



TOWN OF MAYNARD
Department of Public Works
MUNICIPAL BUILDING

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Justin DeMarco
Director of Public Works

Administration Cemetery & Parks Facilities Highway Water & Sewer WWTF

Memorandum

To: Select Board (Water & Sewer Commissioners)
From: Justin DeMarco, Director of Public Works
CC: Greg Johnson, Town Administrator
Date: December 22, 2021
Subject: Water & Sewer Utility Rates Adjustments for Fiscal Year 2023 (FY23)

Recommended Action:

Motion to approve the water and sewer utility use rates for fiscal year 2023 (FY23) as listed in exhibit 1, scenario 1 (water), exhibit 1A, scenario 1 (sewer), and exhibit 1B (Rates and Charges) to be effective July 1, 2022.

*Note: 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 1st, 2022.

Purpose:

Given the current financial environment of the community in conjunction with the age, and condition of the water and sewer utility, the need 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 in order to meet our Pioneer Consulting Group (PCG) recommended funding-level goal of 50% of annual direct cost and debt service.

This rate increase will begin the 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 increases a dedicated yearly capital improvement line item for the Town of Maynard Wastewater Treatment Facility (WWTF). The rates do not increase the current capital improvements lines in both Water and Sewer yearly operating budgets from FY22.

This rate change will allow the Water and Sewer Department 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 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, 2022.

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 = \$0.00102
 - Per year = \$45.80
 - Per quarter = \$11.45
 - Per month = \$3.82
- 2,000cf of use: additional cost: x Conversion to cost per gallon = \$0.00098
 - Per year = \$58.80
 - Per quarter = \$14.70
 - Per month = \$4.90
- 2,500cf of use: additional cost: x Conversion to cost per gallon = \$0.00095
 - Per year = \$71.80
 - Per quarter = \$17.95
 - Per month = \$5.98

Outreach Process:

Inform residents through Website, Facebook, Hyper-link, published local papers, memo placed in water & sewer bill prior to inception, other.

Background:

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

Analysis consisted of the following:

- Current & Past water use rates
- Current & Past financial trends
 - Revenue
 - Expenditure
 - Debt
 - Exemptions
 - Indirect costs

- Water & Sewer Capacity
- Water & Sewer Capital improvement plan
- Wastewater Treatment Plant Capital Improvement plan
- Current & Future development
- Comparable water district rates

Our current FY22 Water and Sewer retained earnings will 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 initiate 5-year funding mechanism to perform Redesign and Construction of Old Marlborough Road treatment facility to re-activate closed well 3 (0.5MGD), and add additional ground well sites on location, anticipated (0.3MGD)

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).

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 (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 (0.74MGD) in 2020, which is a decrease of (0.02MGD) from the previous year's use, yet still a total increase of (0.08MGD) for our five-year average.

Our 2020 Average daily use does represent the unpredictable variable use trend caused by implementation, and later removal of COVID-19 "stay at home restrictions". Water use related to COVID-19 restrictions and the current occupancy taking place at Maynard Crossing will continue to increase Maynard's Average daily use.

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
Current vs Proposed Rates & Charges
Water Division

Exhibit 1

Scenario 1

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

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

	Current Rates FY 2022	Proposed 1 Year Rate FY 2023	Dollar Increase	Percentage Increase
Minimum Charge - Quarterly - Includes 0 CF	\$25.00	\$30.00	\$5.00	20.00%
Meter Water Charges - Quarterly - per 100 CF				
1st Step 1-500 CF	\$2.78	\$2.85	\$0.07	2.52%
2nd Step 501-1,000 CF	\$7.34	\$7.74	\$0.40	5.46%
3rd Step 1,001-2,500 CF	\$7.97	\$8.51	\$0.54	6.75%
4th Step Over 2,500 CF	\$9.25	\$10.06	\$0.81	8.74%
OUT OF TOWN CUSTOMERS				
Minimum Charge - Quarterly - Includes 0 CF	\$34.00	\$45.00	\$11.00	32.35%
1st Step 1-500 CF	\$3.89	\$4.47	\$0.58	15.00%
2nd Step 501-1,000 CF	\$10.28	\$11.82	\$1.54	15.00%
3rd Step 1,001-2,500 CF	\$11.16	\$12.83	\$1.67	15.00%
4th Step Over 2,500 CF	\$12.95	\$14.89	\$1.94	15.00%
Private Fire Protection - Annual Charge				
Hydrant	\$250.00	\$350.00	\$100.00	40.00%
2"	\$40.00	\$56.00	\$16.00	40.00%
3"	\$80.00	\$112.00	\$32.00	40.00%
4"	\$125.00	\$175.00	\$50.00	40.00%
6"	\$250.00	\$350.00	\$100.00	40.00%
8"	\$400.00	\$560.00	\$160.00	40.00%
10"	\$580.00	\$812.00	\$232.00	40.00%
Backflow Prevention				
Per Test	\$75.00	\$75.00	\$0.00	0.00%

**TOWN OF MAYNARD, MA
WATER ENTERPRISE FUND
IMPACT ANALYSIS - FY 2023**

Exhibit 2a

Scenario #1

Meter Size	Quarterly Quantity Cubic Feet	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
	0	\$25.00	\$30.00	\$5.00	20.00%
	100	\$27.78	\$32.85	\$5.07	18.25%
	200	\$30.56	\$35.70	\$5.14	16.82%
	300	\$33.34	\$38.55	\$5.21	15.63%
	400	\$36.12	\$41.40	\$5.28	14.62%
Low usage	500	\$38.90	\$44.25	\$5.35	13.75%
	1,000	\$75.60	\$82.95	\$7.35	9.72%
	1,500	\$115.45	\$125.50	\$10.05	8.71%
	2,000	\$155.30	\$168.05	\$12.75	8.21%
Average usage	2,500	\$195.15	\$210.60	\$15.45	7.92%
	3,000	\$241.40	\$260.90	\$19.50	8.08%
	3,500	\$287.65	\$311.20	\$23.55	8.19%
	4,000	\$333.90	\$361.50	\$27.60	8.27%
	4,500	\$380.15	\$411.80	\$31.65	8.33%
	5,000	\$426.40	\$462.10	\$35.70	8.37%
	6,000	\$518.90	\$562.70	\$43.80	8.44%
	7,000	\$611.40	\$663.30	\$51.90	8.49%
	8,000	\$703.90	\$763.90	\$60.00	8.52%
	9,000	\$796.40	\$864.50	\$68.10	8.55%
	10,000	\$888.90	\$965.10	\$76.20	8.57%
	12,500	\$1,120.15	\$1,216.60	\$96.45	8.61%
	15,000	\$1,351.40	\$1,468.10	\$116.70	8.64%
	17,500	\$1,582.65	\$1,719.60	\$136.95	8.65%
	20,000	\$1,813.90	\$1,971.10	\$157.20	8.67%
	30,000	\$2,738.90	\$2,977.10	\$238.20	8.70%
	40,000	\$3,663.90	\$3,983.10	\$319.20	8.71%

TOWN OF MAYNARD - DPW
Current vs Proposed Rates & Charges
Sewer Division
 1% Increase

Exhibit 1a

	Scenario 1			
	Current Rates FY 2022	Proposed One Year Rate FY 2023	Dollar Increase	Percentage Increase
IN TOWN CUSTOMERS				
Minimum Charge - Quarterly - Includes 0 CF	\$50.00	\$50.00	\$0.00	0.00%
Meter Sewer Charges - Quarterly - per 100 CF				
1st Step 1-500 CF	\$5.95	\$6.01	\$0.06	1.01%
2nd Step: 501-2,500 CF	\$11.46	\$11.57	\$0.11	0.96%
3rd Step: Over 2,500 CF	\$14.06	\$14.20	\$0.14	1.00%
OUT OF TOWN CUSTOMERS				
Minimum Charge - Quarterly - Includes 0 CF	\$73.75	\$75.00	\$1.25	1.69%
Meter Sewer Charges - Quarterly - per 100 CF				
1st Step: 1 - 500 CF	\$8.33	\$8.58	\$0.25	3.00%
2nd Step: 501 - 2,500 CF	\$16.05	\$16.53	\$0.48	3.00%
3rd Step: Over 2,500 CF	\$19.68	\$20.27	\$0.59	3.00%

**TOWN OF MAYNARD - DPW
 IMPACT ANALYSIS
 Sewer Division - FY 2023**

Exhibit 2a

Meter Size	Quarterly Quantity Cubic Feet	Current Rates Quarterly	Scenario #1 Proposed Rates Quarterly	Difference	Percentage Difference
All Sizes	0	\$50.00	\$50.00	\$0.00	0.00%
	100	\$55.95	\$56.01	\$0.06	0.11%
	200	\$61.90	\$62.02	\$0.12	0.19%
	300	\$67.85	\$68.03	\$0.18	0.27%
	400	\$73.80	\$74.04	\$0.24	0.33%
Low Usage	500	\$79.75	\$80.05	\$0.30	0.38%
	1,000	\$137.05	\$137.90	\$0.85	0.62%
	1,500	\$194.35	\$195.75	\$1.40	0.72%
	2,000	\$251.65	\$253.60	\$1.95	0.77%
Average Usage	2,500	\$308.95	\$311.45	\$2.50	0.81%
	3,000	\$379.25	\$382.45	\$3.20	0.84%
	3,500	\$449.55	\$453.45	\$3.90	0.87%
	4,000	\$519.85	\$524.45	\$4.60	0.88%
	5,000	\$660.45	\$666.45	\$6.00	0.91%
	6,000	\$801.05	\$808.45	\$7.40	0.92%
	7,000	\$941.65	\$950.45	\$8.80	0.93%
	8,000	\$1,082.25	\$1,092.45	\$10.20	0.94%
	9,000	\$1,222.85	\$1,234.45	\$11.60	0.95%
	10,000	\$1,363.45	\$1,376.45	\$13.00	0.95%
	20,000	\$2,769.45	\$2,796.45	\$27.00	0.97%
	30,000	\$4,175.45	\$4,216.45	\$41.00	0.98%
	40,000	\$5,581.45	\$5,636.45	\$55.00	0.99%

**TOWN OF MAYNARD, MA
Other Rates and Charges**

Exhibit 1B

	Current	Proposed
Service Call - Regular Working Hours- per man	\$75.00	\$75.00
Service Call - After Regular Working Hours - per man	\$300.00	\$300.00
Water Service Application - Residential	\$3,000.00	\$3,000.00
Water Service Application - Non-Residential	\$5,000.00	\$5,000.00
Water Inspection Application	\$75.00	\$75.00
Sewer Service Application	\$3,500.00	\$3,500.00
Sewer Inspection Application	\$75.00	\$75.00
Trench Permit - more than 3 feet deep	\$100.00	\$100.00
Street Opening Permit	\$100.00	\$100.00
Hydrant Use with Metered Water @4th Step		\$250.00
Backhoe & Operator		\$150.00
Labor / Mole		\$150.00
Labor / Compressor		\$100.00
Labor / Dump truck		\$150.00
Labor / Jackhammer		\$100.00
Labor / Restoration		\$100.00
Labor / Tap Fee		\$100.00
Meter Testing, Customer's Request (Refunded if meter registers too high)		\$150.00
Labor / Jet-Vac Truck		\$300.00
Water Meter Inspection		\$75.00
Turn on/off - regular hours - Per man (Each service)	\$75.00	\$75.00
Turn on/off - after hours - Per man (Each service)	\$300.00	\$300.00
Turn on/off non-payment - regular hours, per hour		\$150.00
Turn on/off non-payment - after regular hours- per man, per hour		\$300.00
Meter Tampering Charge - (plus the cost of water & meter)		\$150.00
Frozen Meter		\$150.00
Meter Damage		\$150.00
Flow Test (Conducted at night) (per man, plus cost of water)		\$300.00
Unauthorized Hydrant Use (MGL, Chapter 65) up to		
Private Fire Protection		
Hydrant	\$250.00	\$350.00
2"	\$40.00	\$56.00
3"	\$80.00	\$112.00
4"	\$125.00	\$175.00
6"	\$250.00	\$350.00
8"	\$400.00	\$560.00
10"	\$580.00	\$812.00
Backflow Prevention		
Per Test	\$75.00	\$75.00