

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

The Harwich Board of Water Commissioners and Water Department respectfully submit our Annual Report to the Honorable Board of Selectmen and to the citizens of the Town of Harwich for the year of 2019.

2019 Public Water Systems Awards

In May of 2019, the Harwich Water Department was recognized by the Senate, House of Representatives, and Massachusetts Department of Environmental Protection for Outstanding Performance and Achievement in the Medium and Large Community Water System Category in 2018.

Operations

The Water Department offers a wide variety of services from seasonal water turn on/off, new and renewal water service installation, utility mark outs, final readings for property transfers, backflow inspection and much more. Below is a summary of 3,273 services performed in 2019:

Turn On Service	50	Mark Out Property	553
Turn On (Seasonal)	709	Leak Investigation	81
Turn Off Service	33	Install Meter	26
Turn Off (Seasonal)	610	Hydrants Meter Use	19
Troubleshoot No Read	6	Frozen Meter/Service	17
Site Visit	189	Final Read	404
Service Repair	32	Damaged Box/Gate	16
Service Install/Renew	56	Confirm Meter Read	20
Repair/Replace Valve	16	Change Meter Head	1
Remove Meter	33	Change Meter	402

Projects & Accomplishments

2019 was an eventful year for the Harwich Water Department. Please find some of the more notable projects & accomplishments below:

- Water Main Repair on Lothrop Avenue which included horizontal directional drilling of 292 linear feet of 16” SDR-11 HDPE water main.
- Water Service Replacement Project along the National Grid Project Route began in 2019 and will continue in to 2020. Old metal water services along the project route are being replaced with HDPE pipe from the water main to the curb stop. The project route includes Great Western, Queen Anne, Route 39, Main Street, Depot Street and Depot Road
- Herring River Bridge water main repair
- Replaced 402 meters in 2019 as part of our ongoing meter replacement program
- Sisson Road fuel spill water supply investigation and assessment

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

- Tornado Cleanup and Assessment of Water Department property damage
- Conducted PFAS sampling for all distribution system entry points, no compounds were detected
- OSHA 10 training for Water Department staff

Water Rates and Financial Overview

The Department successfully completed its first full fiscal year of quarterly billing in 2019. The move to quarterly billing restructured tiers but did not include a rate increase. In fact, rates have not increased since March 2015. However, the Department is currently analyzing water withdrawal and billed consumption to determine the water rate increase that will soon be necessary in 2020.

The stance of the Board of Water Commissioners, with support of the Department, is to keep rates fair and equitable. Water rate increases become necessary when revenues are unable to keep up with inflation, increases to operational and maintenance expenses and/or when a new capital project must be funded. To see what's on the horizon for capital projects for the next seven (7) years, please refer to the Capital Improvements section in our report.

In addition to water rates and services, the Department continues to look for other revenue sources as well as ways to run more efficiently and economically.

FY19 Financial Summary

Expenses

Salary and Wages	1,240,467
Supplies, Services & Maintenance/Repair	1,296,977
OPEB Contribution	50,000
Debt	752,366
Indirect Expenses; Insurance & Employee Benefits	<u>708,022</u>
Total Expenses	4,047,832

Revenues

Water Rates & Recurring Services	3,621,354
Service Repairs & Technical Services	69,125
Service Tight Protection Plan	38,346
Solar Revenue	111,866
Backflow Inspection	20,326
Water Service Installation and Renewals	209,089
Late Fees, Interest, Lien Collection & Penalties	77,407

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

Wireless Communications Lease	163,794
Investment Revenue	<u>24,088</u>
Total Revenues	4,335,396

Articles (ATM18 for FY19)

ATM18 #19 Utility Trucks (2)	101,825
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Water Enterprise Fund Balance Summary

FY19 Fund Balance	963,833
FY19 Abatements & Adjustments	26,608

Capital Planning

In 2019, the Board of Water Commissioners and Department staff evaluated the aging infrastructure, water consumption forecasts, revenue projections, and the current debt schedule to identify and plan for the future capital needs of the Department.

- Fiscal Year 2021
 - New Source Exploration planning and engineering
- Fiscal Year 2022
 - Route 28 Water main replacement design
 - Station 8 Generator replacement
- Fiscal Year 2023
 - Route 28 Water main construction
 - New Well Construction
 - (2) Fleet/Truck replacement
- Fiscal Year 2024
 - Pavement Management - Well access roads
- Fiscal Year 2025
 - Paint Pleasant Lake Tank
 - (1) Fleet/Truck replacement
- Fiscal Year 2026
 - Water Main Upgrades - Pipe Discontinuity
- Fiscal Year 2027 – No Project(s)

System Maintenance

The Department experienced a number of water main breaks in 2019. Regular distribution maintenance helps minimized the impact to residents and businesses during repairs. For this reason, the Department continues its standard maintenance/monitoring programs, which include:

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

- **Hydrant Maintenance-** Evaluate hydrant coatings & re-paint where necessary to prevent corrosion & remove and lubricate hydrant cups to maintain ease of access in the event the hydrant needs to be utilized for fire suppression
- **Valve Maintenance-** Vacuum valve boxes to guarantee access to the valves operating nut & exercise the valve by opening and closing to verify it is working order
- **Well & Pumps-** Take manual drawdown readings to check the wells specific capacity, which is used to check the wells current capacity to historical data. This information is used to determine if the well is in need of cleaning & redevelopment, or to verify the pump is functioning in the capacity it was designed
- **Water Storage Tanks-** In addition to the daily site visits, monthly tank inspection reports are completed to document a more thorough evaluation of tank conditions. These monthly reports combined with our contracted annual inspection are used to predict future maintenance needs
- **Water Meter Replacement-** The Department upgrades & replaces all customer meters 15 years or older

Water System

The original water system was established in 1936. Major expansion projects were undertaken in the 1950s, late 1960s and again in the late 1970s, these expansions made the water distribution system what it is today.

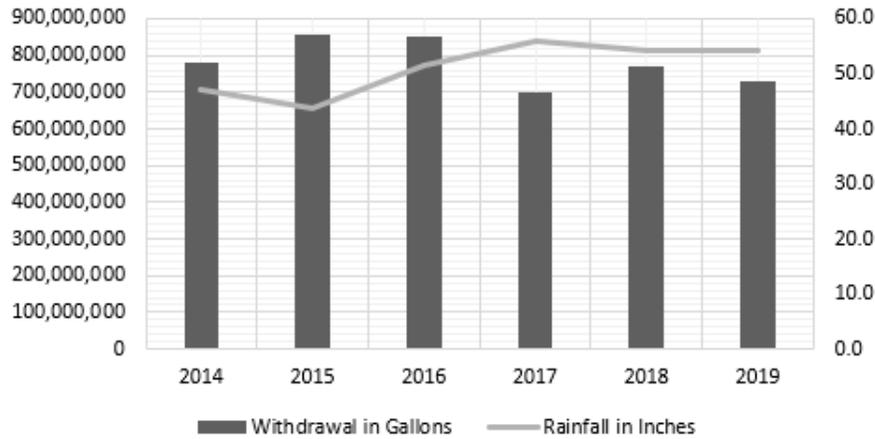
The Water Department operation consists of 14 pump stations, approximately 400 acres of well fields/watershed protection areas, 5 corrosion control facilities, 2 elevated and 1 ground-level water storage tanks and 2 new Greensand Water Treatment facilities which provide service to 9,989 metered accounts, 126 fire sprinkler accounts and 1,360 fire hydrants for fire protection.

Water Withdrawal

The Water Department pumped 729,920,258 million gallons of water from our wellfields during 2019. Most of the water pumped was withdrawn from Chatham Road and Depot Road wells.

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

2014-2019 Water Withdrawal and Rainfall



Water Quality

The Harwich Water Department is constantly striving to provide its consumers with the best water possible. The water provided to the residents of Harwich is tested numerous times a month for a variety of contaminants. Harwich Water Department continues to provide water that meets or exceeds State and Federal standards. The results of this testing are located within the Annual Water Quality Report on the Department website. Iron and Manganese levels in the untreated source water have, in the past, caused unfavorable aesthetic qualities in the water. Sources containing these impurities were infrequently pumped. Since the addition of the Bruce Cahoon Greensand Water Treatment Facility and North Westgate Treatment Facility, these minerals are no longer affecting the water quality.

Nitrogen and Phosphorus in fertilizer are the greatest concern to water quality. Generally speaking, lawns need less fertilizer than advertised and there are multitudes of fertilizing alternatives available today. While water quality in Harwich is excellent, let's do our best to keep it that way and protect our precious resource.

Service Tight Protection Plan

As property owner, you are responsible for the repair and maintenance of your water service, and until a problem occurs, you could incur thousands of dollars in repair costs. Harwich Water offers a Service Tight Protection Plan which covers the costs of repairs to your service in the event of a sudden leak. The cost is \$17 per quarter for an annual fee of \$68. You can enroll and learn more by visiting harwichwater.com or by calling the department for a brochure.

Drought Management and Conservation

The Water Department has drought management signs throughout the Harwich Community. During peak season please refer to the signs around town as well as notices on our website for

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

drought notification. We continue to encourage our customers to be diligent in conserving water even if the supply is abundant.

It is important to keep in mind that the average person uses 80-100 gallons of water per day on the following activities:

Bathing & Hygiene	15 gallons per day	Kitchen	7 gallons per day
Housekeeping	1 gallon per day	Laundry	8 gallons per day
Irrigation/Watering	70 gallons per day	Toilet	19 gallons per day

To review your metered water bill, divide your water usage by the number of days in the billing period (approximately 90 days) and by the number of residents of your household to determine your average.

High Consumption and Irrigation Systems

The majority of our high consumption calls come in after the October bill is received. When we receive these calls, the irrigation system usually has been shut down for the season and the seasonal home is vacant. We cannot stress enough the importance of becoming familiar with your irrigation systems to anticipate this expense. You may need the help of your irrigation company to determine the number of zones, number of heads in each zone, frequency of zones running, and how much water is used for a full cycle and/or each day, each week, each month, etc. Consumption should be monitored on a regular basis by checking your water meter reading so if an issue exists it can be corrected immediately. All water that passes through the meter is the responsibility of the homeowner, and who wants to pay for water that is lost?

We would also like to remind our customers who do have an irrigation system that a testable backflow device must be installed on the line that feeds your irrigation system. This device is put in place to protect containments from being pulled back into the public water supply. More importantly, it is a waste of our precious water resource.

Civic Ready to Replace Voice Broadcast System

Civic Ready is a mass communication service available to Town citizens to receive emergency and routine notifications. Civic Ready allows you to manage your own notifications and how you wish to receive them, whether by voice, text, and/or email. Civic Ready has replaced the Town Voice Broadcast System and went live on November 18, 2019. To Sign Up for Civic Ready, please visit www.harwich-ma.gov/home/pages/notifications.

As the Water Department transitions over to CivicReady we will continue to use the Voice Broadcast System. We encourage you to sign up on CivicReady at your earliest convenience and be sure to select Water Department Notification. Moving forward it will be the responsibility of the resident/water customer to keep contact information current in CivicReady.

Town of Harwich
2019 TOWN REPORT - WATER DEPARTMENT

Conclusion

As we begin 2019, the Board of Water Commissioners would like to thank the dedicated staff and further extend our appreciation to all Town Departments, Town Committees, Boards and Residents for the continued support.

Sincerely,

Board of Water Commissioners

Allin Thompson, Chairman

Judith Underwood, Vice Chairman

Gary Carreiro, Clerk