

Sewer Works

Summer 2018

Newsletter of the Hull Sewer Department



A Message from John J. Struzziery, P.E. Director of Wastewater Operations

First, thank you for your overwhelming support at the Annual Town Meeting. The approved \$17 M bond will provide the funding for our highest priority projects and the necessary planning to achieve our objectives of Reliability, Redundancy, and Resiliency. Over the past year, we have been planning and performing condition assessments on much of our sewer system and other infrastructure at the wastewater treatment facility. These assessments will form the basis of what we do, where we do it, and how soon work gets done. As noted at the Annual Town Meeting, our immediate (2018/2019) priorities are as follows:

- Rehabilitation of the Nantasket Avenue interceptor;
- Sewer Improvements in the Atlantic Avenue/Gunrock area;
- Replace/Rehabilitate the force mains for pump stations no. 1 and 3;
- Removal of the underground fuel storage tank and replacement with an above ground tank;
- Facility repairs to the generators, aeration tanks and secondary clarifiers; and
- Planning for the next level of projects.

See the sidebar to better understand the meaning of your current sewer bill that is included with this newsletter. This bill represents a change to our billing method that we believe provides a more equitable and fair system to distribute costs among all users. This approach also provides a more even and reliable distribution of revenue to avoid fluctuations in usage that we experienced in the past.

The Sewer Department is continuing to pursue outside funding, the \$62,000 energy grant from the state is in the process of getting authorized. We recently received word that we received a \$148,000 Coastal Zone Resiliency Grant to relocate and elevate the primary electrical service and transformer that serves the facility. We appealed a denial to FEMA on a Hazard Mitigation Grant to relocate the HVAC and electrical systems to the second floor of the facility. Lastly, we are processing the documentation needed for the State Revolving Fund (SRF) loan program that will fund much of our work through low interest, long term bonding.

We continue to make progress and improvements and look to you for support and patience during the upcoming construction period.



Wastewater Treatment Facility

Sewer Billing

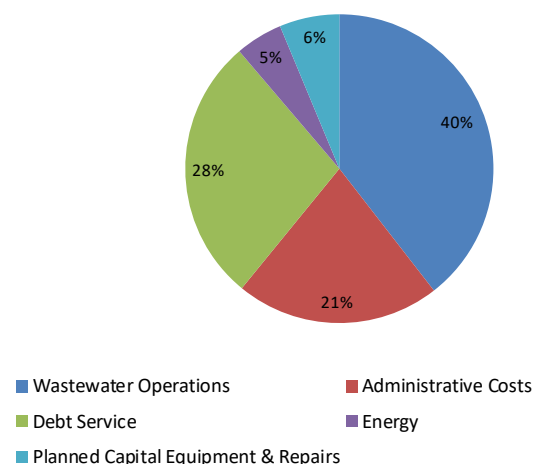
The sewer billing for this period reflects a change in our rate methodology. As indicated at the Annual Spring Town meeting, we've changed our rate structure to provide a more sustainable revenue for operations and capital projects to better assure a more reliable and effective revenue stream.

The new billing change includes a \$15 per month base fee, as well as a volumetric rate of \$13.00 per CCF (increase of \$1.00 per CCF or 8.3%). Based on an average ANNUAL usage of 70 CCF, the average annual sewer bill would be \$1,090 under the rate structure as compared to \$840 under the prior rate structure. See chart below for breakdown of costs by type.

Starting in November, billing will commence on a quarterly basis. We expect that this will be a preferred way of distributing the costs over the year and make it easier to pay this bill.

Please note that a lien will be placed on any unpaid sewer bills from FY 2017 and FY 2018 on the FY 2019 Real Estate bill due February 4, 2019.

Sewer Rate Broken Out by Type of Cost



Storm Update

This past winter's Nor'easters put us on alert and in storm and high flow management mode on a weekly basis. Overall, we fared well with the most significant events being on January 4th and March 2nd. These types of storms are one of the driving factors for the capital work related to resiliency that you see listed below in work completed/ongoing. Most of the storms came with rain and/or snow, high winds and high tides with storm surge. On the March 2nd event, we had a peak flow of 9.5 mgd, 2.3 inches of rain, used the influent gate to control flows at the plant while watching upstream interceptor levels, lost power through a good part of the event and lost communication systems with remote pump stations. While there were many equipment issues throughout each event, they were addressed with either additional rental units and/or maintenance during the events. Woodard & Curran performed admirably during each event and we conducted lessons learned after the events of what went well and what needs improvement. We also assisted DPW in supplying and monitoring portable pumps in the Ocean Avenue area during these storms to help alleviate flooding.

Work Completed/Ongoing:

Capital Planning/Capital Projects

- Design is progressing for the interceptor sewer along Nantasket Avenue and Fitzpatrick Way to be renewed without excavation using a cured-in-place lining system. Construction is planned in 2019.
- Design is progressing for a pipeline renewal plan for the Atlantic Avenue/Gunrock area. Construction is planned for 2019.
- Condition assessments of the force mains (pressure pipes) for Pump Station #1 on Atlantic Avenue and Pump Station #3 along George Washington Boulevard were completed and showed that force main #3 is in better condition than first thought, however, force main #1 will need to be replaced or rehabilitated as part of the Atlantic Avenue project.
- We have done some work (see photo) and planning the design of critical equipment replacements at the wastewater treatment facility. Other activities are also underway in performing the engineering needed to obtain pricing proposals before doing the work.



Valve Replacement Excavation

Protection of Plant during High Flows

- An auxiliary pump and piping to supplement effluent pumping needs as well high flow diversion is scheduled for completion in early 2019.
- Design completion to replace the HVAC system on the first and second floor of the Administration Building is planned for the second half of this year, with construction in 2019.
- Replacement of the effluent pump isolation valves is expected by year end.

Odor Control

- We continue to be proactive in addressing odors by anticipating what work activities might generate odors and plan accordingly such as tank cleanings, using chemicals in the collection system to minimize odor potential, and will be replacing the odor media filter material since it is nearing its useful service life.

Technology Enhancements

- We continue to enhance our GIS mapping and documentation system and the Town received a regional grant to help advance this effort.

Reminders

We continue to get emergency calls for clogged pipes, pumps and equipment. Many of these result in wastewater discharges to the ground which could have been avoided. Such discharges must be reported to numerous local, state, and federal agencies and could result in fines. Our goal is to avoid any discharges, fines and violations.

PLEASE DO YOUR PART BY KNOWING WHAT NOT TO PUT IN THE SEWER

NO WIPES IN THE PIPES: Wipes, rags and other debris not intended to be in the sewer (even if labeled as Disposable and Flushable), are a major source of sewer backups and clogged pipes. **Wipes create blockages in pipes.**

THE DRAIN IS NOT A DUMP: **Fats, Oils & Grease (FOG) also clog sewer pipes.** Do your part by **NOT** disposing of FOG down the drain; rather, can it and let it solidify, and then dispose in the trash.

REMEMBER THE 3 PS: NOTHING DOWN THE TOILET BUT PAPER, PEE AND POO!!