

# MARBLEHEAD WATER AND SEWER COMMISSION



# THE FLOW N' GO

VOLUME 10, ISSUE 3

JANUARY / FEBRUARY / MARCH 2023

## YOUR SEWER DOLLARS AT WORK: INFILTRATION/INFLOW

Several articles appearing in *The Flow N' Go* over the past couple of years have featured various aspects of the Marblehead Water and Sewer Commission's Infiltration/Inflow Program. The January, February, March, 2021 issue described how illegal sump pump connections were taxing the town's sanitary sewer system and introduced our customers to **Resump**, the Commission's sump pump redirection program. Further information on this public outreach and educational effort was included in the April, May, June, 2021 issue.

Some customers have inquired as to the purpose of this program and why it is needed. In this issue of *The Flow N' Go*, we will offer you some of the background that led to the implementation of the Infiltration/Inflow Program as well as a brief explanation of where the program will take the Commission in the future.

As the 2023 Town Meeting approaches, residents need to understand the importance of the infiltration and inflow program and why we will be seeing more sewer funding dedicated to it.

Put in its most over-simplified terms, during rain events the sanitary sewer system is taking in groundwater along with wastewater and is overwhelming the sewer pumping stations and system's capacity. This condition is a result of *infiltration* (groundwater seeping in through cracks and holes in the old sewer pipes) and *inflow* (clean water directed into the sanitary sewer system through home sump pumps).

This surcharge of the sanitary sewer system leads to the activation of an emergency outfall discharge as approved by an Administrative Order issued by the United States Environmental Protection Agency (EPA).

A major condition of the Administrative

Order requires that the Town identify illegal sump pump connections and locate areas that may be allowing groundwater to enter the system.

A plan was submitted to the EPA and MassDEP in July, 2021, that described the ten-year program to locate and remove sources of the infiltration and inflow.

Funding for this program will come from the sewer department's annual retained earnings. In addition, once the State Revolving Fund Sewer Improvement Loan that was obtained to fund the 2013 Marblehead Sewer Pipe Line Replacement under Salem Harbor matures, the Commission plans to allocate a portion of that payment to infiltration/inflow removal. As of Fiscal Year 2028 this will amount to an additional \$500,000 dedicated to infiltration/inflow removal annually.

While the Infiltration/Inflow Mitigation Program will be funded exclusively by the sewer department, a portion of the stormwater department funding (which is by law separate from sewer department funds) will be used for drain capital improvements in part to extend stormwater lines to areas of town where stormwater collection lines do not currently exist.

This will provide a sump pump connection opportunity to properties that currently have no feasible options for sump pump discharge to prevent flooding of the property. This should further entice homeowners to make a legal sump pump connection and to remove the illegal discharge from the sanitary sewer system.

For more information on the program and what you can do to assist with its implementation, visit [www.resump.org](http://www.resump.org).

*Your sewer dollars at work.*

## Did you know ... ?

You can sign up for notification regarding Massachusetts SSO (Sanitary Sewer Overflow) Public Notification Program.

For notifications regarding Marblehead, sign up through the Commissions website [www.resump.org](http://www.resump.org).

Learn more about how you can help minimize SSO's by visiting [www.resump.org](http://www.resump.org).



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## TECHNOLOGY ASSISTS WITH LOCATING AREAS OF INFILTRATION

If you read the article on the front of *The Flow N' Go*, you know that the Town has implemented a program to identify areas where groundwater and stormwater is entering the sanitary sewer system. To assist with locating these areas of infiltration, the sewer department has invested in the

purchase of a specialized video camera.

Infiltration occurs when groundwater seeps through cracks and holes in the sewer pipes. This increases the amount of water entering the sanitary sewer system and can lead to an emergency outfall discharge when the system is overwhelmed.

The video system allows a camera to be inserted into a sewer line and film the

condition of the pipe. If cracks or holes in the pipe are found, just that area with damage can be dug up and repairs made or that section of pipe can be selected as a candidate for lining.

This investment will prove its worth many times over by quickly finding the sections of the pipe needing repair and limiting the excavation required to just that area. *Your sewer dollars at work.*

## THERE IS STILL TIME TO TAKE COLD WEATHER PRECAUTIONS FOR YOUR HOME

Depending on when you are reading this issue of *The Flow N' Go*, there could be twelve more weeks of winter ahead or spring could be just around the corner. (But keep in mind that this is New England and nothing when it comes to the weather is a guarantee.)

If you have not already prepared your residence for the onslaught of winter's cold and snow, it is not too late. Taking appropriate precautions now could prevent costly repairs and expenses later.

One of the most important preventive measures that one can take when winterizing their residence is to protect their water pipes against freezing. When water in the pipes freezes, it expands and can cause the pipe to burst. When it thaws and the water starts flowing again, the resulting damage can be extensive and expensive. The cost for the water lost can be eye-opening as well.

Sometimes, real-life examples get the point across best. Last year a neighbor here in Marblehead noticed water coming from a residence. Upon investigation, it was found that a water pipe in the house had burst and water had flooded the house. While we do not know the damage that was caused inside, the water bill that the homeowner had to pay was over \$13,000. And yes, unfortunately, since the water was used the homeowner had to pay the bill.

There are precautions that a homeowner can take to reduce the chances of an incident such as this from

happening. Following are some tips to prepare your home for our New England winter:

- Turn off the water to your outside faucets and open the faucets to allow them to drain.
- Turn off your sprinkler system and blow compressed air through the lines to push any remaining water out.
- Close and cover any vents and basement windows, Apply caulking and weather stripping if any cold air is seeping in.
- Use foam pipe insulation on any pipes exposed to the cold.
- Locate your water meter shut-off just in case you need to turn your water off in an emergency.
- During extremely cold periods, allow the faucet in your sinks to slowly trickle to keep the water in the pipes moving and open cabinet doors under the sinks to allow warm air to flow around the pipes.

Even taking every precaution one can think of, something can always be overlooked. In keeping with theme of real-life experience, the following is the recent personal experience of this editor:

"Having worked at the Water and Sewer Commission for over eleven years hearing about customers' experiences with frozen water pipes and having written about preparing one's home for

winter's cold, one would think that I would be well-versed in how to get my home ready for a three-week mid-winter absence.

The pipes were drained and insulated, the sink traps were filled with anti-freeze, the water meter was wrapped with insulation (another good tip if it is located close to an exterior wall), the water to the meter was shut off *just in case* there was a leak, and the faucets were opened. Followed my own advice for when being away from home.

Upon returning home and turning the water back on, running water could be heard. Further investigation found that the small line supplying water to the dishwasher had froze and split because it had not been drained. Luckily it had its own shut-off valve.

After all these years, never heard that one before. Taking one for the team has resulted in another new tip for preparing your residence for freezing weather: make sure the water supply line to the dishwasher is insulated".

As is clearly evident, no one is exempt from the havoc that a New England winter can cause to your home; it warrants taking precautions.

For even more tips on preparing your home for the cold winter months, read past issues of *The Flow N' Go* available on our website at [www.marblehead.org/waterandsewer](http://www.marblehead.org/waterandsewer).