



Sewer Works

Newsletter of the Hull Sewer Department Winter 2024

Operations Message

Once again, we have experienced an emergency sewer collapse; this time on George Washington Boulevard (see sidebar on next page). Unfortunately, this type of occurrence may become more frequent without continued investment in the maintenance and rehabilitation of the collection system. Although this collapse was localized, it revealed that the entire length of gravity sewer between Wharf Avenue and Rockland House Road is severely deteriorated. As part of the emergency repair, we will complete trenchless pipelining rehabilitation by installing a new liner within the existing pipe, which will extend the structural integrity and service life of the pipe for at least another 50 years.

Our intent is to focus attention on other vulnerable pipe locations within town and rehabilitate the sewers using the same trenchless technology which has been proven to be faster, less expensive, and less disruptive when compared to conventional dig and replace methods. Experience has shown that it is far less costly to rehabilitate or replace any of our infrastructure before it gets to a point of failure.

One thing that is apparent is that we are no different than any other community, and, fortunately, we have much information on the condition of our system. How we use this information to focus on priority areas of structural renewal and reduction of excess flows due to infiltration and inflow will set us apart from the rest to help us avoid these costly and impactful emergencies. We will continue to look for additional funding sources which may include bond authorization and/or rate adjustments to keep our efforts proactive. Thank you in advance for your continued support.

As a reminder: avoid disposing of grease, cooking oils, wipes, towels, diapers (anything that is not Paper, Pee, or Poo) down the sewer system, rather dispose in the trash. They will clog your sewer service and/or our collection system.

John Struzziery, P.E., Director of Wastewater Operations
Thomas Molinari, Asst. Director of Wastewater Operations
Mike McDonough, Facility Coordinator
Cathy Joaquim, Finance and Administrative Coordinator

Office Phone: 781-925-1207

Email: sewer@town.hull.ma.us

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Ocean Outfall Rehabilitation Project



Photo by Joe Berkeley

Our Ocean Outfall Rehabilitation Project, funded by an ARPA grant, began in December 2023. You may have seen the barge out in the harbor beyond the Nantasket Avenue Seawall. Semper Diving, the awarded contractor, has been working quickly to complete this project; however, weather and sea conditions have not been favorable for good production. The work involves extending diffusers above the ocean bottom and removing accumulated sand, gravel, and sea growth from the outfall pipeline. This priority project will ensure reliability, public health, environmental integrity, and restoration of outlet capacity. We anticipate project completion Spring 2024.

FATS	OILS	GREASE
Solid at room temperature	Liquid at room temperature	Turns to liquid during cooking, but solidifies when cooled
Butter, shortening, margarine Peanut butter Meat trimmings Uncooked poultry skin Dairy: Cheeses, milk, cream, sour cream, ice cream	Vegetable oil Canola oil Olive oil Corn oil Salad dressings Cooking oils	Gravy Mayonnaise Melted meat fat Bacon and sausage Boiled poultry skin Salad dressing

FOG (Fats, Oil and Grease) continues to plague sewer systems worldwide. FOG also contributes to the deterioration of sewer infrastructure. Can the FOG. Wipe fats, oils, and grease from pans and utensils, or place in a separate can, and put in the trash.

Projects Update:

1. **HVAC Project:** The replacement of the HVAC throughout the Control Building and the relocation of the mechanical equipment to the second floor was completed in November 2023.
2. **Influent Process and Control Building Upgrades Project:** This is our largest project with replacements and upgrades of influent pumps, piping, aeration, and control systems at the treatment facility. This project is funded by FEMA, MassDEP, and the bonding approved at the June 2020 Town Meeting. This project is targeted for completion by late 2024.
3. **Ocean Outfall Rehabilitation Project:** See sidebar on Page One of this Newsletter.
4. **Pump Station 9 Replacement Project:** This project's awarded contractor is D&C Construction of Weymouth. We expect a Notice To Proceed to be issued this month and construction to start in the Spring of 2024. This project is partially funded by a \$2M Federal Stimulus Grant.
5. **Sewer Asset Management Program:** We have been included on the Intended Use Plan (IUP) by MassDEP for a \$250,000 grant to help inventory, map, and assess the condition of sewer laterals and mains throughout Hull. We expect to hear of grant approval by March 2024.
6. **Coastal Resiliency Berm Project:** This project will create a combination of vegetated earthen berms and gravity walls around the wastewater facility to provide a flood barrier protecting the plant. We have applied for FEMA funding for this project with the expectation of grant approval this year.



Photos courtesy of Richard Green



Sewer Break on George Washington Boulevard (GWB)

During routine monitoring of the sewer system, higher flows were observed in the sewer on George Washington Boulevard (GWB). A collapse in the sewer pipe on the corner of Wharf Avenue and George Washington Boulevard was found. Work to replace the collapsed 12-inch diameter asbestos cement sewer pipe began on January 22nd. This work was complicated by being 14-feet deep, high groundwater conditions, and an adjacent 14-inch diameter pressure force main only feet away. Once the section of pipeline was replaced and the service lateral reconnected, an inner liner the entire length of the pipe between the manholes was placed to provide long-term stability of the pipe. This collapse was similar to the one that occurred in June 2023 at the corner of Nantasket Avenue and Edgewater Road and further demonstrates the vulnerability of the sewer system. See also the Operations Message on Page One of this Newsletter.

*The pictures above were provided by Richard Green. The photos below, taken by John Struzziery and Tom Molinari, depict the collapsed sewer pipe in the left photo, with the breaks circled in yellow, and the new pipe that replaced it in the photo on the right.

