

**DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION CONTROL DIVISION
617 BEARSE'S WAY, HYANNIS, MA 02601
508-790-6335**

DATE: June 11, 2010

TO: Property Owner
Street Name

FROM: Peter Doyle
Supervisor, WPCD

SUBJECT: Building Backflow Prevention Valve

A building backflow prevention valve is a device that is installed in the sewer pipe exiting a building and if functioning properly prevent sewage/wastewater from backing up into a building connected to the Town sewer system. The term "building surcharge" is used by the Massachusetts Department of Environmental Protection to designate wastewater that has backed up into a building from the municipal/town sewer system, causing damage to the building. The Town of Barnstable has recently completed an assessment of its sewer system's vulnerability to such backups. Buildings that were determined to be at high risk to future surcharging were mailed letters advising of that risk and if the risk was high or low.

Surcharging is caused by three different scenarios:

1. Debris becomes lodged in the sewer line from the building to the municipal/town sewer, clogging the line causing wastewater to back up into the building. (Common)
2. Debris becomes lodged in the town sewer causing a blockage of a section of the municipal/town sewer resulting in wastewater backing up into buildings in that area (Rare).
3. A town wastewater pump station fails in your area (Rare).

The risk of a wastewater backup can also be increased by a building's particular location. If the basement of your building is located below the level of the sewer manhole cover in the street and contains plumbing fixtures in the basement the risk increases. If scenario 2 or 3 were to occur, the wastewater would seek the lowest point of release below the street level sewer manhole cover, which is normally a building basement, via toilets, washing machines, or other plumbing fixtures.

If you have plumbing fixtures in your basement you may wish to install a backflow check valve either on your basement plumbing or on the sewer pipe exiting your building connecting to the town sewer. This check valve should close in the event of a blockage in the sewer lines or a pump station failure, thus preventing a backup to occur in your building. However, remember that a backflow check valve is a mechanical device that can fail. This action is insurance not a guarantee.

The cost to install a backflow check valve can vary widely. An easily accessible valve in a basement may cost approximately \$500, a crawl space or out side installation may cost considerably more. It will be necessary to get an estimate from a plumber. If you decide to install a backflow valve please let us know and its location so we can make a note on your sewer tie in diagram in our files

If you have any questions concerning this matter please call our office 508-790-6335.

Yours truly,

Peter Doyle, Supervisor, WPCD