



**TOWN OF MAYNARD**  
**Department of Public Works**  
**MUNICIPAL BUILDING**  
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*Justin DeMarco*  
*Director of Public Works*

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*Administration      Cemetery & Parks      Facilities      Highway      Water & Sewer      WWTF*

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**Memorandum**

To: Select Board (Water & Sewer Commissioners)  
From: Justin DeMarco, Director of Public Works  
CC: Greg Johnson, Town Administrator  
Date: February 28, 2023  
Subject: Water & Sewer Utility Rates Adjustments for Fiscal Year 2024 (FY24)

Recommended Action:

Motion to approve the water and sewer utility use rates for fiscal year 2024 (FY24) as listed in exhibit 1, (water), and exhibit 1A, (sewer) effective July 1, 2023.

\*Note: Water and Sewer use is read and billed at the end of each quarter. fourth quarter use from April – June 2023 will be billed at adjusted rate in exhibit 1 & 1a, effective July 1st, 2023.

Purpose:

Given the current global, national, and localized volatile economic financial environment causing downward pressures on the daily process requirements to maintain and operate both the water & sewer utilities at a combined user rate increase of 5.5%. We are pleased to present the board with a fiscally sound and efficiently effective request below national volatile inflationary factors ranging from a peak of 10% to a current national average of 6.4%. Proper long term financial planning in conjunction with precise capital improvement planning strategically addressing our aging and degrading conditions of our water & sewer utility infrastructure has allowed our financial model to handle and reduce the impact of the economic volatility causing pressure to all budgets reducing the potential drastic impact to our use rates. Due to these consistent and dynamic factors, the need to continue to review and adjust rates on a regular basis is necessary. Services such as water & sewer utilities should be financially stable, allowing the department to produce a consistent and reliable utility. Our current utility lacks the water production capability to support economic growth opportunities throughout the community.

This rate change will continue to help stabilize the water and sewer utility enterprise fund with a steady increase to retained earnings to meet our Enterprise account financial model goal of a constituent funding-level of 50% of annual direct costs and debt service.

This rate change will continue to allow the Department to implement reserve fund financial model adoption for each enterprise fund. Reserve funds will allow both water and sewer utilities to react in a timely manner to emergency issues that arise within our aging infrastructure. Implementation of reserve funds in both enterprise accounts will continue to help stabilize the water and sewer utility rates moving forward and allow the utilities to reduce the need for long term debt services to react to unanticipated issues that affect our funding plans.

This rate change will postpone our 5-year financial plan to allow the water utility to proactively position the community to implement the utilities phase two water capacity improvement plan, Old Marlboro Road Treatment plant. Our phase two water capacity improvement project is the most impactful water capacity and treatment project on the utilities capital improvement plan and is vital to allow the utility to support new growth, clean water, and provide operational redundancy for systems working beyond their designed capacities.

This rate change will not provide for the development of a Bio-Winn sewer model, which will allow the town to properly determine its sewer capacity for both current and future capabilities for the town's wastewater treatment plant to support development.

This rate change will not provide a funding mechanism for the following: Whites Pond piloting and permitting process (1.0MGD), and Rockland well expansion pilot and permitting process (0.3MGD).

This rate change does not increase the current dedicated yearly capital improvements financial lines in both Water & Sewer's budget from FY23.

This rate change will postpone the staffing operational plan increase of Water and Sewer Department personnel to continue to reach the state's Department of Environmental Protection (DEP) recommended staffing levels associated with a utility of our size, and complexity. We continue to strategically implement our staffing plan in a manner of small incremental increases as to not burden the rates with a spike increase.

Impact:

Water and Sewer use is read and billed at the end of each quarter. Fourth quarter use from April – June 2022 will be billed at adjusted rate in exhibit 1 & 1A, effective July 1, 2023.

Maynard uses a tiered water & sewer rate system. The average water and sewer use rates fall within the 1,500cf – 2,500cf range per quarter, with some users in the low range of 500cf per quarter, and others over 5,000cf per quarter.

The financial impact with the rate change will financially affect the average household within the community as follows for the use of both Water & Sewer utilities use rates:

- 1,500cf of use: additional cost: x Conversion to cost per gallon = \$0.00135
  - Per year = \$60.72
  - Per quarter = \$15.17
  - Per month = \$5.06
- 2,000cf of use: additional cost: x Conversion to cost per gallon = \$0.00135
  - Per year = \$80.76
  - Per quarter = \$20.19
  - Per month = \$6.73
- 2,500cf of use: additional cost: x Conversion to cost per gallon = \$0.00135
  - Per year = \$100.84
  - Per quarter = \$25.21
  - Per month = \$8.40

### Outreach Process:

Inform residents through Website, Facebook, Hyper-Reach, Memo, and FAQ placed in water & sewer bill prior to inception.

### Background:

The Department of Public Works (DPW), in conjunction with the Finance Director, Treasurer/Collector's office, and Stantec Financial Consultant Management (previously Pioneer Consulting Group) as a subject matter expert, developed our recommended rate scenario as seen in exhibit 1 & 1A

Analysis consisted of the following:

- Current & Past water / sewer use rates
- Current & Past water consumption
- Current & Past financial trends
  - o Revenue
  - o Expenditure
  - o Debt
  - o Exemptions
  - o Indirect costs
- Water & Sewer Capacity
- Water & Sewer Capital improvement plan
- Wastewater Treatment Plant Capital Improvement plan
- Current & Future development
- Comparable water / sewer district rates

For the past several years, the Town of Maynard's water and sewer utility worked collaboratively with a specialized utility financial planner, and manager by the name of Douglas Gardner principle owner of Pioneer Consulting Group, a highly recognized, and successful financial advisor in the industry of water and sewer utility financial planning. Doug passed away suddenly during the fall of 2022, and his loss was a great loss to the industry and the Town of Maynard. We want to take this time to recognize his dedication and guidance that has allowed Maynard to make significant strides forward in our water and sewer utility over the course of the past several years.

### Supplemental Information:

The Water and Sewer Division is responsible for ensuring that the town's water supply meets or exceeds all federal Environmental Protection Agency (EPA) and state DEP guidelines for safe drinking water and that all wastewater is collected and delivered to the wastewater treatment plant.

Maynard's Wastewater Treatment Facility (WWTF) is responsible for ensuring that all effluent discharged into the Assabet River meets or exceeds all EPA and DEP requirements.

The town of Maynard's water and sewer department operates and maintains three water treatment plants located in Maynard, with a permitted allowable withdrawal amount of (1.13MGD) utilizing all three treatment plants. Maynard's mechanical ability for water withdrawal is only (1.0MGD) utilizing all three treatment plants running 24 hours a day, seven days a week. This operational method is not sustainable and near impossible to perform due to operational variables. Maynard's average daily water use was (0.75MGD) in 2022, which is an increase of (0.01MGD) from the previous year's use.

Our 2022 Average daily use doesn't not indicate a large increase as described above, yet this is highly concerning to our utility given the fact that we encountered an extreme drought condition index throughout much of the spring, summer, and fall last season. We implemented non-essential outdoor water use as required, and this did not lower our daily demand. Without future water bans restriction, and or increased water production capacity this could be dangerous to our system. Our water production demand is projected to continue to increase and will be monitored by our staff regularly. Increased demand has many factors such as new growth, and an extreme change in our residential customers from longtime residents to a swell of new residents utilizing everyday water demands at a higher rate than our traditional customer culture in the past. Final development of Maynard Crossing will continue to increase Maynard's Average daily use as well.

Over 100 miles of underground water and sewer distribution piping. Ranging in age of install from 1900 – 1990, with most of the distribution system well over 70 years old.

10 sewer pump stations at various locations across town. Ranging in age of install from 1970 – 1990, with most of the pumping systems over 30 years old.

The town of Maynard has a Wastewater Treatment Facility (WWTF) is operated through a contractor, Veolia. The town is responsible for capital costs and contracted operational costs associated with the plant's operation.

**TOWN OF MAYNARD, MA**  
**WATER ENTERPRISE FUND**  
**Current vs Proposed Rates & Charges**

**Exhibit 1**

**Water Division**

**IN TOWN CUSTOMERS**

**Minimum Charge - Quarterly - Includes 0 CF**

**Meter Water Charges - Quarterly - per 100 CF**

1st Step 1-500 CF

2nd Step 501-1,000 CF

3rd Step 1,001-2,500 CF

4th Step Over 2,500 CF

**OUT OF TOWN CUSTOMERS**

**Minimum Charge - Quarterly - Includes 0 CF**

**Meter Water Charges - Quarterly - per 100 CF**

1st Step 1-500 CF

2nd Step 501-1,000 CF

3rd Step 1,001-2,500 CF

4th Step Over 2,500 CF

**Private Fire Protection - Annual Charge**

Hydrant

2"

3"

4"

6"

8"

10"

**Backflow Prevention**

Per Test

	<b>Current Rates FY 2023</b>	<b>Proposed 1 Year Rate FY 2024</b>	<b>Dollar Increase</b>	<b>Percentage Increase</b>
<b>Minimum Charge - Quarterly - Includes 0 CF</b>	\$30.00	\$35.00	\$5.00	16.67%
<b>Meter Water Charges - Quarterly - per 100 CF</b>				
1st Step 1-500 CF	\$2.85	\$2.91	\$0.06	2.00%
2nd Step 501-1,000 CF	\$7.74	\$7.89	\$0.15	2.00%
3rd Step 1,001-2,500 CF	\$8.51	\$8.94	\$0.43	5.00%
4th Step Over 2,500 CF	\$10.06	\$10.76	\$0.70	7.00%
<b>OUT OF TOWN CUSTOMERS</b>				
<b>Minimum Charge - Quarterly - Includes 0 CF</b>	\$45.00	\$52.50	\$7.50	16.67%
<b>Meter Water Charges - Quarterly - per 100 CF</b>				
1st Step 1-500 CF	\$4.47	\$4.56	\$0.09	2.00%
2nd Step 501-1,000 CF	\$11.82	\$11.82	\$0.00	0.00%
3rd Step 1,001-2,500 CF	\$12.83	\$16.04	\$3.21	25.00%
4th Step Over 2,500 CF	\$14.89	\$19.51	\$4.62	31.00%
<b>Private Fire Protection - Annual Charge</b>				
Hydrant	\$350.00	\$374.50	\$24.50	7.00%
2"	\$56.00	\$59.92	\$3.92	7.00%
3"	\$112.00	\$119.84	\$7.84	7.00%
4"	\$175.00	\$187.25	\$12.25	7.00%
6"	\$350.00	\$374.50	\$24.50	7.00%
8"	\$560.00	\$599.20	\$39.20	7.00%
10"	\$812.00	\$868.84	\$56.84	7.00%
<b>Backflow Prevention</b>				
Per Test	\$75.00	\$80.25	\$5.25	7.00%

**TOWN OF MAYNARD, MA**  
**WATER ENTERPRISE FUND**  
**Bill Impact Analysis - FY 2024**

**Exhibit 2**

<b>Customer Type</b>	<b>Quarterly Usage (cubic feet)</b>	<b>FY 2023 Rates</b>	<b>FY 2024 Rates</b>	<b>Difference (\$)</b>	<b>Difference (%)</b>
	0	\$30.00	\$35.00	\$5.00	16.67%
	100	\$32.85	\$37.91	\$5.06	15.39%
	200	\$35.70	\$40.81	\$5.11	14.32%
	300	\$38.55	\$43.72	\$5.17	13.41%
	400	\$41.40	\$46.63	\$5.23	12.63%
<b>Low usage</b>	<b>500</b>	<b>\$44.25</b>	<b>\$49.54</b>	<b>\$5.29</b>	<b>11.94%</b>
	1,000	\$82.95	\$89.01	\$6.06	7.30%
	1,500	\$125.50	\$133.69	\$8.19	6.52%
	2,000	\$168.05	\$178.36	\$10.31	6.14%
<b>Average usage</b>	<b>2,500</b>	<b>\$210.60</b>	<b>\$223.04</b>	<b>\$12.44</b>	<b>5.91%</b>
	3,000	\$260.90	\$276.86	\$15.96	6.12%
	3,500	\$311.20	\$330.68	\$19.48	6.26%
	4,000	\$361.50	\$384.50	\$23.00	6.36%
	4,500	\$411.80	\$438.33	\$26.53	6.44%
	5,000	\$462.10	\$492.15	\$30.05	6.50%
	6,000	\$562.70	\$599.79	\$37.09	6.59%
	7,000	\$663.30	\$707.43	\$44.13	6.65%
	8,000	\$763.90	\$815.07	\$51.17	6.70%
	9,000	\$864.50	\$922.71	\$58.21	6.73%
	10,000	\$965.10	\$1,030.36	\$65.26	6.76%
	12,500	\$1,216.60	\$1,299.46	\$82.86	6.81%
	15,000	\$1,468.10	\$1,568.57	\$100.47	6.84%
	17,500	\$1,719.60	\$1,837.67	\$118.07	6.87%
	20,000	\$1,971.10	\$2,106.78	\$135.68	6.88%
	30,000	\$2,977.10	\$3,183.20	\$206.10	6.92%
	40,000	\$3,983.10	\$4,259.62	\$276.52	6.94%

**TOWN OF MAYNARD, MA**  
**SEWER DEPARTMENT**  
**Current vs Proposed Rates & Charges**

**Exhibit 1a**

**Sewer Division**

**IN TOWN CUSTOMERS**

**Minimum Charge - Quarterly - Includes 0 CF**

**Meter Sewer Charges - Quarterly - per 100 CF**

1st Step 1-500 CF

2nd Step 501-2,500 CF

3rd Step Over 2,500 CF

**OUT OF TOWN CUSTOMERS**

**Minimum Charge - Quarterly - Includes 0 CF**

1st Step 1-500 CF

2nd Step 501-2,500 CF

3rd Step Over 2,500 CF

	<b>Current Rates FY 2023</b>	<b>Proposed 1 Year Rate FY 2024</b>	<b>Dollar Increase</b>	<b>Percentage Increase</b>
	\$50.00	\$50.00	\$0.00	0.00%
	\$6.01	\$6.25	\$0.24	4.00%
	\$11.57	\$12.15	\$0.58	5.00%
	\$14.20	\$15.05	\$0.85	6.00%
	\$75.00	\$75.00	\$0.00	0.00%
	\$8.58	\$8.92	\$0.34	4.00%
	\$16.53	\$17.36	\$0.83	5.00%
	\$20.27	\$21.49	\$1.22	6.00%

TOWN OF MAYNARD, MA  
 SEWER DEPARTMENT  
 Bill Impact Analysis - FY 2024

Exhibit 2a

Customer Type	Quarterly Usage (cubic feet)	FY 2023 Rates	FY 2024 Rates	Difference (\$)	Difference (%)
	0	\$50.00	\$50.00	\$0.00	0.00%
	100	\$56.01	\$56.25	\$0.24	0.43%
	200	\$62.02	\$62.50	\$0.48	0.78%
	300	\$68.03	\$68.75	\$0.72	1.06%
	400	\$74.04	\$75.00	\$0.96	1.30%
Low usage	500	\$80.05	\$81.25	\$1.20	1.50%
	1,000	\$137.90	\$141.99	\$4.09	2.97%
	1,500	\$195.75	\$202.74	\$6.99	3.57%
	2,000	\$253.60	\$263.48	\$9.88	3.90%
Average usage	2,500	\$311.45	\$324.22	\$12.77	4.10%
	3,000	\$382.45	\$399.48	\$17.03	4.45%
	3,500	\$453.45	\$474.74	\$21.29	4.70%
	4,000	\$524.45	\$550.00	\$25.55	4.87%
	4,500	\$595.45	\$625.26	\$29.81	5.01%
	5,000	\$666.45	\$700.52	\$34.07	5.11%
	6,000	\$808.45	\$851.04	\$42.59	5.27%
	7,000	\$950.45	\$1,001.56	\$51.11	5.38%
	8,000	\$1,092.45	\$1,152.08	\$59.63	5.46%
	9,000	\$1,234.45	\$1,302.60	\$68.15	5.52%
	10,000	\$1,376.45	\$1,453.12	\$76.67	5.57%
	12,500	\$1,731.45	\$1,829.42	\$97.97	5.66%
	15,000	\$2,086.45	\$2,205.72	\$119.27	5.72%
	17,500	\$2,441.45	\$2,582.02	\$140.57	5.76%
	20,000	\$2,796.45	\$2,958.32	\$161.87	5.79%
	30,000	\$4,216.45	\$4,463.52	\$247.07	5.86%
	40,000	\$5,636.45	\$5,968.72	\$332.27	5.90%