# BOARD OF WATER & WASTEWATER COMMISSIONER'S MEETING AGENDA\*

# Harwich Water Department, 196 Chatham Road, Harwich MA

Thursday, April 4, 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.

١.

11.

III.

IV.

**CALL TO ORDER** 

**EXECUTIVE SESSION** 

CONSENT AGENDA

A. Minutes

February 22, 2024
 March 8, 2024

**PUBLIC COMMENTS / ANNOUNCEMENTS** 

	3. March 14, 2024
V.	ABATEMENTS A. 2 Lucaya Ln
VI.	OLD BUSINESS
VII.	NEW BUSINESS  A. Department Phone System  B. Approve SCADA Agreement with EDR; \$53K  C. Water/Wastewater Superintendent Job Description & Posting  D. 2023 Consumer Confidence Report  E. Q3 Billing Proof  F. 2023 Annual Statistical Report
VIII.	SUPERINTENDENT'S REPORT  A. Monomoy Lens  B. Spring Flushing
IX.	COMMISSIONER'S REPORT
Χ.	CORRESPONDENCE / ANY OTHER BUSINESS
XI.	NEXT MEETING: TBD
XII.	<u>ADJOURNMENT</u>
Chair 48 ho If you are a	ctorney General's Office: The Board of Water Commissioners may hold an open session for topics not reasonably anticipated by the purs in advance of the meeting following "New Business." Leaf or hard of hearing or are a person with a disability who requires an accommodation, contact the Water Department Office at 804 x.0 or by email at customerservice@harwichwater.com.
Authoria	zed Posting Officer: Town Posting Date:
Tracey A	Alves   Board Secretary   Town Clerk

# IV. CONSENT AGENDA

A. Minutes

1. February 22, 2024

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

Thursday, February 22, 2024 11:30 a.m.

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

**OTHERS PRESENT:** Superintendent Dan Pelletier, Administrative Assistant Tracey Alves, Billing Administrator Wellesley Marsh, Garden Club member Diane DiGennaro

#### **CALL TO ORDER**

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

# **CONSENT AGENDA**

- A. Minutes
  - 1. January 4, 2024
  - 2. February 1, 2024

The minutes of January 4, 2024 and February 1, 2024 will be added to the next agenda.

# **ABATEMENTS**

# A. 46 Cross St

The Board reviewed the abatement request submitted by 46 Cross St. Vice Chair Donahue motioned to deny the abatement request with a second by Clerk Thompson. Commissioner Underwood asked for the option of a payment plan to be offered. The motion was amended to include a payment plan. A roll call vote was taken with all in favor; 5-0-0.

# **NEW BUSINESS**

# A. Capital Plan Debt Projections

Superintendent Pelletier reviewed with the Board the most recently updated FY25-FY29 Capital Plan for the Department as well as the Town of Harwich actual authorized proposed debt service table.

# B. FY25 Water Rates

Superintendent Pelletier reviewed a water rates table with the Board. If the water rates are left the way they are and don't change, the Department will begin to fall short of is revenue goals in FY25.

# C. Garden Club Water Bill Insert

Diane DiGennaro, Chair of Conservation Committee of the Garden Club explained that they are taking on an initiative for the Town involving composting. They are asking for a buck slip to be inserted into the April water billing to inform residents about the food scraps program at the landfill that will roll out on June 1<sup>st</sup>. The Garden Club would be happy to pay for the buck slips.

Diane DiGennaro asked the Board if they would be willing to partner with the Garden Club and allow them to put a buck slip in with the April invoices?

Clerk Thompson motioned to approve the request with a second by Vice Chair Donahue. A roll call vote was taken with all in favor; 5-0-0.

Diane DiGennaro will send the buck slip over and then a price quote can be given regarding cost.

# SUPERINTENDENT'S REPORT

The drillers will be out next week.

An offer for the Assistant Superintendent position has been extended!

The Phase 3 wastewater information session is scheduled for March 7, 2024 at 7:00 p.m. in the multi-purpose room of the Community Center. The septic ties have been uploaded for all of Phase 3 and design drawings should be ready for people to look at.

Superintendent Pelletier reached out to Mark Abrams to develop an Indirect expense policy for debt.

# **NEXT MEETING**

The next Board meeting is scheduled to take place on Thursday, March 14, 2024 at 11:30 a.m.

# **ADJOURN**

Chair Carreiro entertained a motion to adjourn at 12:47p.m with a second by Clerk Thompson. 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	

V. <u>ABATEMENTS</u> A. 2 Lucaya Ln Abatement Request

Account # 08437

Address: 2 Lucaya Ln

Bill # 52399: \$495.41

I would like to appeal bill number 52399 for account number 08437. Water had a slight leak and I called for service. When repair man came he commented that the meter was old I asked how long meters lasted and he said 15 or so. This meter is around 27 years old. He replaced it and left. When I called about bill I was told meter had frozen and split. Find this difficult to believe as for 27 years and some very cold winters I never had a problem. This has been a very mild winter. Meter is in house and heat is left on as we come to cape almost every weekend. I feel this replacement should be covered by regular replacements schedule. Thanks looking forward to hearing from you.

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



# Accounts

Account: 08437

1. 2 LUCAYA LN.

3/21/24 ABATEMENT REQUEST RECEIVED. BOWWC WILL REVIEW ON 4/4 3/20/24 CALLED OWNER TO DISCUSS CHARGE FOR METER. RELAYED THAT HE IS ABLE TO APPLY FOR AN ABATEMENT.

3/19/24 OWNER CALLED. TRANSFERRED CALL TO SH FOR A RETURN CALL. 3/15/24 OWNER CALLED RE: CHARGE FOR NEW METER. / SH WILL CALL HIM BACK ON MONDAY AFTER CHECKING METER (#38919755) AND TALKING TO JEREMY.

2/7/24 CHANGED FROZEN METER (METER IS FROM 1996-28 YEAR OLD METER). BASE PLATE WAS CRACKED. 046995.

2/5/24 LEAK AT METER. SET FOR 2/6

2/9/11 INSTALLED RADIO 018300 11/18/08 CUSTOMER CALLED CONCERNED THAT SHE HAD NOT RECEIVED A BILL AND DID NOT WANT TO GET HIT WITH A FEE, PUT PAYMENT IN MAIL TODAY

DATE	CODE	READING	USAGE	AMOUNT	BALANCE
06/01/2005	1	42000	2000	50.00-	.00
04/14/2005 11/29/2004	$_{1}^{10}$	43000	3000	50.00 55.25-	50.00
10/14/2004	10	40000	18000	55.25	55.25
05/14/2004	1	10000	10000	50.00-	.00
04/28/2004	1 5			25.00-	50.00
04/08/2004	10	22000	3000	50.00	75.00
01/26/2004	1_			50.00-	25.00
01/13/2004	-1	10000	11000	25.00	75.00
10/22/2003 06/03/2003	10 1	19000	11000	50.00	50.00
04/28/2003	10	8000		25.00- 25.00	.00 25.00
01/06/2003	1	0000		25.00-	.00
11/01/2002	10	8000	1000	25.00	25.00
07/12/2002	1			25.00-	.00
06/03/2002	10	7000		25.00	25.00
04/26/2002	1			25.00-	.00
01/29/2002	10	7000		25.00	25.00
04/09/2001 02/13/2001	1	7000	1000	25.00-	.00
09/21/2000	10 1	7000	1000	25.00 25.00-	25.00 .00
08/03/2000	10	6000		25.00	25.00
06/14/2000	1	0000		25.00-	.00
04/21/2000	10	6000		25.00	25.00
10/23/1999	100			.00	.00



# **ACCOUNT SUMMARY**

AR Category: 60

Form Type: A ACCOUNT DETAIL

,						Form Type: A	ACCOUNT DETAIL	
Account #	Customer	Name				Interest Due	Ending Balance	Total Bus
Location					Parcel	interest bue	Eliurity Barance	Total Due
	Date	Bill#	P Service #	Туре		Curr Read # Usage	Amount	湖台的是黑色
08437	307973					.00	495.41	495.41
2	LUCAYA LN		HP MA	02645	25/R1-28-R		433.41	433.41
	02/29/2024 02/29/2024	520399	SVCLAB-001				50.00	
	01/29/2024	520399 518457	FRZMTR-001	Charge			445.41	
	12/29/2024	518457	1WATER-001 1WATER-001	Pmt Pr	CHECK	Chk/Ref # 2897	-62.20	
	12/29/2023 11/06/2023	507913	1WATER-001	Charge Pmt Pr	DANK VEED	469000 10000	62.20	
	09/79/2023	507913	1WATER-001		BANK XFER	459000 7000	-54.94	
	08/14/2023 06/30/2023	497267	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 387	54.94 -47.84	
	06/30/2023	497267	1WATER-001	Charge	CHECK	452000 2000	47.84	
	05/08/2023	486828	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 498	-46.42	
	04/10/2023	486828	1WATER-001	Charge		450000 1000	46.42	
	02/21/2023	476337	1WATER-001		CHECK	Chk/Ref # 2337	-47.84	
	12/30/2022	476337 465920	1WATER-001	Charge		449000 2000	47.84	
	10/28/2022 09/26/2022	465920	1WATER-001 1WATER-001	Pmt Pr Charge	CHECK	Chk/Ref # 2837	-59.28	
	08/10/2022	465920 455259	1WATER-001	Pmt Pr	CHECK	447000 9000 Chk/Ref # 796	59.28	
	06/30/2022	455259	1WATER-001	Charge	CHECK	438000 3000	-49.05	
	06/30/2022 05/02/2022	444658	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 2278	49.05 -46.35	
	03/31/2022	444658	1WATER-001	Charge		435000 1000	46.35	
	03/31/2022 02/07/2022 12/30/2021	434301	1WATER-001		CHECK	Chk/Ref # 2793	-46.35	
	12/30/2021	434301	1WATER-001	Charge		434000 1000	46.35	
	11/01/2021	423850 423850	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 331	-55.80	
	10/01/2021 08/05/2021	423630	1WATER-001 1WATER-001	Charge Pmt Pr	Multiple	433000 8000	55.80	
	06/29/2021	413402 413402	1WATER-001	Charge	Murcipie	425000 3000	-38.87	
	05/05/2021 04/02/2021	402852	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 789	38.87 -40.16	
	04/02/2021	402852 402852	1WATER-001	Charge	CITER	422000 4000	40.16	
	02/08/2021	392399 392399 381502	1WATER-001		CHECK	Chk/Ref # 787	-41.45	
	12/31/2020 11/09/2020	392399	1WATER-001	Charge		418000 5000	41.45	
	09/30/2020	381502 381502	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 786	-67.82	
	08/07/2020	371074	1WATER-001 1WATER-001	Charge Pmt Pr	CHECK	413000 16000	67.82	
	08/07/2020 06/26/2020	371074 371074	1WATER-001	Charge	CHECK	Chk/Ref # 784 397000 5000	-41.45	
	06/15/2020	360817	1WATER-001	Pmt Pr	CHECK	397000 5000	41.45 -37.58	
	04/17/2020	360817	1WATER-001	Charge	CITECI	Chk/Ref # 2667 392000 2000	-37.36 37.58	
	06/15/2020 04/17/2020 02/03/2020	360817 350503	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 263	37.58 -38.87	
	01/09/2020	350503	1WATER-001	Charge		390000 3000	38 87	
	11/12/2019 10/04/2019	340048 340048	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 2643	-58.57 58.57	
	08/05/2019	329680	1WATER-001	Charge	SUE SU	387000 13000	58.57	
	06/03/2019	329680	1WATER-001 1WATER-001	Pmt Pr Charge	CHECK	Chk/Ref # 2628	-38.87	
	06/28/2019 05/06/2019	329680 319155	1WATER-001	Pmt Pr	CHECK	374000 3000 Chk/Ref # 773	38.87	
	04/09/2019	319155	1WATER-001	Charge	CHECK	371000	-35.00 35.00	
	01/28/2010	308815	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 2579	-37.58	
	01/10/2019 01/10/2019 11/13/2018 10/15/2018 08/22/2018 06/29/2018	308815	1WATER-001	Charge		371000 2000	37.58	
	11/13/2018	298327 298327	1WATER-001	Pmt Pr	CHECK	Chk/Ref # 772	-58.57	
	10/15/2018 08/22/2019	298327 287989	1WATER 001	Charge	64511	369000 13000	58.57	
	06/29/2018	287989	1WATER-001 1WATER-001	Pmt Pr Charge	CASH	356000 4000	-5.16	
	04/23/2018	277385	1WATER-001		CHECK	356000 4000	5.16	
	- , 23, 2310	,505	THAT EK OUT	THIC FT	CHECK	Chk/Ref # 763	-73.87	

# VII. <u>NEW BUSINESS</u>

B. Approve SCADA Agreement with EDR; \$53K

# AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES BETWEEN THE TOWN OF HARWICH, MASSACHUSETTS AND

# Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., FOR SCADA Maintenance Services

THIS AGREEMENT made this 4<sup>th</sup> day of April, 2024 between Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C., with a usual place of business at 396 Main Street, Suite 15, Hyannis, MA 02601, hereinafter called the "ENGINEER," and the Town of Harwich, MA, acting by its Board of Water/Wastewater Commissioners, with a usual place of business at 196 Chatham Road, Harwich, MA hereinafter called the "TOWN".

The ENGINEER and the TOWN, for the consideration hereinafter named, agree as follows:

# 1. Scope of Work

The ENGINEER shall perform the work set forth in the Scope of Services attached hereto as Exhibit A.

# 2. Contract Price

The TOWN shall pay the ENGINEER for services rendered in the performance of this Agreement on an hourly basis with a not-to-exceed price of \$53,000, subject to any additions and deductions provided for herein at the hourly rates set forth in Exhibit B.

# 3. <u>Commencement and Completion of Work</u>

- A. This Agreement shall commence on April 4<sup>th</sup>, 2024, and shall expire 1-year after execution of this agreement, unless terminated sooner in accordance with this Agreement.
- B. <u>Progress and Completion</u>: ENGINEER shall commence work promptly upon execution of this Agreement and shall prosecute and complete the work regularly, diligently and uninterruptedly at such a rate of progress as will insure completion in a timely manner.

# 4. Performance of the Work

The ENGINEER shall supervise and direct the Work, using his best skills and attention, which shall not be less than such state of skill and attention generally rendered by the engineering/design profession for projects similar to the Project in scope, difficulty and location.

# A. Responsibility for the Work:

- (1) The ENGINEER shall be responsible to the TOWN for the acts and omissions of his employees, subcontractors and their agents and employees, and other persons performing any of the Work under a contract with the ENGINEER. Consistent with the standard of care referenced above, the ENGINEER shall be responsible for the professional and technical accuracy for all work or services furnished by him or his consultants and subcontractors. The ENGINEER shall perform his work under this Agreement in such a competent and professional manner that detail checking and reviewing by the TOWN shall not be necessary.
- (2) The ENGINEER shall not employ additional consultants, nor sublet, assign or transfer any part of his services or obligations under this Agreement without the prior approval and written consent of the TOWN. Such written consent shall not in any way relieve the ENGINEER from his responsibility for the professional and technical accuracy for the work or services furnished under this Agreement.
- (3) All consultants must be registered and licensed in their respective disciplines if registration and licensor are required under the applicable provisions of Massachusetts law.
- (4) The ENGINEER and all consultants and subcontractors shall conform their work and services to any guidelines, standards and regulations of any governmental authority applicable to the type of work or services covered by this Agreement.
- (5) The ENGINEER shall not be relieved from its obligations to perform the work in accordance with the requirements of this Agreement either by the activities or duties of the TOWN in its administration of the Agreement, or by inspections, tests or approvals required or performed by persons other than the ENGINEER.
- (6) Neither the TOWN's review, approval or acceptance of, nor payment for any of the work or services performed shall be construed to operate as a waiver of any rights under the Agreement or any cause of action arising out of the performance of the Agreement.
- B. <u>Deliverables, Ownership of Documents</u>: One (1) reproducible copy of all drawings, plans, specifications and other documents prepared by the ENGINEER shall become the property of the TOWN upon payment in full therefor to the ENGINEER. Ownership of stamped drawings and specifications shall not include the ENGINEER's certification or stamp. Any re-use of such documents without the ENGINEER's written verification of suitability for the specific purpose intended shall be without liability or legal exposure to the ENGINEER or to the ENGINEER's independent professional associates, subcontractors or

consultants. Distribution or submission to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as an act in derogation of the ENGINEER's rights under this Agreement.

C. <u>Compliance with Laws</u>: In the performance of the Work, the ENGINEER shall comply with all applicable federal, state and local laws and regulations, including those relating to workplace and employee safety.

# 5. Site Information Not Guaranteed; Contractor's Investigation

The TOWN shall furnish to the ENGINEER available surveys, data and documents relating to the area which is the subject of the Scope of Work. All such information, including that relating to subsurface and other conditions, natural phenomena, existing pipes, and other structures is from the best sources at present available to the TOWN. All such information is furnished only for the information and convenience of the ENGINEER and is not guaranteed. It is agreed and understood that the TOWN does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes, or other structures will be the same as those indicated in the information furnished, and the ENGINEER must satisfy himself as to the correctness of such information. If, in the opinion of the ENGINEER, such information is inadequate, the ENGINEER may request the TOWN's approval to verify such information through the use of consultants or additional exploration. In no case shall the ENGINEER commence such work without the TOWN's prior written consent. Such work shall be compensated as agreed upon by TOWN and ENGINEER.

# 6. Payments to the Contractor

- A. Cost incurred on this project shall be billed monthly on an hourly basis as outlined in the attached Scope of Services. Payment shall be due 30 days after receipt of an invoice by the TOWN.
- B. If there is a material change in the scope of work, the TOWN and the ENGINEER shall mutually agree to an adjustment in the Contract Price.
- C. If the TOWN authorizes the ENGINEER to perform additional services, the ENGINEER shall be compensated in an amount mutually agreed upon, in advance, in writing. Except in the case of an emergency, the ENGINEER shall not perform any additional services until such compensation has been so established.

# 7. Reimbursement

Except as otherwise included in the Contract Price or otherwise provided for under this Agreement, the ENGINEER shall be reimbursed by the TOWN: (a) at 1.0 times the actual cost to the ENGINEER of consultants retained to obtain information pursuant to Article 5 hereof or otherwise. No such reimbursement shall be made unless the rates of compensation have been approved, in advance, by the TOWN; (b) at 1.05 times the actual cost of additional or specially authorized expense items, as approved by the TOWN.

# 8. Final Payment, Effect

The acceptance of final payment by the ENGINEER shall constitute a waiver of all claims by the ENGINEER arising under the Agreement.

# 9. Terms Required By Law

This Agreement shall be considered to include all terms required to be included in it by the Massachusetts General Laws, and all other laws, as though such terms were set forth in full herein.

# 10. <u>Indemnification</u>

- A. General Liability: The ENGINEER shall indemnify and hold harmless the TOWN from and against any and all claims, damages, losses, and expenses, including attorney's fees, to the extent arising out of the performance of this Agreement and to the extent the same relate to matters of general commercial liability, when such claims, damages, losses, and expenses are caused, in whole or in part, by the negligent or wrongful acts or omissions of the ENGINEER or his employees, agents, subcontractors or representatives.
- B. Professional Liability: The ENGINEER shall indemnify and hold harmless the TOWN from and against any and all claims, damages, losses, and expenses, including attorney's fees, arising out of the performance of this Agreement and to the extent the same relate to the professional competence of the ENGINEER's services, when such claims, damages, losses, and expenses are caused, in whole or in part, by the negligent acts, negligent errors or omissions of the ENGINEER or his employees, agents, subcontractors or representatives.

# 11. Insurance

- A. The ENGINEER shall at his own expense obtain and maintain a Professional Liability Insurance policy for errors, omissions or negligent acts arising out of the performance of this Agreement in a minimum amount of \$1,000,000.00.
- B. The coverage shall be in force from the time of the agreement to the date when all construction work for the Project is completed and accepted by the TOWN. If, however, the policy is a claims made policy, it shall remain in force for a period of six (6) years after completion.
  - Since this insurance is normally written on a year-to-year basis, the ENGINEER shall notify the TOWN should coverage become unavailable.
- C. The ENGINEER shall, before commencing performance of this Agreement, provide by insurance for the payment of compensation and the furnishing of other benefits in accordance with M.G.L. c.152, as amended, to all its employees and shall continue such insurance in full force and effect during the term of the Agreement.

- D. The ENGINEER shall carry insurance in a sufficient amount to assure the restoration of any plans, drawings, computations, field notes or other similar data relating to the work covered by this Agreement in the event of loss or destruction until the final fee payment is made or all data are turned over to the TOWN.
- E. The ENGINEER shall also maintain public liability insurance, including property damage, bodily injury or death, and personal injury and motor vehicle liability insurance against claims for damages because of bodily injury or death of any person or damage to property.
- F. Evidence of insurance coverage and any and all renewals substantiating that required insurance coverage is in effect shall be filed with the Agreement. Any cancellation of insurance, whether by the insurers or by the insured, shall not be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the TOWN at least fifteen days prior to the intended effective date thereof, which date shall be expressed in said notice.
- G. Upon request of the ENGINEER, the TOWN reserves the right to modify any conditions of this Article.

# 12. Notice

All notices required to be given hereunder shall be in writing and delivered to, or mailed first class to, the parties' respective addresses stated above. In the event that immediate notice is required, it may be given by telephone or facsimile, but shall, to the extent possible, be followed by notice in writing in the manner set forth above.

# 13. Termination

- A. Each party shall have the right to terminate this Agreement in the event of a failure of the other party to comply with the terms of the Agreement. Such termination shall be effective upon seven days' notice to the party in default and the failure within that time of said party to cure its default.
- B. The TOWN shall have the right to terminate the Agreement without cause, upon ten (10) days' written notice to the ENGINEER. In the event that the Agreement is terminated pursuant to this subparagraph, the ENGINEER shall be reimbursed in accordance with the Agreement for all work performed up to the termination date.

# 14. Miscellaneous

- A. <u>Assignment</u>: The ENGINEER shall not assign or transfer any of its rights, duties or obligations under this Agreement without the written approval of the TOWN.
- B. <u>Governing Law</u>: This Agreement shall be governed by and construed in accordance with the law of the Commonwealth of Massachusetts.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals, the TOWN by its authorized representative who, however, incurs no personal liability by reason of the execution hereof or of anything herein contained, as of the day and year first above written.

CONTRACTOR	TOWN OF HARWICH
By All	By its Board of Water & Wastewater Commissioners <b>Over \$50,000</b>
Michael E. Tamblin, Principal	Gary Carreiro - Chair
	Noreen Donahue – Vice Chair
	Allin Thompson - Clerk
	John Gough - Commissioner
Funding: 13204502-524160 \$23,000.00 13204502-542013 \$10,000.00 13304402-530825 \$20,000.00	Judith Underwood - Commissioner
Approved as to Availability of Funds:	By its Superintendent of Water & Wastewater Up to \$50,000
######################################	Superintendent of Water & Wastewater

640822/Harw/0001

EDR

Exhibit B

February 14, 2024

Mr. Dan Pelletier Water/Wastewater Superintendent Town of Harwich 196 Chatham Road Harwich, MA 02645

RE:

Proposal for Professional Services SCADA Maintenance Contract Town of Harwich, Massachusetts

Dear Mr. Pelletier:

Per your request, we offer the following scope of work to provide on-call SCADA maintenance services to support the Town of Harwich Water and Wastewater Department. As you will notice from the fee section of this proposal, our compensation structure is a simple hourly plus reimbursable expenses contract without any retainer fees. Given the items that you desire to accomplish this year, we are proposing a not-to-exceed amount of \$53,000. We anticipate that once your priority action items are addressed this year, that future year's contracts will be primarily focused on basic maintenance and support related items and, hence, require less annual effort.

# SCOPE OF SERVICES

Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C. (EDR) shall provide on-call assistance to the Town to provide periodic updates, improvements, modifications, and consultation for the SCADA and Programmable Logic Controllers (PLC) facilities both within water and wastewater sites. On-call assistance may be telephone, remote online, or onsite support as appropriate for the circumstance.

The majority of the work is anticipated to be Human-Machine Interface (HMI) and PLC programming; however, other requested services may include:

- Troubleshooting of SCADA instrumentation, PLC hardware, networks, computers, and associated software.
- 2. Recommendations on process control improvements.
- 3. Collaboration with the Owner on future and existing network, software, and process improvements.
- 4. Engineering assessment, evaluation, design, and review services.
- 5. Development of record documentation.
- 6. Development of standard operating procedures (SOPs).
- 7. SCADA compliance and operations report improvements.
- 8. Evaluation, recommendation, and demonstration of additional software programs designed to complement the plant's existing SCADA/HMI system.
- 9. Software maintenance, including application of Windows updates, virus engine and definition updates, firmware updates, software upgrades, and system recovery.
- 10. Provision of specialized SCADA computer hardware, software, networking equipment, PLC hardware, and annual remote access support fees.

EDR maintains active software support contracts with many of the products used by the Town, including Rockwell Automation/Allen-Bradley and GE. As such, we are not dependent upon Town-supplied software subscriptions to deliver our onsite programming services.

# **OWNER'S RESPONSIBILITIES**

1. Remote Access - Maintain remote access to the facilities requiring support.

Recommended contact list for maintenance requests is as follows:

	Name	Telephone No.	Email
1.	Joshua Mazur	315-800-9485	jmazur@edrdpc.com
2.	Noah Melnick	845-649-4489	nmelnick@edrdpc.com
3.	Dustin Sedlack	315-436-6953	dsedlack@edrdpc.com
4.	Bill Woodworth	315-730-7603	wwoodworth@edrdpc.com

A good faith effort will be made to respond to priority calls as quickly as possible.

# FEE

For the basic services outlined above, the Town shall pay EDR on an hourly basis with a not-to-exceed fee of \$53,000 without prior contract amendment. Five percent will be added to invoiced reimbursable expenses when such expenses are requested by the Town.

Services will be rendered hourly at EDR standard billing rates plus reimbursable expenses. Reimbursable expenses will be charged at the cost of the reimbursable expense times a factor of 1.05.

Classification	Employee	2024
Practice Leader	Dustin Sedlack	\$260
Senior PLC Programmer	Bill Woodworth	\$167
Automation Engineer	Joshua Mazur	\$131
Automation Engineer	Noah Melnick	\$131
Administrative	Various	\$86

Should you find this proposal acceptable, your signature below and return of one copy of this proposal agreement will constitute acceptance of the proposal and financial terms and allow us to proceed on your behalf.

Please contact us if you have comments or questions.

Sincerely,	Approved and Authorized to Proceed
whether	Town of Harwich
Michael E. Tamblin, PE	
Principal	Signature
	Name
	Title Date

# VII. <u>NEW BUSINESS</u>

C. Water/Wastewater Superintendent Job Description & Posting

Position Title: Superintendent of Water & Wastewater

**Department:** Water & Wastewater Department

**Reports to:** Board of Water & Wastewater Commissioners

Pay Grade: M-8

Pay Range: \$113,682 - \$141,784

NOTE: Updated Grade and Pay Range to reflect FY24 Personnel By Law Compensation Plan and also, very minor grammar correction... mostly added comma's.

# **Position Purpose**

The purpose of this position is to provide for the treatment and delivery of a high-quality water product throughout the water distribution system as well as, to protect the environment by operating an efficient and effective sewer collection and treatment system. The work involves understanding the physical make up and performance characteristics, how to control the system to deliver products at the times, locations and volumes required, responding appropriately to customer interest, concerns and complaints, undertaking light to heavy construction work, supervising the utilization of personnel, materials and equipment, overseeing water and sewer projects, maintenance, repair, and replacement and controlling inventories of parts, materials and equipment. The Superintendent is responsible for maintaining and improving efficiency and effectiveness of all areas under his/her direction and control.

# Supervision

Supervision Scope: Exercise considerable initiative and independent judgment in the planning, administration and execution of the department's programs and services, and in the direction of personnel; person is required to work independently and in group situations in formulating decisions regarding policies, procedures, operations, and department plans. Participates in collective bargaining for management and is responsible for confidential matters and documents.

Supervision Received: Works under the administrative direction of the Board of Water Commissioners. Works according to established professional department and town policies and procedures, standard or special directives, instructions, and intent. This position is subject to review and evaluation according to the Town's personnel plan.

Supervision Given: The Superintendent exercises direct supervisory control over the field supervisors in charge of smaller work units. Prepares personnel performance evaluations to be submitted to the Town Administrator annually. Manages office staff.

# Work Environment

Administrative work environment is moderately noisy. Some work is performed outdoors at which time the person may be exposed to heat and cold temperature and inclement weather; the person is required to traverse uneven terrains and is subject to hazards associated with working around heavy equipment; work environment is moderately noisy and at times very loud. Work may be performed outside of normal business hours and on weekends; responds to emergency situations.

Regularly operates an automobile, a computer, telephone, and other standard office machines. Interacts frequently with the other Town departments, local and state government agencies and organizations, vendors; communicates in person, by telephone and in writing. Employee interacts

constantly with co-workers, the public, groups and/or individuals such as civic leaders, peers from the other organizations, representatives of professional organizations, and news media. The employee serves as a spokesperson or recognized authority of the organization in matters of substance or considerable importance. The employee deals with the public and other individuals on behalf of a department to communicate departmental practices, procedures, regulations, or guidelines. Excellent communication and customer service skills are required involving courtesy, tact, and diplomacy in resolving complaints or concerns of the public.

Accuracy is essential. Errors in administrative decisions could result in lower standards of service, substandard repair and installation and inadequate maintenance programs. Errors in supervisory decisions could result in excessive costs for department operations.

# **Essential Job Functions**

The essential functions or duties listed below are intended as illustrations of the various types of works that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

In conjunction with the Board of Water Commissioners, plan the department's daily, weekly, monthly, seasonal, annual, and long-range work programs, estimates costs, materials, equipment, and staff needed. Reviews all department installation, repair, and maintenance projects to determine efficient use of equipment, materials, and staff.

- 1. Responsible for the system's conformance with all Environmental Protection Agency and the Commonwealth of Massachusetts drinking water and sewer regulations, both in existence and to be promulgated.
- 2. Prepares and maintains a variety of records and reports. Ensure that records and reports are accurately and completed in a timely manner, such that they satisfy local, state, and federal requirements and can be effectively utilized by town personnel.
- 3. Supervises and evaluates personnel as well as performs personnel administration/labor relations tasks including recruitment and interviewing of applicants; reviews position descriptions, contract administration, policy/procedure compliance and safety.
- 4. Participates in the conduct of labor relations, including collective bargaining and grievance and arbitration procedures.
- 5. Advises Board of Water Commissioners and other town officials in matters relating to department activities.
- 6. Provides direction and guidance for Department projects and routine maintenance.
- 7. Reviews site plans and contractor documents for conformance with town construction specifications for water and sewer facilities.

  Provides operations guidance for construction of water and sewer facilities.

Oversees and monitors contractual and non-contractual construction and maintenance work to determine acceptability and conformance to standards and to ensure that all aspects of the systems are functioning properly.

Analyzes and projects needs of the town for new and replacement water/wastewater facilities and necessary equipment, for proper installation and maintenance of the same.

- Develops specifications, bidding and contract documents for service and equipment purchases including all supplies and materials needed for effective department operation.
- 8. Acts as lead person for integration and maintenance of geographic information system (GIS), RF telemetry, database, SCADA, RF meter reading applications. Maintains GIS record of the location of water and sewer facilities throughout the town in conjunction with the town engineer and/or town planner.
- 9. Budget preparation. Analyzes and audits monthly operating costs and related budget reports, exercises expenditure controls, makes recommendations for department budget and capital needs and works with Comptroller to prepare same.
- 10. Approves requisition of needed supplies and/or establishes Department purchasing thresholds.
- 11. Ensures timely reading of utility meters and billing of utility for optimum revenue enhancement.
- 12. Ensures proper response to complaints beyond staff capability of handling.
- 13. Responsible for keeping updated on current and developing technical information pertaining to both water and sewer issues.
- 14. Prepares a variety of statistical information regarding water usage, water and sewer future demand and specifications for equipment. May analyze this information and present reports regarding the same.
- 15. Interfaces regularly with consulting engineers, state, and federal agencies to ensure requirements are being complied with.
- 16. Attends meetings of various committees, board and commissions and may make presentations or answer questions, sometimes after hours.
- 17. Performs similar or related work as required, directed or as situations dictate.
- 18. Actively participates in departmental safety meetings and conformance with safety principals and standards.
- 19. Other duties may be assigned.

# Required Education and Experience

A combination of education and experience which provides the background to meet the requirements and challenges of this position. Bachelor of Science in civil engineering, public or business administration or related field. Five to seven years of experience in the field relating to the construction, repair and maintenance of water and sewer systems including the operation of related maintenance and mechanical equipment, or any equivalent combination of education and experience. Past experience with the design, construction, and startup of both a water/wastewater treatment facility and water/wastewater pumping station is desired.

# Pertinent Knowledge, Skills, and Abilities

a) Good working knowledge of the methods, materials, equipment, and tools utilized in public works applications. Manage and coordinate personnel in specific task-oriented projects. Must also be able to organize associated equipment, materials, and resources to ensure the efficient conduct of these tasks and projects.

- b) Ability to handle administrative work, including but not limited to the preparation of reports, prepare and monitor/manage annual operating budgets, a forecasted budget and capital plans within the approved and authorized spending levels while maintaining accurate financial records.
- c) Ability to procure all supplies, materials, services, etc. provided that the aforementioned are in accordance with Chapters 30B and 30, section 39M of the M.G.L. and approved by the Board of Water Commissioners.
- d) Ability to deal tactfully with the public, water and sewer commission, other department heads and town officials in such a way as to be able to explain the department's programs, needs and priorities.
- e) Must be in sound physical condition, able to work long hours and be available after hours, sometimes under adverse weather conditions and times of community emergencies.
- f) Knowledge of DEP policies and guidelines, EPA policies and guidelines, Massachusetts General Laws associated with drinking water, OSHA regulations regarding safety, Massachusetts Labor Laws, AWWA standards and practices; knowledge of the materials, methods, and techniques relative to the construction and rehabilitation on water, sewer, and pump station infrastructures; and knowledge of field safety.

# Accountability

Responsible to the Board of Water Commissioners or his/her designee for activities and accomplishments of personnel permanently or temporarily assigned to his her/her supervision. Maintains a daily log and production reports of activities and accomplishments of the department under his/her control including any incidents which did or may affect the Town or any personnel.

# Skills

Must possess excellent organizational skills, excellent database and spreadsheet application skills, and excellent written and oral communication skills.

Must be capable of effectively communicating and consulting with residents and other town departments on matters and problems relating to the department and its activities.

Intermediate skills such as the ability to (using a calculator) add, subtract, multiply and divide in all units of measure using whole numbers, common fractions, and decimals.

Ability to compute rate, ratio, and percent and to draw and interpret graphs. Ability to convert units of measure and use an engineer's ruler.

# Reasoning Ability

Basic skills such as ability to apply common sense understanding to carry out instructions furnished in written, oral or diagram form. Ability to deal with problems involving several concrete variables in standard situations. Ability to analyze complex problems involving multiple known and unknown variables and synthesize solutions to these problems.

# Certificates, Licenses, Registrations

Must possess and have maintained the following:

- Class D Driver's license
- Minimum of a Commonwealth of Massachusetts Drinking Water License Grade 3 (three)
   Distribution
- Minimum of a Commonwealth of Massachusetts Drinking Water License Grade 2 (two)
   Treatment

Ability to obtain within two years:

- Minimum of a Commonwealth of Massachusetts Grade 6-C (six combined) Wastewater
   Treatment License
- Grade 4 (four) Collection System certification

# Desired:

Commonwealth of Massachusetts Backflow Tester and Surveying licenses.

# **Physical Demands**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Both administrative and physical work inside and physical work outside in all weather conditions.

While performing the duties of this job, the employee is frequently required to stand, walk, sit, use hands to finger, handle or feel; each with hands and arms; climb or balance; stoop, kneel, crouch or crawl; talk and hear. The employee must frequently lift and/or move up to fifty (50) pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception and the ability to adjust focus.

# Work Environment

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

External and Internal applicants, as well as position incumbents who become disabled as defined under the American with Disabilities Act, must be able to perform the essential job functions (as listed) either unaided or with the assistance of a reasonable accommodation to be determined by management on a case by case basis.

# **DRAFT JOB POSTING**

# Town of Harwich Water Department WATER & WASTEWATER SUPERINTENDENT

The Board of Water & Wastewater Commissioners is announcing an opening for a Water & Wastewater Superintendent. Under the direction of the Board of Water Commissioners, the successful candidate is responsible for the daily management and operation of the water distribution & treatment, sewage collection and future wastewater treatment facility in accordance with federal, state and local regulations. Directs, coordinates and supervises field personnel; advises developers, engineers and others on policies for new construction, permits and easements; utilizes SCADA, GIS and various MIS programs; assists with customer service; participates in the preparation of capital improvement plans, budgets and annual reports . A Bachelor's degree in a related field is desirable but not required. Should have a minimum of five to seven (5-7) years related supervisory experience. << Hold a Massachusetts Grade 3-D and Grade 2-T water licenses. Hold or have the ability to obtain a Massachusetts Grade 6-C wastewater license and Grade 4 Collection System license. Massachusetts Backflow Tester and Surveying license desired.>> Proficient in all aspects of Microsoft Office and familiarity with accounting practices. Must possess a valid Mass. driver's Class D license. Interested parties should submit a resume and letter of interest by email << to Tracey Alves at Tracey.Alves@Harwich-MA.gov, by mail to or in person at Harwich Water & Wastewater Department, 196 Chatham Road, Harwich, MA 02645.>> Application and job description can be found on our website at www.harwichwater.com under News/Events - Employment Opportunities. << Resumes must be received by 4:30 p.m. on Thursday, April 23, 2015.>>

NOTES	is the state of th
•	Municipal procurement experience?  Should/can we include FY2025 wage potential COLA increase?  Consideration Can we include health insurance %, pension, longevity bonus, etc.?
•	

# JOB POSTING WEBSITES:

- Indeed
- Massachusetts Municipal Association
- Massachusetts Water Works Association
- Plymouth County Water Works Association

The Town of Harwich is an Equal Opportunity Employer.

- Cape Cod Chronicle
- Cape Cod Times (a few Sundays?)
- Linked-In?

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# VII. <u>NEW BUSINESS</u>

D. 2023 Consumer Confidence Report



# 2023 Consumer Confidence Report

Harwich Water & Wastewater 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

Internet Address: www.harwichwater.com
Email: dan.pelletier@harwich-ma.gov

# 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. In our most recent inspection occurring in November 2022 MassDEP found no violations or deficiencies requiring corrective action and further commented, "Overall, you guys are very squared away and doing and excellent job, one of the top 3 PWS(Public Water Suppliers) I have visited, and you should be commended for doing a lot of work in house and not contracting out. I was impressed." In our continued effort to provide the highest quality drinking water and maintain our water system, the Department remained very active throughout 2023, please find some of the more notable projects & accomplishments below:

- Azalea Drive Bridge Water Main Improvements Installed dual 12" water mains across the new bridge improving redundancy in the Headwaters Drive neighborhood.
- Bruce Cahoon Water Treatment Plant Backwash Lagoon Media Replacement This project included the excavation of water treatment plant residuals from 2 backwash filter beds and re-installation of clean sand filter media.
- New Source Exploration Ongoing site investigation occurred throughout 2023 around Well #10 in North Harwich. Highlights to date include installation of an 8" diameter test production well, installation of 2" observation wells, and the installation of surface water gauges.
- Route 28 Water Main Replacement Project Design of the Route 28 Water Main Replacement Project is nearly complete; the project is anticipated to be bid in the spring of 2024. This project includes the replacement of an old 1930-1940s era 8" cast iron water main with a new 12" Ductile Iron water main from Division Street to Lower County Road. Also included is a horizontally directional drilled water main beneath the Herring River improving the resiliency and redundancy of the West Harwich service area.
- Replaced a failed submersible pump & motor with a vertical turbine pump & motor and installed a new 80kW emergency standby generator at Well Station 7.
- Renewed 42 water services in East Harwich in preparation for the Phase 3 Sewer Project.
- Abandoned water main used to feed the old Brooks Park Water Storage Tank, & 2" water main on Wyndemere Rd.
- Replaced the pump, motor, and drop pipe at Well 1, Replaced the motor at Well M-2, Replaced the pump & relined Well 4, and Replaced 3 gate valves at the Bay Rd. Wellfield.

# 2023 Public Water Systems Awards

The Harwich Water Department received the 2023 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. Through the hard work and dedication of department staff, 2023 marks the eighth 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 & Wastewater 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?

Our drinking water comes from is pumped from an underground source called the Monomoy Lens. The Monomoy Lens is the second largest of the six mounds or cells of elevated groundwater that comprise the aquifer. The lens generally supplies 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 10,136 metered accounts, 131 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 **799 million gallons** of water in 2023. 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	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 <a href="https://www.mass.gov/service-details/the-source-water-assessment-protection-swap-program">https://www.mass.gov/service-details/the-source-water-assessment-protection-swap-program</a>. 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. 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, 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, 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.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) and MassDEP prescribe regulations that limit the number 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 <a href="http://www.epa.gov/safewater/lead">http://www.epa.gov/safewater/lead</a>.

# **IMPORTANT DEFINITIONS**

<u>Maximum Contaminant Level (MCL)</u>: 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.

<u>Maximum Contaminant Level Goal (MCLG)</u>: 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.

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

<u>90<sup>th</sup> Percentile:</u> 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.

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

<u>Unregulated Contaminants:</u> 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.

<u>Maximum Residual Disinfectant Level (MRDL)</u>: 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.

<u>Maximum Residual Disinfectant Level Goal (MRDLG)</u>: 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 ( $\mu$ g/L)

ppt = parts per trillion, or nanograms per liter (ng/L)

pCi/I = 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	Contam	inants		
			Lead ar	nd Copp	er		
	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 (	Contami	nants		
Contaminant	Date(s) Collected	Highest Result	Range Detected	MCL	MCLG	Violation (Y/N)	Possible Sources
Barium (ppm)	1/24/2023	0.02	0.0016 - 0.02	2	2	N	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Nitrate (ppm)	7/5/2023	2.3	0.11 – 2.3	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Nitrite (ppm)	7/5/2023	ND	ND – ND	1	1	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Mercury (ppb)	1/26/2023	ND	ND – ND	2	2	N	Erosion of natural deposits; Discharge from refineries and factories; Runoff from landfills Runoff from cropland

Perchlorate (ppb)	7/5/2023	ND	ND - ND	2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents
		Mi	crobiologic	al Conta	minants		
Bacteria	Date(s) Collected	Highest % positive in a month	Total # Positive	MCL /	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 fe	ecal coliform/E.col	i MCL is determir	ned upon addi	tional repe	eat testing		
			Radioactive	Contam	inants		
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 the Because the results					ould have bee	en required to	do additional testing for radium.
		Disinfect	ants and Di	sinfectio	on By-Prod	ucts	
Contaminant (Units)	Date(s) Collected	Highest Quarterly Running Annual Average	Range Detected	MCL	MRDLG	Violation (Y/N)	Source(s) of Contamination
Chlorine (Free) (ppm)	Monthly in 2023	0.21	0.02 - 0.74	4	4	N	Water additive used to control microbes
Total Trihalomethanes (TTHM) (ppb)	8/1/2023	6.07	2.6 – 7.8	80		N	Byproduct of drinking water chlorination
Total Haloacetic Acids (HAA5) (ppb)	8/1/2023	0.975	0.00- 1.5	60		N	Byproduct of drinking water disinfection
	Re	gulated Per-	and polyflu	ioroalky	l substanc	es - PFAS6	
Contaminant (Units)	Date(s) Collected	Highest Quarterly Average	Range Detected	N	<b>ICL</b>	Violation (Y/N)	Possible Source(s) of Contamination
PFAS6 (ppt)	01/27/2022	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.

	Unregulated Contaminants											
Unregulated Contaminants (CASRN) (Units)	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source						
Chloroform (67663) (ppb)	1/24/2023	ND – 1.8	0.62	N/A	70	By-product of drinking water chlorination (In non-chlorinated sources it may be naturally occurring)						
Manganese (7439-96-5) (ppb)*	4/11/2023 5/9/2023 11/01/2023	0 – 49	12.27	50	300	Erosion of natural deposits						

<sup>\*</sup> 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.

Nick	el (7440020) (ppb)	1/24/2023	ND	ND	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 (7440235) (ppm)	1/24/2023	12 - 30	20.6	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.

†There is no ORS Guideline for this compound.

As required by the 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 dan.pelletier@harwich-ma.gov.

# 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 encounter 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.

# Back Pressure: Normal pressure in potable system. High pressure in non-potable system. Normal pressure in non-potable system. Normal pressure in non-potable system.

# 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 <a href="https://www.harwichwater.com">www.harwichwater.com</a>.

# 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 for 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 for 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**

Due to ongoing drought conditions leaving the Monomoy Lens at its lowest level in 20-years and equipment failure the Board of Water & Wastewater Commissioners implemented a mandatory ban on all non-essential outdoor water use during the summer of 2022. Water levels within the Lens are recovering and we remain hopeful conditions will continue to improve. As we enter the 2023 peak pumping season, please consider ways to reduce and conserve water use whenever possible. The Water Department has drought management signs throughout the Harwich Community and are updated upon changing drought conditions. During peak season please refer to the drought

management signs around town as well as notices on our website, Channel 18, social media, and digital sign boards for drought notification and notice of water use restrictions. 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
E. Q3 Billing Proof



UB Charge Proof/Register
Run: 1 Commitment: 042024 Sucharge Code: To: ZZ
Group Code: To: ZZ

Summary To: ZZZZZZ To: ZZZZ

Begin: 12/29/2023 End: 03/29/2024 Sequence by ACCOUNT/CHARGE CODE

Bill: 03/29/2024 Due: 05/08/2024 Int/Penalty: 05/08/2024

Group code .	10.	ZZZZ Seq	delice by Accou	DN1/CHARGE COD	E	Int/Pena	ity: 05/08/20	24		
	Cat	Base/Flat	Usage\$/ Usage	Demand/ Usage	KVAR/ Usage	Rate Adj	Subject To	Net Total	Count	
Summary by CHARGE CODE 1FSPRK FIRE SPRINKLER	60	6760.00	.00	.00	.00	.00		6760.00	104	
1SBASE SEWER BASE RATE	60	20100.00	.00	.0000	.0000	.00		20100.00	268	
1SEWER SEWER USAGE	60	.00	5020.46	.0000	.0000	.00		5020.46	268	
1TOWNS TOWN USAGE	60	.00	2,147,000	.0000	.0000	.00		.00	1	
1WATER WATER USAGE	60	456165.00	120,000 161245.94	.0000	.0000	.00		617410.94	10198	
2RESFR RESIDENTIAL FIRE	s 60	1080.00	65,710,000	.0000	.0000	.00		1080.00	27	
3SEASN SEASONAL	60	18700.00	.00	.0000	.0000	.00		18700.00	374	
3STIP SERVICE TIGHT REN	EW 60	25347.00	.00	.0000	.0000	.00		25347.00	1491	
Summary Totals	>	528152.00	166266,40	.0000	.0000	.00	.00	694418.40		
			67,977,000	.0000	.0000	.00	,00	094418.40	12/31	
Summary by DISTRICT										
1 CYCLE 1	60	528152.00	166266.40 67,977,000	.00	.00	.00		694418.40	12731	
Summary Totals	>	528152.00	166266.40	.00	,00	.00	.00	694418.40	12731	
			67,977,000	.0000	.0000					
Summary by GROUP										
10	60	12090.00	6739.50 2,059,000	.00	.00	.00		18829.50	288	
100	60	12839.00	2117.64 1,191,000	.00	.00	.00		14956.64	301	
105	60	11605.00	1805.34 1,018,000	.00	.00	.00		13410.34	276	
110	60	11982.00	6604.38	.000	.0000	.00		18586.38	292	
115	60	6818.00	2927.09 1,051,000	.000	.0000	.00		9745.09	157	
120	60	10976.00	1494.03 736,000	.00	.0000	.00		12470.03	260	
130	60	8869.00	960.74	.0000	.0000	.00		9829.74	207	
135	60	13189.00	421,000 1791.42	.0000	.0000	.00		14980.42	315	
140	60	8759.00	932,000 1099.39	.0000	.0000	.00		9858.39	213	
145	60	5541.00	567,000 1089.19	.0000	.0000	.00		6630.19	131	
150	60	18289.00	550,000 4396.20	.0000	.0000	.00		22685.20	450	
155	60	6666.00	2,192,000 1692.09	.0000	.0000	.00		8358.09	162	
157	60	10093.00	711,000 2392.53	.0000	.0000	.00		12485.53	248	
									= 115	

Report generated: 04/01/2024 12:28 User: wmarsh Program ID: ubbproof



UB Charge Proof/Register
Run: 1 Commitment: 042024 Starge Code: To: zzz
Group Code: To: zzz

Summary
To: ZZZZZZ
To: ZZZZ

Begin: 12/29/2023 End: 03/29/2024 Sequence by ACCOUNT/CHARGE CODE

Bill: 03/29/2024 Due: 05/08/2024 Int/Penalty: 05/08/2024

\$5.00 - 0.00   10.00   50.00   10.00   10.00   10.00   10.00   10.00   10.00   10.00   10.00   10.00   10.00				THE CODE		THE FEIR	11cy. 03/00/20	24		
TOTAL STREET, THE STREET,	Cat	Base/Flat	Usage\$/ Usage	Demand/ Usage	KVAR/ Usage	Rate Adj	Subject To	Net Total	Count	
Summary by GROUP					OTHER DESIGNATION OF THE PARTY					
160	60	18475.00	1,178,000 6127.65 2,370,000	.0000	.0000	.00		24602.65	446	
170	60	10363.00	8759.97	.0000	.0000	.00		19122.97	250	
172	60	10154.00	2,719,000 4340.44 1,857,000	.0000	.0000	.00		14494.44	230	
175	60	13171.00	6001 64	.0000	.0000	.00		19172.64	310	
176	60	8981.00	2,791,000 3639.73 1,666,000 3856.43	.0000	.0000	.00		12620.73	210	
180	60	7199.00	3856.43	.0000	.0000	.00		11055.43	174	
182	60	22824.00	7287.98	.0000	.0000	.00		30111.98	561	
184	60	15097.00	8102.31	.0000	.0000	.00		23199.31	377	
187	60	24482.00	3,350,43 1,286,000 7287,98 3,343,000 8102,31 2,703,000 6621,03 3,323,000 2038,41 1,033,000	.0000	.0000	.00		31103.03	598	
189	60	6696.00	3,323,000 2038.41	.0000	.0000	.00		8734.41	166	
190	60	28358.00	1,033,000 15616.51	.0000	.0000	.00		43974.51	699	
194	60	17630.00	6052.35	.0000	.0000	.00		23682.35	432	
198	60	26561.00	6214.13	.0000	.0000	.00		32775.13	704	
20	. 60	12365.00	3,152,000 8907.00	.0000	.0000	.00		21272.00	288	
200	60	14596.00	1,033,000 15616.51 5,533,000 6052.35 2,890,000 6214.13 3,152,000 8,907.00 2,746,000 5281.87 2,141,000 2,467,000 3177.66 1,646,000	.0000	.0000	.00		19877.87	363	
205	60	13433.00	5652.05	.0000	.0000	.00		19085.05	331	
210	60	14447.00	3177.66	.0000	.0000	.00		17624.66	358	
30	60	11956.00	1,646,000 3258.68 1,275,000	.0000	.0000	.00		15214.68	291	
35	60	8570.00	467.68	.0000	.0000	.00		9037.68	190	
365	60	12112.00	467.68 304,000 5969.24 2,191,000 3492.55 1,255,000	.0000	.0000	.00		18081.24	296	
40	60	8740.00	3492.55	.0000	.0000	.00		12232.55	212	
45	60	6234.00	594.96 356,000	.0000	.0000	.00		6828.96	154	
50	. 60	10545.00	1545.63 796,000	.0000	.0000	.00		12090.63	252	
55	60	5782.00	579.67 340,000	.0000	.0000	.00		6361.67	135	
60	60	7609.00	574.07 359,000	.0000	.0000	.00		8183.07	185	
65	60	6468.00	1121.32 371,000	.0000	.0000	.00		7589.32	154	
70	60	8771.00	645.62 321,000	.0000 .00 .0000	.0000	.00		9416.62	203	
			321,000	.0000	.0000					

Report generated: 04/01/2024 12:28 User: wmarsh Program ID: ubbproof



UB Charge Proof/Register
Run: 1 Commitment: 042024 State Charge Code: To: ZZ
Group Code: To: ZZ Summary To: ZZZZZZ To: ZZZZ Begin: 12/29/2023 End: 03/29/2024 Bill: 03/29/2024 Due: 05/08/2024 Int/Penalty: 05/08/2024 Sequence by ACCOUNT/CHARGE CODE

Cat	Base/Flat	Usage\$/ Usage	Demand/ Usage	KVAR/ Usage	Rate Adj	Subject To	Net Total	Count	
Summary by GROUP				And the second second					
7000 60	75.00	.00	.00	.00	.00		75.00	2	
		.00	.0000	.0000	.00		73.00	Z	
75 60	9477.00	3871.44	.00	.00	.00		13348.44	225	
		1,014,000	.0000	.0000	.00		13340.44	223	
80 60	12511.00	720.82	.00	.00	.00		13231.82	298	
		431,000	.0000	.0000	.00		13231.02	230	
8001 60	3420.00	.00	.00	.00	.00		3420.00	53	
		0	.0000	.0000	.00		3420.00	33	
8002 60	3380.00	.00	.00	.00	.00		3380.00	52	
		0	.0000	.0000	.00		3300.00	32	
90 60	9954.00	638.02	.00	.00	.00		10592.02	232	
		382,000	.0000	.0000	.00		10332.02	232	
Summary Totals>	528152.00	166266,40	.00	.00	.00	00	CO4410 40	12721	
January / Jears	320132,00	67,977,000	.0000	.0000	.00	.00	694418.40	TZ/3T	
Summary by CHARGE TYPE/CODE	6760 00								
Service 1FSPRK FIRE SPRIN 60	6760.00	.00	.00	.00	.00		6760.00	104	
C 100.00 00.00 00.00		0	.0000	.0000					
Service 1SBASE SEWER BASE 60	20100.00	.00	.00	.00	.00		20100.00	268	
5		0	.0000	.0000					
Service 1SEWER SEWER USAG 60	.00	5020.46	.00	.00	.00		5020.46	268	
C	22	2,147,000	.0000	.0000					
Service 1TOWNS TOWN USAGE 60	.00	.00	.00	.00	.00		.00	1	
Samuja 1,4755 .4755 60		120,000	.0000	.0000				8	
Service 1WATER WATER USAG 60	456165.00	161245.94	.00	.00	.00		617410.94	10198	
Camples December of	4000	65,710,000	.0000	.0000					
Service 2RESFR RESIDENTIA 60	1080.00	.00	.00	.00	.00		1080.00	27	
Partition Section actions		0	.0000	.0000			100000000000000000000000000000000000000		
Service 3SEASN SEASONAL 60	18700.00	.00	.00	.00	.00		18700.00	374	
		0	.0000	.0000				3	
Service 3STIP SERVICE TIG 60	25347.00	.00	.00	.00	.00		25347.00	1491	
		0	.0000	.0000					
Summary Totals>	528152.00	166266.40	.00	.00	.00	.00	694418.40	12731	
		67,977,000	.0000	.0000		.00	The state of the s	12/31	
		amenda Illander	. 3000	. 5000					

Total Active Accounts: 10272

\*\* END OF REPORT - Generated by Wellesley Marsh \*\*

Gary Carriro

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4/1/2024 | 1:55:42 PM PDT

Report generated: 04/01/2024 12:28 User: wmarsh Program ID: ubbproof

- VII. <u>NEW BUSINESS</u>
  - F. 2023 Annual Statistical Report

Χ.	CORRESPONDENCE	ANY O	THER B	<b>USINESS</b>
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Date PWS No. March

2024

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		0.00	38	26	32		
2		0.64	47	37	42		
3		0.25	51	45	48		
4		0.00	48	42	<u>45</u>		
5		0.14	50	42	46		
6		0.06	48	44	46		
7		1.06	51	39	45		
8		0.00	44	32	38		
9		0.01	<u>43</u>	32	37		
10		0.93	52	42	47		
11		0.93	52	42	47		
12		0.00	<u>48</u>	35	42		
13		0.00	52	36	44		
14		0.00	51	36	43		
15		0.00	50	42	46		
16		0.07	53	41	47		
17		0.00	49	42	45		
18		0.05	52	43	48		
19		0.00	52	39	45		
20		0.00	47	36	41		
21		0.00	55	35	45		
22		0.00	44	31	38		
23		0.00	42	27	35		
24		1.54	53	38	45		
25		0.01	40	34	37		
26		0.00	41	38	39		
27		0.01	52	41	47		
28		0.83	50	45	48		
29		1.04	47	41	44		
30		0.00	55	37	46		
31		0.00	53	38	46		
Total		7.57					
verage		0.24	48.7	38.0			
Max		1.54	55.1	45.2			
Min		0.0	38.4	26.0			

Date PWS No. March

2023

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		0.00	44	34	39		
2		0.00	49	<u>39</u>	44		
3		0.00	45	36	41		
4		1.07	41	35	38		
5		0.00	44	32	38		
6		0.00	<u>51</u>	37	44		
7		0.00	43	35	39		
8		0.00	44	35	40		
9		0.00	47	34	41		
10		0.00	46	32	39	eviellag (over	
11		0.49	<u>41</u>	<u>37</u>	39		
12		0.00	<u>43</u>	<u>38</u>	41 3		
13		0.00	44	<u>33</u>	<u>39</u>		
14		1.24	<u>46</u>	<u>35</u>	40		
15		<u>0.14</u>	<u>42</u>	<u>34</u>	<u>38</u>		
16		0.00	<u>50</u>	<u>36</u>	43		
17		0.00	<u>47</u>	<u>36</u>	41		
18		0.00	<u>49</u>	<u>40</u>	44		
19		0.00	<u>43</u>	34	<u>38</u>		
20		0.00	<u>46</u>	<u>27</u>	<u>36</u>		
21		0.00	<u>53</u>	<u>34</u>	43		
22		0.00	<u>50</u>	<u>35</u>	<u>42</u>		
23		0.00	<u>49</u>	<u>45</u>	47		
24		0.00	<u>51</u>	<u>36</u>	<u>43</u>		
25		0.20	44	<u>32</u>	38		
26	Latin Latin	0.00	<u>55</u>	<u>40</u>	<u>48</u>		75
27		0.00	<u>54</u>	<u>32</u>	43		
28	correct to recent to	<u>0.15</u>	<u>45</u>	<u>34</u>	<u>39</u>		
29		0.00	47	<u>32</u>	39		
30	11000	0.00	44	<u>33</u>	39		
31		0.30	47	30	39		Production of the second
Total		3.59		ami.			
verage		0.12	46.6	34.9			
Max		1.24	55.4	45.4			
Min		0.0	41.1	27.2			

Month/Year

PWS No.

March 4126000

2024

Monthly Pumpage Report Harwich Water Department

			520 (0.00)	T1				Contract Contract	12	ransamana a		3	T10	T11
Date	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	25,610	36,538	26,246	68,540	34,306	42,929	0	69,380	70,984	78,938	67,136	68,082	80,472	74,282
2	26,324	37,789	29,370	71,067	35,432	44,546	0	71,816	74,143	82,532	69,664	70,637	83,821	77,332
3	28,603	40,691	32,680	76,518	38,269	48,158	0	77,371	80,069	89,032	75,086	76,143	90,564	83,428
4	26,992	38,868	30,254	69,513	36,811	46,816	0	55,909	58,396	65,555	80,935	82,329	101,343	89,730
5	27,905	40,028	31,348	74,363	37,880	47,787	- 0	75,219	77,757	86,516	72,843	73,884	87,961	80,854
6	25,456	36,638	28,405	68,827	34,360	43,287	0	69,689	70,582	78,233	67,182	68,146	78,954	74,276
7	26,217	37,716	29,585	69,913	35,805	45,081	0	70,683	73,814	82,133	68,857	69,875	85,778	61,680
8	27,604	39,467	30,438	73,809	37,121	46,718	0	74,461	76,537	85,155	72,100	73,104	90,497	79,469
9	26,653	38,191	28,728	71,506	35,930	45,145	0	72,435	73,756	82,377	70,057	71,050	86,940	77,684
10	27,377	39,165	30,957	73,321	36,830	46,391	0	74,042	75,677	84,604	71,779	72,815	89,538	79,721
11	27,304	39,182	30,400	73,203	36,989	46,433	0	74,104	76,439	84,642	71,715	72,750	89,596	79,515
12	26,238	37,510	29,814	70,192	35,451	44,535	0	71,027	73,496	81,450	68,784	69,775	86,169	66,337
13	27,259	39,052	29,388	72,491	36,900	46,458	0	73,413	76,929	85,021	71,222	72,250	89,321	144,898
14	27,009	38,609	29,477	71,964	36,501	45,971	0	72,863	76,294	84,325	70,683	71,712	87,792	78,529
15	27,444	39,262	29,801	73,242	37,116	46,598	0	74,138	77,617	85,852	71,873	72,902	88,668	79,859
16	28,034	40,254	30,760	75,103	37,967	47,884	0	75,950	79,623	87,877	73,581	74,648	90,592	81,807
17	28,814	41,265	32,147	77,077	38,954	49,139	0	78,089	81,846	90,556	75,662	76,794	92,939	84,179
18	21,983	31,396	24,347	59,607	29,055	36,527	0	60,481	61,013	67,055	58,128	58,942	68,300	64,181
19	27,393	39,211	30,041	73,656	36,936	46,442	0	74,436	77,098	85,420	71,987	73,030	87,035	79,873
20	25,318	36,261	28,334	67,486	34,149	43,047	0	68,533	71,744	79,361	66,528	67,491	81,316	73,913
21	27,994	40,120	30,088	73,725	38,233	48,071	0	74,683	78,165	87,010	72,647	73,677	89,212	80,699
22	28,987	41,445	30,770	76,216	39,567	49,755	. 0	76,893	80,459	89,525	74,686	75,754	91,511	82,997
23	27,602	39,507	30,676	73,429	37,419	47,243	0	74,217	77,153	85,919	71,986	73,072	86,355	80,139
24	29,147	41,644	30,804	77,379	39,651	49,874	0	78,085	81,247	90,529	75,798	76,929	90,913	84,417
25	27,879	39,909	30,074	74,232	37,765	47,447	0	74,793	77,820	86,446	72,569	73,661	86,433	80,757
26	27,077	38,692	29,511	72,293	36,630	46,035	0 •	72,938	75,326	83,729	70,612	71,658	83,579	78,538
27	27,264	39,038	30,960	73,046	36,798	46,404	0	73,947	76,623	84,664	71,419	72,473	106,189	79,443
28	27,222	38,970	30,413	72,988	36,745	46,278	0	73,820	76,094	84,348	71,363	72,423	88,575	79,330
29	29,727	42,567	32,105	79,485	40,381	50,709	0	80,408	83,227	92,716	78,427	79,599	97,259	14,994
30	32,398	46,330	36,607	86,083	44,078	55,393	0	86,814	90,333	100,983	85,220	86,449	106,699	1,961
31	33,848	48,569	38,784	89,988	46,398	58,387	0	90,864	95,174	106,489	89,269	90,591	112,656	0
Pumps:	854,684	1,223,885	943,312	2,280,263	1,156,428	1,455,488	-0	2,291,501	2,375,434	2,638,993	2,249,798	2,282,645	2,776,977	2,274,822
MIN:	21,983	31,396	24,347	59,607	29,055	36,527	0	55,909	58,396	65,555	58,128	58,942	68,300	.0
MAX:	33,848	48,569	38,784	89,988	46,398	58,387	0	90,864	95,174	106,489	89,269	90,591	112,656	144,898
STATIONS:		7,914,060							7,305,927		4,532,443			2,274,822
TOTAL:	L C L E	24,804,230												

Month/Year PWS No.

March 4126000

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Monthly Pumpage Report Harwich Water Department

Main 1 39,710 33,995 34,037 32,771 31,444 46,596 37,502 32,635 32,703 32,531 49,294 29,789	Main 2 40,812 35,412 35,105 32,626 32,058 48,115 37,234 32,829 33,404 32,969	Main 3 45,857 39,701 39,177 36,985 35,585 53,412 42,604 37,114 37,682	Well 1 72,478 62,072 62,388 59,006 57,457 83,211 68,767 60,027 59,878	Well 2 52,266 44,762 44,872 42,567 41,497 60,429 49,234 43,001	Well 3 65,146 55,789 55,833 53,041 51,693 75,011 61,612	0 0 0 0 0 0	93,222 80,124 79,404 75,711 74,076	Well 6 98,169 84,288 83,638 79,692 77,921	0 0 0 0 0	Well 8 12,944 80,381 80,198 76,360 74,530	Well 9 12,864 79,979 79,797 76,006 74,187	Pump 10 116,364 100,109 99,588 94,802 92,608	Pump 11 102,324 88,007 87,311 83,362 88,092
33,995 34,037 32,771 31,444 46,596 37,502 32,635 32,703 32,531 49,294	35,412 35,105 32,626 32,058 48,115 37,234 32,829 33,404 32,969	39,701 39,177 36,985 35,585 53,412 42,604 37,114 37,682	62,072 62,388 59,006 57,457 83,211 68,767 60,027	44,762 44,872 42,567 41,497 60,429 49,234	55,789 55,833 53,041 51,693 75,011	0 0 0 0	80,124 79,404 75,711 74,076	84,288 83,638 79,692	0 0 0	80,381 80,198 76,360	79,979 79,797 76,006	100,109 99,588 94,802	88,007 87,311 83,362
34,037 32,771 31,444 46,596 37,502 32,635 32,703 32,531 49,294	35,105 32,626 32,058 48,115 37,234 32,829 33,404 32,969	39,177 36,985 35,585 53,412 42,604 37,114 37,682	62,388 59,006 57,457 83,211 68,767 60,027	44,872 42,567 41,497 60,429 49,234	55,833 53,041 51,693 75,011	0 0 0	79,404 75,711 74,076	83,638 79,692	0	80,198 76,360	79,797 76,006	99,588 94,802	87,311 83,362
32,771 31,444 46,596 37,502 32,635 32,703 32,531 49,294	32,626 32,058 48,115 37,234 32,829 33,404 32,969	36,985 35,585 53,412 42,604 37,114 37,682	59,006 57,457 83,211 68,767 60,027	42,567 41,497 60,429 49,234	53,041 51,693 75,011	0	75,711 74,076	79,692	0	76,360	76,006	94,802	83,362
31,444 46,596 37,502 32,635 32,703 32,531 49,294	32,058 48,115 37,234 32,829 33,404 32,969	35,585 53,412 42,604 37,114 37,682	57,457 83,211 68,767 60,027	41,497 60,429 49,234	51,693 75,011	0	74,076	***************************************		4			
46,596 37,502 32,635 32,703 32,531 49,294	48,115 37,234 32,829 33,404 32,969	53,412 42,604 37,114 37,682	83,211 68,767 60,027	60,429 49,234	75,011		\$	77,921	n	74.530	74 187	92 608	99.002
37,502 32,635 32,703 32,531 49,294	37,234 32,829 33,404 32,969	42,604 37,114 37,682	68,767 60,027	49,234		0	444 040		~		, FT, 1021	~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	00,092
32,635 32,703 32,531 49,294	32,829 33,404 32,969	37,114 37,682	60,027		61,612		111,819	117,567	0	111,514	110,912	131,715	114,311
32,703 32,531 49,294	33,404 32,969	37,682		43,001		0	76,409	80,158	0	86,851	86,404	65,177	94,105
32,531 49,294	32,969		59.878		53,699	0	76,322	80,315	0	76,258	75,907	95,508	83,840
49,294		60 0m/	00,010	43,023	53,804	0	76,348	80,402	0	77,029	76,684	95,593	83,985
·····		36,871	59,764	42,820	53,519	0	76,049	80,047	0	76,653	76,296	95,298	83,558
29 789	50,685	55,958	88,996	64,239	79,992	0	117,358	123,329	0	117,209	116,631	146,039	127,580
20,100	30,767	34,250	54,340	39,091	48,872	0	70,059	73,760	0	70,564	70,236	87,796	76,888
32,653	33,559	37,625	60,146	42,910	51,884	16	75,379	79,019	0	<b>4************</b>			81,563
31,565	32,642	36,564	57,522	41,397	51,735	0	73,857	77,795	0				81,317
31,819	32,215	36,085	58,136	41,856	52,259	0	74,512	78,475	0	····	***************************************		81,937
50,598	51,557	57,992	91,185	65,951	82,240	0	120,296	126,532	0	120,422			131,367
27,680	28,739	32,202	50,260	36,285	45,281	. 0	65,489	68,948	0	65,772			71,730
32,591	33,857	37,974	59,577	42,873	53,607	0	76,474	80,572	0	77,142	76,834		84,077
33,827	34,011	38,801	61,893	44,471	55,540	0	79,217	83,470	0	79.902	79,591	******************************	87,140
32,475	33,283	36,328	59,208	42,719	53,287	0	76,263	80,305	0	76,699			83,689
52,265	52,256	58,005	92,761	67,276	83,712	0	122,642	129,014	0	124,803	***************************************		136,432
24,911	26,834	30,271	46,694	33,677	42,009	0	61,537	64,710	0	59,277			65,244
36,817	38,313	42,935	67,164	48,192	60,386	0	74,354	78,401	0	74,820			81,780
32,556	33,828	37,811	59,692	42,920	53,727	0	76,527	80,564	0	\$			84,037
42,006	40,061	44,489	71,068	51,280	63,786	0	92,507	97,274	0	121,096			139,839
37,805	42,169	47,689	73,405	53,025	66,353	0	96,469	101,589	0	68,343			67,123
33,662	33,495	39,037	61,540	44,351	55,441	0	79,062	83,272	0			******************************	86,791
32,267	33,445	37,481	58,874	42,478	53,046	0	75,959	80,025	0	76.504	76,261	95,137	83,580
34,291	34,693	39,026	63,091	45,355	56,623	0	79,997	84,265	0				87,979
30,268	30,746	34,543	55,516	40,067	50,060	0	71,545	75,307	0	83,181			105,332
47,328	48,672	53,529	85,182	61,912	76,879	0	113,124	118.952	0				96,176
1,110,389	1,136,392	1,273,582	2,021,298	1,456,796	1,815,867	16	2,592,111		0	4		THE RESERVE OF THE PARTY OF THE	2,850,496
24,911	26,834	30,271	46,694	33,677	42,009	0			0				65,244
52,265	52,256	58,005	92,761	67,276	83,712	16	122,642		0		······································	~~~~	139,839
	8,814,340							5,319,885					
	8,814,340   5,319,885   5,054,989   3,189,928   2,850,496												_,000,00
	31,565 31,819 50,598 27,680 32,591 33,827 32,475 52,265 24,911 36,817 32,556 42,006 37,805 33,662 32,267 34,291 30,268 47,328 ,110,389 24,911	31,565         32,642           31,819         32,215           50,598         51,557           27,680         28,739           32,591         33,857           33,827         34,011           32,475         33,283           52,265         52,256           24,911         26,834           36,817         38,313           32,556         33,828           42,006         40,061           37,805         42,169           33,662         33,495           32,267         33,445           34,291         34,693           30,268         30,746           47,328         48,672           ,110,389         1,136,392           24,911         26,834	31,565         32,642         36,564           31,819         32,215         36,085           50,598         51,557         57,992           27,680         28,739         32,202           32,591         33,857         37,974           33,827         34,011         38,801           32,475         33,283         36,328           52,265         52,256         58,005           24,911         26,834         30,271           36,817         38,313         42,935           32,556         33,828         37,811           42,006         40,061         44,489           37,805         42,169         47,689           33,662         33,495         39,037           32,267         33,445         37,481           34,291         34,693         39,026           30,268         30,746         34,543           47,328         48,672         53,529           110,389         1,136,392         1,273,582           24,911         26,834         30,271	31,565         32,642         36,564         57,522           31,819         32,215         36,085         58,136           50,598         51,557         57,992         91,185           27,680         28,739         32,202         50,260           32,591         33,857         37,974         59,577           33,827         34,011         38,801         61,893           32,475         33,283         36,328         59,208           52,265         52,256         58,005         92,761           24,911         26,834         30,271         46,694           36,817         38,313         42,935         67,164           32,556         33,828         37,811         59,692           42,006         40,061         44,489         71,068           37,805         42,169         47,689         73,405           33,662         33,495         39,037         61,540           32,267         33,445         37,481         58,874           34,291         34,693         39,026         63,091           30,268         30,746         34,543         55,516           47,328         48,672         53,529	31,565         32,642         36,564         57,522         41,397           31,819         32,215         36,085         58,136         41,856           50,598         51,557         57,992         91,185         65,951           27,680         28,739         32,202         50,260         36,285           32,591         33,857         37,974         59,577         42,873           33,827         34,011         38,801         61,893         44,471           32,475         33,283         36,328         59,208         42,719           52,265         52,256         58,005         92,761         67,276           24,911         26,834         30,271         46,694         33,677           36,817         38,313         42,935         67,164         48,192           32,556         33,828         37,811         59,692         42,920           42,006         40,061         44,489         71,068         51,280           37,805         42,169         47,689         73,405         53,025           33,662         33,495         39,037         61,540         44,351           32,267         33,445         37,481         58,87	31,565         32,642         36,564         57,522         41,397         51,735           31,819         32,215         36,085         58,136         41,856         52,259           50,598         51,557         57,992         91,185         65,951         82,240           27,680         28,739         32,202         50,260         36,285         45,281           32,591         33,857         37,974         59,577         42,873         53,607           33,827         34,011         38,801         61,893         44,471         55,540           32,475         33,283         36,328         59,208         42,719         53,287           52,265         52,256         58,005         92,761         67,276         83,712           24,911         26,834         30,271         46,694         33,677         42,009           36,817         38,313         42,935         67,164         48,192         60,386           32,556         33,828         37,811         59,692         42,920         53,727           42,006         40,061         44,489         71,068         51,280         63,786           37,805         42,169         47,689	31,565         32,642         36,564         57,522         41,397         51,735         0           31,819         32,215         36,085         58,136         41,856         52,259         0           50,598         51,557         57,992         91,185         65,951         82,240         0           27,680         28,739         32,202         50,260         36,285         45,281         0           32,591         33,857         37,974         59,577         42,873         53,607         0           33,827         34,011         38,801         61,893         44,471         55,540         0           32,475         33,283         36,328         59,208         42,719         53,287         0           52,265         52,256         58,005         92,761         67,276         83,712         0           24,911         26,834         30,271         46,694         33,677         42,009         0           36,817         38,313         42,935         67,164         48,192         60,386         0           32,556         33,828         37,811         59,692         42,920         53,727         0           42,006         <	31,565         32,642         36,564         57,522         41,397         51,735         0         73,857           31,819         32,215         36,085         58,136         41,856         52,259         0         74,512           50,598         51,557         57,992         91,185         65,951         82,240         0         120,296           27,680         28,739         32,202         50,260         36,285         45,281         0         65,489           32,591         33,857         37,974         59,577         42,873         53,607         0         76,474           33,827         34,011         38,801         61,893         44,471         55,540         0         79,217           32,475         33,283         36,328         59,208         42,719         53,287         0         76,263           52,265         52,256         58,005         92,761         67,276         83,712         0         122,642           24,911         26,834         30,271         46,694         33,677         42,009         0         61,537           36,817         38,313         42,935         67,164         48,192         60,386         0         74,3	31,565         32,642         36,564         57,522         41,397         51,735         0         73,857         77,795           31,819         32,215         36,085         58,136         41,856         52,259         0         74,512         78,475           50,598         51,557         57,992         91,185         65,951         82,240         0         120,296         126,532           27,680         28,739         32,202         50,260         36,285         45,281         0         65,489         68,948           32,591         33,857         37,974         59,577         42,873         53,607         0         76,474         80,572           33,827         34,011         38,801         61,893         44,471         55,540         0         79,217         83,470           32,475         33,283         36,328         59,208         42,719         53,287         0         76,263         80,305           52,265         52,256         58,005         92,761         67,276         83,712         0         122,642         129,014           24,911         26,834         30,271         46,694         33,677         42,009         0         61,537	31,565 32,642 36,564 57,522 41,397 51,735 0 73,857 77,795 0 31,819 32,215 36,085 58,136 41,856 52,259 0 74,512 78,475 0 50,598 51,557 57,992 91,185 65,951 82,240 0 120,296 126,532 0 27,680 28,739 32,202 50,260 36,285 45,281 0 65,489 68,948 0 32,591 33,857 37,974 59,577 42,873 53,607 0 76,474 80,572 0 33,827 34,011 38,801 61,893 44,471 55,540 0 79,217 83,470 0 32,475 33,283 36,328 59,208 42,719 53,287 0 76,263 80,305 0 52,265 52,256 58,005 92,761 67,276 83,712 0 122,642 129,014 0 36,817 38,313 42,935 67,164 48,192 60,386 0 74,354 78,401 0 32,556 33,828 37,811 59,692 42,920 53,727 0 76,527 80,564 0 42,006 40,061 44,489 71,068 51,280 63,786 0 92,507 97,274 0 37,805 42,169 47,689 73,405 53,025 66,353 0 96,469 101,589 0 33,662 33,495 39,037 61,540 44,351 55,441 0 79,062 83,272 0 30,268 30,746 34,543 55,516 40,067 50,060 0 71,545 75,307 0 34,911 26,834 30,271 46,694 73,405 53,025 66,353 0 79,997 84,265 0 33,662 33,495 39,037 61,540 44,351 55,441 0 79,062 83,272 0 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 34,291 34,693 39,026 63,091 45,555 56,623 0 79,997 84,265 0 30,268 30,746 34,543 55,516 40,067 50,060 0 71,545 75,307 0 24,911 26,834 30,271 46,694 33,677 42,009 0 61,537 64,710 0 52,265 52,266 58,005 92,761 67,278 83,712 16 122,642 129,014 0 52,265 52,266 58,005 92,761 67,278 83,712 16 122,642 129,014 0 52,265 52,266 58,005 92,761 67,278 83,712 16 122,642 129,014 0	32,653 33,559 37,625 60,146 42,910 51,884 16 75,379 79,019 0 76,982 31,555 32,642 36,564 57,522 41,397 51,735 0 73,857 77,795 0 74,500 31,819 32,215 36,085 58,136 41,856 52,259 0 74,512 78,475 0 75,026 50,598 51,557 57,992 91,185 65,951 82,240 0 120,296 126,532 0 120,422 27,680 28,739 32,202 50,260 36,285 45,281 0 65,489 68,948 0 65,772 32,591 33,857 37,974 59,577 42,873 53,607 0 76,474 80,572 0 77,142 33,827 34,011 38,801 61,893 44,471 55,540 0 79,217 83,470 0 79,902 32,475 33,283 36,328 59,208 42,719 53,287 0 76,263 80,305 0 76,699 52,265 52,256 58,005 92,761 67,276 83,712 0 122,642 129,014 0 124,803 42,911 26,834 30,271 46,694 33,677 42,009 0 61,537 64,710 0 59,277 36,817 38,313 42,935 67,164 48,192 60,386 0 74,354 78,401 0 74,820 32,556 33,828 37,811 59,692 42,920 53,727 0 76,527 80,564 0 76,931 42,006 40,061 44,489 71,068 51,280 63,786 0 92,507 97,274 0 121,096 37,805 42,169 47,689 73,405 53,025 66,353 0 96,469 101,589 0 68,343 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 34,291 34,693 39,037 61,540 44,351 55,441 0 79,062 83,272 0 79,513 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 34,291 34,693 39,037 61,540 44,351 55,441 0 79,062 83,272 0 79,513 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 34,291 34,693 39,037 61,540 44,351 55,441 0 79,062 83,272 0 79,513 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 34,291 34,693 39,037 61,540 44,351 55,441 0 79,062 83,272 0 79,513 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 34,291 34,693 39,026 63,091 45,355 56,623 0 79,997 84,265 0 80,572 30,268 30,746 34,543 55,516 40,067 50,060 0 71,545 75,307 0 83,181 47,328 48,672 53,529 85,182 61,912 76,879 0 113,124 118,952 0 101,396 110,398 1,136,392 1,273,582 2,021,298 1,456,769 1,815,867 16 2,592,111 2,727,774 0 2,533,372 52,655 52,266 58,005 92,761 67,276 83,712 16 122,642 129,014 0 124,803 5,056	32,653 33,559 37,625 60,146 42,910 51,884 16 75,379 79,019 0 76,982 75,427 31,565 32,642 36,564 57,522 41,397 51,735 0 73,857 77,795 0 74,500 74,188 31,819 32,215 36,085 58,136 41,856 52,259 0 74,512 78,475 0 75,026 74,718 50,588 51,557 57,992 91,185 65,951 82,240 0 120,296 126,532 0 120,422 119,883 27,680 28,739 32,202 50,260 36,285 45,281 0 65,489 68,948 0 65,772 65,492 32,591 33,857 37,974 59,577 42,873 53,607 0 76,474 80,572 0 77,142 76,834 33,827 34,011 38,801 61,893 44,471 55,540 0 79,217 83,470 0 79,902 79,591 32,475 33,283 36,328 59,208 42,719 53,287 0 76,263 80,305 0 76,699 76,410 52,265 52,256 58,005 92,761 67,276 83,712 0 122,642 129,014 0 124,803 124,336 24,911 26,834 30,271 46,694 33,677 42,009 0 61,537 64,710 0 59,277 59,054 42,091 33,828 37,811 59,692 42,920 53,727 0 76,527 80,564 0 76,931 76,685 42,006 40,061 44,489 71,068 51,280 63,786 0 92,507 97,274 0 121,096 124,754 37,805 42,169 47,689 73,405 53,025 66,353 0 96,469 101,589 0 68,343 64,035 33,662 33,495 39,037 61,540 44,351 55,441 0 79,062 83,272 0 79,513 79,254 32,267 33,445 37,481 58,874 42,478 53,046 0 75,957 80,254 42,91 34,693 39,026 63,091 45,355 56,623 0 79,997 84,265 0 80,572 80,293 30,268 30,746 34,543 55,516 40,067 50,060 0 71,545 75,307 0 83,181 87,042 47,328 48,672 53,529 85,182 61,912 76,879 0 113,124 118,952 0 101,396 96,884 110,389 1,136,392 1,273,582 2,021,298 1,456,796 1,815,867 16 2,592,111 2,727,774 0 2,533,372 2,521,617 24,911 26,834 30,271 46,694 33,677 42,009 0 61,537 64,710 0 59,277 59,054 47,573 30,256 52,256 58,005 92,761 67,694 76,879 0 113,124 118,952 0 101,396 96,884 110,389 1,136,392 1,273,582 2,021,298 1,456,796 1,815,867 16 2,592,111 2,727,774 0 2,533,372 2,521,617 24,911 26,834 30,271 46,694 33,677 42,009 0 61,537 64,710 0 59,277 59,054 52,265 52,256 58,005 92,761 67,276 83,712 16 122,642 129,014 0 124,803 124,754 59,054 50,	32,653 33,559 37,625 60,146 42,910 51,884 16 75,379 79,019 0 76,982 75,427 95,699 31,565 32,642 36,564 57,522 41,397 51,735 0 73,867 77,795 0 74,500 74,188 92,785 13,819 32,215 36,085 58,136 41,856 52,259 0 74,512 78,475 0 75,026 74,718 93,397 50,598 51,557 57,992 91,185 65,951 82,240 0 120,296 126,632 0 120,422 119,883 148,770 27,680 28,739 32,202 50,260 36,285 45,281 0 65,489 68,948 0 65,772 65,492 81,448 32,591 33,857 37,974 59,577 42,873 53,607 0 76,474 80,572 0 77,142 76,834 95,715 33,827 34,011 38,801 61,893 44,471 55,540 0 79,217 83,470 0 79,902 79,591 99,322 32,475 33,283 36,328 59,208 42,719 53,287 0 76,263 80,305 0 76,699 76,410 95,450 52,265 52,256 58,005 92,761 67,276 83,712 0 122,642 129,014 0 124,803 124,336 140,039 24,911 26,834 30,271 46,694 33,677 42,009 0 61,537 64,710 0 59,277 59,054 84,685 36,255 33,828 37,811 59,692 42,920 53,727 0 76,527 80,564 0 76,931 76,685 95,661 42,006 40,061 44,489 71,068 51,280 63,786 0 92,507 97,274 0 121,096 124,754 104,607 37,805 42,169 47,689 73,405 53,025 66,353 0 96,469 101,589 0 68,343 64,035 125,688 33,628 37,481 58,674 42,478 53,046 0 75,959 80,025 0 76,504 76,261 95,137 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 76,261 95,137 32,265 52,256 58,005 92,761 67,687 67,687 0 113,124 118,952 0 101,396 96,884 139,675 110,398 1,136,392 12,73,582 2,027,198 146,694 33,677 42,009 0 61,537 64,710 0 59,277 59,054 84,685 33,662 33,495 39,037 61,540 44,351 55,441 0 79,062 33,272 0 79,513 79,254 98,495 32,267 33,445 37,481 58,874 42,478 53,046 0 75,959 80,025 0 76,504 76,261 95,137 32,266 30,746 34,543 55,516 40,067 50,060 0 77,545 75,307 0 83,181 87,042 89,493 47,328 48,672 53,529 85,182 61,912 76,879 0 113,124 118,952 0 101,396 96,884 139,675 140,909 0 61,537 84,710 0 59,277 59,054 66,757 140,909 0 61,537 84,710 0 59,277 59,054 66,757 50,056 67,276 83,712 16 12,2642 129,014 0 124,803 124,754 148,770 126,834 30,271 46,694 33,677 42,009 0 61,537 84,710 0 59,277 59,054 66,757 50,056 67,276 83,712 16 12,2642 129,014 0 124,803 124,754 148,770 126,834 3