

**TOWN OF HARWICH**  
**BOARD OF WATER & WASTEWATER**  
**COMMISSIONER'S AGENDA\***  
*Harwich Water Department*  
*196 Chatham Road, Harwich MA*  
*Thursday, April 7, 2022, 11:00 a.m.*

- I. CALL TO ORDER
- II. EXECUTIVE SESSION
- III. PUBLIC COMMENTS/ANNOUNCEMENTS
- IV. CONSENT AGENDA
  - A. Minutes
    - 1. February 3, 2022
    - 2. March 3, 2022
    - 3. March 16, 2022
- V. ABATEMENTS
  - A. FY22 Q3 Water Department Usage
  - B. FY22 Q3 Internal Adjustments
- VI. OLD/UNFINISHED BUSINESS
- VII. NEW BUSINESS
  - A. 2021 Consumer Confidence Report
  - B. 2021 Annual Statistical Report
  - C. FY23 Water Rates
  - D. Water Department Fees
  - E. April Water Bills
  - F. Sewer Use Regulations
- VIII. SUPERINTENDENT'S REPORT
- IX. COMMISSIONER'S REPORT
- X. CORRESPONDENCE/ANY OTHER BUSINESS
- XI. NEXT MEETING: TBD
- XII. ADJOURNMENT

*\*Per the Attorney General's Office: The Board of Water Commissioners may hold an open session for topics not reasonably anticipated by the Chair 48 hours in advance of the meeting following "New Business."*

*If you are deaf or hard of hearing or are a person with a disability who requires an accommodation, contact the Water Department Office at 508-432-0304 x.0 or by email at [customerservice@harwichwater.com](mailto:customerservice@harwichwater.com)*

Authorized Posting Officer:

Tracey Alves | Board Secretary

Town Posting: Date \_\_\_\_\_

\_\_\_\_\_ | Town Clerk

## IV. CONSENT AGENDA

### A. Minutes

1. February 3, 2022
2. March 3, 2022
3. March 16, 2022

**MINUTES  
HARWICH WATER DEPARTMENT  
BOARD OF WATER/WASTEWATER COMMISSIONERS  
REMOTE PARTICIPATION OPTIONAL OPEN PUBLIC FORUM MEETING  
THURSDAY, FEBRUARY 3, 2022  
11:00 A.M.**

**WATER COMMISSIONER'S PRESENT:** Chair Gary Carreiro, Vice Chair Allin Thompson, Clerk Noreen Donahue, Commissioner John Gough

**OTHERS PRESENT:** Superintendent Dan Pelletier, Comptroller Sandra Sieger, Billing Administrator Wellesley Marsh, Administrative Assistant Tracey Alves

**CALL TO ORDER**

Chair Carreiro called the meeting to order 11:00 a.m. A roll call vote was taken with Chair Carreiro, Vice Chair Thompson, Clerk Donahue, Commissioner Gough, all present; 4-0-0.

**CONSENT AGENDA**

**A. Minutes**

**1. January 13, 2022**

Chair Carreiro entertained a motion to approve the minutes of January 13, 2022. Vice Chair Thompson moved to adopt the minutes of January 13, 2022. Commissioner Gough seconded the motion. A roll call vote was taken with Chair Carreiro, Vice Chair Thompson, Clerk Donahue, Commissioner Gough all in favor; 4-0-0.

**ABATEMENTS**

**A. 14 Bayport Rd**

An abatement request for 14 Bayport Rd was reviewed by the Board. Vice Chair Thompson moved to approve the abatement request. Commissioner Gough seconded the motion. A roll call vote was taken with Chair Carreiro, Vice Chair Thompson, Clerk Donahue, Commissioner Gough all in favor; 4-0-0.

**B. FY22 Q2 Water Department Usage**

The Board reviewed the abatement for FY22 Q2 Water Department Usage. Vice Chair Thompson moved to approve the abatement for FY22 Q2 Water Department Usage with a second by Commissioner Gough. A roll call vote was taken with Chair Carreiro, Vice Chair Thompson, Clerk Donahue, Commissioner Gough all in favor; 4-0-0.

**C. FY22 Q2 Internal Adjustments**

The Board reviewed the Department's FY22 Q2 Internal Adjustments abatement. Vice Chair Thompson moved to approve the Department's FY22 Q2 Internal Adjustments abatement with a

second by Commissioner Gough. A roll call vote was taken with Chair Carreiro, Vice Chair Thompson, Clerk Donahue, Commissioner Gough all in favor; 4-0-0.

## **OLD/UNFINISHED BUSINESS**

### **A. Internal Projects Update**

Superintendent Pelletier relayed to the Board that the water main project out near the Oak Street tank is almost connected.

### **B. Wastewater Welcome Package Mailing**

The Wastewater Packet Mailing will be compiled tomorrow and mailed out next week. Clerk Donahue thanked all involved in the first part of the Phase 2 Wastewater mailing!

## **NEW BUSINESS**

### **A. ARPA & Infrastructure Investment & Jobs Act Funding Update**

Superintendent Pelletier provided an update to the Board on ARPA & Infrastructure Investment & Jobs Act Funding and acknowledged that funds are available.

There are a number of projects that need to be done that would qualify as eligible expenses. A commitment would need to be made to the engineering side of it in order to capture and take advantage of the funding for construction.

Chair Carreiro motioned to support an article for engineering and design for FY23 in an amount to be determined. The motion was oved by Commissioner Underwood. A role call vote was taken with all in favor; 5-0-0.

### **B. 2022 Water Restrictions**

There will be an insert put in the next quarterly water billing which will encourage residents to conserve water.

### **C. Winter Storm Debrief**

The department has three generators that it needs to replace including the station 7 generator. The department needs to purchase a tow behind generator as well for use during an extended power outage.

### **D. FY22 Q2 Water & Wastewater Budget Reports Updates**

Comptroller Sieger provided the Board with an update on FY22 Water & Wastewater budgets.

## **NEXT MEETING**

The next Board meeting will be held on Thursday, February 17, 2022 at 11:00 a.m.

**ADJOURNMENT**

Vice Chair Thompson motioned to adjourn at 12:40 p.m. Clerk Donahue seconded the motion. A role call vote was taken with all in favor; 5-0-0.

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Gary Carreiro, Chairman

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Dan Pelletier, Superintendent

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Allin P. Thompson, Vice Chair

\_\_\_\_\_  
Tracey Alves, Board Secretary

\_\_\_\_\_  
Noreen Donahue, Clerk

\_\_\_\_\_  
Judith Underwood

\_\_\_\_\_  
John Gough

**MINUTES  
HARWICH WATER DEPARTMENT  
BOARD OF WATER/WASTEWATER COMMISSIONERS  
REMOTE PARTICIPATION ONLY OPEN PUBLIC FORUM MEETING  
WEDNESDAY, MARCH 16, 2022  
11:00 A.M.**

**WATER COMMISSIONER'S PRESENT:** Chair Gary Carreiro, Clerk Noreen Donahue, Judith Underwood

**OTHERS PRESENT:** Superintendent Dan Pelletier, Administrative Assistant Tracey Alves

**CALL TO ORDER**

Chair Carreiro called the meeting to order 11:00 a.m.

**NEW BUSINESS**

The Board of Water & Wastewater Commissioners met to discuss the campaign made by a citizens group to put yellow tape around the blue fire hydrants in support of the Ukraine.

Commissioner Underwood motioned to accept the resolution to put the yellow tape on the fire hydrants in support of the Ukraine. Clerk Donahue seconded the motion. A role call vote was taken with Commissioner Underwood, Clerk Donahue and Chair Carreiro all in favor; 3-0-0.

**NEXT MEETING**

The next Board meeting will be held on Thursday, April 7, 2022 at 11:00 a.m.

**ADJOURNMENT**

Clerk Donahue motioned to adjourn at 11:15 a.m. Commissioner Underwood seconded the motion. A role call vote was taken with Commissioner Underwood, Clerk Donahue and Chair Carreiro all in favor; 3-0-0.

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Gary Carreiro, Chairman

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Dan Pelletier, Superintendent

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Allin P. Thompson, Vice Chair

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Tracey Alves, Board Secretary

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Noreen Donahue, Clerk

\_\_\_\_\_  
Judith Underwood

\_\_\_\_\_  
John Gough

## V. ABATEMENTS

A. FY22 Q3 Water Department Usage

B. FY22 Q3 Internal Adjustments

MUST BE FILED WITH THE HARWICH BOARD OF WATER/WASTEWATER COMMISSIONERS  
NO LATER THAN THE DUE DATE WHICH THE WATER CHARGE BECAME A PART

TOWN OF HARWICH  
WATER DEPARTMENT  
APPLICATION FOR ABATEMENT

RECEIVED: \_\_\_\_\_  
ACCOUNT: various

To the Board of Water/Wastewater Commissioners:

NAME OF APPLICANT: Harwich Water Department Water Usage hereby applies for abatement.

PROPERTY OWNER: \_\_\_\_\_

PROPERTY LOCATION: all HWD accounts

EMAIL ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ MOBILE: \_\_\_\_\_

TOTAL BILL AMOUNT: \_\_\_\_\_ WATER BILL #: various

AMOUNT REQUESTED: \$2,154.17

REASON FOR ABATEMENT REQUEST (attach additional sheet if necessary)

Year	Bill#	Unpaid Bal	Year	Bill#	Unpaid Bal
2022	436382	47.70	2022	445949	293.20
2022	436580	47.70	2022	445950	45.00
2022	439179	51.75	2022	445951	46.35
2022	444224	50.40	2022	445952	251.13
2022	444558	45.00	2022	445953	389.36
2022	445944	45.00	2022	445954	45.00
2022	445945	45.00	2022	445959	45.00
2022	445946	395.37	2022	445198	45.00
2022	445947	45.00	2022	446416	174.86
2022	445948	46.35			

SIGNATURE OF APPLICANT: [Signature] DATE: 4/6/22

SUBMIT THIS FORM TO THE HARWICH WATER DEPT. 196 CHATHAM RD, HARWICH, MA 02645  
ATTN: BOARD OF WATER/WASTEWATER COMMISSIONERS OR EMAIL TO: CUSTOMERSERVICE@HARWICHWATER.COM

Office Use Only	
Board of Water & Wastewater Commissioners:	
Meeting Date: _____	
Approved / Denied	Approved Amount: _____
Signatures:	
x)	x)
x)	x)
x)	Notes:

**SEE REVERSE SIDE (PAGE 2) FOR RELATED REGULATIONS & APPEAL PROCESS**



Water & Wastewater Department  
**FY22 Q3 INTERNAL A/R ADJUSTMENTS**

Board of Water & Wastewater Commissioners

Total           (\$7,199.20)  
 Meeting Date           04/07/22

Gary Carreiro \_\_\_\_\_  
 Judith Underwood \_\_\_\_\_  
 Allin Thompson \_\_\_\_\_  
 Noreen Donahue \_\_\_\_\_  
 John Gough \_\_\_\_\_

EFF DATE	ADJTYPE	SRC	JOURNAL	PER	REF1	AMOUNT
01/03/22	1WATER	UBM	2	7	010322	-514.79
01/04/22	1WATER	UBM	15	7	010422	18.42
01/05/22	1WATER	UBM	23	7	1522	12.15
01/11/22	1WATER	UBM	68	7	011122	22.29
01/12/22	1WATER	UBM	82	7	011222	-277.51
01/13/22	1WATER	UBM	89	7	11322	-62.21
01/13/22	1WATER	UBM	88	7	11322	33.96
01/18/22	1WATER	UBM	114	7	03396	-88.87
01/19/22	1WATER	UBM	133	7	06828	-13.66
01/20/22	1WATER	UBM	163	7	12022	-45.00
01/20/22	1WATER	UBM	162	7	06423	-425.57
01/25/22	1SEWER	UBM	211	7	12522	-131.29
01/26/22	1WATER	UBM	229	7	12622	-8.10
01/31/22	2RESFR	UBM	275	7	013122	-40.00
01/31/22	3STIP	UBM	275	7	013122	-34.00
01/31/22	DETAIL	UBM	275	7	013122	-244.00
01/31/22	ELECTR	UBM	275	7	013122	-200.00
01/31/22	INSLAB	UBM	275	7	013122	-740.00
01/31/22	INSMAT	UBM	275	7	013122	-529.27
01/31/22	MKOUT	UBM	275	7	013122	-25.00
01/31/22	RETAP	UBM	275	7	013122	-140.00
01/31/22	TRANSF	UBM	275	7	013122	-60.00
02/03/22	1WATER	UBM	32	8	2322	54.54
02/08/22	NSF	UBM	68	8	2822	25.00
02/10/22	NSF	UBM	107	8	21022	75.00
02/11/22	1WATER	UBM	112	8	021122	-2,050.27
02/11/22	MISAPP	UBM	112	8	021122	-50.00
02/16/22	1WATER	UBM	180	8	21622	-337.61
02/28/22	MKOUT	UBM	281	8	22822	25.00
03/03/22	1WATER	UBM	16	9	030322	-288.48
03/10/22	3SEASN	UBM	83	9	031022	-500.00
03/10/22	3STIP	UBM	83	9	031022	-17.00
03/16/22	1WATER	UBM	143	9	031622	45.00
03/16/22	1WATER	UBM	141	9	031622	-45.00
03/24/22	1WATER	UBM	216	9	32422	-56.81

EFF DATE	ADJTYPE	SRC	JOURNAL	PER	REF1	AMOUNT
03/24/22	1WATER	UBM	213	9	32422	-167.98
03/29/22	1WATER	UBM	253	9	08577	-90.44
03/29/22	1WATER	UBM	252	9	09362	-1.35
03/29/22	1WATER	UBM	251	9	09365	-1.35
<b>TOTAL SERVICE ADJUSTMENTS</b>						<b>-6,874.20</b>

DATE	TYPE	ACCT	BILLNO	ADDRESS	AMOUNT
01/03/22	1XLFEE	2796	428669	11 SANDALE LN	-25.00
01/10/22	1XLFEE	1041	416465	21 NORTH RD	25.00
01/10/22	1XLFEE	9739	425150	21 NORTH RD	25.00
01/10/22	1XLFEE	4802	420224	45 SEAHORSE RD	-25.00
01/11/22	ONLINE PYMT STREE V214		415372	SULLIVAN	25.00
01/12/22	1XLFEE	3433	418855	55 EARLE RD	-25.00
01/18/22	1XLFEE	8863	424276	11 MOCKINGBIRD LN	-25.00
01/19/22	1XLFEE	3279	418701	72 WILLIAMSBURG AVE	-25.00
02/02/22	1XLFEE	1369	406351	29 WEQUSSET RD	-25.00
03/09/22	PP/APPLIED IN ERR 3667		429540	21 SHAGGY PINES RD	-25.00
03/10/22	1XLFEE	834	426708	25 SHORE RD	-25.00
03/10/22	1XLFEE	4480	419902	46 DRIFTWOOD / USCG	-25.00
03/11/22	STIP ABATED NO FI 5728		431601	153 DEPOT RD	-25.00
03/11/22	ADDRESS ERROR	9043	434907	36 SPINNAKER LN	-25.00
03/11/22	ADDRESS ERROR	2311	428185	117 SOUTH ST	-25.00
03/15/22	1XLFEE	8386	434250	2 MEREDITH WAY	-25.00
03/18/22	1XLFEE	5271	431144	757 QUEEN ANNE RD	-25.00
03/18/22	1XLFEE	7950	433814	28 MATTHEWS LANDING	-25.00
03/24/22	1XLFEE	6950	432822	581 PLEASANT LAKE AVE	-25.00
<b>TOTAL LATE FEES</b>					<b>-325.00</b>

## VII. NEW BUSINESS

### A. 2021 Consumer Confidence Report



# 2021 Consumer Confidence Report

Harwich Water Department - Harwich, Massachusetts  
MassDEP Public Water System ID # 4126000

This report is a snapshot of the drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with this information because informed customers are our best allies.

## PUBLIC WATER SYSTEM INFORMATION

**Address:** 196 Chatham Road, Harwich, Massachusetts 02645

**Contact Person:** Daniel Pelletier, Superintendent

**Telephone #:** 508-432-0304

**Email:** [dpelletier@harwichwater.com](mailto:dpelletier@harwichwater.com)

**Internet Address:** [www.harwichwater.com](http://www.harwichwater.com)

## WATER SYSTEM IMPROVEMENTS

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection. MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. Your water system is operated by Massachusetts certified operators who oversee routine operations of our system. As part of our ongoing commitment, last year we made the following improvements to the system:

- **Pleasant Lake Storage Tank Upgrade** – Upgrades to the Pleasant Lake storage tank which included increasing the diameter of the tank fill pipe were completed in the late spring of this past year. In addition to the interior tank work completed by the contractor, water department staff also worked to upgrade the exterior yard piping saving the department approximately \$200,000.
- **Meter Changeout Program** - 203 meters replaced as part of our ongoing meter replacement program.
- **New Source Exploration** – The department conducted new source exploration in North Harwich near the Well 10 treatment plant. Several test wells were installed during exploration and a potential new source is being considered for a prolonged pump test.
- **Chatham Rd. Fiber & Electrical Upgrades** – The department completed the first phase of fiber & electrical upgrades at the Chatham Rd. wellfield. This project included the installation of buried conduit and hand holes to support placing the primary electrical service to the wellfield underground and establishing a direct fiber connection to the Route 39 tank improving the reliability and redundancy of the water system.

### 2021 Public Water Systems Awards

The Harwich Water Department received the 2021 Public Water Systems Award from the Massachusetts Department of Environmental Protection for Outstanding Performance and Achievement in the Medium and Large Community Water System Category in 2021. Through the hard work and dedication of department staff 2021 marks the seventh consecutive year Harwich has been selected to receive the PWS Award.

### Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend Board of Water Commissioners meetings which are held at 196 Chatham Road on the first and third Thursday of each month at 11:00am unless otherwise posted.

## YOUR DRINKING WATER SOURCE

### Where Does My Drinking Water Come From?

The large Monomoy ponds (Long, Seymour and Hinckley) receive groundwater discharge from the lens, which then feeds the Herring River so that groundwater ultimately discharges into Nantucket Sound. The Monomoy Lens is the second largest of the six mounds or cells of elevated groundwater that comprise the aquifer. The lens supplies generally excellent drinking water from its porous sand and gravel deposits. The water is considered "soft" due to the lack of calcium and magnesium. Municipal water supplies are treated to neutralize the pH. Naturally occurring iron and manganese can cause staining, odor and taste problems. Sodium chloride can be elevated in coastal areas due to salt spray or saltwater intrusion.

### Harwich Water System

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 greensand water treatment facilities which provide service to 10,093 metered accounts, 129 fire sprinkler accounts and 1,394 fire hydrants for fire protection. The original water system was established in 1936.

The drinking water supply for Harwich comes from 14 gravel packed wells. Wellfields are in South, East and North Harwich, and draw water from the Monomoy Lens Aquifer. These 14 wells pumped 791 million gallons of water in 2021. The sand and gravel act as a huge underground reservoir, which is continually replenished by rainfall and snowmelt. The wells have a high susceptibility to contamination due to the absence of hydro geologic barriers (i.e. clay) that can prevent contaminant migration.

Source Name	MassDEP Source ID#	Source Type	Location of Source
Well 1	4126000-01G	Groundwater	off Chatham Road
Well 2	4126000-02G	Groundwater	off Chatham Road
Well 3	4126000-03G	Groundwater	off Chatham Road
Main Station Well 1	4126000-13G	Groundwater	off Chatham Road
Main Station Well 2	4126000-14G	Groundwater	off Chatham Road
Main Station Well 3	4126000-15G	Groundwater	off Chatham Road
Well 4	4126000-05G	Groundwater	off Chatham Road
Well 5	4126000-06G	Groundwater	off Depot Road
Well 6	4126000-07G	Groundwater	off Depot Road
Well 7	4126000-08G	Groundwater	off Depot Road
Well 8	4126000-09G	Groundwater	off Bay Road
Well 9	4126000-10G	Groundwater	off Bay Road

### Is My Water Treated?

After the water is pumped from the ground, it is treated with the chemicals Potassium Hydroxide (KOH) and Sodium Hypochlorite (Chlorine). KOH is added at very low concentrations to increase the pH of the water and reduce its natural corrosivity. Low pH can stain plumbing fixtures and degrade the water quality by leaching copper and lead out of private services. The water treatment plants improve water quality by removing dissolved iron and manganese from the water supply.

### What is My System's Ranking?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving Harwich. The SWAP Report assesses the susceptibility of public water supplies. Since there are a number of land uses and activities that are potential sources of contamination, Harwich has a high susceptibility ranking. SWAP notes the following key issues for our sources; inappropriate activities in Zone I areas, residential land uses and activities, storm water pollution, transmission line right-of-way, and transportation corridor within Zone IIs, and comprehensive wellhead protection planning for Zone IIs.

## Where Can I See The SWAP Report?

The complete SWAP report is available at the Water Department and online at <https://www.mass.gov/service-details/the-source-water-assessment-protection-swap-program>. For more information, call 508-432-0304

## What Can Be Done to Improve Protection?

Residents and business owners can help protect sources by:

- Practice good septic system maintenance
- Support water supply protection initiatives
- Take hazardous household chemicals to hazardous materials collection days
- Limiting pesticide and fertilizer use:

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.

## SUBSTANCES FOUND IN TAP WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.
- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) and MassDEP prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The FDA and Massachusetts Department of Public Health regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Harwich Water is responsible for providing high quality drinking water but cannot control the

variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## IMPORTANT DEFINITIONS

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**90<sup>th</sup> Percentile:** Out of every 10 homes sampled, 9 were at or below this level. This number is compared to the action level to determine lead and copper compliance.

**Secondary Maximum Contaminant Level (SMCL):** These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

**Unregulated Contaminants:** Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

**Massachusetts Office of Research and Standards Guideline (ORSG):** This is the concentration of a chemical in drinking water at or below which adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Running Annual Average (RAA):** The average of four consecutive quarters of data.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) below which there is no known expected risk to health.

MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm	= parts per million, or milligrams per liter (mg/L)
ppb	= parts per billion, or micrograms per liter (µg/L)
ppt	= parts per trillion, or nanograms per liter (ng/L)
pCi/l	= picocuries per liter (a measure of radioactivity)
NTU	= Nephelometric Turbidity Units
ND	= Not Detected
N/A	= Not Applicable
C.U.	= Color Units

## WATER QUALITY TESTING RESULTS

### What Does This Data Represent?

The water quality information presented in the table is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table.

Regulated Contaminants							
Lead and Copper							
	Date(s) Collected	90 <sup>TH</sup> percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Sources
Lead (ppb)	7/27/2021 7/28/2021 7/29/2021 8/3/2021 8/4/2021 8/6/2021 8/17/2021	0.00	15	0	32	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	7/27/2021 7/28/2021 7/29/2021 8/3/2021 8/4/2021 8/6/2021 8/17/2021	0.16	1.3	0	32	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Inorganic Contaminants							
Contaminant	Date(s) Collected	Highest Result	Range Detected	MCL	MCLG	Violation (Y/N)	Possible Sources
Barium (ppm)	3/4/2021	0.018	0.0016–0.018	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	7/12/2021	2.8	0.40 – 2.8	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite (ppm)	3/12/2020 3/23/2020	0.30	ND – 0.30	1	1	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Mercury (ppb)	3/4/2021	0.11	ND – 0.11	2	2	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills; Runoff from cropland
Microbiological Contaminants							
Bacteria	Date(s) Collected	Highest % positive in a month	Total # Positive	MCL / TT	MCLG	Violation (Y/N)	Possible Sources
Total Coliform Bacteria	Weekly	0%	0	5%	0	N	Human and animal fecal waste
Fecal Coliform or E.coli	Weekly	0%	0	*	0	N	Human and animal fecal waste
*Compliance with fecal coliform/E.coli MCL is determined upon additional repeat testing							
Radioactive Contaminants							
Contaminant (Units)	Date	Highest Result	Range	MCL	MCLG	Violation	Possible Sources
Gross Alpha (pCi/l)	3/3/2021 7/20/2021	ND	ND	15	0	N	Erosion of natural deposits
Radium 226 & 228 (pCi/L) (combined values)	3/3/2021 7/20/2021	ND	ND	5	0	N	Erosion of natural deposits
If the results of these samples had been above 5 pCi/L, our water system would have been required to do additional testing for radium. Because the results were below 5 pCi/L, no testing for radium was required.							



Disinfectants and Disinfection By-Products							
Contaminant (Units)	Date(s) Collected	Highest Quarterly Running Annual Average	Range Detected	MCL	MRDLG	Violation (Y/N)	Possible Source(s) of Contamination
Chlorine (Free) (ppm)	Monthly in 2021	0.30	0.02 - 0.70	4	4	N	Water additive used to control microbes
Total Trihalomethanes (TTHM) (ppb)	8/10/2021	5.4	2.8 – 7.3	80	---	N	Byproduct of drinking water chlorination
Total Haloacetic Acids (HAA5) (ppb)	8/10/2021	0.30	0.00– 1.2	60	---	N	Byproduct of drinking water disinfection
Regulated Per- and polyfluoroalkyl substances - PFAS6							
Contaminant (Units)	Date(s) Collected	Highest Quarterly Average	Range Detected	MCL	Violation (Y/N)	Possible Source(s) of Contamination	
PFAS6 (ppt)	4/15/21 7/14/21 10/25/21	ND	ND	20	N	Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams.	

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

c						
Unregulated Contaminants (CASRN)	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Chloroform (ppb)	3/3/2021 3/8/2021 4/27/2021 7/12/2021 12/14/2021	ND – 2.1	0.99	N/A	70	By-product of drinking water chlorination (In non-chlorinated sources it may be naturally occurring)
Chlorodibromomethane (ppb)		ND – 2.1	0.12	†	N/A	Trihalomethane; by-product of drinking water chlorination
Bromoform (ppb)		ND – 1.3	0.08	†	-	Trihalomethane; by-product of drinking water chlorination
Bromodichloromethane (ppb)		ND – 1.3	0.08	†	-	Trihalomethane; by-product of drinking water chlorination
Manganese (ppb)*	12/14/2021	10 – 98	37	50	300	Erosion of natural deposits
* US EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.						
Nickel (ppb)	3/4/2021	ND - 1.8	0.45	N/A	100	Discharge from domestic wastewater, landfills, and mining and smelting operations
Some people who drink water containing nickel at high concentrations for many years could experience effects on the lung, stomach, blood, liver, kidneys, immune system, reproduction, and development.						

Unregulated Contaminants						
Unregulated Contaminants (CASRN)	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source
Sodium (ppm)	3/4/2021	13 - 35	22	N/A	20	Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents
Some people who drink water containing sodium at high concentrations for many years could experience an increase in blood pressure.						
Perfluorobutanesulfonic acid (PFBS) (375-73-5) (ppt)	4/15/21 7/14/21 10/25/21	ND - 1.8	0.12	†	-	-
†There is no ORS Guideline for this compound.						

As required by US Environmental Protection Agency (EPA), our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by EPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a public health protection standard.

### What should I do?

You do not have to do anything but as our customers you have a right to know that this data is available. You may share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, food establishments, medical facilities and businesses).

### For more information

For additional information on your water and the unregulated contaminants we sampled for, see your water department's Consumer Confidence Report (CCR), or called a water quality report, delivered by your water department by July 1 of each year. If you have any questions about your CCR, see the contact information below for your water department. For information on the Unregulated Contaminant Monitoring Program, visit the MassDEP website (<http://www.mass.gov/eea/agencies/massdep/water/drinking/water-systems-ops.html>) and navigate to Unregulated Contaminant Monitoring Program.

If you want to speak with someone at the water department about the results, please contact Dan Pelletier at (508) 432-0304 or [dpelletier@harwichwater.com](mailto:dpelletier@harwichwater.com)

## COMPLIANCE WITH DRINKING WATER REGS

### Does My Drinking Water Meet Current Health Standards?

Harwich Water is committed to providing you with the best water quality available. We are proud to report that last year your drinking water met all required water quality standards regulated by the state and federal government.

## EDUCATIONAL INFORMATION

### Cross-Connection Control and Backflow Prevention

Harwich Water makes every effort to ensure that the water delivered to you is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by a cross-connection? If so, how?

### What is a cross-connection?

A cross-connection occurs whenever the drinking water supply is or could be in contact with potential sources of pollution or contamination. Cross-connections exist in piping arrangements or equipment that allows the drinking water to come in contact with non-potable liquids, solids, or gases (hazardous to humans) in event of a backflow.

### What is a backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that each and every water customer has a responsibility to help prevent.



### What can I do to help prevent a cross-connection?

Without the proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact, over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you as a drinking water user can take to prevent such hazards, they are:

- NEVER submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains, or chemicals.
- NEVER attach a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bib vacuum breaker in any threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- Identify and be aware of potential cross-connections to your water line.
- Buy appliances and equipment with backflow preventers.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.

If you are the owner or manager of a property that is being used as a commercial, industrial, or institutional facility you must have your property's plumbing system surveyed for cross-connection by your water purveyor. If your property has NOT been surveyed for cross-connection, contact your water department to schedule a cross-connection survey. For more information on our cross-connection program, visit [www.harwichwater.com](http://www.harwichwater.com)

### Conservation and Leak Detection

Water conservation and leak detection reduces the need for developing new water sources and storage facilities and helps to save our precious resource. Here are suggestions that will help you to conserve water and save money:

#### Indoor

- Turn off the water while you shave or brush your teeth.
- Check your toilets for leaks by placing a few drops of food coloring in the tank. If the color shows in the bowl after 30 minutes without flushing, it has a leak.
- Fix leaking faucets, pipes, toilets, etc.; a slow drip can waste over 100 gallons a day.
- Keep showers under 5 minutes.
- Run your washing machine and dishwasher only when they are full.
- Consider installing low-flow faucets, toilets, and showerheads.
- Replace old dishwashers and clothes washers with energy efficient machines that use less water.

#### Outdoor

- Minimize evaporation by watering before 6 a.m. or after 6 p.m.
- Install a rain sensor shut-off device on your automatic sprinkler system.
- Consider installing a rain barrel to water your garden plants.
- Use a layer of organic mulch around trees and plants to reduce evaporation and weed growth.
- Consider planting drought resistant plants and grass to reduce the need of watering.
- Use a broom instead of a hose to clean your driveway or sidewalk.
- Adjust your mower to a higher setting. Longer grass improves root systems and holds soil moisture.

### **Drought Management During Peak Season**

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 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	38 gallons per day	Kitchen	14 gallons per day
Housekeeping	2 gallon per day	Laundry	15 gallons per day
Dishwasher	10 gallons per day	Toilet	22 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.

# VII. NEW BUSINESS

C. FY23 Water Rates

FY22 Year-to-Date Revenue Projection vs. Actual									
	Quarter 1		Quarter 2		Quarter 3		Year to Date		% Dif
	Projection	Actual	Projection	Actual	Projection	Actual	Projection	Actual	
Base Rate Revenue	\$ 450,000	\$ 452,385	\$ 450,000.00	\$ 452,610	\$ 450,000	\$ 452,970	\$ 1,350,000	\$ 1,357,965	0.59%
Consumption Revenue	\$ 1,434,899	\$ 1,473,550	\$ 310,101.00	\$ 331,059	\$ 170,983	\$ 159,724	\$ 1,915,983	\$ 1,964,333	2.52%
Total Quarterly Revenue	\$ 1,884,899	\$ 1,925,935	\$ 760,101	\$ 783,669	\$ 620,983	\$ 612,694	\$ 3,265,983	\$ 3,322,298	1.72%
Gallons Used	338,725,223	356,766,000	99,566,317	118,715,000	70,212,676	67,934,000	508,504,216	543,415,000	6.87%

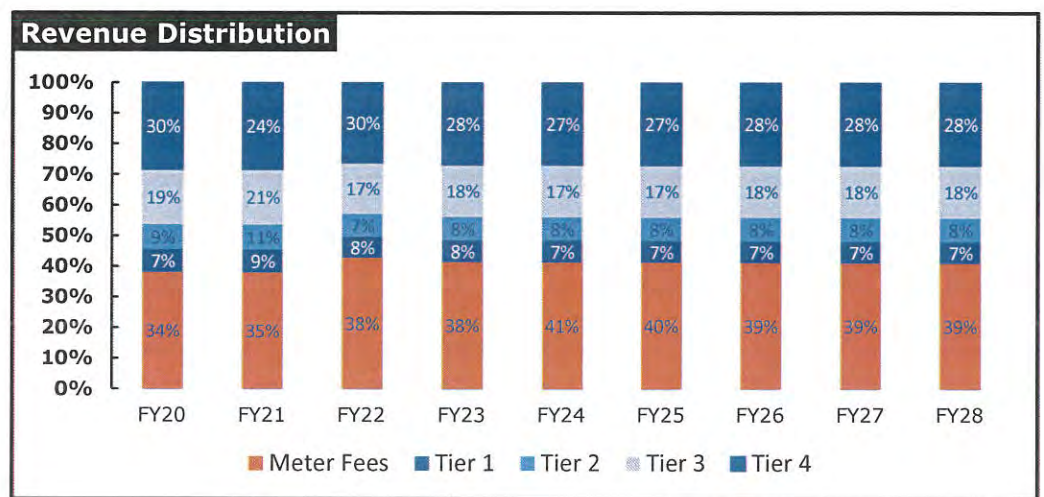
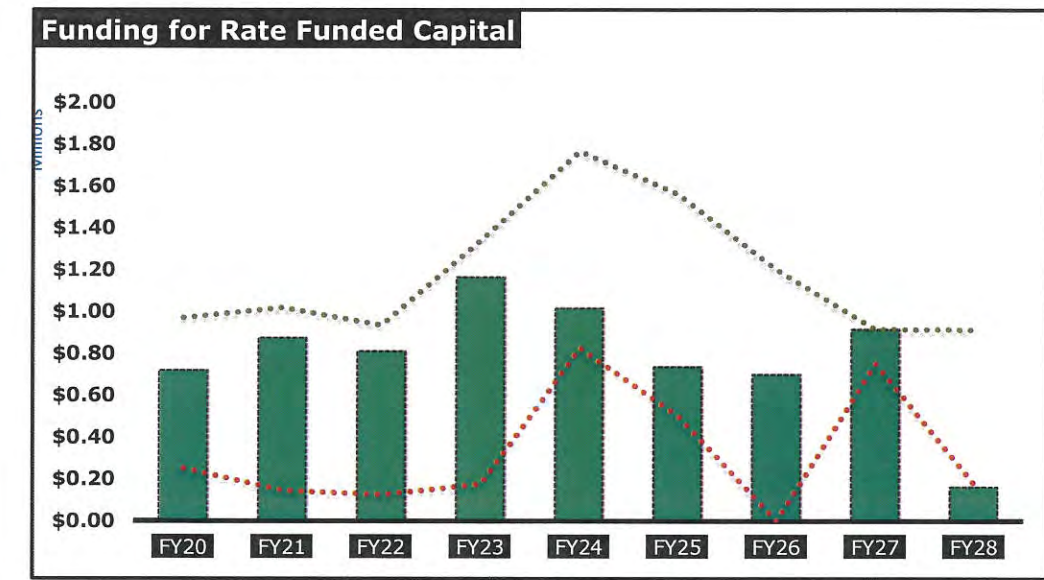
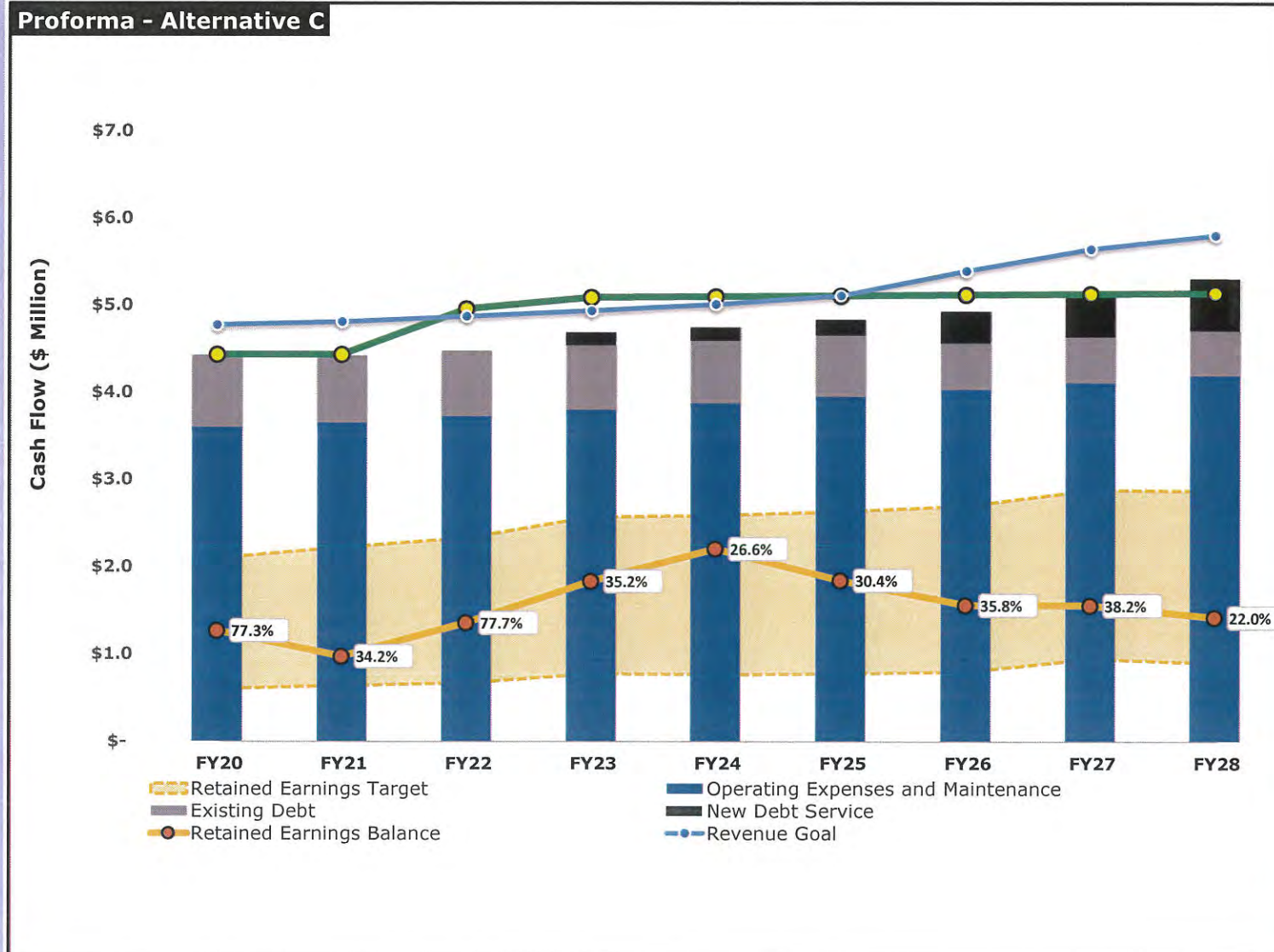
	Current	Proposed
	FY22 Rates	FY23 Rates
Base Rate	\$ 45.00	\$ 45.00
Tier 1	\$ 1.35	\$ 1.42
Tier 2	\$ 2.78	\$ 2.92
Tier 3	\$ 4.15	\$ 4.35
Tier 4	\$ 6.01	\$ 6.31

Est Revenue	\$ 4,217,451	\$ 4,348,535
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Proposed Rate Structure

Alternative G (+\$10 Base & 5% Increase all Tiers (FY22 & FY23))

	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
<b>REVENUE Alternative G</b>									
<b>+\$10 Base &amp; 5% Increase all Tiers (FY22 &amp; FY23)</b>	0%	0%	5%	5%	0%	0%	0%	0%	
Total Rate Revenue	\$3,679,913	\$3,693,059	\$4,217,451	\$4,348,535	\$4,358,733	\$4,368,918	\$4,379,089	\$4,389,247	\$4,399,392
Non-Rate Revenue	\$746,933	\$735,273	\$735,273	\$735,273	\$735,273	\$735,273	\$735,273	\$735,273	\$735,273
<b>TOTAL REVENUE Alternative G</b>	<b>\$4,426,846</b>	<b>\$4,428,333</b>	<b>\$4,952,724</b>	<b>\$5,083,808</b>	<b>\$5,094,006</b>	<b>\$5,104,191</b>	<b>\$5,114,362</b>	<b>\$5,124,520</b>	<b>\$5,134,665</b>
Delta previous	#VALUE!	\$13,146	\$524,391	\$131,084	\$10,198	\$10,185	\$10,171	\$10,158	\$10,145
Retained Earnings Contribution Goal	\$433,387	\$436,779	\$442,374	\$448,160	\$454,910	\$464,045	\$489,784	\$512,789	\$527,077
<b>REVENUE GOAL</b>	<b>\$4,767,252</b>	<b>\$4,804,564</b>	<b>\$4,866,119</b>	<b>\$4,929,765</b>	<b>\$5,004,007</b>	<b>\$5,104,497</b>	<b>\$5,387,624</b>	<b>\$5,640,677</b>	<b>\$5,797,850</b>
Surplus/Shortfall	-\$340,405	-\$376,231	\$86,605	\$154,044	\$89,999	-\$306	-\$273,262	-\$516,156	-\$663,185
<b>Net Revenue (Revenue-Expense)</b>	<b>\$300,000</b>	<b>\$60,547.71</b>	<b>\$528,979.20</b>	<b>\$602,204.07</b>	<b>\$544,909.15</b>	<b>\$463,739.26</b>	<b>\$216,522.19</b>	<b>-\$3,367.42</b>	<b>-\$136,108.12</b>
Retained Earnings Expense	\$250,000	\$145,000.00	\$125,000	\$175,000	\$825,000	\$500,000	\$0	\$750,000	\$175,000
Retained Earnings Balance	\$1,263,833	\$968,833	\$1,352,812	\$1,830,016	\$2,199,925	\$1,838,665	\$1,555,187	\$1,551,819	\$1,415,711
Retained Earnings as Percent of Operating Expenses	35.2%	26.6%	36.4%	48.2%	56.9%	46.6%	38.6%	37.8%	33.8%
<b>Rate Funded Capital Analysis</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>FY28</b>
Shifted Retained Earnings (2 years)	\$968,833	\$1,018,833	\$934,381	\$1,338,360	\$1,765,564	\$1,560,473	\$1,199,212	\$915,735	\$912,367
Rate Funded Capital (from above)	\$250,000	\$145,000	\$125,000	\$175,000	\$750,000	\$825,000	\$500,000	\$0	\$750,000
Net Funding Available	\$718,833	\$873,833	\$809,381	\$1,163,360	\$1,015,564	\$735,473	\$699,212	\$915,735	\$162,367



## VII. NEW BUSINESS

### D. Water Department Fees



Harwich Water Department  
**WATER & SEWER RATES AND FEES**

Effective Dates: Water Rates & Fees 7/1/21, Sewer Rates 7/16/21, Transfer Request 4/14/16

	WATER RATES 7/1/21	SEWER RATES 7/16/21	
Base Rate	45.00	75.00	QUARTERLY
1,000 – 8,000 Gallons	<del>1.35</del> 1.42	0.00	WATER; PER 1,000 GALS. SEWER; INCL. IN BASE
8,001 – 15,000 Gallons	<del>2.78</del> 2.92	5.43	PER 1,000 GALLONS
15,001 – 40,000 Gallons	<del>4.15</del> 4.35	5.83	PER 1,000 GALLONS
40,001 + Remaining Gals	<del>6.01</del> 6.31	6.05	PER 1,000 GALLONS

**FIRE PROTECTION**

Residential	40.00	QUARTERLY
Commercial	65.00	QUARTERLY

**BACKFLOW PREVENTION TEST FEES** FREQUENCY OF INSPECTION IS BASED ON DEVICE TYPE

First Device	70.00	PER DEVICE, ANNUAL OR SEMI-ANNUAL BILLING
Re-Test	45.00	PER DEVICE
Backflow/Cross-Connection	100.00	PER HOUR

**SERVICE TIGHT PROTECTION PLAN**

Up to and Including 2" Water	68.00	PER YEAR, BILLED ANNUALLY
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**ADMINISTRATIVE & COLLECTION FEES**

Notice Fee – Violation   Collection	10.00	PER VIOLATION   COLLECTION NOTICE
Copies/Computer Printout (950 CMR)	.05	PER COPY
Research Request	22.00	PER HOUR
Return Check Fee	25.00	PER ITEM
Demand Charge	25.00	PER DEMAND NOTICE
Unauthorized Hydrant Use	1,000.00	EACH OFFENSE
Tampering Fee (MGL, Chapter 65, §11): Triple the amount of damages sustained thereby or \$1,000.00		

**SERVICE FEES**

Service Call During Working Hours	50.00	PER HOUR
Service Call After Working Hours	<del>150.00</del>	UP TO 4 HRS <b>200.00 = Labor Rate x 4</b>
Missed Appointment	50.00	FEE
Electrician Labor/Water Services	50.00	PER HOUR
Transfer of Property Request	60.00	PER REQUEST
Seasonal Turn On/Off or Plumbing	50.00	EACH
Out-of-Rotation On/Off	<del>150.00</del>	FEE <b>50.00</b>
Reconnection Fee	50.00	PER HOUR (EXCL. COST FOR TURN OFF)
Markout Request <=2 REQUESTS	25.00	PER MARKOUT, UP TO 2 REQUESTS
Markout Request >2 REQUESTS	50.00	PER HOUR
<del>Inspection Fee</del>	<del>150.00</del>	<del>FEE</del>
Meter Test (MGL, Chapter 40, §39I)	3.00	PLUS 1 HR. SERVICE CALL
Hydrant Use Setup/ <b>Removal</b>	100.00	SETUP <del>AND 1<sup>ST</sup> 1,000 GALS.</del>
Hydrant Use Consumption	20.00	PER 1,000 GALS, AFTER 1 <sup>ST</sup> 1,000
<del>Private Hydrant Inspection</del>	<del>50.00</del>	<del>PER HOUR</del>
<b>Fire Flow Test</b>	<b>50.00</b>	<b>Per Hour</b>





## X. CORRESPONDENCE/OTHER BUSINESS

Month/Year March 2022

PWS No. 4126000

## Monthly Pumpage Report Harwich Water Department

Date	T1				T2			T3		T10	T11			
	Main 1	Main 2	Main 3	Well 1	Well 2	Well 3	Well 4	Well 5	Well 6	Well 7	Well 8	Well 9	Pump 10	Pump 11
1	43,440	38,756	35,417	74,998	53,274	61,419	106,721	80,208	84,181	80,224	85,460	83,396	117,793	70,721
2	26,598	24,021	22,032	45,200	32,472	37,335	66,914	61,522	64,616	61,674	63,662	61,915	73,943	47,788
3	31,163	27,929	25,372	54,144	38,191	44,315	76,659	70,524	74,305	70,723	73,376	71,493	84,684	29,641
4	21,722	19,502	17,818	37,158	26,319	30,370	53,318	79,626	83,870	79,774	82,805	80,726	95,666	87,580
5	47,441	42,462	39,238	80,329	57,696	66,134	118,676	109,658	114,889	110,009	112,641	109,452	131,664	119,517
6	24,889	22,385	20,566	42,486	30,349	34,952	62,425	57,551	60,525	57,708	59,289	57,638	69,097	62,877
7	28,329	25,582	23,342	49,085	34,806	40,260	70,450	64,869	68,270	64,904	67,078	65,239	77,846	71,133
8	28,378	25,434	23,168	48,967	34,747	40,171	70,341	64,581	68,029	64,765	66,997	65,156	77,830	71,051
9	45,791	41,176	38,190	77,265	55,567	63,501	115,689	106,822	112,002	106,968	109,593	106,572	127,516	116,151
10	23,811	21,335	27,396	40,110	28,895	33,004	60,488	55,537	58,150	55,622	57,268	55,684	66,361	73,441
11	30,382	27,176	34,901	52,214	36,988	42,598	75,817	69,769	73,424	69,924	41,987	41,052	131,834	76,720
12	37,395	33,427	42,818	64,797	45,859	53,131	93,119	85,467	90,040	85,674	0	0	102,907	94,177
13	37,389	33,373	42,497	64,267	45,711	52,696	92,918	85,254	89,796	85,566	0	0	102,476	93,806
14	54,580	48,841	62,395	92,712	66,396	75,886	137,574	126,630	133,251	79,449	14,220	61,275	152,338	139,442
15	29,357	26,330	34,022	49,771	35,626	40,770	74,355	68,392	72,060	68,608	62,469	61,191	82,289	75,301
16	28,581	25,639	33,049	48,734	34,905	39,848	71,928	66,166	69,648	66,193	68,645	66,756	79,613	53,363
17	27,750	24,936	32,263	47,259	33,853	38,810	70,117	64,570	68,011	64,719	66,570	64,744	77,330	70,839
18	43,168	38,789	50,232	71,454	51,922	58,897	110,969	102,444	105,662	102,668	104,973	102,001	122,498	111,161
19	28,757	25,804	32,968	49,913	35,362	40,884	71,739	65,742	69,292	65,990	68,264	66,382	79,215	72,438
20	49,388	44,334	57,163	84,216	60,325	69,302	124,817	115,022	120,304	115,120	118,334	115,047	131,229	125,591
21	30,092	27,028	34,420	51,373	36,488	42,073	74,429	52,678	54,960	52,926	54,104	52,555	70,018	57,417
22	27,645	24,777	31,877	47,648	33,931	39,092	69,274	63,628	66,997	63,748	65,830	63,995	85,368	69,848
23	27,773	24,871	31,860	47,726	33,959	39,132	69,354	63,892	67,244	63,996	66,020	64,160	76,705	70,067
24	48,081	43,181	55,478	80,622	57,996	66,317	121,482	105,450	110,064	105,832	108,099	105,073	126,610	114,618
25	25,205	22,585	28,947	42,923	30,724	35,269	63,836	58,702	61,593	58,911	60,465	58,796	70,550	64,135
26	29,033	26,018	33,289	50,035	35,581	40,878	72,612	66,744	70,267	66,884	69,279	67,355	80,385	73,495
27	48,196	43,180	54,618	81,286	58,533	66,916	122,438	112,721	117,962	112,835	116,043	112,767	135,125	123,264
28	23,965	21,457	26,856	40,508	29,183	33,167	60,788	56,123	58,808	56,240	57,736	56,114	67,304	61,206
29	27,318	24,478	30,577	46,758	33,397	38,256	68,755	63,393	66,640	63,391	65,379	63,558	76,095	69,486
30	28,033	25,139	31,726	48,213	34,502	39,568	70,773	65,067	68,438	65,120	67,269	65,391	84,783	71,451
31	41,622	37,361	47,435	68,442	50,171	56,771	107,907	99,674	102,006	99,852	101,740	98,868	119,178	107,797
Pumps :	1,045,271	937,306	1,101,930	1,780,609	1,273,729	1,461,723	2,626,681	2,408,425	2,525,304	2,366,017	2,155,595	2,144,351	2,976,250	2,545,522
MIN :	21,722	19,502	17,818	37,158	26,319	30,370	53,318	52,678	54,960	52,926	0	0	66,361	29,641
MAX :	54,580	48,841	62,395	92,712	66,396	75,886	137,574	126,630	133,251	115,120	118,334	115,047	152,338	139,442
STATIONS :	10,227,248				7,299,746			4,299,946		2,976,250		2,545,522		
TOTAL :	27,348,712													

Month/Year March 2021

PWS No. 4126000

## Monthly Pumpage Report Harwich Water Department

Date	T1							T2			T3		T10	T11
	Main 1	Main 2	Main 3	Well 1	Well 2	Well 3	Well 4	Well 5	Well 6	Well 7	Well 8	Well 9	Pump 10	Pump 11
1	64,259	58,744	48,177	107,484	75,273	93,341	145,722	49,294	51,900	49,408	51,406	48,371	161,021	52,941
2	25,000	22,939	19,195	40,919	28,998	35,716	57,599	53,575	56,421	53,674	56,164	53,017	63,791	58,594
3	37,827	34,660	28,884	61,262	43,632	53,398	87,115	116,690	122,706	117,180	79,303	74,343	97,604	81,086
4	25,981	23,758	19,816	42,704	30,236	37,077	59,509	87,046	91,866	87,281	91,338	88,104	65,999	95,821
5	10,849	9,954	8,065	18,236	12,643	15,657	23,885	121,287	127,865	121,570	127,340	121,703	27,196	132,834
6	26,486	24,277	20,106	43,710	30,892	38,035	60,761	86,903	91,580	87,004	90,931	87,867	67,317	95,587
7	28,357	26,005	21,883	45,806	32,641	39,960	65,020	114,919	121,140	115,147	120,190	114,787	73,109	125,966
8	72,343	66,108	54,470	120,524	84,563	104,512	164,543	9,210	9,568	9,186	9,750	9,509	181,317	10,233
9	29,876	27,362	22,182	50,007	34,852	43,338	66,438	111,363	117,368	111,628	88,705	84,090	43,571	95,437
10	46,555	42,391	34,871	78,039	54,561	67,711	105,422	55,241	58,024	55,458	57,915	54,864	115,975	60,280
11	68,223	62,421	51,781	112,539	79,494	97,818	156,332	19,559	20,498	19,553	20,773	19,931	172,603	21,568
12	31,716	29,067	24,352	51,479	36,633	44,793	73,067	84,028	88,500	84,114	88,087	85,160	81,787	92,890
13	16,327	14,874	12,312	26,997	18,918	23,423	36,729	118,198	124,517	118,295	123,787	118,563	41,215	129,370
14	72,261	65,988	55,723	116,398	83,511	101,850	167,740	30,744	32,305	30,751	32,448	30,852	184,926	33,700
15	26,999	24,679	20,959	43,403	31,142	37,920	63,165	90,680	95,592	90,868	94,922	91,744	70,028	99,825
16	38,251	35,129	29,141	62,023	43,806	53,967	85,555	74,346	77,693	74,601	76,045	71,991	97,815	79,052
17	26,561	24,245	20,048	44,241	31,044	38,521	60,419	95,255	100,510	95,434	99,944	97,358	128,647	48,096
18	34,352	31,381	26,018	57,183	39,948	49,678	77,506	72,203	76,073	72,335	75,555	72,813	86,878	79,223
19	45,661	41,693	34,855	75,075	53,063	65,500	104,426	81,769	86,209	81,972	85,608	82,612	116,014	89,777
20	16,710	15,246	12,276	28,415	19,563	24,624	36,738	120,296	126,726	120,409	125,950	108,885	40,951	131,749
21	62,930	57,407	46,764	105,862	73,781	92,042	141,131	34,555	36,298	34,692	36,369	35,337	156,865	38,223
22	27,796	25,350	20,990	45,988	32,407	40,194	63,199	93,341	98,400	93,519	97,764	94,602	70,067	102,605
23	27,703	25,260	20,845	45,899	32,322	40,080	63,103	84,244	88,784	84,368	88,460	85,428	69,793	92,743
24	28,243	25,752	21,345	46,680	32,923	40,784	64,512	96,287	101,558	96,399	100,922	97,614	71,423	96,745
25	0	0	0	0	0	0	0	151,244	159,313	151,484	164,213	157,688	0	171,892
26	34,524	31,481	26,018	57,211	40,097	49,718	78,062	70,999	74,811	71,236	74,560	72,166	87,734	79,859
27	26,011	23,716	19,865	42,755	30,307	37,460	59,868	125,794	132,504	126,131	131,537	125,352	66,270	137,086
28	27,412	24,990	20,807	45,274	31,887	39,347	62,655	96,622	101,912	96,906	101,249	98,219	69,470	106,426
29	27,733	25,291	21,031	45,674	32,292	39,979	63,596	93,518	98,648	93,693	97,890	94,877	70,381	102,887
30	35,186	32,128	26,732	58,169	40,982	50,798	80,232	68,014	71,624	68,159	71,229	68,583	109,731	74,840
31	37,776	34,516	29,014	61,641	43,762	53,876	86,907	94,354	99,199	94,304	98,745	94,444	96,994	94,152
<b>Pumps :</b>	<b>1,079,906</b>	<b>986,815</b>	<b>818,526</b>	<b>1,781,598</b>	<b>1,256,172</b>	<b>1,551,119</b>	<b>2,460,957</b>	<b>2,601,578</b>	<b>2,740,112</b>	<b>2,606,759</b>	<b>2,659,099</b>	<b>2,540,874</b>	<b>2,786,492</b>	<b>2,711,487</b>
<b>MIN :</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9,210</b>	<b>9,568</b>	<b>9,186</b>	<b>9,750</b>	<b>9,509</b>	<b>0</b>	<b>10,233</b>
<b>MAX :</b>	<b>72,343</b>	<b>66,108</b>	<b>55,723</b>	<b>120,524</b>	<b>84,563</b>	<b>104,512</b>	<b>167,740</b>	<b>151,244</b>	<b>159,313</b>	<b>151,484</b>	<b>164,213</b>	<b>157,688</b>	<b>184,926</b>	<b>171,892</b>
<b>STATIONS :</b>	<b>9,935,092</b>							<b>7,948,450</b>			<b>5,199,973</b>		<b>2,786,492</b>	<b>2,711,487</b>
<b>TOTAL :</b>	<b>28,581,494</b>													

Date March 2022  
 PWS No. 4126000

Monthly Weather Report  
 Harwich Water Department

Day	Snow Fall (in.) (Gallons)	Rain Fall (in.)	Temperature High (°F)	Temperature Low (°F)	Temperature AVG (°F)	Weather Comments	Operator
1		0.01	40	20	30		
2		0.01	44	31	38		
3		0.21	42	28	35		
4		0.00	33	23	28		
5		0.00	40	22	31		
6		0.00	49	38	44		
7		0.00	53	44	48		
8		0.00	51	32	41		
9		0.43	41	32	36		
10		0.00	45	34	39		
11		0.00	47	31	39		
12		0.61	51	28	40		
13		0.00	38	24	31		
14		0.00	48	31	39		
15		0.00	56	40	48		
16		0.00	52	39	46		
17		0.20	51	38	44		
18		0.01	55	42	48		
19		0.32	52	42	47		
20		0.00	58	46	52		
21		0.00	57	43	50		
22		0.00	51	39	45		
23		0.00	47	31	39		
24		1.11	48	39	43		
25		0.21	50	42	46		
26		0.00	52	39	46		
27		0.00	51	41	46		
28		0.00	41	28	35		
29		0.00	40	25	32		
30		0.00	46	32	39		
31		0.00	54	41	48		
<b>Total</b>		<b>3.12</b>					
<b>Average</b>		<b>0.10</b>	<b>47.8</b>	<b>34.3</b>			
<b>Max</b>		<b>1.11</b>	<b>58.5</b>	<b>46.3</b>			
<b>Min</b>		<b>0.0</b>	<b>32.6</b>	<b>19.7</b>			

Date March 2021  
PWS No. 4126000

Monthly Weather Report  
Harwich Water Department

Day	Snow Fall (in.) (Gallons)	Rain Fall (in.)	Temperature High (°F)	Temperature Low (°F)	Temperature AVG (°F)	Weather Comments	Operator
1		0.46	49	34	42		
2		0.00	35	21	28		
3		0.00	45	25	35		
4		0.00	44	32	38		
5		0.00	38	27	33		
6		0.00	37	26	31		
7		0.00	34	23	29		
8		0.00	40	22	31		
9		0.00	54	34	44		
10		0.00	46	30	38		
11		0.00	51	38	45		
12		0.00	60	41	50		
13		0.00	47	35	41		
14		0.00	50	29	40		
15		0.00	30	21	26		
16		0.00	36	23	29		
17		0.00	43	32	38		
18		1.09	45	39	42		
19		0.27	42	28	35		
20		0.00	45	27	36		
21		0.00	53	29	41		
22		0.00	52	30	41		
23		0.00	59	36	48		
24		0.00	54	35	44		
25		0.00	58	46	52		
26		0.00	55	46	50		
27		0.00	56	43	50		
28		0.71	54	42	48		
29		0.12	55	40	47		
30		0.00	50	32	41		
31		0.00	60	46	53		
<b>Total</b>		<b>2.65</b>					
<b>Average</b>		<b>0.09</b>	<b>47.6</b>	<b>32.6</b>			
<b>Max</b>		<b>1.09</b>	<b>59.9</b>	<b>46.1</b>			
<b>Min</b>		<b>0.0</b>	<b>30.0</b>	<b>20.5</b>			