



TOWN OF HULL
Sewer Department

1111 Nantasket Avenue
Hull, MA 02045
Tel: (781) 925-1207
Fax: (781) 925-3771
Email: sewer@town.hull.ma.us
www.town.hull.ma.us

2019 ANNUAL REPORT

To the Honorable Select Board and Citizens of Hull:

The Hull Sewer Department is pleased to submit our 2019 Annual Report. The Sewer Department operates as an enterprise account and as such is required to raise all revenue to cover operating expenses. These revenues are raised through sewer user fees and permit receipts.

In 2019, the average flow to the treatment plant was approximately 1.66 million gallons per day (mgd) which is down slightly from 1.71 mgd in 2018. The wastewater treatment facility was designed to treat an average of 3.07 mgd.

PERMANENT SEWER COMMISSION

Rick Mattila (Chair), Peter Pyclik, Richard Booth, Louis Collins, Andrew Grosso.

SEWER DEPARTMENT STAFF

John Struzziery (Director), Brian Kiely (Assistant Director), Carol O'Connor (Bookkeeper/Clerk), Terri Berardinelli (Facility Coordinator)

CONTRACT OPERATOR

Woodard & Curran is our contract operator for the treatment facility and collection system and staffs the facility seven days a week, 365 days per year. Woodard & Curran also provides engineering services related to the treatment facility and collection system.

SEWER DEPARTMENT PROJECTS

Thank you for voting for the many initiatives approved for funding at the Annual Town Meeting. Work for the priority projects included:

- **Design**
 - HVAC system replacement for the administration building at the treatment facility.
 - Headworks Concrete Repair and Influent Pipe at the treatment facility.
 - Sanitary Sewer Evaluation Study, including smoke testing, which is helping us locate sources of stormwater inflow into the sewer.
 - Sewer System Remedial Repairs which must be designed and constructed prior to this year's roadway paving.
 - WWTF Nature-Based Resiliency Measures funded by a grant from Coastal Zone Management (CZM) to protect the facility from future floods at sea level rise/climate change projections.

- The WWTF Facilities and Resiliency Plan is underway and will assess and prioritize the many needed improvements and system upgrades at the WWTF and pumping stations.
- **Construction**
 - Rehabilitation of the Nantasket Ave Sewer Interceptor, to be completed by early Spring 2020.
 - Atlantic Avenue/Gunrock Area Sewer Improvements to be completed before Summer 2020.
 - WWTF Electrical Service Upgrade funded by a grant from CZM which elevated our electrical transformer above projected sea level rise/climate change flooding projections was completed.
 - Sewer system remedial repairs in conjunction with the Town's Roadway Paving Program was completed.
 - Emergency Pump Station #4 Repairs for a force main break was completed.
- **Planning**
 - Conducted sewer assessments of approximately 20,000 feet of sewers in advance of the Town's roadway pavement management capital plan. Any corrective actions requiring roadway work will be done prior to paving to avoid damage to new finished pavement.
 - Implemented an Artificial Intelligence platform funded by a grant from the Clean Energy Council (CEC) which predicts and forecasts sewer flows and loads to improve energy efficiency and overall operations at the WWTF.
 - We have successfully advanced a FEMA grant application to the national level to compete for the funds to relocate critical electrical infrastructure to the second floor of the WWTF. We hope to hear a positive response soon.

MAINTENANCE AND UPGRADES

Numerous other repairs, replacements and basic ongoing maintenance was performed throughout the system. Despite these improvements, there are significant repairs and replacements that are still needed and were prioritized as part of the Fiscal Sustainability Plan. This planning and design basis is being further developed through our Facilities and Resiliency Plan. The work will be performed as planned through existing bonding, grants, and continued state and local funding.

OPERATIONS

The relatively pleasant weather of 2019 brought fewer storms that allowed us to get more corrective work done.

The regionalization of our system with portions of Cohasset and North Scituate has been slow to progress due to addressing changing needs in the other communities. The benefits to Hull in this regionalization concept would be more users to distribute costs for operations, improvements to our collection and treatment system, and better positioning for grant funding of our capital improvements program. Work will continue in 2020 if each community decides to advance to the next phase.

The facility complied with discharge permit requirements throughout the year with no variations or exceedances.

In 2019, we conducted the following inspections:

- 223 sump pump inspections at the time of home sales
- 22 inspections for new buildings subject to a rehabilitation fee which generated \$22,500 in revenue
- Sewer inspections for private properties
 - 12 second meter inspections
 - 10 abatement inspections

In addition, we responded to 6 sanitary sewer overflows, 27 resident backup calls, inspected 68 loud manhole frame and covers called in by residents, replaced 16 manhole frame and covers, and responded to 23 grinder pump calls.

As always, “flushable” wipes and cooking grease continues to be a major problem in the sewer system. The presence of these materials in the system often leads to business and/or residential back-ups and cost a lot of money to remove. The money spent on these issues takes funding away from other, often more important issues that need to be resolved for continuity of operations. Please read the newsletter that is included with each sewer bill to find helpful hints on ways to decrease your possibility of experiencing a sewer back-up as well as tips and pointers as to what you should and shouldn’t discard into the municipal sewer system. Also note the new section “Sewerology” where you can learn all about sewer terms, how the system works, and the challenges faced in this industry.

We would like to thank our Woodard & Curran contract operators for their hard work and commitment over the past year. Thanks to the Permanent Sewer Commission for their volunteer efforts in shaping sewer policies and budget awareness/monitoring as it relates to user rates. Finally, a special thank you to our office staff for their professionalism, attention to detail, in dealing with billing, records, and day to day matters.

Much progress has been made and I thank you for your continued support in helping to maintain and upgrade our wastewater collection and treatment systems.

Respectfully submitted,

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