



Sewer Works

Newsletter of the Hull Sewer Department Summer 2022

Operations Message

Like the other Town Departments, the Sewer Department has been busy with numerous projects. See the Projects Update section below for a summary of ongoing projects. In addition, we are queuing up the Ocean Outfall Rehabilitation Project and hope to get that project underway this Fall. Two resiliency-related projects we are undertaking include the earthen and concrete berm around the treatment facility that will help mitigate future storm impacts and the Hampton Circle/Marginal Road Pump Station Project, which is focused on developing alternative approaches to mitigate future storm impacts in that neighborhood. Although there are no active or planned Sewer Collection System Improvements right now, our capital plan does include future Sewer Collection System Projects. Proactive and Preventive Maintenance is important in the meantime.

As part of the roadway paving work, you may have noticed many castings that get exposed as part of the road rebuilding process. The sewer and drainage manhole covers provide access to clean and maintain sewer and drain pipes and are typically the largest in the road. Gas and water valve boxes are typically smaller in diameter and provide access to isolation valves below so that those utilities can shut down or redirect in an emergency. We try to set all castings even with the new road surface, however, due to the different material types and shapes and differing compaction requirements by each utility, some of these castings do settle after pavement placement.

We can't forget that even with the capital projects, the ongoing maintenance, and any unplanned events, we will always need to pay attention to the treatment process. We take pride in being a good neighbor by being proactive on odor control. We also take pride in the excellent discharge water quality after the treatment process. We plan and control process operations that are affected by seasonal variations in both water quality and odor control. All the improvements we are making to the treatment operations will provide long-term benefits by addressing reliability, redundancy, and resiliency of our operations.

Thank you for your continued support.

John J. Struzziery, P.E., Director of Wastewater Operations
Brian Kiely, P.E. Assistant Director of Wastewater Operations
Mike McDonough, Facility Coordinator
Cathy Joaquim, Finance and Administrative Coordinator

Policy Update – Property Transfer Inspections

On June 9, 2022, the Permanent Sewer Commission adopted a policy, whereby sellers of real estate connected to the Hull sewer, without documented sewer service tie cards, will need to have their sewer service inspected at their own expense for the Town's records. This policy will be effective in January 2023 and is intended to identify and remedy problems in private sewer services before they are transferred to a new owner, benefitting the new homeowner by minimizing backups and service calls as well as reducing infiltration and inflow to the sewer system. This policy primarily affects properties connected to the older sewers in Town where records are not available.

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Avoiding Sewer Backups

We include here your friendly reminder of the common culprits:

- Wipes do not belong in the sewer system. Toilet paper is the **ONLY** acceptable paper product that should be flushed. Other products create clogged lines.
- Do not throw garbage down your toilet. Flushing household items in the toilet will create backups.
- Do not pour fats, oils, or grease down the sink. These products harden when they hit cold water and create a blockage.
- Do not plant trees over your sewer line. Tree roots look for water sources and can grow through the joints of your sewer pipe.

PLUS... a couple new offenders:

Paint – it seems obvious to say you should not pour paint down the drain, but did you know that even cleaning paint tools and brushes can back you up? Not just oil-based, latex too! All paints contain binders that will clump up in your pipes and ours. Wash your brushes in a bucket or use the garden hose.

Coconut Oil – *“Arrgh, my hippie son bathes in that stuff!”* – this was recently exclaimed by a frustrated father with a backed up sewer. When we say not to pour fats, oils, and grease down the drain, what usually comes to people's mind is cooking and the kitchen. Don't forget the bathroom. Keep Dad happy and stick with the soap.

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Grants Update:

- **FEMA and CZM Coastal Resiliency Berm:** The CZM-funded design of our vegetative berm to protect the WWTF from coastal storm flooding was completed last year and we are now preparing to apply for FEMA funding to construct the project.
- **FEMA Electrical Retrofit:** Our electrical retrofit project funded by a FEMA grant in the amount of \$414,000 will be completed as part of the WWTF Influent Process. The project will relocate essential electrical components to the second floor of the treatment facility to maintain treatment system functionality during a major storm event.
- **Pump Station 9 at Pemberton Point:** We were granted \$2M in Congressionally Directed Spending. The project design is complete and we are in the process of completing grant documentation before the project can be bid and constructed.



Putting a round peg into a square hole. Tight fit placing one of the sodium hypochlorite tanks into the control building.

Projects Update:

We are advancing projects at the treatment facility and pump stations while also supporting the Town's roadway improvements program by inspecting, repairing or upgrading sewers within roadways to be repaved. Several projects are in progress at various stages of planning, design, or construction:

- **HVAC Upgrades:** Construction work continues at the WWTF, to be completed towards the end of the year.
- **Influent Process, Secondary Treatment, and Control Building Upgrades:** this WWTF upgrades project was rebid due to construction price inflation, bids to be received August 17th.
- **Pump Station 4:** New pumps installed July 2022.
- **Chemical Disinfection Tanks:** two replaced at the WWTF.
- **Roadway Reconstruction:** providing sewer support as needed.
- **Ocean Outfall Rehabilitation:** design documents are almost complete, construction planned for this fall. This project will clean our undersea discharge pipe and diffuser field, and protect the diffuser heads from potential damage.

Sewerology: This edition of Sewerology we discuss our Pump Stations.

Wastewater in Hull is conveyed to the WWTF through a sewer network primarily joined by an interceptor sewer running the length of Hull and seven pump stations located throughout the Town. Wastewater flows downhill to Pump Stations which pump the wastewater from their location to a higher elevation so that the sewer can flow by gravity down to the WWTF. The pump stations we have in Hull are:

- LS"A" – 42 Beach Valley Avenue
- Pump Station #1 – 157 Atlantic Avenue
- Pump Station #3 – George Washington Boulevard/Landfill Access Road
- Pump Station #4 – 13A Marginal Road
- Pump Station #5 – 70 Draper Avenue
- Pump Station #6 – 765 Nantasket Avenue (Memorial Middle School field)
- Pump Station #9 – 165 Main Street (Pemberton Commuter Lot)

The Wastewater Facility Plant and all seven (7) pumping stations have their own generators in case of any power outages. Maintenance and inspections are performed on the pump stations each week while the generators are inspected each month. Inspections on the pump stations and generators are also performed before any impending storm.



Pump Station 9 at Pemberton Commuter Lot.