

## **SUMP PUMP CONNECTIONS TO TOWN OF NATICK SEWER SYSTEM**

The Town of Natick has two separate systems to convey wastewater and storm water. Natick's catch basins in the streets collect storm water from rainfall and snow melt from streets, yards, parking lots and then discharge it to local streams and rivers. Natick's sewer system collects wastewater from toilets, sinks, showers, washing machines, etc and transports it to the Massachusetts Water Resources Authority (MWRA) sewer system.

A sump pump is an appliance in your basement that collects surface or ground water from outside and inside your basement and pumps it out of your home. Some homes have a sump pump and some do not. Often the sump pump is improperly connected to the sewer system when it should be directed to a garden, yard or storm drain if available.

### **What is the Problem?**

During the abnormal storm events and the heavy ground water saturation that we have experienced in the last couple of weeks, this excess "clean water" going to the sump pump has been pumped into the sewer systems and has overwhelmed the Town's sewer systems by surcharging the pipes. A surcharged sewer flows at a level greater than the "normal" level. If the home has bathroom fixtures at an elevation below the surcharge level in the sewer pipe, basement flooding can occur.

"Clean water" entering the sewer system consumes sewer system capacity. An 8-inch sewer pipe can handle domestic wastewater flow from approximately 215 homes, but only 20 sump pumps, operating at full capacity would surcharge the same 8-inch line. If "clean water" is directed into the sewer system the capacity can be overwhelmed, causing the wastewater to surcharge and back-up into private sewer services and filling basements and crawlspaces. This creates health and safety issues that could have significant costs associated with it.

### **Why You Should Care?**

Reducing the extraneous flow will reduce the surcharging and sewer back-ups. You may not have basement flooding due to surcharged sewers. But if you operate a sump pump or drain storm-related water into the sewer system, it may well be the cause of flooding in your neighbor's basement or even yours if the water cannot get out. Removal of illegal connections will significantly reduce the flow of "clean water" in the sewer system.

It also comes down to paying to transport and treat water that doesn't need it. Since MWRA charges Natick to discharge to the MWRA sewer system based on the number of gallons discharged to the MWRA sewer collection system; discharging "clear water" to the sewer system is costly for all Natick sewer rate payers.

### **How to Identify if I Contribute to the Problem?**

If you have a sump, locate the discharge pipe. If the sump pump discharge pipe is connected to any other pipe in your home, it is most likely improperly connected. The discharge pipe from your sump pump should go directly outside your home at ground level. When a sump pump is re-plumbed to pump ground water to the yard or storm drain, that water no longer takes up space in the sewer system.

If you need assistance in determining if your sump pump is connected to the sewer system, or any other questions related to the sewer system please contact the Sewer Department at (508) 647 6557.

### **Important Information Concerning Sump Pumps**

Before you disconnect your sump pump make sure it is only draining "clean water" (floodwater) from your basement. Sump pumps used to drain a washing machine or sink drain should **NOT** be discharged into your yard or the storm drain.

Not only is it important to ensure the pumped water is draining properly away from your home, but

once the sump pump is disconnected from the sewer pipe, the pipes need to be properly sealed to prevent potentially dangerous sewer gases from escaping into your home.

Disconnecting your own sump pump is possible if you are skilled at plumbing and electrical work. While it may appear relatively simple for the homeowner to perform the disconnection themselves, a licensed and bonded plumber will ensure the disconnection is done safely and done right.

### **Solutions to Eliminating Sump Pump from Sewer System**

The following are some possible solutions:

1. The sump pipe could be run overland to a ditch or swale that could drain to another location.
2. Also, a long flexible tube that can be moved around the yard to avoid discharge in only one portion of the yard could be used.
3. The sump pump can be run underground through a 4" or 6" diameter perforated PVC pipe, with holes at the bottom and backfilled with washed gravel. An overflow tube should be placed at the opposite end to allow the water to escape in the event that the volume of the pipe is exceeded. This pipe tube is located at a convenient area of the yard such as a garden.

### **Steps the Town has Made to Avoid Sewer Surcharging**

The Town has completed studies for the purpose of identifying and eliminating "clean water" flow into the sewer system known as Infiltration and Inflow. Such studies included televising and smoke and dye testing of the sewers and house lines. The Town will be performing home inspections this summer to identify illegal sump pump connections to the sewer system.

# **Discharge of Ground Water into the Sewer System**



*Town of Natick  
Department of Public Works  
Water Sewer Division*