



TOWN OF MAYNARD Department of Public Works

MUNICIPAL BUILDING
195 Main Street
Maynard, MA 01754
Tel: 978-897-1317 Fax: 978-897-7290
www.townofmaynard-ma.gov

Justin DeMarco
Director of Public Works

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[Water & Sewer](#)

[WWTF](#)

Memorandum

To: Select Board (Water & Sewer Commissioners)
From: Justin DeMarco, Director of Public Works
CC: Greg Johnson, Town Administrator
Date: February 27, 2024
Subject: Water & Sewer Utility Rates Adjustments for Fiscal Year 2025 (FY25)

Recommended Action:

Motion to approve the water and sewer utility use rates for Fiscal Year 2025 (FY25) as listed in exhibit 1, (water), and exhibit 1A, (sewer) effective July 1, 2024.

*Note: Water and Sewer use is read and billed at the end of each quarter. Fourth quarter use from April – June 2024 will be billed at adjusted rate in exhibit 1 & 1a, effective July 1st, 2024.

Purpose:

As our day to day lives continue to experience a slow stabilization of the ongoing global, national, and localized unstable inflationary financial environment. Thus, causing downward pressures to our daily routines, so does this affect our process requirements to maintain and operate both the water & sewer utilities. It is increasingly becoming more and more difficult for our utility to stay in compliance with ever-evolving statutory changes from both Federal and State agencies. Due to our continued commitment and adherence to our financial policies, models, and forecasting. We have been able to stabilize our rates for the past few years, while contending with continued volatile economic markets. We are pleased to present a combined water and sewer user rate increase request of 5.9% to the board.

Proper long term financial planning in conjunction with precise capital improvement planning strategically addressing our aging and degrading conditions within 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. Based on 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.

Financial Planning Process:

The Department of Public Works (DPW), in conjunction with the accounting office, treasurer/collector's office, and Stantec Financial Consultant Management 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

Water & Sewer Utility 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 water and sewer utilities maintain and operate three water treatment plants, 10 sewer pump stations and over 100 miles of water distribution and sewer collection lines servicing the Town of Maynard. Our systems range in age of installation from 1900 – 1990, with most of the distribution systems well over 70 years old with most of the pumping systems over 30 years old.

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. We currently operate the day-to-day requirements of this facility through a contractor, Veolia. The town is responsible for capital costs and contracted operational costs associated with the plant's operation.

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 (0.68MGD) in 2023, which is a decrease of (0.17MGD) from the previous year's use.

Our 2023 Average daily use decline is the direct result of several distribution system improvements, operational meter auditing and enforcement programs implemented over the course of the past three years. We have increased enforcement of our water withdrawal permits mandated non-essential outdoor water use. Increased our town wide leak detection surveys from annually to twice a year, which resulted in repairs and upgrades to several leaks across the

distribution system reducing our unaccounted-for water from 16.4% to 6.8% bringing our water utility below MADEP recommended standards of 10% or below. Internal system auditing has been our most successful program to date, this has been conducted by our water Superintendent and water administrator, which has accounted for increased metering of 7.5 MGY within the calendar year 2022-2023 for current customers, mostly focused on commercial large meter customers. Our program will continue to apply efficient methods to have our utilities operation work at peak performance. Water production demand is projected to continue to increase, with recently permitted development projects, and zoning adoptions. This 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. The final development of Maynard Crossing, and the start of downtown development Maynard Square will continue to increase Maynard's Average daily use as well.

Grant Funding update

Chapter 268 of the Acts of 2022 Economic Development Bill Earmark Funds of \$400,000.00 for well expansion, permitting and piloting.

- We will begin to explore Phase 2 of the town's water capacity improvement plan, exploration of well sources adjacent to Rockland Avenue water treatment facility. Estimated timeline of permitting and piloting of 5 years, with a target of expedited permitting within 4 years.

Water Pollution Abatement Project, Existing Water Service Line Inventory and Materials identification project for \$200,000.00 from Massachusetts Department of Environmental protection, and Massachusetts Clean Water Trust.

- We are continuing this project to meet EPA, and DEP lead and Copper rules revision requirements. Maynard Department of Public works requested additional grant funds to expedite this program.

Massachusetts Water Resources authority connection possibility update

Over the past year, Maynard's Department of Public works in conjunction with several other surrounding communities have been in consistent conversation with the Massachusetts Water Resources Authority (MWRA) water system as they explore opportunities for expansion and sale of public drinking water. In July of 2023, MWRA issued a finalized feasibility study to determine the possibilities of providing water resources to three regional locations across the commonwealth. One of those target regions is the MetroWest area, which includes Maynard, Acton, Concord, Sudbury, Stow, Hudson as well as several other communities.

Maynard Department of Public works, our consultants Stantec, and surrounding communities are currently in discussions of defining a scope for a financial feasibility study to determine whether the Town will pursue admission, as a new community, to the Massachusetts Water Resources Authority (MWRA) water system which would facilitate a permanent connection to this system as a water source for Maynard. This includes conducting a full financial and asset feasibility study of Maynard, and the potential for a regional effort.

Exploring this opportunity is a very advantageous pursuit for Maynard, for the following reasons. The regulatory requirements for treating water continue to increase, making it difficult and expensive for the Town to meet these requirements. The Town anticipates incurring significant future expenses to supply drinking water, solely from our own well system, that fully complies with anticipated future Federal and State standards.

The Town is currently at serious risk of not being able to meet both the average day, and peak demand for water. A failure of a well, water filtration system, or treatment system would have a significant detrimental impact. A permanent connection to the MWRA system will provide Maynard with an additional, reliable source of water that is expected to meet all current and future Federal and State standards and provide adequate backup for Town equipment failure.

The project could take advantage of an opportunity recently made available by a vote of the MWRA Board to waive the normal entrance fee of approximately \$5-7 million.

Impact:

Water and Sewer use is read and billed at the end of each quarter. Fourth quarter use from April – June 2024 will be billed at adjusted rate in exhibit 1 & 1A, effective July 1, 2024.

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 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 = \$0.00140
 - Per year = \$62.78
 - Per quarter = \$15.70
 - Per month = \$5.23
- 2,000cf of use: additional cost: x Conversion to cost per gallon = \$0.00139
 - Per year = \$83.29
 - Per quarter = \$20.82
 - Per month = \$6.94
- 2,500cf of use: additional cost: x Conversion to cost per gallon = \$0.00139
 - Per year = \$103.79
 - Per quarter = \$25.95
 - Per month = \$8.65

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 consistent 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 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 within our wastewater treatment processes.

This rate change will address projected finalized bonding for the completion of our water utilities brand new well source (4A) and treatment plant upgrades for the new source's anticipated completion in early April 2024. This was a four-year capital financial planning process to reduce one time rate spikes and stabilize the rates over the past four years.

This rate change will allow for the water utility to proactively meet the new lead and copper rule revisions with funding to assist customers with lead service line replacement.

This rate change will fulfill the staffing operational plan increase of Water and Sewer Department personnel to reach the state's Department of Environmental Protection (DEP) recommended staffing levels associated with a utility of our size, and complexity. We have been strategically implementing our staffing plan in a manner of small incremental increases to not burden the rates over the past four years with a major spike increase.

This rate change will postpone a funding mechanism for the following: Phase two, Rockland well expansion pilot and permitting process (0.3MGD). *Note, Grant funding update.

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 three water capacity improvement plan, Old Marlboro Road Treatment plant. Our phase three 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 does not address treatment adoption at all three treatment facilities to eliminate PFAS chemicals, as EPA and DEP guidelines have yet to be finalized. Estimated costs range from \$40- 60 million for all three of our treatment facilities in total.

This rate change does not increase the current dedicated yearly capital improvement financial lines in both Water & Sewer budgets from FY23.

Outreach Process:

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

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

Exhibit 1

Water Division	Current Rates FY 2024	Proposed 1 Year Rate FY 2025	Dollar Increase	Percentage Increase
IN TOWN CUSTOMERS Minimum Charge - Quarterly - Includes 0 CF	\$35.00	\$40.00	\$5.00	14.29%
Meter Water Charges - Quarterly - per 100 CF				
1st step 1-500 CF	\$2.91	\$2.97	\$0.06	2.00%
2nd step 501-1,000 CF	\$7.89	\$8.13	\$0.24	3.00%
3rd step 1,001-2,500 CF	\$8.94	\$9.38	\$0.44	5.00%
4th step Over 2,500 CF	\$10.76	\$11.52	\$0.76	7.00%
OUT OF TOWN CUSTOMERS Minimum Charge - Quarterly - Includes 0 CF	\$52.50	\$60.00	\$7.50	14.29%
Meter Water Charges - Quarterly - per 100 CF				
1st step 1-500 CF	\$4.56	\$4.65	\$0.09	2.00%
2nd step 501-1,000 CF	\$11.82	\$12.17	\$0.35	3.00%
3rd step 1,001-2,500 CF	\$16.04	\$16.84	\$0.80	5.00%
4th step Over 2,500 CF	\$19.51	\$20.88	\$1.37	7.00%
Private Fire Protection - Annual Charge				
Hydrant	\$374.50	\$400.72	\$26.22	7.00%
2"	\$59.92	\$64.11	\$4.19	7.00%
3"	\$119.84	\$128.23	\$8.39	7.00%
4"	\$187.25	\$200.36	\$13.11	7.00%
6"	\$374.50	\$400.72	\$26.22	7.00%
8"	\$599.20	\$641.14	\$41.94	7.00%
10"	\$868.84	\$929.66	\$60.82	7.00%
Backflow Prevention				
Per Test	\$80.25	\$85.87	\$5.62	7.00%

Exhibit 1A

Sewer Division	Current Rates FY 2024	Proposed 1 Year Rate FY 2025	Dollar Increase	Percentage Increase
IN TOWN CUSTOMERS Minimum Charge - Quarterly - Includes 0 CF	\$50.00	\$50.00	\$0.00	0.00%
Meter Water Charges - Quarterly - per 100 CF				
1st step 1-500 CF	\$6.25	\$6.44	\$0.19	3.00%
2nd step 501-1,000 CF	\$12.15	\$12.51	\$0.36	3.00%
3rd step 1,001-2,500 CF	\$15.05	\$15.80	\$0.75	5.00%
OUT OF TOWN CUSTOMERS Minimum Charge - Quarterly - Includes 0 CF	\$75.00	\$75.00	\$0.00	0.00%
1st step 1-500 CF	\$8.92	\$9.19	\$0.27	3.00%
2nd step 501-2,500 CF	\$17.36	\$17.88	\$0.52	3.00%
3rd step Over 2,500 CF	\$21.49	\$22.56	\$1.07	5.00%
SEWER ONLY CUSTOMERS Minimum Charge - Quarterly	\$75.00	\$330.00	\$255.00	340.00%

TOWN OF MAYNARD, MA
WATER ENTERPRISE FUND
Bill Impact Analysis - FY 2025

Exhibit 2

Customer Type	Quarterly Usage (cubic feet)	FY 2024 Rates	FY 2025 Rates	Difference (\$)	Difference (%)
Low usage	0	\$35.00	\$40.00	\$5.00	14.29%
	100	\$37.91	\$42.97	\$5.06	13.34%
	200	\$40.81	\$45.93	\$5.12	12.54%
	300	\$43.72	\$48.90	\$5.17	11.84%
	400	\$46.63	\$51.86	\$5.23	11.22%
	500	\$49.54	\$54.83	\$5.29	10.68%
	1,000	\$89.01	\$95.48	\$6.47	7.27%
	1,500	\$133.69	\$142.40	\$8.71	6.51%
	2,000	\$178.36	\$189.31	\$10.94	6.14%
	2,500	\$223.04	\$236.22	\$13.18	5.91%
Average usage	3,000	\$276.86	\$293.81	\$16.94	6.12%
	3,500	\$330.68	\$351.39	\$20.71	6.26%
	4,000	\$384.50	\$408.98	\$24.48	6.37%
	4,500	\$438.33	\$466.57	\$28.25	6.44%
	5,000	\$492.15	\$524.16	\$32.01	6.50%
	6,000	\$599.79	\$639.34	\$39.55	6.59%
	7,000	\$707.43	\$754.51	\$47.08	6.66%
	8,000	\$815.07	\$869.69	\$54.62	6.70%
	9,000	\$922.71	\$984.87	\$62.15	6.74%
	10,000	\$1,030.36	\$1,100.05	\$69.69	6.76%
	12,500	\$1,299.46	\$1,387.99	\$88.53	6.81%
	15,000	\$1,568.57	\$1,675.93	\$107.36	6.84%
	17,500	\$1,837.67	\$1,963.87	\$126.20	6.87%
	20,000	\$2,106.78	\$2,251.81	\$145.04	6.88%
	30,000	\$3,183.20	\$3,403.58	\$220.39	6.92%
	40,000	\$4,259.62	\$4,555.35	\$295.74	6.94%

TOWN OF MAYNARD, MA
SEWER DEPARTMENT
Bill Impact Analysis - FY 2025

Exhibit 2a

Customer Type	Quarterly Usage (cubic feet)	FY 2024 Rates	FY 2025 Rates	Difference (\$)	Difference (%)
Low usage	0	\$50.00	\$50.00	\$0.00	0.00%
	100	\$56.25	\$56.44	\$0.19	0.33%
	200	\$62.50	\$62.88	\$0.38	0.60%
	300	\$68.75	\$69.31	\$0.56	0.82%
	400	\$75.00	\$75.75	\$0.75	1.00%
	500	\$81.25	\$82.19	\$0.94	1.15%
	1,000	\$141.99	\$144.75	\$2.76	1.94%
	1,500	\$202.74	\$207.32	\$4.58	2.26%
	2,000	\$263.48	\$269.88	\$6.40	2.43%
	2,500	\$324.22	\$332.45	\$8.23	2.54%
Average usage	3,000	\$399.48	\$411.47	\$11.99	3.00%
	3,500	\$474.74	\$490.49	\$15.75	3.32%
	4,000	\$550.00	\$569.52	\$19.52	3.55%
	4,500	\$625.26	\$648.54	\$23.28	3.72%
	5,000	\$700.52	\$727.56	\$27.04	3.86%
	6,000	\$851.04	\$885.61	\$34.57	4.06%
	7,000	\$1,001.56	\$1,043.66	\$42.09	4.20%
	8,000	\$1,152.08	\$1,201.70	\$49.62	4.31%
	9,000	\$1,302.60	\$1,359.75	\$57.15	4.39%
	10,000	\$1,453.12	\$1,517.79	\$64.67	4.45%
	12,500	\$1,829.42	\$1,912.91	\$83.49	4.56%
	15,000	\$2,205.72	\$2,308.02	\$102.30	4.64%
	17,500	\$2,582.02	\$2,703.14	\$121.12	4.69%
	20,000	\$2,958.32	\$3,098.25	\$139.93	4.73%
	30,000	\$4,463.52	\$4,678.71	\$215.19	4.82%
	40,000	\$5,968.72	\$6,259.17	\$290.45	4.87%