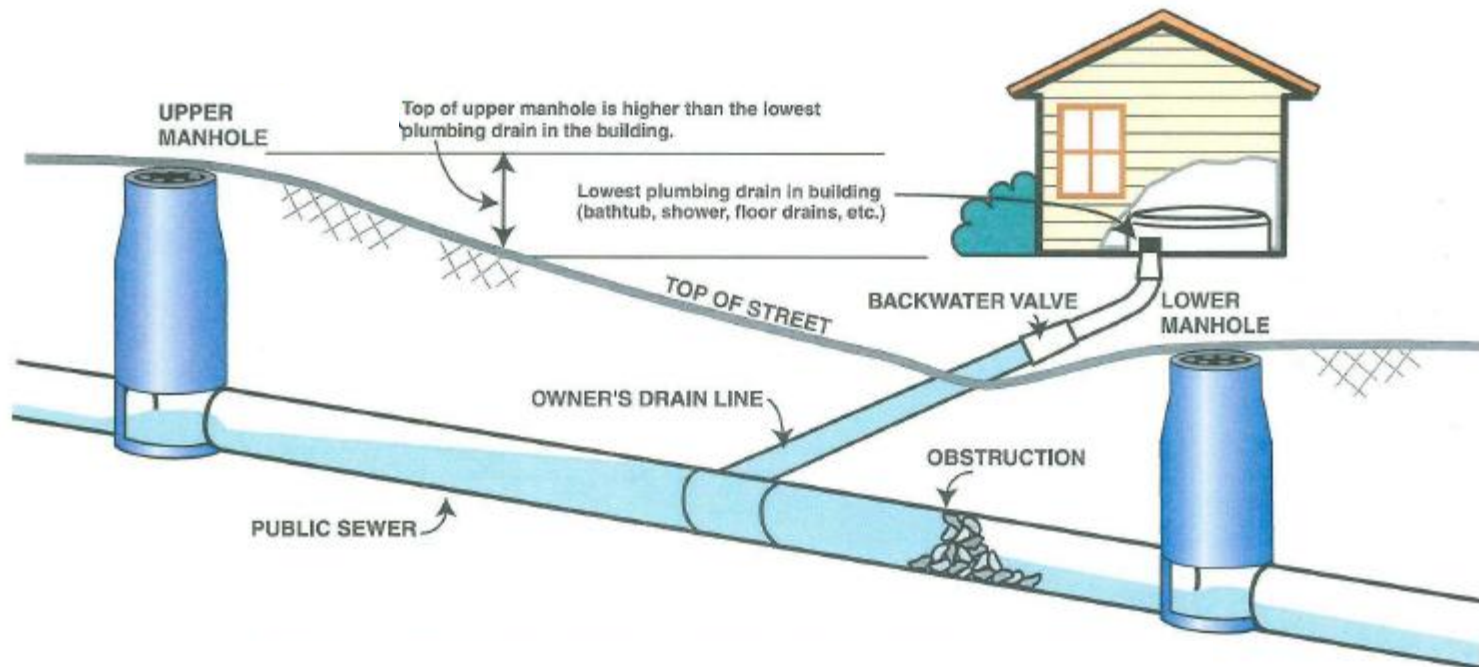
## Situations when properties may need the protection of a backwater valve:

Properties built with the lowest floor containing plumbing fixtures (bath tub, shower, etc.) below the upper manhole (maintenance hole) of the public sewer (see the following two slides).

Properties in flood prone areas.

Properties with a history of backups during heavy rains.

# Typical Situation where a Backwater Valve is Suggested







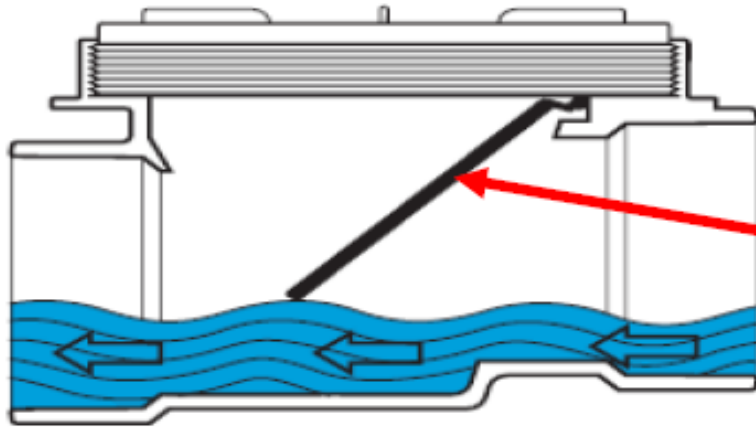
All homes with floor levels below this manhole need a Backwater Valve for protection against flooding.

Upper Manhole

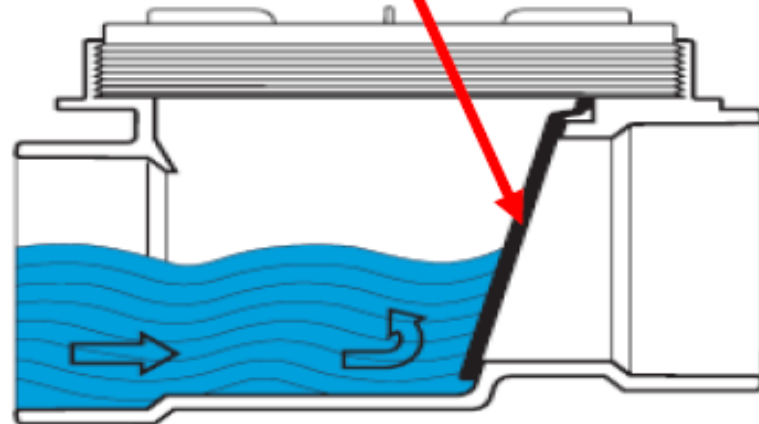
# How Does a Backwater Valve Work?

**A Backwater Valve has an internal mechanical disc (flapper) that will close a sewer pipe opening when reverse surcharges from a public/private sewer system attempt to enter into a building drainage system, preventing the flooding of a building with raw sewage.**

## How a Backwater Valve Works ...



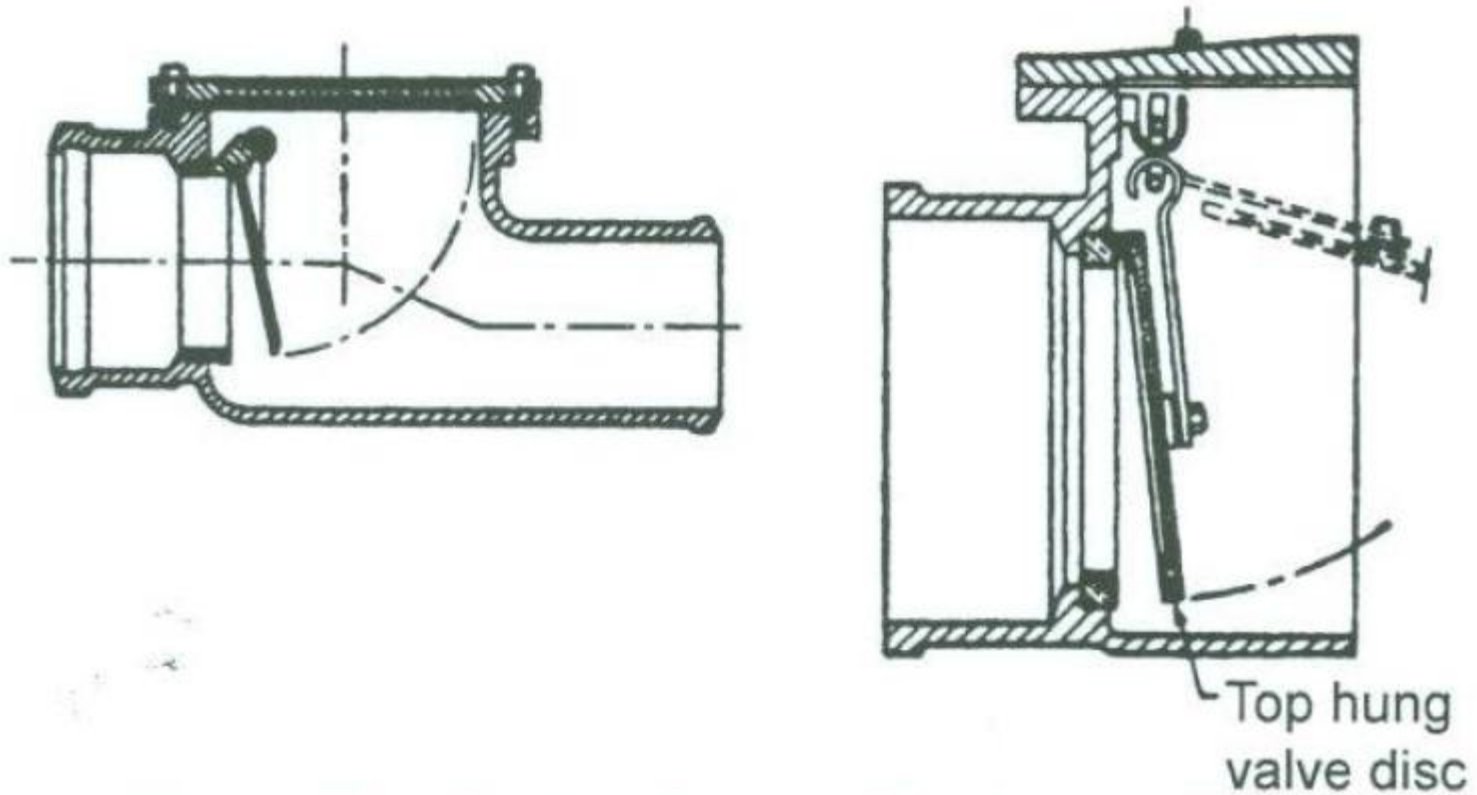
Backwater Valve is open - allowing waste waters to flow to sewers.



Backwater Valve is closed - protecting basement from sewer backups.



# Examples



**Figure 1-7 Various Types of Backwater Valve**



**Removable  
cover for  
maintenance of  
interior  
mechanism**

# Backwater Valves Need to be Accessible

- **Backwater Valves need to be accessible to the homeowner.**
- **Backwater valves need to be inspected by the homeowner on a periodic basis to ensure they will operate properly in a backup situation.**
- **Backwater valves should also be inspected by the homeowner after all major rainfall events.**

# **Examples of Public sewer system flooding buildings where sewer backwater valves were:**

- 1. Not installed or installed improperly**
- 2. Not properly maintained and failed**







# Sewer Backwater Valves

For more information on sewer backflow valves, please call Joe Leavens, S&W Field Manager at 724-776-4806 ext 1515.