



Sewer Works

Newsletter of the Hull Sewer Department
Winter 2023

Operations Message

Turn the faucet and water comes on. Flush the toilet and water goes out. These are the things most people do not think twice about, they just happen until something goes wrong. At the Sewer Department, these items are always on our mind to ensure we can get all the wastewater from your properties to us for proper treatment. Along the way there are a series of small pipes, to larger pipes and even larger pipes. Most of the wastewater also gets pumped once or twice along the way and then gets pumped into and out of the treatment plant. This vast network of pipes, pumps and treatment processes all operate 24 hours a day, seven days per week, and 365 days per year. Occasionally we have things go wrong and need attention, however, our experience is the more preventive maintenance we do, the less capital expenditure is needed.

Even though we are in a high capital expenditure period to replace old and outdated equipment, we know that what gets built also needs to be maintained to extend the service life as intended. As part of all new equipment installed, hands-on training, operation and maintenance manuals and other manufacturer information are provided to our contract operator. From there, maintenance protocols are established to comply with recommended procedures.

Over the next few years, we will continue to install new pumps, electrical equipment, and other ancillary piping, valves, and associated controls as part of our ongoing projects. It is our responsibility to make sure this new equipment is maintained so that it can function as intended and serve a long service life. In the event of any equipment failure, we have also improved our spare parts inventory, especially for critical equipment and any long lead items, and have enhanced our backup support equipment by purchasing our own pumps and generators to best assure we are ready when needed. Making use of what we have, along with backup support capability, are ways we are extending the useful service life of our infrastructure assets.

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Above - Portable Pumps and Generator

Below - New Boiler Room and Piping



Grants Update:

- **FEMA Coastal Resiliency Berm:** A grant application was submitted to FEMA in December. If awarded, this 90 percent grant funded project will protect the treatment facility from coastal storm flooding with a perimeter vegetated earthen berm and concrete wall.
- **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 Influent and Control Building Upgrades project now just starting construction.
- **Pump Station 9 at Pemberton Point:** We were granted \$2M in Congressionally Directed Spending. The project design is complete and the plans to bid are pending review by the EPA as the administering agency.
- **Gap III Energy Grant:** The Department of Energy Resources has awarded us a grant of \$90,000 to replace influent piping, valves, and pumps which would increase capacity and efficiency, reducing our energy use by 20 megawatt-hours per year.

Projects Update:

- **WWTF HVAC Upgrades:** Contractors are finishing up with punch list items, old lab demo, and control systems. The project should be complete in March.
- **Influent Process, Aeration, and Control Building Upgrades:** The contractor has been given notice to proceed and submittal review is underway.
- **Roadway Construction:** Inspecting sewers as part of ongoing maintenance.
- **Ocean Outfall Rehabilitation:** Design is complete and ready to go out to bid. Construction is currently planned late summer 2023 to winter 2024.

Sewerology: We have heard about PFAS in the news, now Per- and Polyfluoroalkyl Substances (PFAS) are affecting the wastewater industry:

New regulations by the Environmental Protection Agency (EPA) have been issued on PFAS, a family of fluorochemicals. These chemicals, which have become ubiquitous in the environment worldwide, are commonly found in products such as nonstick cookware, stain-resistant fabrics, and firefighting foam, and can be harmful to human health and the environment.

As a result of the regulations, we will need to sample influent and effluent flow concentrations, as well as sludge, for presence of PFAS. Detection of PFAS in the waste stream will likely require additional treatment and if detected in the sludge will likely require disposal at a hazardous waste facility, which are limited. Such conditions will likely impact operating costs and ultimately user rates.

We are committed to providing safe and reliable service while also complying with all regulatory requirements. As more testing of these chemicals is done, a greater understanding of their impacts will become better known. For now, additional sampling, testing and reporting is all that is required.

