



# City of Cambridge

## Executive Department

**YI-AN HUANG**  
City Manager

**CMA 2024 #43**  
**IN CITY COUNCIL**  
March 18, 2024

The establishment of the Water/Sewer rates by City Council occurs each March for the next fiscal year. Because of the timing requirements, water and sewer rates are set prior to the adoption of both the Cambridge budget and Massachusetts Water Resources Authority (MWRA) budget; therefore, revenue needs are based upon estimated expenditures. Generally, water and sewer rates have been established so that revenues generated by them, when combined with other related revenue sources, cover projected annual costs.

The water and sewer rate for FY25 reflects the City's continued and increased investments, through operating and capital expenditures, in our water quality, system improvements, distribution, as well as our sewer and stormwater treatment infrastructure.

The FY25 water rate is slightly higher than what was projected last year primarily due to increased capital investments including water works construction projects, and treatment plant upgrades, and lower than projected use of the water fund balance in FY25. In 2019, the Cambridge Water Department initiated the development of a "PFAS reduction plan." With approval from the Massachusetts Department of Environmental Protection (MassDEP), a bench scale pilot study was developed to determine the best filter media to reduce Per- and Polyfluoroalkyl compound (PFAS) levels. Results indicated that granular activated carbon (GAC) to be the best method to significantly reduce Cambridge's PFAS concentrations. American Rescue Plan Act (ARPA) funds were used for this purpose initially, and are anticipated to be used in FY25, with future costs projected to be \$1.6 million per year.

The FY25 sewer budget is lower than what was projected last year because of a reduced bond issuance and receiving a low interest rate (2.66%) on sewer bonds sold earlier this month. It should be noted that the Sewer Budget is comprised mostly of fixed costs such as debt service and the MWRA assessment, which totals 79% of the total Sewer Budget.

The Water/Sewer bills that will be issued in July will be for the usage period April-June 2024 and will reflect the new sewer rate. The water rate reflects a moderate increase from FY24.



## **RECOMMENDATIONS**

The City administration and City Council continue to recognize the importance of minimizing increases in water and sewer rates. I recommend that the City Council approve a 6.8% increase in the water consumption block rate and an 4.8% increase in the sewer use block rate, resulting in a 5.23% increase in the combined rate for the period beginning April 1, 2024, and ending March 31, 2025. In last year's recommendation, the projected FY25 rate increases for water, sewer, and combined were 5.3%, 7.9%, and 7.35%, respectively, based on March 2023 consumption rates and projected budgets.

## **WATER**

Two major factors determine the rate necessary to generate enough revenues: water consumption and the budget. The FY25 Water Operating Budget reflects an increase from the FY24 Budget primarily due to costs related to salaries and benefits, waterworks materials costs, as well as capital budget increases.

The FY25 capital allocation is \$3,890,000 using pay-as-you-go capital funding based on current revenues. FY25 capital projects consist of significant improvements to our water system including water mains; Fresh Pond Master Plan implementation and reservation projects; reservoir gaging station maintenance; reservoir improvements; and treatment plant equipment and upgrades.

Water and sewer revenues are generally linked to water consumption, with sewer costs comprising approximately 78.4% of total water and sewer expenditures. Year to date (YTD) water consumption is 0.3% higher in FY24 compared to FY23.

Table 4 on page 5 indicates the details of Water Fund projected revenues and expenditures for FY24-29. Table 7 on page 8 shows actual Water Fund balances for FY19-23 and the projected balance for FY24.

## **SEWER**

The FY25 Sewer Budget reflects a \$5,942,430 increase from the FY24 Projected Budget. This includes the MWRA assessment, debt service payments, capital, and the sewer component of the Public Works budget. Debt service on sewer bonds and the MWRA assessment account for 79% of the total FY25 Sewer Budget.

The preliminary FY25 MWRA assessment is scheduled to increase by \$1,387,843 or 4.6% from the final FY24 assessment. The MWRA rate increase projected for the City is subject to change based on the MWRA budget, which is adopted later in spring 2024. These changes have typically been minor in past years. Unlike the water budget, sewer revenues are credited to the general fund and not to a separate proprietary fund that can be drawn upon if the need arises.

Included in the sewer budget are debt service costs attributable to the \$19,526,023 general obligation bonds (net of premium) issued in March 2024, used to fund sewer projects in the Port, on River Street, as well as for capital repairs and climate change projects. The FY25 capital allotment of \$7,000,000 in sewer revenues will continue to finance the remedial reconstruction program.

The City Council has authorized significant investments in the water and sewer systems to ensure Cambridge continues to benefit from a healthy and environmentally sound water and sewer system. In addition to the projects currently under way, the City's five-year capital plan cost (FY25-29) calls for an additional investment of approximately \$243,519,156 (primarily sewer, \$206,711,889) in the water and sewer systems. The City carefully monitors the issuance of debt to fund authorized sewer projects and

takes advantage of State MWRA interest free loans and grants to ensure that debt service cost increases, which impact the sewer rate, remain moderate.

The FY25-29 capital plan includes other projects that may be eligible for subsidized loans from the state. As in past years, it is not certain that these projects will receive state subsidies and the debt service on these projects has been calculated based on funding through general obligation bonds. If state subsidies become available to the City, they will be used to lower the sewer rate in future years. Table 5 on page 6 shows the detail of sewer-related expenditures and revenues for FY24-29.

### **COMBINED WATER & SEWER**

The table below reflects the projected combined water and sewer metered revenue requirements needed to cover water and sewer expenditures.

**TABLE 1**

	<b>FY24 Projected</b>	<b>FY25 Budget</b>	<b>% Change</b>
Water	\$18,507,982	\$19,766,812	6.8%
Sewer	\$68,502,384	\$71,791,698	4.8%
Combined Water / Sewer Revenue	\$87,010,366	\$91,558,510	5.23%

FY25 budgeted revenues are based on FY24 projected collections and reflect our practice of conservative revenue projections.

The table below reflects the FY24 actual and FY25 proposed water and sewer rates.

**TABLE 2**

	<b>Annual Consumption*</b>	<b>FY24 Water Rate</b>	<b>FY25 Proposed Water Rate</b>	<b>FY24 Sewer Rate</b>	<b>FY25 Proposed Sewer Rate</b>
<b>Block 1</b>	0 - 40 CcF	\$3.32	\$3.55	\$15.34	\$16.07
<b>Block 2</b>	41 - 400 CcF	\$3.55	\$3.79	\$16.21	\$16.99
<b>Block 3</b>	401 - 2,000 CcF	\$3.77	\$4.03	\$17.42	\$18.26
<b>Block 4</b>	2,001 - 10,000 CcF	\$4.01	\$4.28	\$18.75	\$19.65
<b>Block 5</b>	Over 10,000 CcF	\$4.35	\$4.65	\$19.93	\$20.89

\*All rates are per CcF. CcF is an abbreviation of 100 cubic feet. One CcF is approximately 750 gallons.

The table below reflects the average change to combined water and sewer residential bills.

**TABLE 3**

<b>Residential Type</b>	<b>FY24 Average</b>	<b>FY25 Projected</b>	<b>Annual Variance</b>	<b>% Change</b>
-------------------------	---------------------	-----------------------	------------------------	-----------------

Single Family	\$1,124	\$1,183	\$59	5.23%
Two Family	\$1,492	\$1,570	\$78	5.23%
Three Family	\$2,198	\$2,313	\$115	5.23%

### **SENIOR DISCOUNT PROGRAM**

There are currently 2,557 homeowners who qualify for the age 65+ water/sewer 15% discount (not to exceed \$90 annually), which is not tied to the homeowner's income.

There are also 48 elderly homeowners who qualify for an income-based discount of 30% (not to exceed \$180 annually). To qualify for the 30% discount, a homeowner must be 65 or older and must have been granted the Clause 41C elderly real estate exemption. For FY24, the income guidelines are as follows: single, income of \$32,193 with assets of \$64,382 or less; married, income of \$48,290 with assets of \$88,526 or less.

### **FUTURE OUTLOOK FOR RATES**

Overall, the City has been extremely successful over the past five years in producing moderate water and sewer rate increases. The average annual increases for the FY21-25 period are as follows: water, 3.3%; sewer, 6.4%; and combined, 5.7%. The average annual increases for the FY16-25 period are as follows: water, 1.6%; sewer, 6.4%; and combined, 5.2%.

Tables 4, 5, 6 and 7 contain five-year forecasts for water, sewer, and combined revenue estimates as well as Water Fund balances for the past five years and the projected FY24 Fund Balance. The City will continue to review appropriate use of Fund Balance for a specific project, or to lower the rate.

As can be seen in Table 6, the annual combined water/sewer rate is projected to increase by an average of approximately 6.96% for FY25-29. The projected increase is the result of the City's commitment to bonding sewer infrastructure improvement projects and increases in the MWRA assessment. If the increases in MWRA assessment are moderate, the rate increases that are shown will be lowered. Conversely, if consumption decreases, there will be a negative effect on water and sewer revenues.

Our water and sewer program is structured to produce reasonable rate increases in the future. The goal of the City Administration and City Council is to minimize the effects of water and sewer rate increases on residents as much as possible, while continuing to provide major investment in our infrastructure.

Very truly yours,



Yi-An Huang  
City Manager

**TABLE 4**  
**FY24-29 Water Projections**

	<b>FY24 Budget/Recap</b>	<b>FY24 Projected</b>	<b>FY25 Budget</b>	<b>FY26 Projected</b>	<b>FY27 Projected</b>	<b>FY28 Projected</b>	<b>FY29 Projected</b>
<b>Water Expenditures:</b>							
<b>Subtotal Water Dept. Operating Budget</b>	<b>15,502,965</b>	<b>14,447,320</b>	<b>16,247,475</b>	<b>16,897,374</b>	<b>17,573,269</b>	<b>18,276,200</b>	<b>19,007,248</b>
<b>Capital</b>	3,205,000	3,205,000	3,890,000	4,310,000	4,143,500	4,279,675	4,295,710
<b>Capital - GAC filter media replacement</b>	-	-	-	1,600,000	1,600,000	1,600,000	1,600,000
<b>Capital - Water Works Construction bonds</b>	-	-	-	851,500	2,065,875	3,005,436	3,565,570
<b>Finance</b>	225,000	225,000	225,000	225,000	225,000	225,000	225,000
<b>Conservation</b>	62,768	62,768	64,337	65,946	67,594	69,284	71,016
<b>Public Works</b>	400,000	400,000	400,000	-	-	-	-
<b>Community Development</b>	30,000	30,000	30,000	30,000	30,000	30,000	30,000
<b>Animal Commission</b>	10,000	10,000	10,000	10,000	10,000	10,000	10,000
<b>Total Expenditures</b>	<b>19,435,733</b>	<b>18,380,088</b>	<b>20,866,812</b>	<b>23,989,820</b>	<b>25,715,238</b>	<b>27,495,595</b>	<b>28,804,544</b>
<u><b>Assumptions:</b></u>							
1) Operating Budget for FY25 is based on City Manager's Submitted Budget and increases 4% for FY26-29.							
2) Debt Service decreases according to Debt Service Schedule.							
3) Capital and debt service schedule as shown.							
4) Public Works allocation FY26-FY29 covered in sewer rate. All others remain constant from FY25-29, but Conservation will increase by 2.5%.							
5) GAC filter media replacement - \$1.6M from ARPA funds will be used in FY25 (then \$1.6M annually).							
6) Retained earnings (fund balance) used - as shown							
<b>Financing Plan</b>							
<b>Beginning Fund Balance</b>	5,083,283	5,083,283	6,261,177	6,261,177	4,761,177	3,511,177	2,761,177
<b>Revenue:</b>							
<b>Meter Revenue</b>	18,385,733	18,507,982	19,766,812	21,389,820	23,365,238	25,645,595	27,704,544
<b>Miscellaneous Water Charges</b>	1,050,000	1,050,000	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000
<b>From Fund Balance</b>	-	-	-	1,500,000	1,250,000	750,000	-
<b>Total Revenue</b>	<b>19,435,733</b>	<b>19,557,982</b>	<b>20,866,812</b>	<b>23,989,820</b>	<b>25,715,238</b>	<b>27,495,595</b>	<b>28,804,544</b>
<b>Total Expenditures</b>	19,435,733	18,380,088	20,866,812	23,989,820	25,715,238	27,495,595	28,804,544
<b>Ending Fund Balance</b>	<b>5,083,283</b>	<b>6,261,177</b>	<b>6,261,177</b>	<b>4,761,177</b>	<b>3,511,177</b>	<b>2,761,177</b>	<b>2,761,177</b>
	<b>projected rate increase</b>		<b>6.80%</b>	<b>8.21%</b>	<b>9.24%</b>	<b>9.76%</b>	<b>8.03%</b>

**TABLE 5**  
**FY24-29 Sewer Projections**

	<b>FY24 Budget/Recap</b>	<b>FY24 Projected</b>	<b>FY25 Budget</b>	<b>FY26 Projected</b>	<b>FY27 Projected</b>	<b>FY28 Projected</b>	<b>FY29 Projected</b>
<b>Sewer Expenditures:</b>							
Public Works	7,195,735	7,195,735	7,772,899	8,083,815	8,407,168	8,743,454	9,093,192
Capital	3,000,000	3,000,000	7,000,000	9,000,000	9,000,000	8,500,000	9,000,000
Existing Debt	26,470,892	26,470,892	24,525,722	22,899,824	24,604,950	28,336,850	33,751,950
New Debt	-	-	2,922,593	5,655,000	6,890,000	8,125,000	6,500,000
Finance	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Community Development	44,500	44,500	44,500	44,500	44,500	44,500	44,500
MWRA	30,601,130	30,213,141	30,600,984	31,947,427	33,353,114	35,020,936	36,771,983
<b>Total Expenditures</b>	<b>67,537,257</b>	<b>67,149,268</b>	<b>73,091,698</b>	<b>77,855,566</b>	<b>82,524,732</b>	<b>88,995,740</b>	<b>95,386,625</b>
<b>Assumptions:</b>							
1) The FY25 MWRA assessment is based on the preliminary estimate received from the MWRA and reflects a 4.6% increase from the final FY24 assessment.							
2) FY25-27 assessments are based on annual rate increases of 4.4%, and a 5% increase in FY28 - FY29.							
3) Public Works allocation increases by 4% in FY25-28.							
4) Capital as shown.							
5) Debt Service increases according to Debt Service schedule.							
6) All others remain constant.							
<b>Financing Plan</b>							
<b>Revenue:</b>							
Sewer Service Charge	66,237,256	68,502,384	71,791,698	76,555,566	81,224,732	87,695,740	94,086,625
Non- Metered Sewer Revenues	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
<b>Total Revenue</b>	<b>67,537,256</b>	<b>69,802,384</b>	<b>73,091,698</b>	<b>77,855,566</b>	<b>82,524,732</b>	<b>88,995,740</b>	<b>95,386,625</b>
<b>Projected Sewer Service Charge Increase</b>			<b>4.8%</b>	<b>6.6%</b>	<b>6.1%</b>	<b>8.0%</b>	<b>7.3%</b>

**TABLE 6**  
**Combined Water and Sewer**  
**FY24-29**

	<b>FY24 Budget/recap</b>	<b>FY24 Projected</b>	<b>FY25 Budget</b>	<b>FY26 Projected</b>	<b>FY27 Projected</b>	<b>FY28 Projected</b>	<b>FY29 Projected</b>
<b>Metered Water Revenue</b>	18,385,733	18,507,982	19,766,812	21,389,820	23,365,238	25,645,595	27,704,544
<b>Metered Sewer Revenue</b>	66,237,256	68,502,384	71,791,698	76,555,566	81,224,732	87,695,740	94,086,625
<b>Total</b>	84,622,989	87,010,366	91,558,510	97,945,386	104,589,970	113,341,336	121,791,170
<b>% increase</b>	-	-	<b>5.23%</b>	<b>6.98%</b>	<b>6.78%</b>	<b>8.37%</b>	<b>7.46%</b>

**TABLE 7**  
**Water Fund Balances**  
**FY19-24**

	<b>As of 6/30/19 (Actual)</b>	<b>As of 6/30/20 (Actual)</b>	<b>As of 6/30/21 (Actual)</b>	<b>As of 6/30/22 (Actual)</b>	<b>As of 6/30/23 (Actual)</b>	<b>As of 6/30/24 (Projected)</b>
<b>Water Fund Balance</b>	11,662,943	12,221,893	10,799,427	8,690,099	5,083,283	6,261,117





# City of Cambridge

Agenda Item Number 6  
**IN CITY COUNCIL**  
MARCH 18, 2024

**ORDERED:** That the following block rate for water consumption and sewer use in the City of Cambridge be in effect for the period beginning April 1, 2024 and ending March 31, 2025:

	<b>Annual Consumption*</b>	<b>FY24 Water Rate</b>	<b>FY25 Proposed Water Rate</b>	<b>FY24 Sewer Rate</b>	<b>FY25 Proposed Sewer Rate</b>
<b>Block 1</b>	0 – 40 CcF	\$3.32	\$3.55	\$15.34	\$16.07
<b>Block 2</b>	41 – 400 CcF	\$3.55	\$3.79	\$16.21	\$16.99
<b>Block 3</b>	401 – 2,000 CcF	\$3.77	\$4.03	\$17.42	\$18.26
<b>Block 4</b>	2,001 – 10,000 CcF	\$4.01	\$4.28	\$18.75	\$19.65
<b>Block 5</b>	Over 10,000 CcF	\$4.35	\$4.65	\$19.93	\$20.89

\*All rates are per CcF. CcF is an abbreviation of 100 cubic feet. One CcF is approximately 750 gallons; and be it further

**ORDERED:** That the Senior Citizens Discount Program gives either a 15 percent or 30 percent discount on water/sewer bills, depending upon certain qualifications. Any resident who owns and occupies his/her own home and who is 65 or older on July 1 qualifies for the 15 percent discount. This discount may not exceed \$90 for the fiscal year.

To qualify for the 30 percent discount, a homeowner must be 65 years of age or older and must have been granted the Clause 41C Elderly Real Estate Exemption, which is based on the demonstrated financial need. This discount may not exceed \$180 for the fiscal year.