

**BOARD OF WATER & WASTEWATER COMMISSIONER'S
MEETING AGENDA***
Harwich Water Department, 196 Chatham Road, Harwich MA
Thursday, March 14, 2024
11:30 a.m.

**As required by Open Meeting Law, you are hereby informed that the Town will be video and audio taping as well as broadcasting this public meeting. In addition, anyone in the audience who plans to video or audio tape this meeting must notify the Chairman prior to the start of the meeting.*

- I. CALL TO ORDER
- II. EXECUTIVE SESSION
- III. PUBLIC COMMENTS / ANNOUNCEMENTS
- IV. CONSENT AGENDA
 - A. Minutes
 - 1. February 1, 2024
 - 2. March 8, 2024
- V. ABATEMENTS
- VI. OLD BUSINESS
 - A. FY25 Water Indirect Expenses
 - B. FY25 Water Budget
 - C. FY25 Capital Article Funding
 - D. FY25 Water Rates
 - E. FY25 Wastewater Budget
- VII. NEW BUSINESS
 - A. Water/Wastewater Charter Revisions
 - B. Wastewater Assistance Program Funding
- 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.*

Authorized Posting Officer:

Town Posting Date: _____

Tracey Alves | Board Secretary

_____ | Town Clerk

- IV. CONSENT AGENDA
- A. Minutes
- 1. February 1, 2024

**MINUTES
HARWICH WATER DEPARTMENT
BOARD OF WATER/WASTEWATER COMMISSIONERS
MEETING**

Thursday, February 1, 2024
11:30 a.m.

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

OTHERS PRESENT: Superintendent Dan Pelletier, Administrative Assistant Tracey Alves, Billing Administrator Wellesley Marsh, Selectman Michael MacAskill

CALL TO ORDER

Chair Carreiro called the meeting to order at 11:30 a.m.

CONSENT AGENDA

- A. Minutes**
 - 1. January 4, 2024**
 - 2. FY24 Q2 Water Department Usage**
 - 3. FY24 Q2 Internal Adjustments**

The January minutes will be added to the next agenda. Chair Carreiro entertained a motion to approve the Consent Agenda for the FY24 Q2 Water Department Usage and the FY24 Q2 Internal Adjustments. Clerk Thompson motioned to approve the FY24 Q2 Water Department Usage and the FY24 Q2 Internal Adjustments with a second by Vice Chair Donahue; 4-0-0.

ABATEMENTS

A. 86 Earle Rd

The Board discussed the request for abatement for 86 Earle Rd. Clerk Thompson motioned to split the bill 50/50. \$206.09 will be abated. Vice Chair Donahue seconded the motion; 4-0-0.

B. 161 Route 28, Unit #11

The Board discussed the request for abatement for 161 Route 28, Unit #11. Chair Carreiro motioned to deny the abatement but allow for a payment plan. Clerk Thompson seconded the motion; 4-0-0.

C. 66 Cemetery Rd

The Board discussed the abatement request for 66 Cemetery Rd. Vice Chair Donahue moved to approve the abatement for \$75.00 for the sewer bill generated for last October and in line with that other accounts of this nature will be billed starting January of 2024. Commissioner Gough seconded; 4-0-0.

OLD BUSINESS

A. Town Report

This Town Report has already been done.

B. FY25 Water & Wastewater Operating Budget

In the packet is an updated FY25 wastewater budget. We were able to get the figures from Chatham's FY25 budget so our figures are updated.

NEW BUSINESS

A. Approve Meter Bid Price Extension for FY25

Chair Carreiro entertained a motion to approve the contract with TiSales. Clerk Thompson moved the motion with a second by Commissioner Gough; 4-0-0.

B. Sewer Order to Connect Extension

The sewer extension deadline has been moved to March 1st, 2025.

Vice Chair Donahue moved that Section 6 of the Water / Wastewater Departments Sewer Use Regulations be understood to include an extension for connection for Phase 2 participants up to March 2025. The motion was seconded by Commissioner Gough; 4-0-0.

C. Route 28 Water & Sewer Project Update

Superintendent Pelletier provided an update on figures for the Route 28 Water Main Replacement & Dry Sewer pipe project. In the packet there are two cost estimates.

Phase one of the project is the area between Division St and the Herring River and that is the portion that is being done as part of the MA DOT road repaving project.

On the sewer portion of that project we appropriated \$6.5 million dollars last year and the updated cost estimate for the sewer portion only is \$1.46 million, so we dropped \$5 million on that one.

The water portion combined is just over \$8 million, down from the cost estimate of \$15 million around Town Meeting.

Superintendent Pelletier had a hunch that the numbers were high for sometime and now we've finally realized that.

Total cost for water is sum of \$2, 114, 000 plus \$5, 980, 000.

Superintendent Pelletier provided Hilltop with this information. The bond advisors, Hilltop, will prepare updated debt projections so that we can get that number now incorporated into next year's FY25 water budget and we can start to build out the rate scenarios to support that debt.

D. Round Up (Glysohate) Monitoring Results

We received our first batch of results of zero detection when monitoring for Round Up (Glysohate). The results were measured in parts per billion and we had zero detection for monitoring between Nov 2022 and December 2023. We will publicize this information.

E. FY25 Wastewater Budget

This item was listed twice on the agenda. We covered this topic earlier in the meeting.

F. Indirect Expense Policy

Superintendent Pelletier handed out slides that were given as part of the Enterprise Fund class that has been taught by Mark Abrams a number of times. The Board was given some of the basic information as well as the Enterprise Fund manual.

Superintendent Pelletier highlighted sections in the manual related to indirect expense costs, policy, as well as a couple of different methodologies used to determine what the indirect costs are.

We have seen 4 Finance Directors and the policy has changed with everyone that comes in.

It is a best practice and recommendation that there be an adopted policy of how the Indirects are calculated and how that all transpires.

The Board had expressed the desire to discuss this with the Select Board. Superintendent Pelletier recommended to bring in Mark Abrams in to work with us collectively to put that policy together. That is a service that he offers and has done for other communities. They would represent an unbiased objective.

Superintendent Pelletier will reach out to Mark Abrams to see if he can put together a proposal to help us on that policy.

G. Joint Meeting with Select Board

Once we get further down the line with Indirect expenses we can schedule to meet to keep the lines of communication open. Selectman MacAskill commented that there a joint budget meeting coming up soon.

SUPERINTENDENT'S REPORT

Superintendent Pelletier did a quick show-and-tell of the new Phase 3 wastewater map.

COMMISSIONER'S REPORT

Chair Carreiro asked about the Assistant Wastewater Superintendent position. Two applications have been received so far for the position. Neither of the applicants have experience but Superintendent Pelletier commented that they do have good enough characteristics to interview them.

The Town of Harwich is hosting a Phase 3 Wastewater informational meeting and it is scheduled for Tuesday evening, February 13th, 2024.

NEXT MEETING

The next Board meeting is scheduled to take place on Thursday, February 22, 2024 at 11:30 a.m.

ADJOURN

Chair Carreiro entertained a motion to adjourn at 12:32p.m. Clerk Thompson moved the motion with a second by Vice Chair Donahue. All in favor; 4-0-0.

Gary Carreiro, Chairman

Dan Pelletier, Superintendent

Noreen Donahue, Vice Chair

Tracey Alves, Board Secretary

Allin Thompson, Clerk

Judith Underwood, Commissioner

John Gough, Commissioner

- VI. OLD BUSINESS
- A. FY25 Water Indirect Expenses

FY16 - FY25 INDIRECT EXPENSE SUMMARY SHEET

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Department										
Town Administrator		\$26,963	\$18,905	\$19,515	\$19,972	\$20,934	\$20,018	\$18,679	\$19,727	\$ 20,374
Accounting		\$20,169	\$16,573	\$17,713	\$18,648	\$19,966	\$20,851	\$21,125	\$20,755	\$ 22,120
Treasurer & Collector		\$12,454	\$12,765	\$30,535	\$35,181	\$38,116	\$38,864	\$39,406	\$41,017	\$ 40,611
Engineering (services not needed in FY19)		\$8,665	\$8,881	\$0	\$0	\$0	\$0	\$0	\$0	
Other Prof., Advertising, Telephone, Postage	\$22,172			\$0	\$0		\$0	\$0	\$0	
Total Departmental	\$22,172	\$68,250	\$57,124	\$67,763	\$73,800	\$79,015	\$79,732	\$79,210	\$81,499	\$83,106
		208%	-16%	19%	9%	7%	1%	-1%	3%	2%
Insurance & Expenses										
Health Insurance	\$233,348	\$213,576	\$245,612	\$234,102	\$242,629	\$241,742	\$219,589	\$228,552	\$249,322	\$264,281
Life Insurance	\$413	\$413	\$413	\$337	\$337	\$337	\$337	\$337	\$403	\$403
Retirement	\$178,103	\$163,543	\$171,720	\$221,107	\$215,497	\$231,697	\$223,730	\$223,730	\$239,363	\$251,836
Retiree Health Insurance	\$67,420	\$60,562	\$69,646	\$90,804	\$61,491	\$50,885	\$79,335	\$108,615	\$117,168	\$124,198
Property & Vehicle Insurance	\$94,960	\$52,782	\$53,838	\$63,961	\$60,051	\$59,579	\$58,395	\$61,145	\$67,260	\$70,286
Workers' Compensation Insurance	\$17,993	\$30,451	\$31,974	\$32,084	\$47,720	\$43,641	\$44,822	\$36,221	\$39,843	\$43,827
Medicare	\$11,522	\$12,211	\$17,850	\$18,486	\$14,769	\$19,393	\$17,289	\$17,468	\$19,155	\$18,490
Audit	\$0	\$0	\$2,000	\$4,200	\$4,000	\$4,000	\$4,000	\$4,000	\$4,900	\$4,900
Citizen Self Serv										
Total Insurance & Expenses	\$603,759	\$533,538	\$593,054	\$665,081	\$646,494	\$651,274	\$647,497	\$680,068	\$737,413	\$778,221
		-12%	11%	12%	-3%	1%	-1%	5%	8%	6%
Total Indirect Costs	\$625,931	\$601,788	\$650,179	\$732,843	\$720,294	\$730,289	\$727,229	\$759,278	\$818,912	\$861,327
		-4%	8%	13%	-2%	1%	0%	4%	8%	5%
		587382* = ATM Voted								
Notes								12/26/24 Indirect Figure	\$886,099	
								delta	\$24,772	
1. Property and Vehicle Insurance- FY24 Ratio of GF/WD * FY25 Premuin										
2. Workers' Compensation - estimated increase of 10% from FY24										
3. Medicare based on FY25 S&W Pensionable Wages *1.45%										
4. OPEB is a separate line item in the budget										
5. Retirement - Ratio of GF wages/Water Wages * County Assessment										
6. Audit = 10% of total cost										
8. Health Insurance increase at 6% for FY 25										
9. Employer cost for life ins = 2.49 pp per mo for active, 1.24 pp per mo retiree (12 active, 3 retired)										

FY25 Indirect Retirement Calcs	
\$3,812,752	*From Barnstable County Retirement FY25 Assessment
\$20,639,462	FY25 GF Wages from SB Budget Packet
\$1,363,256	FY25 Water Proposed Wages
6.61%	Ratio GF Wages/Water Wages
\$251,836	Water Portion of Barstable County Assessment

FY25 Indirect Property & Vehicle Insurance Calcs	
\$976,060	FY24 Premiun
\$67,260	FY24 P&V Indirect
\$1,019,983	FY25 Premium
6.89%	FY24 Water vs. GF Insurance % share
\$70,286.18	FY25 Water Property & Vehicle Indirect

FY25 Medicare Calcs	
\$1,363,256	FY25 Water Dept. Prop. Wages
\$88,094	(FY25 Health Ins. Indirect)/3 (per prior year calcs)
\$1,275,162	FY25 Pensionable wages
\$18,490	FY25 Water Medicare

DRAFT FY25 INDIRECT EXPENSE SUMMARY SHEET				
	FY 2023	FY 2024	% INC	FY 2025
Department				
Town Administrator	13,247	19,727	5%	20,801
Accounting	14,982	20,755	23%	25,518
Treasurer & Collector	27,948	41,017	31%	53,762
	0	0		
	0	0		
Total Departmental	\$79,732	\$81,499	23%	\$100,081
Insurance & Expenses				
Health Insurance	235,209	249,322	6.00%	264,281
Life Insurance	337	0	0.00%	403
Retirement	223,730	\$239,363	5.00%	251,331
Retiree Health Insurance	110,536	117,168	6.00%	124,198
Property & Vehicle Insurance	61,145	67,260	15.00%	77,348
Workers' Compensation Insurance	36,221	39,843	10.00%	43,827
Medicare	17,375	19,155	3.00%	19,730
Audit	4,000	4,900	0.00%	4,900
Total Insurance & Expenses	\$688,553	\$737,010	7%	\$786,018
Total Indirect Costs	\$768,286	\$818,509	8%	\$886,099
Notes				
1. Property and Vehicle Insurance- estimated increase of 15% from FY24 (new vehicles to be acquired in FY25)				
2. Workers' Compensation - estimated increase of 10% from FY24				
3. Medicare based on FY24 S&W * 3% anticipated salaries increase from FY24				
4. OPEB is a separate line item in the budget				
5. Retirement - estimated increase of 5% from FY24				
6. Audit = 10% of total cost				
8. Health Insurance increase at 6% for FY 25				
9. Employer cost for life ins = 2.49 pp per mo for active, 1.24 pp per mo retiree (12 active, 3 retired)				

VI. OLD BUSINESS
B. FY25 Water Budget

2025 WATER ENTERPRISE FUND BUDGET

1320	WATER ENTERPRISE FUND	2022	2023	2024	2025
596000	OFUS / INDIRECTS	727,304	759,278	818,913	861,327
	TOTAL INDIRECTS	727,304	759,278	818,913	861,327
					4.92%
13204501	SALARIES & WAGES				
511100	SALARIES ELECTED OFFICIALS	5,000	5,000	5,000	2,500
511900	SALARIES & WAGES	949,016	983,574	1,034,522	1,054,352
512000	SEASONAL S&W	4,141	0	35,654	24,730
512500	COMPENSATORY TIME	1,416	6,854	0	0
513000	OVERTIME	234,945	228,514	278,396	241,186
514000	LONGEVITY	25,536	27,858	33,665	37,163
515000	VACATION SALARIES & WAGES	11,753	0	0	0
515005	SICK LEAVE BY-BACK @ RETIREMENT	10,818	0	0	0
515007	SICK LEAVE BONUS PER CONTRACT	1,700	1,350	3,325	3,325
	TOTAL SALARIES & WAGES	1,244,325	1,253,150	1,390,562	1,363,256
					-2.00%
13204502	EXPENSES				
517900	OTHER FRINGE BENEFITS	9,971	11,596	11,000	12,100
521100	ELECTRIC UTILITY	341,499	316,884	407,177	443,974
521200	GAS UTILITY	7,534	7,562	8,000	8,000
524140	VEHICLE/EQUIPMENT MAINTENANCE	51,637	56,830	52,000	57,000
524160	BUILDING & GROUNDS MAINTENANCE	51,735	31,077	52,000	52,000
525000	TECHNICAL SUPPORT AGREEMENTS	34,933	37,743	43,540	43,540
526000	BUILDING MAINT AGREEMENTS	4,137	14,487	22,750	15,000
530800	LABORATORY SERVICES	12,278	18,421	35,314	35,314
530820	PROFESSIONAL SERVICES	86,353	64,149	85,000	85,000
530875	PRINTING SERVICES & SUPPLIES	9,147	17,783	10,000	18,000
534100	ADVERTISING	2,491	1,784	2,500	2,500
534300	POSTAGE	18,094	11,585	18,500	18,500
534400	TELEPHONE	7,453	7,497	7,700	3,300
534430	COMMUNICATION SERVICES	16,430	20,489	19,000	21,000
541100	PROPANE UTILITY	16,067	18,370	16,100	18,500
542000	OFFICE SUPPLIES	4,582	7,358	6,300	7,500
542013	HARDWARE/SOFTWARE/OFFICE	6,042	12,557	25,924	35,000
548100	BULK FUEL	26,658	33,761	27,000	34,000
548200	TREATMENT SUPPLIES	14,380	25,399	18,000	25,000
548250	TREATMENT CHEMICALS	165,877	218,317	247,850	247,850
553000	PUBLIC WORKS SUPPLIES	14,751	27,220	27,800	92,800
553100	METERS/READ DEVICES & SUPPLIES	115,987	162,934	180,000	165,000
553200	SERVICE INSTALLATION SUPPLIES	77,125	52,280	77,000	77,000
553300	PIPES, VALVES & FITTINGS	110,394	55,638	110,500	100,000
553350	WATER MAIN REPLACEMENT	31,083	4,892	85,000	65,000
553500	POLICE DETAILS	27,413	19,874	27,500	35,000
553600	ROAD REPAIRS	16,401	18,384	16,500	35,000
553900	MECHANICAL TANK MAINT & INSP	12,495	25,410	13,000	13,000
554200	GENERATOR MAINT	29,634	18,984	29,700	19,000
554300	WELL REHAB	0	43,127	45,000	0
558100	UNIFORMS AND SAFETY SUPPLIES	3,819	11,189	10,000	10,000
573000	DUES/SUBSCRIPTIONS/TRAVEL	8,474	8,370	13,000	13,000
573200	WATER MGMT PERMIT	6,934	8,648	8,500	10,000

2025 WATER ENTERPRISE FUND BUDGET

1320	WATER ENTERPRISE FUND	2022	2023	2024	2025
575070	OPEB	50,000	50,000	50,000	50,000
591000	MATURE PRINCIPAL LONGTERM DEBT	549,467	416,371	404,300	465,095
591500	INTEREST ON LONG TERM DEBT	152,510	124,123	127,941	272,501
591550	ADMIN FEE LT DEBT	2,219	2,092	1,963	1,830
	TOTAL EXPENSES	2,096,003	1,983,184	2,343,359	2,607,304
					<u>10.12%</u>
13204504	REVENUE				
414600	WATER LIENS COLLECTED	14,539	11,766	17,422	17,544
417008	PEN & INT WATER LIENS	1,641	1,346	2,457	2,034
421100	WATER RATES & SERVICES	4,298,718	4,014,723	4,419,575	4,431,393
421200	METERS	15,564	16,727	9,151	12,539
421300	SERVICE APPLICATION FEES	1,236	16,326	1,332	6,087
421400	SERVICE INSTALLATIONS	173,601	224,652	183,693	212,221
421450	MARKOUT SERVICES	13,734	7,035	20,181	15,799
421550	PROPERTY TRANSFER SERVICES	20,922	15,522	22,757	20,346
421600	WIRELESS COMMUNICATION LEASE	135,483	139,548	148,220	152,667
421650	SOLAR REVENUE WATER	169,592	361,965	132,022	208,670
431100	WATER SERVICE TIGHT PLAN	91,728	93,097	98,056	100,844
433007	LATE FEE	57,019	42,793	49,815	50,931
441100	ELECTRICAL SERVICES	1,200	2,600	0	0
451100	BACKFLOW INSPECTIONS	37,464	12,474	21,838	23,136
482001	INVESTMENT REVENUE	797	160	11,676	3,367
484099	WATER MISCELLANEOUS REVENUE	55,437	64,631	52,700	60,331
	TOTAL REVENUE	5,088,676	5,025,364	5,190,895	5,317,908
					<u>2.39%</u>
	TOTAL REVENUE	5,088,676	5,025,364	5,190,895	5,317,908
					<u>2.39%</u>
	TOTAL EXPENSE	4,067,632	3,995,612	4,552,834	4,831,887
					<u>5.78%</u>

- VI. OLD BUSINESS
- C. FY25 Capital Article Funding

**Five Year Capital Outlay Plan
FY 2025 to 2029 DRAFT**

FY25 - FY29 Capital Outlay Plan - Adopted 11-2-23							
Department	Title	FY2025	FY2026	FY2027	FY 2028	FY 2029	Five Year Total
Water Department	Vehicle replacements	270,000					270,000
	<i>Truck 12 Replacement - F-150 ext. Cab</i>	<i>60,000</i>					
	<i>Auxiliary Service Truck - F-350/450 w/ onboard air & inverter</i>	<i>150,000</i>					
	<i>Vehicle 15 Replacement - F-150 Crew Cab</i>	<i>60,000</i>					
Water Department	Equipment replacements - <i>Purchase Loader</i>	232,000					232,000
Water Department	Paint Pleasant Lake Ave. tank	1,750,000					1,750,000
Water Department	Well Rehabilitation	150,000					150,000
Water Department	Pipe discontinuity upgrade - <i>Mill Rd & Harbor Rd</i>		1,500,000				1,500,000
Water Department	New Well Construction & Water Treatment Plant Upgrades			3,500,000			3,500,000
Water Department	196 Chatham Road Improvements - Space Building/Garage				1,500,000		1,500,000
	Water Department	<i>2,402,000</i>	<i>1,500,000</i>	<i>3,500,000</i>	<i>1,500,000</i>	<i>0</i>	
Wastewater Department	Collections System Improvements	75,000					75,000
Wastewater Department	Vehicle Replacement		65,000				65,000
	Wastewater Department	<i>75,000</i>	<i>65,000</i>	<i>0</i>	<i>0</i>	<i>0</i>	

Town of Harwich, Massachusetts
Actual/Authorized/Proposed Debt Service
Actual Debt Service as of June 30, 2022, Including Subsequent MCWT Loan

Date of Issue	Purpose	Type of Payment	2025	2026	2027	2028	2029	Maturity Date
3/15/2010	Water Treatment Plant (O)	Principal	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	2030
		Interest	17,437.50	14,812.50	12,000.00	9,000.00	6,000.00	
10/1/2011	Greensand Water Treatment Facility (O)	Principal	130,000.00	130,000.00	130,000.00	130,000.00	130,000.00	2037
		Interest	54,177.50	50,440.00	46,540.00	42,640.00	38,577.50	
10/30/2012	Adv Ref of Mar 15 05 - Water Storage Tank (O)	Principal	100,000.00	100,000.00	95,000.00	95,000.00	95,000.00	2034
		Interest	21,881.26	19,631.26	17,437.51	15,300.01	12,984.38	
2/21/2018	MCWT DWP-13-02 (O) Revised	Principal	90,095.23	92,053.17	94,054.04	96,097.85	98,186.58	2036
		Interest	24,404.26	22,602.36	20,761.30	18,880.22	16,958.26	
		MCWT Fees	1,830.32	1,695.18	1,557.10	1,416.02	1,271.87	
2024	Rte 28 Water Main Replacement 1 (O) 30 yr Bonds 6/1/2024 - level debt	Principal	70,000.00	70,000.00	75,000.00	80,000.00	80,000.00	2054
		Interest	154,600.00	151,800.00	149,000.00	146,000.00	142,800.00	
		\$3,865,000 BAN Interest	-	-	-	-	-	
2025	Rte 28 Water Main Replacement 2 (O) 30 yr Bonds 6/1/2025 - level debt	Principal	-	75,000.00	80,000.00	80,000.00	85,000.00	2055
		Interest	-	169,200.00	166,200.00	163,000.00	159,800.00	
		\$4,230,000 BAN Interest	-	-	-	-	-	
2025	Pleasant Lake Ave Water Tank Improvements (O) 10 yr Bonds 7/15/2024 - equal principal \$1M from RE	Principal	-	75,000.00	75,000.00	75,000.00	75,000.00	2035
		Interest	-	30,000.00	27,000.00	24,000.00	21,000.00	
		\$750,000 BAN Interest	-	-	-	-	-	
2026	Pipe Discontinuity Upgrade (O) 20 yr Bonds 7/15/2025 - equal principal	Principal	-	-	75,000.00	75,000.00	75,000.00	2046
		Interest	-	-	-	-	-	
		\$1,500,000 BAN Interest	-	-	-	-	-	
2027	New Well Construction (O) 20 yr Bonds 7/15/2026 - equal principal	Principal	-	-	-	175,000.00	175,000.00	2047
		Interest	-	-	-	-	-	
		\$3,500,000 BAN Interest	-	-	-	-	-	
2028	Water - 196 Chatham Rd Improvements (O) 15 yr Bonds 7/15/2027 - equal principal	Principal	-	-	-	-	100,000.00	2043
		Interest	-	-	-	-	-	
		\$1,500,000 BAN Interest	-	-	-	-	-	
Annual Debt Service			739,426	1,077,234	1,139,550	1,301,334	1,387,579	

**Five Year Capital Outlay Plan
FY 2025 to 2029 DRAFT**

FY25 Water Capital Funding	
RE Balance	\$2,649,233
Vehicle Replacements	\$ 270,000
Equipment Replacement	\$ 232,000
P.lake Tank Painting (Bond 750k)	\$1,000,000
Well Rehabilitation	\$ 150,000
WTR RE Balance After Capital	\$ 997,233

FY25 Wastewater Capital Funding	
RE Balance	\$1,114,854
FY24 Correction	\$ 858,742
Col. System Improvements	\$ 75,000
RE Contribution	\$ 100,000
WW RE Balance After Capital	\$ 81,112

Town of Harwich, Massachusetts

\$750,000 Paint Pleasant Lake Ave. Water Tank Bonds - 10 yrs Dated June 1, 2025

(assumes \$1M funded with retained earnings)

Preliminary & Subject to Change

Proposed Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
06/30/2025	-	-	-	-
06/30/2026	75,000.00	4.000%	30,000.00	105,000.00
06/30/2027	75,000.00	4.000%	27,000.00	102,000.00
06/30/2028	75,000.00	4.000%	24,000.00	99,000.00
06/30/2029	75,000.00	4.000%	21,000.00	96,000.00
06/30/2030	75,000.00	4.000%	18,000.00	93,000.00
06/30/2031	75,000.00	4.000%	15,000.00	90,000.00
06/30/2032	75,000.00	4.000%	12,000.00	87,000.00
06/30/2033	75,000.00	4.000%	9,000.00	84,000.00
06/30/2034	75,000.00	4.000%	6,000.00	81,000.00
06/30/2035	75,000.00	4.000%	3,000.00	78,000.00
Total	\$750,000.00	-	\$165,000.00	\$915,000.00

Hilltop Securities Inc.

Public Finance

Free Cash Certification
Retained Earnings Calculation - Water - Fiscal Year 2024

Fixed Assets Variance (Debits - Credits)

0.00

Free Cash Certification
 Retained Earnings Calculation - Sewer Enterprise - Fiscal Year 2024

Enterprise Fund Number A-2(2ND)
 Type of Enterprise Fund Sewer
 Name of Enterprise Fund/Statutory Reference Sewer Enterprise

Part I Cash 1,377,680.00

Current Liabilities, Designations of Fund Balance:

Accounts Payable	0.00
Payroll Payable	0.00
Warrants Payable	0.00
Encumbrances	57,645.00
Expenditures	105,181.00
Continuing Appropriations	0.00

Other Liabilities

Reserve for Special Purposes	100,000.00
Total	262,826.00

Cash less Current Liabilities	<u>1,114,854.00</u>
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Part II Retained Earnings, Undesignated	<u>1,114,854.00</u>
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Accounts Receivable (net):

User Fees	0.00
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Other Accounts Receivable

Total	0.00
	<u>0.00</u>

Undesignated Retained Earnings Less Accounts Receivable	<u>1,114,854.00</u>
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Fixed Assets

Debits:

Total	0.00
	<u>0.00</u>

Credits:

Total	0.00
	<u>0.00</u>

Free Cash Certification

Retained Earnings Calculation - Sewer Enterprise - Fiscal Year 2024

Fixed Assets Variance (Debits - Credits)

0.00

Free Cash Certification
 Free Cash Calculation - Fiscal Year 2024

Begin:	
Unreserved Undesignated Fund Balance	4,672,910.00
Subtract:	
Personal Property Tax Receivable	57,282.00
Real Estate Tax Receivable	1,285,619.00
Other Receivables in Deferred Revenue	0.00
Total	0.00
Other Receivables, Overdrawn Accounts, Deficits	
GF Federal Income Tax Withholding	18.00
GF FIC	25.00
State Tax WH	39.00
GF Deputy Fees Collected	25.00
GF Bulk Fuel	17,217.00
SRF FEMA- Fire Grant	9,675.00
SRF Fire Safety Equipment	60,950.00
SRF Traffic Enforcement	2,713.00
SRF CH90	289,345.00
SRF DPW Grants/Gifts	4,811.00
CP Saquatucket Harbor/Dock Project	19,339.00
TR CPA Fund	11.00
GF Nationwide Reti Sol Def'd Com	23.00
Total	404,191.00
Free Cash Voted from Town Meeting Not Recorded	0.00
Add:	
Circuit Breaker, Other Closed Accounts, Adjustments:	
	0.00
Total	0.00
Deferred Revenue (Credit Balance+, Debit Balance-)	30,845.00
Free Cash Calculation for 2023	2,956,463.00

Free Cash Certification
Free Cash Calculation - Fiscal Year 2024

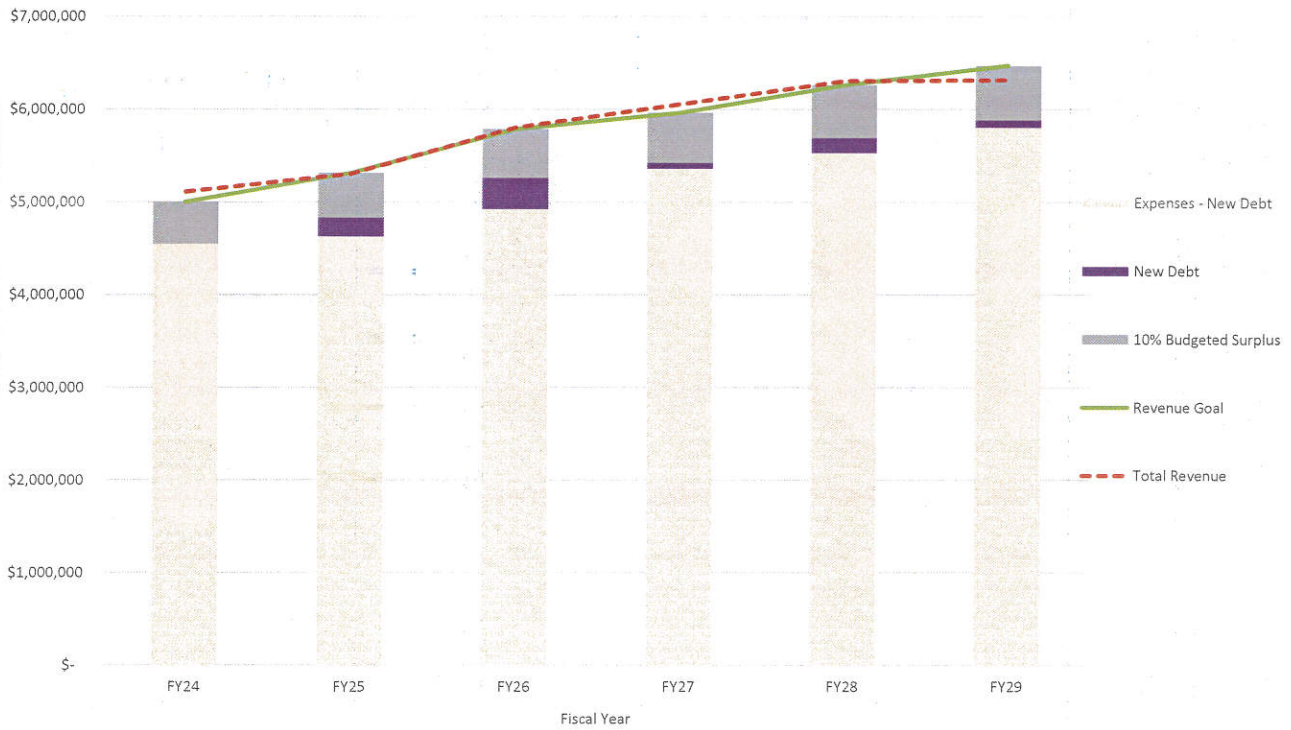
Reviewed By: Katie Scopelleti
Certified On: 2/26/2024

VI. OLD BUSINESS
D. FY25 Water Rates

FY25-FY29 Rate Scenario						
		FY25A	FY26B	FY27C	FY28D	
USAGE (GAL)	2024	2025	2026	2027	2028	2029
Q1	341,537,577	342,897,027	344,254,684	345,610,553	346,964,638	348,233,501.66
Q2	100,392,992	100,792,595	101,191,670	101,590,220	101,988,245	102,361,220.46
Q3	70,795,635	71,077,429	71,358,851	71,639,902	71,920,584	72,183,600.11
Q4	175,980,643	176,681,113	177,380,659	178,079,284	178,776,990	179,430,784.67
Total (GAL)	688,706,847	691,448,163	694,185,864	696,919,958	699,650,458	702,391,655
RATES						
Base Rate	\$ 45.00	\$ 45.00	\$ 52.00	\$ 58.00	\$ 64.00	\$ 64.00
Tier 1	\$ 1.42	\$ 1.42	\$ 1.56	\$ 1.56	\$ 1.56	\$ 1.56
Tier 2	\$ 2.92	\$ 2.92	\$ 3.21	\$ 3.21	\$ 3.21	\$ 3.21
Tier 3	\$ 4.35	\$ 4.35	\$ 4.79	\$ 4.79	\$ 4.79	\$ 4.79
Tier 4	\$ 6.31	\$ 6.31	\$ 6.94	\$ 6.94	\$ 6.94	\$ 6.94
REVENUE (\$)						
Q1	\$ 1,969,153	\$ 1,975,200	\$ 2,204,363	\$ 2,270,997	\$ 2,337,622	\$ 2,343,830.47
Q2	\$ 778,310	\$ 779,617	\$ 884,014	\$ 945,448	\$ 1,006,880	\$ 1,008,221.52
Q3	\$ 631,024	\$ 631,744	\$ 720,710	\$ 781,501	\$ 842,290	\$ 843,029.96
Q4	\$ 980,246	\$ 1,032,356	\$ 1,107,911	\$ 1,170,226	\$ 1,232,539	\$ 1,234,705.51
Rate Revenue	\$ 4,358,733	\$ 4,418,918	\$ 4,916,998	\$ 5,168,172	\$ 5,419,331	\$ 5,429,787
Non-Rate Revenue	\$ 751,442	\$ 886,515	\$ 886,515	\$ 886,515	\$ 886,515	\$ 886,515
Total Revenue	\$ 5,110,175	\$ 5,305,433	\$ 5,803,513	\$ 6,054,687	\$ 6,305,846	\$ 6,316,302
Expenses - New Debt	\$ 4,549,097	\$ 4,626,665	\$ 4,924,420	\$ 5,360,717	\$ 5,530,246	\$ 5,802,635
New Debt		\$ 205,222	\$ 337,808	\$ 62,315	\$ 161,784	\$ 82,244
Total Exp.	\$ 4,549,097	\$ 4,831,887	\$ 5,262,228	\$ 5,423,032	\$ 5,692,030	\$ 5,884,879
10% Budgeted Surplus	\$ 454,910	\$ 483,189	\$ 526,223	\$ 542,303	\$ 569,203	\$ 588,488
Revenue Goal	\$ 5,004,007	\$ 5,315,076	\$ 5,788,451	\$ 5,965,335	\$ 6,261,233	\$ 6,473,367
(+/-) Revenue Goal	106,168.10	(9,642.84)	15,061.95	89,351.90	44,612.73	(157,064.39)
Revenue Goal + 1%	\$ 5,054,047.10	\$ 5,368,226.46	\$ 5,846,335.64	\$ 6,024,988.23	\$ 6,323,845.37	\$ 6,538,100.53
	Yes	Yes	Yes	Yes	Yes	No
Revenue Goal - 1%	\$ 4,953,966.96	\$ 5,261,924.94	\$ 5,730,566.62	\$ 5,905,681.53	\$ 6,198,620.71	\$ 6,408,633.19
Rates Only	\$ 2,389,579.70	\$ 2,443,717.62	\$ 2,712,635.10	\$ 2,897,174.82	\$ 3,081,708.58	\$ 3,085,956.99

No change to water rates for FY25 & Shift P.Lake Debt out to FY26

FY24 - FY29 Revenue vs. Expenses (Proposed)



	Revenue vs. Expenses (Proposed)					
	FY24	FY25	FY26	FY27	FY28	FY29
Expenses - New Debt	\$ 4,549,097	\$ 4,626,665	\$ 4,924,420	\$ 5,360,717	\$ 5,530,246	\$ 5,802,635
New Debt		\$ 205,222	\$ 337,808	\$ 62,315	\$ 161,784	\$ 82,244
10% Budgeted Surplus	\$ 454,910	\$ 483,189	\$ 526,223	\$ 542,303	\$ 569,203	\$ 588,488
Revenue Goal	\$ 5,004,007	\$ 5,315,076	\$ 5,788,451	\$ 5,965,335	\$ 6,261,233	\$ 6,473,367
Total Revenue	\$ 5,110,175	\$ 5,305,433	\$ 5,803,513	\$ 6,054,687	\$ 6,305,846	\$ 6,316,302

VI. OLD BUSINESS
E. FY25 Wastewater Budget

2025 WASTEWATER ENTERPRISE FUND BUDGET

1330	WASTEWATER ENTERPRISE FUND	2022	2023	2024	2025
596000	OFUS / INDIRECTS	31,443	31,687	62,148	0
	TOTAL INDIRECTS	31,443	31,687	62,148	62,148
					-100.00%
13304401	SALARIES & WAGES				
511100	SALARIES ELECTED OFFICIALS	0	0	0	2,500
511900	SALARIES & WAGES	78,997	82,914	175,178	200,124
	TOTAL SALARIES & WAGES	78,997	82,914	175,178	202,624
					13.55%
13304402	EXPENSES				
521100	ELECTRIC UTILITY	3,836	6,374	20,000	20,000
521200	GAS UTILITY	562	582	600	1,400
530820	PROFESSIONAL SERVICES	71,713	40,767	0	0
530825	PROF/ARCHITECT/ENG SERVICES	42,323	315,096	398,675	406,260
530875	PRINTING SERVICES & SUPPLIES	3,000	162	3,000	5,000
554200	GENERATOR MAINT	285	815	2,250	3,000
554210	COLLECTION MAINTENANCE	0	0	20,000	0
591000	MATURE PRINCIPAL LONGTERM DEBT	0	713,400	211,084	0
591500	INTEREST ON LONG TERM DEBT	0	248,978	216,076	0
591550	ADMIN FEE LT DEBT		0	26,217	0
	TOTAL EXPENSES	121,719	1,326,173	897,902	435,660
					-106.10%
13304404	REVENUE				
422200	USER FEES	305	23,742	15,000	50,000
482001	INVESTMENT REVENUE	288	144	0	0
484099	MISCELLANEOUS REVENUE	989	0	0	0
	TOTAL REVENUE	1,582	23,886	15,000	50,000
					70.00%
	TOTAL REVENUE	1,582	23,886	15,000	50,000
					70.00%
	TOTAL EXPENSE	232,159	1,440,774	1,135,228	700,432
					-62.08%
	RETAINED EARNINGS CONTRIBUTION				\$ 100,000
	DELTA / EST General Fund Subsidy	230,577	1,416,888	1,120,228	550,432

NEW BUSINESS

A. Water/Wastewater Charter Revisions

NEW BUSINESS

B. Wastewater Assistance Program Funding

FY20 WASTEWATER/SEWER BUDGET

ARTICLE 8: To see if the Town will vote to raise and appropriate, transfer from available funds or borrow such sums of money as may be required to defray the Wastewater/Sewer Department Operating Budget for Fiscal Year 2020, and to act fully thereon. By request of the Board of Selectmen. Estimated cost: \$225,000.

Explanation: The FY19 Budget included this budget in the amount of \$70,000. It is anticipated that due to the small number of initial users that the town will need to subsidize payments obligated to Chatham IMA for use of their plant. This budget increase to \$125,000 is taxpayer supported. The FY 2020 Budget will be used to fund a \$75,000 Program Administrator to help in transition. The D/H/Y efforts would be funded with \$25K and \$25K to amend the CWMP. \$100,000 from Free Cash would be used to fund a program to help connection costs for income eligible people through the County.

**THE FINANCE COMMITTEE RECOMMENDS THIS ARTICLE BE ACCEPTED AND ADOPTED TO FUND THE ANNUAL OPERATION OF THE WASTE WATER DEPARTMENT AND THAT \$125,000 BE TRANSFERRED, WITH \$100,000 TO COME FROM FREE CASH FOR THIS PURPOSE. THIS IS THE BEGINNINGS OF OPERATIONS FOR THIS DEPARTMENT AND WILL BE BUILT OVER THE NEXT SEVERAL YEARS UNTIL FULL OPERATION.
VOTE: YES-8, NO-0**

X. CORRESPONDENCE / ANY OTHER BUSINESS

Month/Year February 2024

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	29,178	41,534	32,019	76,752	38,861	48,702	0	79,419	81,090	91,369	77,067	78,018	94,887	85,080
2	29,725	42,318	33,693	78,651	40,147	50,548	0	79,324	82,181	91,936	77,324	78,269	96,122	85,549
3	27,275	38,811	28,958	72,822	36,587	45,953	0	73,775	74,337	84,048	71,493	72,378	86,276	78,929
4	28,042	40,064	30,397	74,697	37,770	47,400	0	75,682	77,209	86,864	73,538	74,449	89,327	81,298
5	29,632	42,257	32,733	78,810	40,016	50,254	0	79,532	82,359	92,312	77,288	78,282	50,365	85,551
6	29,987	42,884	31,748	76,541	40,900	51,794	0	56,542	58,274	65,501	76,222	77,090	47,814	84,007
7	28,209	40,100	31,189	75,184	37,800	47,465	0	75,863	77,349	86,882	73,714	74,649	89,071	81,478
8	26,322	37,430	29,429	70,596	35,143	44,081	0	71,288	71,921	81,016	69,107	69,981	82,783	76,280
9	27,199	38,800	29,463	72,747	36,363	45,530	0	73,666	74,467	83,957	71,380	72,227	85,013	78,838
10	26,981	38,445	30,568	72,704	36,085	45,366	0	73,336	74,083	83,504	71,240	72,164	83,911	78,734
11	27,138	38,498	31,157	72,600	36,073	45,336	0	73,475	74,444	83,996	71,319	72,258	83,654	78,866
12	20,143	28,692	20,932	52,992	27,139	34,196	0	53,900	56,707	63,693	52,558	53,291	64,544	58,286
13	31,535	44,673	34,120	83,023	42,291	53,230	80	84,039	87,198	98,369	81,820	82,895	98,536	90,691
14	28,845	41,148	31,177	76,298	39,028	49,134	0	69,453	72,623	80,686	67,903	68,819	84,698	75,241
15	27,856	39,734	29,999	73,797	37,723	47,435	5,007	74,422	75,236	85,211	72,312	73,288	89,088	80,030
16	26,371	37,633	28,944	70,210	35,563	44,536	0	70,859	71,501	80,608	68,798	69,732	84,119	76,021
17	27,322	39,194	28,944	73,011	37,145	46,648	0	73,727	74,712	84,118	71,650	72,603	87,708	79,334
18	28,571	41,349	30,878	76,882	39,388	49,428	0	77,705	79,783	89,785	75,528	76,564	93,307	83,777
19	27,736	39,818	30,635	74,177	37,734	47,389	0	74,895	76,463	86,107	72,795	73,783	89,267	80,666
20	27,769	39,815	29,110	74,299	37,739	47,404	0	75,101	76,609	86,146	72,803	73,804	89,057	80,659
21	26,938	38,365	28,727	71,778	36,083	45,324	0	72,454	73,287	82,714	70,201	71,170	85,378	77,721
22	27,437	39,735	29,764	74,080	37,530	47,082	194	74,993	76,367	85,992	72,636	73,662	88,274	80,470
23	26,171	37,890	29,162	71,116	35,601	44,697	22	71,957	72,154	81,438	69,614	70,581	83,361	77,052
24	27,385	39,553	30,218	73,886	37,166	46,674	0	74,830	74,861	85,476	72,598	73,591	87,104	80,409
25	27,663	40,071	29,006	74,847	37,883	47,490	0	75,673	76,863	87,034	73,475	74,498	88,744	81,464
26	27,642	40,346	30,674	75,496	37,978	47,633	0	76,205	79,003	87,399	73,867	74,903	89,213	81,789
27	26,407	38,026	30,334	71,405	35,844	45,045	0	72,086	74,764	82,521	69,891	70,872	83,885	77,364
28	25,760	37,133	29,362	70,247	34,674	43,640	0	71,199	72,383	80,247	68,656	69,634	81,236	75,894
29	26,096	37,338	27,108	70,168	35,020	43,822	1	71,153	72,739	80,674	68,708	69,666	81,773	75,990
30														
31														
Pumps :	797,332	1,141,652	870,448	2,129,814	1,077,278	1,353,236	5,304	2,126,554	2,170,968	2,439,604	2,085,505	2,113,121	2,438,515	2,307,468
MIN :	20,143	28,692	20,932	52,992	27,139	34,196	0	53,900	56,707	63,693	52,558	53,291	47,814	58,286
MAX :	31,535	44,673	34,120	83,023	42,291	53,230	5,007	84,039	87,198	98,369	81,820	82,895	98,536	90,691
STATIONS :	7,375,064				6,737,125				4,198,626			2,438,515	2,307,468	
TOTAL :	23,056,798													

Month/Year February 2023

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	29,216	30,701	32,723	53,288	38,346	47,710	0	69,186	72,692	0	69,440	70,751	115,779	86,856
2	50,457	57,763	58,049	99,575	72,021	89,147	0	131,885	138,458	0	132,377	129,841	130,781	131,500
3	28,699	24,522	26,107	42,565	30,880	38,286	0	57,003	60,003	0	57,013	56,662	101,975	61,589
4	33,756	35,491	0	62,663	44,690	55,865	0	77,730	81,764	0	78,454	78,015	97,180	85,188
5	59,683	61,702	11	109,983	78,506	98,139	0	138,201	145,323	0	139,139	138,296	172,785	150,902
6	56,078	58,865	34,136	103,072	73,673	92,088	0	131,369	138,199	0	132,136	131,332	164,279	143,564
7	58,641	60,529	66,246	107,222	76,915	95,956	0	137,827	144,890	0	78,368	78,950	91,961	105,538
8	52,851	55,116	61,040	95,503	68,791	85,519	0	125,066	131,517	0	125,653	123,766	155,626	125,280
9	46,959	48,525	53,284	85,032	61,302	76,217	0	111,258	116,913	0	111,725	111,019	138,183	120,954
10	47,804	50,237	56,265	85,723	61,965	77,135	0	114,250	120,080	0	114,094	113,380	138,553	123,438
11	58,067	59,905	65,571	106,057	76,307	95,108	0	136,930	144,057	0	137,749	136,946	153,579	149,657
12	28,975	30,273	33,790	52,829	38,021	47,360	0	68,379	71,978	0	68,858	68,449	102,193	74,771
13	32,772	38,581	42,424	67,132	48,275	60,143	0	87,124	91,545	0	86,223	89,692	96,331	107,682
14	46,372	43,689	48,398	77,290	55,239	68,992	0	99,070	104,271	0	101,078	96,619	134,728	95,788
15	32,723	42,812	47,207	75,467	54,152	67,398	0	97,076	102,029	0	96,237	99,667	95,423	118,524
16	49,314	42,364	47,851	73,735	53,078	66,254	0	96,294	101,419	0	98,090	93,545	142,834	92,395
17	31,987	33,386	37,358	58,843	42,117	52,627	0	75,045	79,050	0	75,815	75,389	94,171	82,401
18	32,220	33,329	35,899	59,424	42,559	53,128	0	75,571	79,629	0	76,318	75,902	94,917	83,154
19	46,698	48,410	52,770	83,548	60,692	75,342	0	111,674	117,422	0	111,490	110,824	137,933	120,690
20	33,590	34,289	38,274	60,302	43,232	54,019	0	76,971	81,130	0	77,765	77,361	96,324	84,541
21	32,674	33,163	36,935	58,241	41,911	52,285	0	74,822	78,755	0	113,859	113,232	93,891	82,356
22	32,923	32,984	36,768	58,761	42,320	52,763	0	75,511	79,510	0	76,054	75,673	94,358	82,895
23	50,618	50,801	56,339	89,272	64,540	80,117	0	118,145	124,189	0	118,160	117,544	146,974	128,432
24	28,654	28,794	32,127	50,904	36,746	45,784	0	66,333	69,877	0	66,745	66,399	83,109	72,579
25	35,355	36,058	7	64,343	45,832	57,425	0	79,652	83,824	0	80,357	79,950	99,608	87,386
26	35,989	36,439	3	65,471	46,706	58,480	0	81,097	85,301	0	81,784	81,382	101,562	89,039
27	32,776	42,675	15,477	76,239	54,853	68,302	0	97,788	102,726	0	96,688	100,233	92,921	119,523
28	47,520	37,772	42,251	66,861	48,738	60,462	0	89,924	94,639	0	84,052	79,555	136,154	84,960
29														
30														
31														
Pumps :	1,153,372	1,189,174	1,057,310	2,089,345	1,502,407	1,872,054	0	2,701,180	2,841,190	0	2,685,721	2,670,374	3,304,112	2,891,582
MIN :	28,654	24,522	0	42,565	30,880	38,286	0	57,003	60,003	0	57,013	56,662	83,109	61,589
MAX :	59,683	61,702	66,246	109,983	78,506	98,139	0	138,201	145,323	0	139,139	138,296	172,785	150,902
STATIONS :	8,863,661							5,542,369			5,356,095		3,304,112	2,891,582
TOTAL :	25,957,820													

Date February 2024
 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		0.02	40	34	37		
2		0.03	43	38	41		
3		0.01	39	33	36		
4		0.00	37	30	33		
5		0.00	39	32	36		
6		0.00	38	34	36		
7		0.00	41	31	36		
8		0.00	43	28	36		
9		0.00	41	27	34		
10		0.00	47	36	41		
11		0.00	49	34	41		
12		0.00	47	32	39		
13		1.51	40	28	34		
14		0.00	34	27	30		
15		0.01	36	25	31		
16		0.01	39	29	34		
17		0.01	36	28	32		
18		0.00	37	22	30		
19		0.00	39	24	32		
20		0.00	34	23	29		
21		0.00	37	22	29		
22		0.00	38	25	31		
23		0.23	44	37	40		
24		0.00	42	30	36		
25		0.00	35	23	29		
26		0.00	45	32	38		
27		0.00	54	35	45		
28		0.85	51	46	49		
29		0.17	48	30	39		
30							
31							
Total		2.85					
Average		0.10	41.1	30.1			
Max		1.51	53.8	45.8			
Min		0.0	33.6	21.5			

Date February 2023
 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		0.09	35	23	29		
2		0.00	37	20	29		
3		0.00	35	5	20		
4		0.00	18	0	9		
5		0.00	46	15	30		
6		0.00	44	37	40		
7		0.00	38	32	35		
8		0.05	49	34	41		
9		0.00	48	31	39		
10		0.00	59	43	51		
11		0.00	46	30	38		
12		0.00	45	32	39		
13		0.57	44	35	39		
14		0.05	48	32	40		
15		0.00	50	31	41		
16		0.00	58	42	50		
17		0.26	51	34	43		
18		0.00	35	30	33		
19		0.00	47	29	38		
20		0.14	52	40	46		
21		0.28	42	37	40		
22		0.11	46	36	41		
23		0.43	40	38	39		
24		0.04	44	27	35		
25		0.00	28	22	25		
26		0.01	36	20	28		
27		0.04	37	31	34		
28		0.06	38	33	36		
29							
30							
31							
Total		2.13					
Average		0.08	42.7	29.2			
Max		0.57	58.6	42.9			
Min		0.0	18.0	0.0			