



Sewer Works

Newsletter of the Hull Sewer Department
Winter 2022

Operations Message

As part of the \$1.2 trillion Infrastructure Investment and Jobs Act, \$55 billion has been allocated for water and wastewater projects over the next five years. There is also approximately \$50 billion dedicated to infrastructure protection against the effects of climate change, including the more frequent and extreme storm events that we have come to experience. The additional funding is great news! This is certainly a boost and a sizable increase over past authorizations; however, it is just a drop in the bucket to meet the needs of our nation's infrastructure. In Hull, we are not much different than many utilities in having a significant need and feeling the impacts of climate change.

We are doing our part in positioning for our share of these dollars. The big unknown is exactly how and when the funds will be distributed. We expect to see funding distribution by mid to late 2022. For Hull, it can't come soon enough. We have been waiting on the earmark stimulus that supposedly was not connected to this newly authorized funding, for a \$2 million pump station project since April 2021. The project is ready to go, and we have delayed its bid until we hear whether we will get the funding. There are also two other projects, the Coastal Resiliency Project and the Ocean Outfall Rehabilitation, that we will seek funding from the Infrastructure Bill once it becomes available.

We realize the cost impact of the needed infrastructure improvements and upgrades needed in our system. Since 2017, we have been successful in obtaining over \$954,000 in grants and \$12.3 million in low interest loans for work completed or underway. Our objectives for building Reliability, Redundancy and Resiliency have made great progress and with the availability of additional funding, we hope that we will be well positioned to further advance these goals.

John J. Struzziery, P.E., Director of Wastewater Operations

No Wipes Down the Pipes

Even if a product says it is "flushable" ...
Unless it is toilet paper, it should not be flushed!

- Diapers (including cloth, cotton, disposable, or plastic)
- Flushable, disposable, cleaning, or baby wipes
- Paper towels, cloth towels, or any type of rag
- Feminine hygiene products
- Facial Tissues



Place the items listed above in a trash can

**Putting these items down toilets may plug sewers and
cause raw sewage to back up into YOUR HOME**

Sewer Blockages

If you are experiencing any type of a sewer back-up, please contact this office immediately. Do not call a private plumber first, let us know what is going on and we will dispatch a crew to check the sewer line that runs in front of your house to make sure that the sewer is flowing properly. If there is a problem in the street, the call to a plumber that you made may cost you money that you didn't need to spend. Once the street is inspected, someone will contact you to tell you their findings and then advise you of what your next steps should be.

We all know better than to wash oil and grease down our drains. Pipes collect all kinds of debris such as hair, soap scum, or greasy cooking substances and these things build up over time. If you encounter any clogs, try using a drain cleaning snake or placing baking soda in the drain – let it sit for 15 minutes, then pouring hot water to clear any clogs. See below:

HOW TO DISPOSE OF FATS, OILS AND GREASE (FOG) PROPERLY:

1

SCRAPE IT

Wipe FOG and food scraps from plates and pans. Use strainers in your sink to catch food.

2

CAN IT

Pour FOG into a sealed container.



3

COOL IT

Allow FOG to cool and solidify.



4

TRASH IT

Dispose of FOG properly in your trash can.



Projects Update

We are advancing projects at the treatment facility and pump stations. Several projects are in progress at various stages of planning, design, or construction:

- **HVAC Upgrades at the WWTF**
 - Project has been awarded to D&C Construction of Weymouth.
 - Construction to begin in February and continue for just over a year.
- **WWTF Plant Upgrades**
 - Includes wastewater treatment process upgrades and the FEMA-funded Electrical Retrofit work, planned for bidding in February.
 - Estimated 1.5 year project duration.
- **Construction projects ready and awaiting funding confirmation/opportunities or potential grants**
 - Pump Station 9 (Pemberton commuter lot)
 - WWTF Coastal Resiliency Measures – berm around WWTF for flood protection
- **Maintenance and Operations**
 - Radio communications for pump stations – installation is underway
 - Pump Station 9 Force main cleaning and inspection – work completed late January
 - Primary Influent Distribution Box – new slide gates to be installed in March
 - Removing I/I sources identified by smoke tests – includes private and public connections (roof leaders, cleanout covers, catch basins)

Pump Station 9 force main cleaning and inspection



Pump Station bypass



"Fishing" to retrieve PIGS at end manhole

Recently we completed an assessment of the force main, the pressure pipe that transports the wastewater from the Pemberton Pumping Station along the bluff at Harborview Road to a point near the treatment plant. Work involved bypassing the pump station with tanker trucks (see photo) so that the pipeline could be cleaned with what are called foam pigs inserted into the pipe. The pumped water pushes the pigs to the end manhole at the dune along Nantasket Avenue where workers used long poles to retrieve the pigs. Once the pipeline was cleaned, pigs swabbed the pipe using air to dry the pipe forcing any water out. The pipeline was then inspected with a camera to assess alignment and ovality. We believe the pipeline is in good condition, however, are awaiting the full report from the contractor and engineer.

Sewerology

This Newsletter we'll focus on the concept of Climate Change and related terms as we have used them in our work:

- **Climate Change:** Periodic modification of Earth's climate brought about as a result of changes in the atmosphere as well as interactions between the atmosphere and various other geologic, chemical, biological, and geographic factors within the Earth's system.
- **Vulnerability:** Susceptibility to known and unforeseen challenges brought about by climate change.
- **Resiliency:** Ability to withstand, respond and adapt to stressors so as to strengthen communities, prepare for the impacts of climate change, and proactively plan for and mitigate damage from extreme weather events.
- **Adaptation:** Ability to acclimate to known and unforeseen stressors primarily as a result of climate change.

Beware exposed sewer pipes!

With winter's deep freezes occasionally come some unwelcome surprises. Sewers may be exposed to the elements in some way – above ground and not enclosed or insulated, in the case of an elevated house. This highlights the importance of having your sewer service buried below the frost line and protected from the elements if your house is elevated!



Frozen shallow buried sewer.

Frozen sewer pipe that was not insulated.

