

FY2022 Utility Rate Recommendation

Rate Setting Hearing
June 21, 2021



How to Build Utility Rates

*Rates are a function of cost and the consumption of utilities
(units used)*

- Component 1: The budgeted cost to operate the water and sewer system is set annually, recommended by the Mayor and approved by the City Council.
 - Increase in cost may raise rates
 - Decrease in cost may reduce rates
- Component 2: the number of units of consumption (usage) is projected based on analysis of historical usage.
 - Rising consumption can reduce rates (spread cost across more units of usage)
 - Declining consumption can increase rates (fewer units mean a greater cost per unit)



How to Build Utility Rates (example)

- Total Cost of Operations/Total Usage in Units

	Higher Usage	Lower Usage
Total Cost of Operation	\$28,000,000	\$28,000,000
Total Units of Consumption (usage)	2,713,000	2,413,000
Cost per Unit (rate)	10.32	11.60

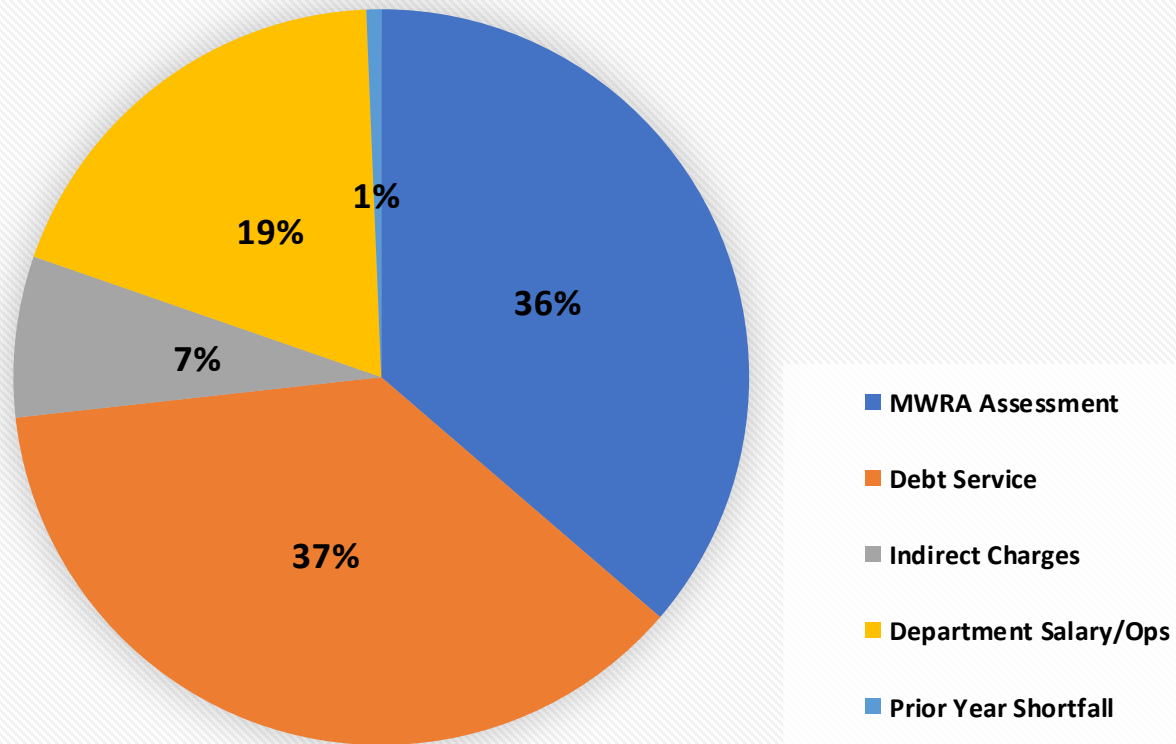
- There are two departments within the Utility Enterprise Fund that run the water and sewer system –those budgets are a fraction of the cost of operations.
- In an average year usage can be affected by domestic and commercial conservation measures and weather (drought).



FY22 Water System Costs



FY22 Voted Budget
\$25,750,464



Total Increase: \$2,954,171 (13%)

- MWRA assessment: \$493,903 (6%)
- Indirect charge to GF: +\$1.82M (100%)
- Debt Service: + \$484,526 (5%)
- City Operations costs: (**\$12,558**) (-.3%)
- Prior Year Revenue: +\$167,500 (100%)

Use \$2.82 million in Federal aid for pandemic related revenue loss

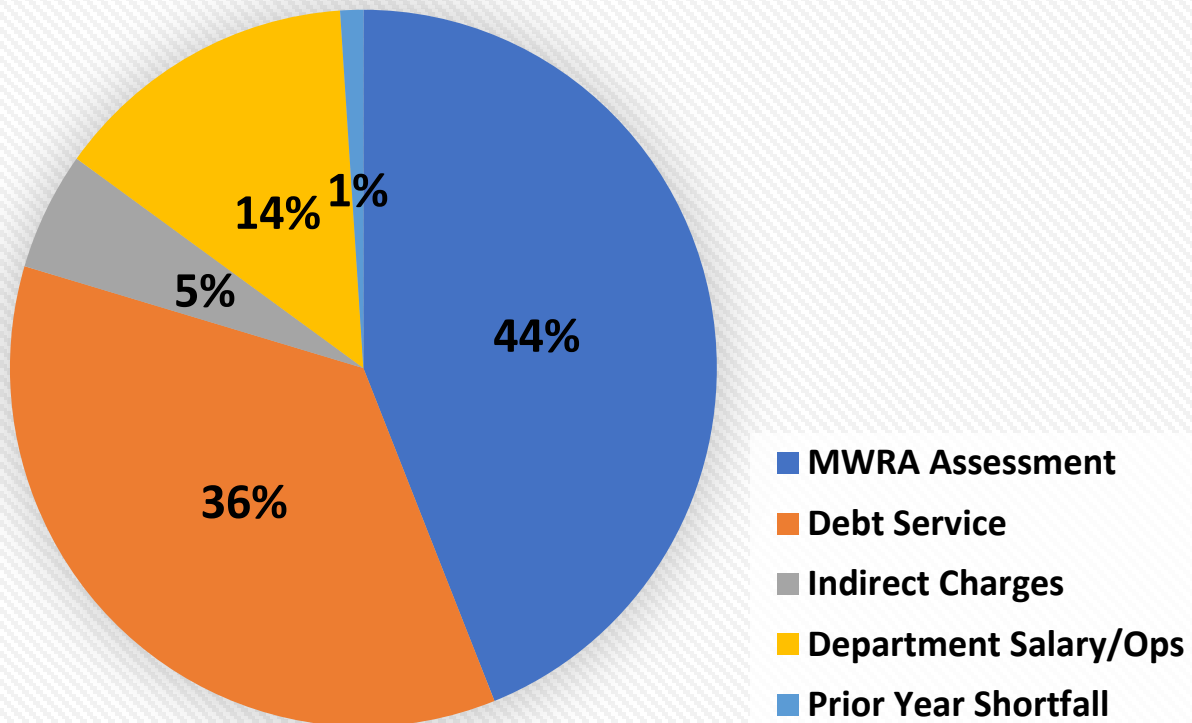


FY22 Sewer System Costs

FY22 Voted Budget
\$31,558,295

Total Increase: \$2,388,541 (8%)

- MWRA assessment: +\$661,498 (5%)
- Indirect charge to GF: +\$1.69M (100%)
- Debt Service: **(\$339,166) (-3%)**
- Operations costs: +46,709 (1%)
- Prior Year Revenue: +\$332,500 (100%)



Use \$3.53 million in Federal aid for pandemic related revenue loss



Total Utility Fund Costs

Total Utility Fund	FY20 Actual	FY21 Budget	FY22 Budget	FY21-22 Growth	FY20-22 Growth
MWRA Assessment	\$22,101,381	\$22,064,794	\$23,220,195	\$1,155,401	\$1,118,814
Debt Service	\$19,761,553	\$20,612,085	\$20,757,445	\$145,360	\$995,892
Indirect Charges	\$3,422,238	\$0	\$3,507,800	\$3,507,800	\$85,562
Prior Year Shortfall	\$0	\$0	\$500,000	\$500,000	\$500,000
Department Salary/Ops	\$9,145,014	\$9,289,168	\$9,323,319	\$34,151	\$178,305
Total	\$54,430,186	\$51,966,047	\$57,308,759	\$5,342,712	\$2,878,573

Total Expense Growth FY21-22 is 10%, FY20-22 is 5%

Water & Sewer Combined Department growth is less than 1% FY21-22 and less than 2% FY20-22

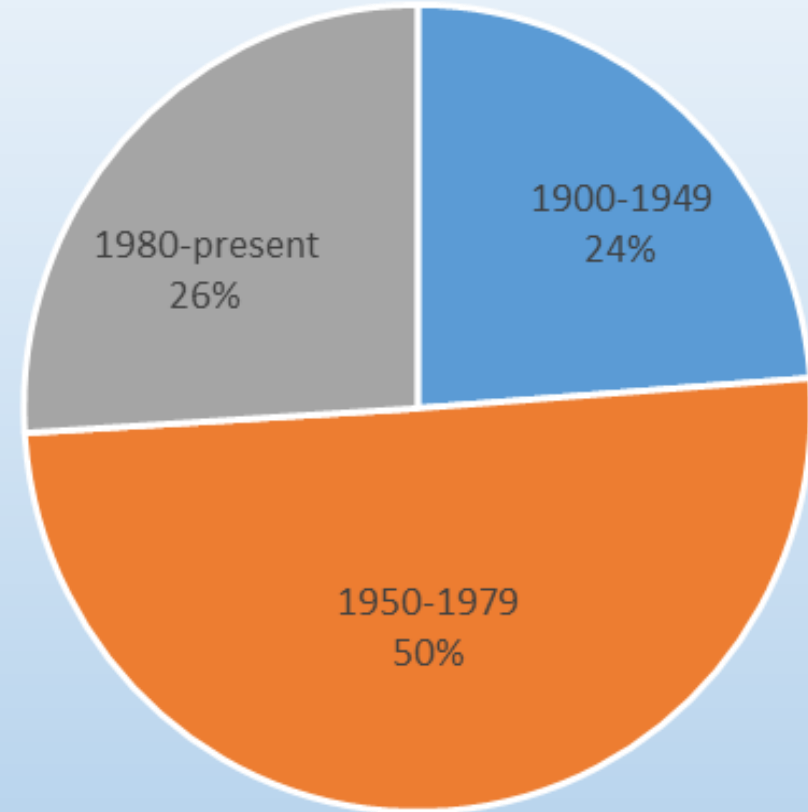
Fully restores Indirect (overhead) Charges (expense) at \$3.5 million



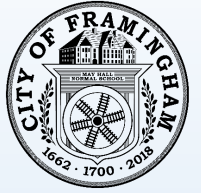
Framingham's Wastewater System



- The system consists of:
 - 226 miles of gravity mains
 - 18 miles of force (pressure) mains
 - 43 pump stations
 - 6,600 manholes
 - 40 miles of cross country sewer line easements
- The average daily collection of wastewater was 7.19mgd in 2018



% Wastewater Main by Age



Wastewater System Replacement Cost

Asset	Replacement Cost
231 Wastewater Main Miles ¹	\$1.2 Billion
43 Wastewater Pump Stations	\$110 Million
Wastewater Personnel Office Facilities ²	\$5 Million
Wastewater Vehicles & Equipment	\$3 Million

Total Replacement Cost = \$1.3 Billion

\$1.3B / 100 Years = \$13 Million / Year

\$1.3B / 75 Years = \$18 Million / Year

Notes:

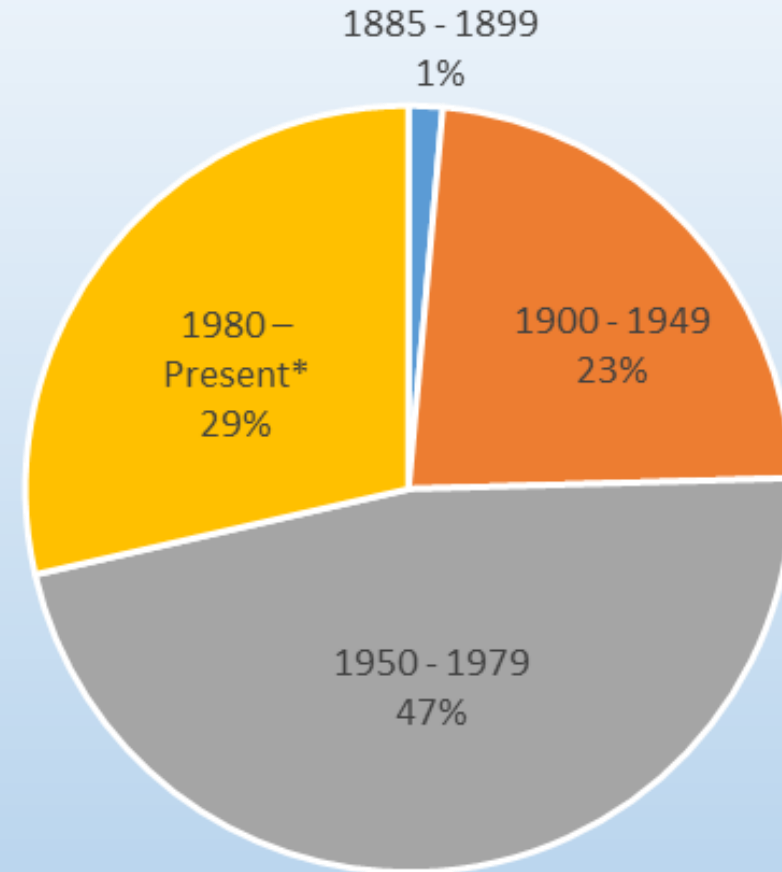
1. Replacement costs in appurtenances, permitting, design, and construction.
2. Includes portions of the Western Avenue DPW facility and City Hall.



Framingham's Water System



- The system consists of:
 - 265 miles of water mains
 - 18,000 service connections
 - 7 storage tanks store 8.8 million gallons
 - 4 pump stations & 3 booster stations for pressure (fire suppression)
 - 2,180 hydrants
 - 6,117 valves
 - 2,667 backflow preventers
 - 20,617 meters
- The average daily water consumption was 5.76 mg in 2018



% Water Main by Age



Water System Replacement Cost

Asset	Replacement Cost
265 Water Main Miles ¹	\$910 Million
7 Water Pumping/Booster Stations	\$18 Million
7 Water Storage Tanks	\$18 Million
Water Personnel Office Facilities ²	\$5 Million
Water Vehicles & Equipment	\$5 Million

Total Replacement Cost = \$1.0 Billion

\$1.0B / 100 Years = \$10 Million / Year

\$1.0B / 75 Years = \$13 Million / Year

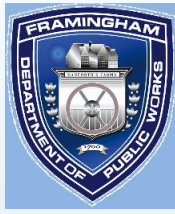
Notes:

1. Replacement costs in appurtenances, permitting, design, and construction.
2. Includes portions of the Western Avenue DPW facility and City Hall.



State Administrative Consent Order (ACO)

- Issued by DEP in 2007 required Framingham to undertake major sewer construction and rehabilitation projects with the primary focus of addressing system capacity deficiencies and alleviating reoccurring sanitary sewer overflows.
- The last specifically identified project from the ACO was completed on schedule before the end of 2013.
- While the City's response addressed key deficiencies, more work remains. Improvements over the last 10 years have replaced/rehabilitated only 15.4% of the system.



Investment in the System & Impact on Rates

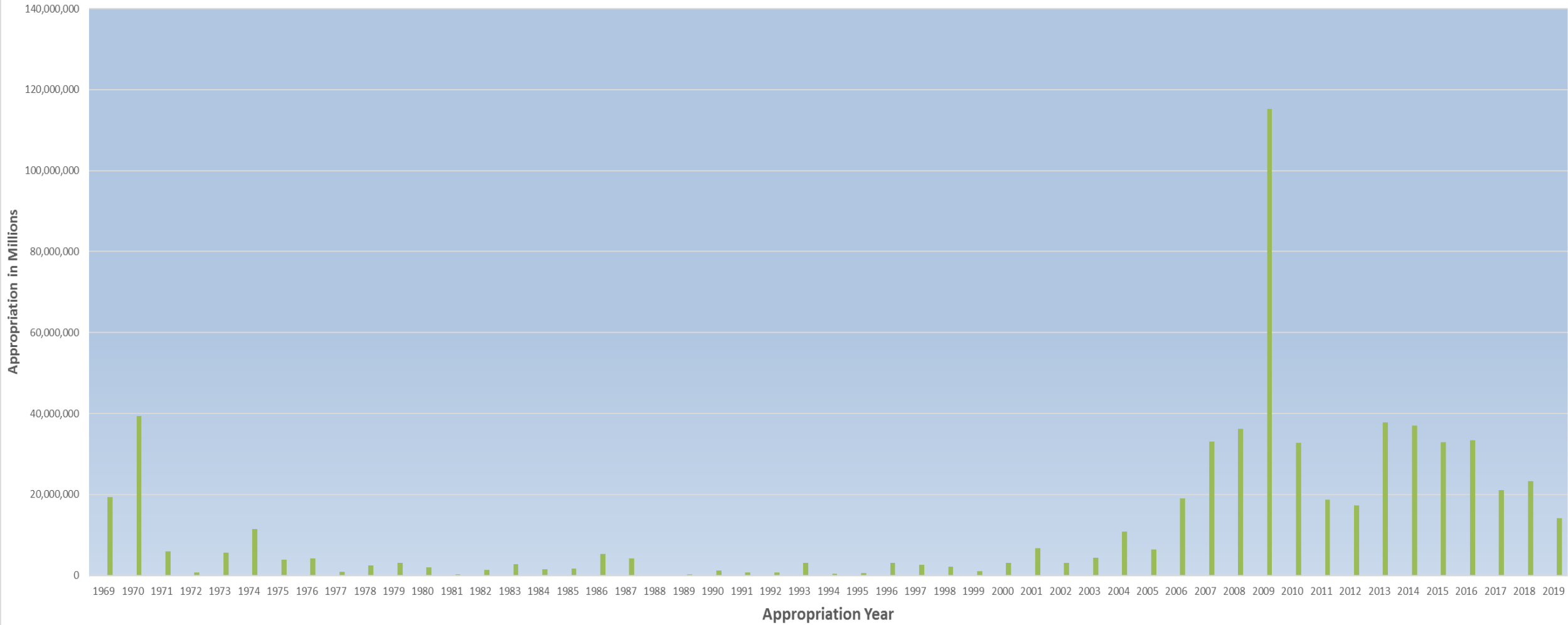
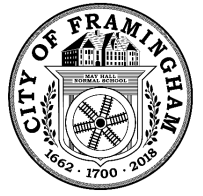


- FY06 through FY15 included heavy investment in improvement projects ordered by the state as part of the Administrative consent order (ACO)
- The water and sewer systems are highly regulated and require capital maintenance, repair and improvements to comply with state regulations.
- In prior years, used retained earnings to offset a portion of the increase in rates over long term

Fiscal Year	Framingham Water/Sewer Rate	Retained Earnings Used
FY2010	8-9% increase	
FY2011	9% increase	
FY2012	10.6-12.6% increase	
FY2013	2.8% increase	
FY2014	17% increase	
FY2015	7% increase	\$1,718,000 reduce rate increase
FY2016	6% increase	\$898,000 reduce rate increase
FY2017	6% increase	\$2.4M reduce rate increase
FY2018	2% increase	\$3.4M reduce rate increase
FY2019	2% increase	\$2.6M reduce rate increase
FY2020	2.5% increase	\$650,000 reduce water rate increase
FY2021	0% increase	
FY2022	9.7% increase	



Public Works Capital Appropriations 1969-2019 Adjusted for Inflation





Recommended FY22 Water Rates

Assumes use of

	<u>FY20/21</u> <u>Current</u>	<u>FY22 Rates</u>	<u>\$ Change</u>	<u>%</u> <u>Change</u>
Tier 1	\$6.30	\$6.91	\$0.61	9.7%
Tier 2	\$7.01	\$7.69	\$0.68	9.7%
Tier 3	\$8.15	\$8.94	\$0.79	9.7%
Tier 4	\$9.60	\$10.53	\$0.93	9.7%
Tier 5	\$11.63	\$12.76	\$1.13	9.7%
Irrigation	\$11.79	\$12.93	\$1.14	9.7%
Discount	\$4.73	\$5.18	\$0.45	9.6%

	Usage per quarter
Tier 1	1-27 units
Tier 2	13-27 units
Tier 3	28-51 units
Tier 4	52-750 units
Tier 5	over 750 units

← Usage break points for next tier



Recommended FY22 Sewer Rates

	<u>FY20/21</u> <u>Current</u>	<u>FY22 New</u>	<u>\$ Change</u>	<u>%</u> <u>Change</u>
Tier 1	\$8.18	8.97	\$0.79	9.7%
Tier 2	\$8.43	9.25	\$0.82	9.7%
Tier 3	\$11.33	12.43	\$1.10	9.7%
Tier 4	\$16.21	17.78	\$1.57	9.7%
Tier 5	\$23.54	25.82	\$2.28	9.7%
Discount	\$6.13	\$6.73	\$0.60	9.8%

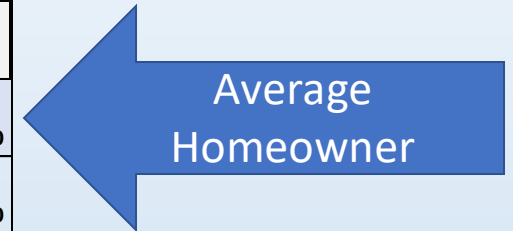
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Tier 5	over 750 units



Annual Impact of Recommended Rates

Annual Bill				
Annual Usage	FY21 Current	FY22 New	\$ Change	% Change
56	\$818.58	\$897.98	\$79.40	9.7%
24	\$347.52	\$381.23	\$33.71	9.7%
Discount 24	\$260.64	\$285.92	\$25.28	9.7%
48	\$694.84	\$762.24	\$67.40	9.7%
100	\$1,498.03	\$1,643.34	\$145.31	9.7%
Irrigation 100	\$1,178.67	\$1,293.00	\$114.33	9.7%
4 Unit Apt - 224	\$4,007.82	\$4,396.58	\$388.76	9.7%
250	\$4,627.18	\$5,076.02	\$448.84	9.7%
500	\$11,130.48	\$12,210.14	\$1,079.66	9.7%
1,000	\$24,033.86	\$26,365.14	\$2,331.28	9.7%
5,000	\$145,984.63	\$160,145.14	\$14,160.51	9.7%
20,000	\$673,514.26	\$738,845.14	\$65,330.88	9.7%





MWRA Community Comparisons

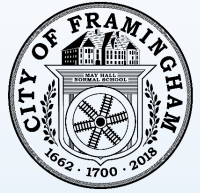


FY21 Annual Water & Sewer Charges in Metro MWRA Communities (120 HCF)					
Community (MWRA Svc)	Avg. Water Rate	Water	Avg. Sewer Rate	Sewer	Combined Total
Belmont (W/S)	\$7.32	\$877.88	\$13.52	\$1,622.20	\$2,500.08
Newton (W/S)	\$8.07	\$967.80	\$12.39	\$1,486.20	\$2,454.00
Melrose (W/S)	\$7.76	\$931.60	\$11.99	\$1,439.12	\$2,370.72
Milton (W/S)	\$7.27	\$872.40	\$12.34	\$1,481.04	\$2,353.44
Nahant (W)	\$9.22	\$1,106.40	\$9.22	\$1,106.40	\$2,212.80
Hingham (S)	\$5.81	\$696.72	\$11.98	\$1,437.68	\$2,134.40
Ashland (S)	\$3.85	\$462.00	\$13.75	\$1,649.60	\$2,111.60
Framingham (W/S) FY22	\$7.50	\$900.41	\$9.46	\$1,134.89	\$2,035.30
Cambridge (emerg W/S)	\$3.17	\$380.00	\$12.98	\$1,558.00	\$1,938.00
Medford (W/S)	\$6.23	\$747.36	\$9.28	\$1,113.36	\$1,860.72
Framingham (W/S) FY21	\$6.84	\$820.80	\$8.62	\$1,034.40	\$1,855.20
Watertown (W/S)	\$5.24	\$629.36	\$9.80	\$1,176.00	\$1,805.36
Chelsea (W/S)	\$5.47	\$656.40	\$9.47	\$1,136.40	\$1,792.80
Natick (S)	\$3.41	\$408.80	\$11.53	\$1,383.60	\$1,792.40
Boston (W/S)	\$6.13	\$735.05	\$8.41	\$1,009.09	\$1,744.14
Brookline (W/S)	\$5.28	\$633.12	\$8.98	\$1,077.60	\$1,710.72
Needham (partial W/S)	\$3.94	\$472.20	\$10.21	\$1,225.32	\$1,697.52
Wellesley (partial W/S)	\$3.76	\$451.02	\$9.54	\$1,144.80	\$1,595.82
Dedham (partial W/S)	\$4.66	\$559.56	\$7.81	\$937.28	\$1,496.84
Malden (W/S)	\$5.48	\$657.00	\$6.40	\$768.48	\$1,425.48
Lynn (partial W)	\$4.05	\$486.24	\$7.43	\$891.00	\$1,377.24
COMMUNITY AVERAGE	\$5.73	\$687.86	\$10.24	\$1,228.08	\$1,915.95

60 communities in MWRA system; 35 communities have both water and sewer services

Most communities do not have their rates set, or posted yet- this is a comparison to the FY21 rates

Some communities did not increase rates during FY21



Additional Rate Types: Private Fire Service

Size (in)	FY20/21 Current	FY22 New	\$ Change	% Change
up to 1 1/2	\$25.86	\$28.37	\$2.51	9.7%
2	\$55.10	\$60.44	\$5.34	9.7%
2.5	\$99.10	\$108.71	\$9.61	9.7%
3	\$160.06	\$175.59	\$15.53	9.7%
4	\$341.12	\$374.21	\$33.09	9.7%
6	\$990.84	\$1,086.95	\$96.11	9.7%
8	\$2,111.50	\$2,316.32	\$204.82	9.7%
10	\$3,797.22	\$4,165.55	\$368.33	9.7%
12	\$6,133.55	\$6,728.50	\$594.95	9.7%

Indexed to Water rate increase



Additional Rate Types



Flat Sewer Fee

FY22 \$238.32 per quarter

FY21 \$217.25 per quarter (9.7%)

- indexed to Sewer rate increase

Comparison to City Council Enterprise Fund Study

- **Consultant Proposed Solutions:**
 - Scenario #4: Rate Increase of 11%; use \$4.1 million in federal aid for pandemic related revenue loss (Recommended)
 - Scenario #3: Rate Increase of 9%; use \$5,000,000 in federal aid for pandemic related revenue loss
 - Scenario #2: Rate increase of 20%; but use no federal aid for pandemic related revenue loss
 - Scenario #1: No change in Rates; use \$4,500,000 in Federal aid and Tax revenue of \$4,500,000
- **City Recommendation:** Rate increase of 9.7% and use of \$6,353,000 in federal aid for pandemic related revenue loss