

Norfolk Insider

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“Drought Impact on Pipes and Use of Backwater Valves”



There are few things worse than having water back up into your home. This winter Norfolk, along with many other cities in the Midwest, has seen a record number of water main breaks. According to Dennis Watts, Water Director for the City of Norfolk, many of the breaks are caused by the regional drought. As the ground becomes extremely dry, the soil can contract due to the voids left from the lack of moisture and deep cracks form. The cracks allow the cold to go deeper into the soil and as the soil freezes and expands, it causes a ground shift.

“The water main is installed in a flat horizontal line and when the ground underneath the main freezes it can cause non-uniform movements. Those non-uniform movements and forces of the ground can then be directly applied to the pipes which cause the pipes to raise and lower unevenly. This in turn can cause them to snap and break,” Watts said. If a water main breaks then the water will follow the path of least resistance, and during winter months, any frost that is in the ground can act as a sealant that prevents the water from going directly to the surface, so the next thing it will often find is a sanitary sewer manhole.

The City of Norfolk has approximately 127 miles of sanitary sewer and 123 miles of water main. All of this pipe is subject to damage by outside forces including unsuspecting backhoe operators and soil conditions.

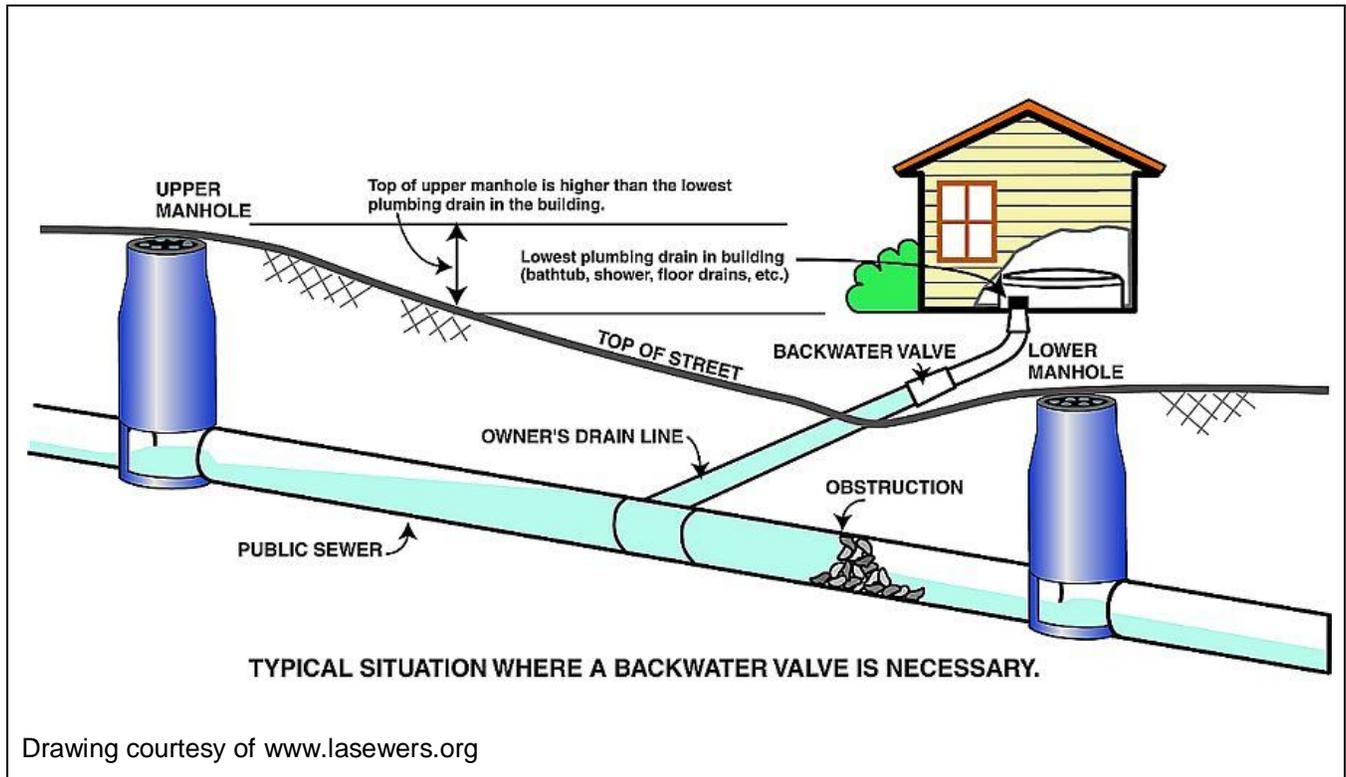
“The City staff does their best to ensure that the sanitary sewer lines are operating effectively. All of those lines are cleaned every year with a high pressure jetter hose; however, we cannot control what is put into the sanitary sewers by the public. We have found wedding dresses, rags, towels and grease in the sanitary sewers which can cause them to plug. When these sewers plug there is a chance that there could be a backup into a home,” Watts said.

Another cause of a backup of water into a home can be a torrential rainstorm including the hail storm that hit the Norfolk area in April of last year. Watts said that in those instances the storm water conveyance systems can be inundated by all the rain water. Sometimes the excess storm water from the inundated storm water conveyance system finds its way into the sanitary sewer system.

There is a way to help prevent water backups. One way is to install a sanitary sewer back water valve.

“These valves are relatively inexpensive and they basically work as a check valve. They will allow sewage to exit a property but will not allow water or sewer to enter the property due to reverse flow,” Watts said.

Norfolk City Code states that “where the flood level rims of plumbing fixtures are below the elevation of manhole cover of the next upstream manhole in the public sewer; such fixture shall be protected by a back water valve installed in the building drain.”



Section 715.7 of the code states that sewage back water valves shall be installed as required when sewer service lines to existing structures are repaired or replaced.

“We strongly encourage homeowners to install sewage backflow valves. Numerous cities across the country have the same issues as Norfolk and many have enacted ordinances to mandate the installation of a sewer back water valve,” Watts said.

Watts also highly recommends that the property owner talk with their insurance agent to find out what coverage they have.

“When looking at home insurance it is important to make sure that you understand if you have coverage not only for sanitary sewer backups but also backups due to storm sewers and other water disasters,” Watts said.

For more information about back water valves contact the water department at 402-844-2210.