



# City of Cambridge

## Executive Department

**LOUIS A. DePASQUALE**  
City Manager

March 22, 2021

To the Honorable, the City Council:

The setting of the Water/Sewer rate occurs each March. As the City continues to be impacted by the COVID-19 pandemic, we have worked hard to provide relief to residents and businesses as well as limit increases in taxes, fees, and rates where possible.

The establishment of the FY22 Water/Sewer rates is challenging since consumption is down for the current fiscal year, which impacts water and sewer revenues. However, we have been able to adjust some expenditures to offset lower revenues projected for FY22 based on FY21 estimates to allow for a modest increase in rates. Operating and capital expenditures have been modified and reduced for FY22 from what was projected in last year's letter. The FY22 Sewer Budget reflects savings resulting from reduced bond issuance and receiving a low interest rate (0.93%) on sewer bonds sold earlier this month and being able to take an advantage of an opportunity to restructure our Massachusetts Water Resource Authority (MWRA) loans. It should be noted that the Sewer Budget is comprised mostly of fixed costs such as debt service and the MWRA assessment, which totals 87.8% of the total Sewer Budget.

The Water/Sewer bills that will be issued in July will be for the usage period April- June 2021 and will reflect the new sewer rate. The water rate reflects a minimal increase from FY21. The water and sewer rate increases provided in this recommendation will not take effect until July 1.

### **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 1.0% increase in the water consumption block rate and an 8.0% increase in the sewer use block rate, resulting in a 6.5% increase in the combined rate for the period beginning April 1, 2021 and ending March 31, 2022. This is the first time in eleven years that the City has had any increase in the water rate. The previous ten years have been 0% increases. In last year's recommendation, the projected FY22 rate increases for water, sewer, and combined were 1.9%, 6.6%, and 5.5%, respectively, based on March 2020 consumption rates and projected budgets.

In March of each year, the City Council establishes water and sewer rates, which determine water and sewer revenues 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.

## **WATER**

Two major factors determine the rate necessary to generate enough revenues: water consumption and the budget. The FY22 Water Operating Budget reflects a small increase from the FY21 Budget primarily due to salary costs.

The planned FY22 capital allocation is \$5,300,000 using pay-as-you-go capital funding based on current revenues. This is a decrease of \$380,000 from FY21. FY22 capital projects consist of significant improvements to our water system including water mains; upgrading the treatment plant's Supervisory Control and Data Acquisition (SCADA) system which is the software and hardware that enables the Operators to operate, control and document the operations of the treatment plant; Fresh Pond Master Plan implementation and reservation projects; reservoir gaging station maintenance; water meter replacement; watershed consulting services; and hydroelectric renewable energy generation design. In FY21, \$1 million from the Water Fund balance was used to support capital projects. For FY22, that amount will be increased to \$1.8 million.

Water and sewer revenues are generally linked to water consumption, with sewer costs comprising approximately 76.4% of total water and sewer expenditures. As a result of Covid-19 pandemic related shutdowns, billed water consumption has decreased approximately 9% in the first half of FY21 as compared to the first half of FY20. This fluctuation was also affected by increased conservation efforts due to the drought declared by the Massachusetts Department of Environmental Protection (MADEP) during the early summer of 2020, which ended in January 2021. These factors resulted in an FY21 projected water service charge shortfall of \$1,308,143 from the FY21 water rate letter. This shortfall is partially mitigated by projected savings in the Water Operating Budget of \$278,000, leaving a projected Water Fund balance of \$10,448,366.

Table 4 on page 5 indicates the details of Water Fund projected revenues and expenditures for FY21-26. Table 7 on page 8 shows actual Water Fund balances for FY16-20 and the projected balance for FY21.

## **SEWER**

The FY22 Sewer Budget reflects a \$768,624 increase from the FY21 Projected Budget. This includes the MWRA assessment, debt service payments, and the sewer component of the Public Works budget. Debt service on sewer bonds and the MWRA assessment account for 87.8% of the total FY22 Sewer Budget.

The preliminary FY22 MWRA assessment is scheduled to increase by \$1,313,180 or 4.9% from the final FY21 assessment. The MWRA rate increase projected for the City is subject to change based on the MWRA budget, which is adopted later in spring 2022. 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 \$18,420,000 general obligation bonds (net of premium) issued in March 2021, used to fund sewer projects in The Port, Cambridgeport, Alewife and River Street, as well as capital repairs and climate change projects.

The FY22 capital allotment of \$2,750,000 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 (FY22-26) calls for an additional investment of approximately \$219,710,000 (primarily sewer, \$197,700,000) 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.

Subsidies from the State Revolving Fund (SRF) loan program will cover only \$44,574 or 0.17% of the total debt service of \$26,099,960 for all FY22 sewer projects. The City will continue to receive state subsidies on existing debt. The FY22-26 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 FY21-26.

## **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>FY21 Projected</b>	<b>FY22 Budget</b>	<b>% Change</b>
Water	\$16,080,000	\$16,241,569	1.0%
Sewer	\$56,000,000	\$60,488,318	8.0%
Combined Water / Sewer Revenue	\$72,208,000	\$76,729,887	6.5%

FY22 projected revenues are based on FY21 projected collections and reflect our practice of conservative revenue projections.

The table below reflects the FY21 actual and FY22 proposed water and sewer rates.

**TABLE 2**

	<b>Annual Consumption*</b>	<b>FY21 Water Rate</b>	<b>FY22 Proposed Water Rate</b>	<b>FY21 Sewer Rate</b>	<b>FY22 Proposed Sewer Rate</b>
<b>Block 1</b>	0 – 40 CcF	\$3.02	\$3.05	\$12.51	\$13.51
<b>Block 2</b>	41 – 400 CcF	\$3.24	\$3.27	\$13.22	\$14.28
<b>Block 3</b>	401 – 2,000 CcF	\$3.44	\$3.47	\$14.20	\$15.34
<b>Block 4</b>	2,001 – 10,000 CcF	\$3.65	\$3.69	\$15.30	\$16.52
<b>Block 5</b>	Over 10,000 CcF	\$3.96	\$4.00	\$16.26	\$17.56

\*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>FY21 Average</b>	<b>FY22 Projected</b>	<b>Annual Variance</b>	<b>% Change</b>
Single Family	\$886	\$ 944	\$58	6.5%
Two Family	\$1,214	\$1,293	\$79	6.5%
Three Family	\$1,799	\$1,916	\$117	6.5%

## **SENIOR DISCOUNT PROGRAM**

There are currently 2,638 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 78 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 FY21, the income guidelines are as follows: single, income of \$27,860 with assets of \$55,718 or less; married, income of \$41,792 with assets of \$76,612 or less.

## **FUTURE OUTLOOK FOR RATES**

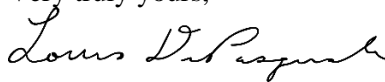
Overall, the City has been extremely successful over the past five years in producing minimal water and sewer rate increases. The average annual increases for the FY18-22 period are as follows: water, 0.2%; sewer, 7.3%; and combined, 5.5%. The average annual increases for the FY13-22 period are as follows: water, 0.1%; sewer, 5.6%; and combined, 4.2%.

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 FY21 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 5.9% for FY22-26. 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. We have taken steps in FY22 to adapt to lower revenues based on lower consumption.

Very truly yours,



Louis A. DePasquale  
City Manager

Attachments

**TABLE 4**  
**FY21-26 Water Projections**

	<b>FY21 Budget/Recap</b>	<b>FY21 Projected</b>	<b>FY22 Budget</b>	<b>FY23 Projected</b>	<b>FY24 Projected</b>	<b>FY25 Projected</b>	<b>FY26 Projected</b>
<b>Water Expenditures:</b>							
<b>Operating</b>	\$ 12,728,390	\$ 12,450,240	\$ 13,016,825	\$ 13,537,498	\$ 14,078,998	\$ 14,642,158	\$ 15,227,844
<b>Existing Debt</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Subtotal Operating Budget</b>	<b>\$ 12,728,390</b>	<b>\$ 12,450,240</b>	<b>\$ 13,016,825</b>	<b>\$ 13,537,498</b>	<b>\$ 14,078,998</b>	<b>\$ 14,642,158</b>	<b>\$ 15,227,844</b>
<b>Capital</b>	\$ 5,680,000	\$ 5,680,000	\$ 3,500,000	\$ 3,300,000	\$ 3,300,000	\$ 3,300,000	\$ 3,300,000
<b>Capital- SCADA</b>			\$ 1,800,000	\$ 3,510,000	\$ -	\$ -	\$ -
<b>Finance</b>	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000	\$ 225,000
<b>Conservation</b>	\$ 58,287	\$ 58,287	\$ 59,744	\$ 61,237	\$ 62,768	\$ 64,338	\$ 65,946
<b>Public Works</b>	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 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>\$ 19,131,677</b>	<b>\$ 18,853,527</b>	<b>\$ 19,041,569</b>	<b>\$ 21,073,735</b>	<b>\$ 18,106,766</b>	<b>\$ 18,671,496</b>	<b>\$ 19,258,791</b>
<u>Assumptions:</u>							
1) Operating Budget for FY22 is based on City Manager's Submitted Budget and increases 4% for FY23-26.							
2) Debt Service decreases according to Debt Service Schedule.							
3) Capital as shown.							
4) All others remain constant from FY22-26, but Conservation will increase by 2.5%.							
<b>Financing Plan</b>							
<b>Beginning Fund Balance*</b>	\$ 12,009,438	12,221,893	\$ 10,448,366	\$ 8,648,367	\$ 5,138,367	\$ 5,138,367	\$ 5,138,367
<b>Revenue:</b>							
<b>Meter Revenue</b>	\$ 17,381,677	\$ 16,080,000	\$ 16,241,569	\$ 16,563,735	\$ 17,106,766	\$ 17,671,496	\$ 18,258,791
<b>Miscellaneous Water Charges</b>	\$ 750,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
<b>From Fund Balance</b>	\$ 1,000,000	\$ 1,000,000	\$ 1,800,000	\$ 3,510,000	\$ -	\$ -	\$ -
<b>Total Revenue</b>	<b>\$ 19,131,677</b>	<b>\$ 18,080,000</b>	<b>\$ 19,041,569</b>	<b>\$ 21,073,735</b>	<b>\$ 18,106,766</b>	<b>\$ 18,671,496</b>	<b>\$ 19,258,791</b>
<b>Total Expenditures</b>	\$ 19,131,677	\$ 18,853,527	\$ 19,041,569	\$ 21,073,735	\$ 18,106,766	\$ 18,671,496	\$ 19,258,791
<b>From Fund Balance</b>	\$ 1,000,000	\$ 1,000,000	\$ 1,800,000	\$ 3,510,000	\$ -	\$ -	\$ -
<b>Ending Fund Balance</b>	<b>\$ 11,009,438</b>	<b>\$ 10,448,366</b>	<b>\$ 8,648,367</b>	<b>\$ 5,138,367</b>	<b>\$ 5,138,367</b>	<b>\$ 5,138,367</b>	<b>\$ 5,138,367</b>
* FY21 Projected Reflects Actual Fund Balance as of 06/30/2020							
<b>Projected Rate Increase</b>	<b>0%</b>	<b>0%</b>	<b>1.00%</b>	<b>1.98%</b>	<b>3.28%</b>	<b>3.30%</b>	<b>3.32%</b>

**TABLE 5**  
**FY21-26 Sewer Projections**

	<b>FY21</b> <b>Budget/Recap</b>	<b>FY21</b> <b>Projected</b>	<b>FY22</b> <b>Budget</b>	<b>FY23</b> <b>Projected</b>	<b>FY24</b> <b>Projected</b>	<b>FY25</b> <b>Projected</b>	<b>FY26</b> <b>Projected</b>
<b>Sewer Expenditures:</b>							
Public Works	4,360,930	4,360,930	4,469,953	4,648,751	4,834,701	5,028,089	5,229,213
Capital	3,050,000	3,050,000	2,750,000	2,500,000	4,250,000	2,750,000	4,100,000
Existing Debt	23,941,345	23,941,345	23,400,826	24,763,943	24,350,267	27,689,400	29,249,878
New Debt	2,512,193	2,512,193	2,699,133	4,693,750	5,537,425	6,550,000	6,505,000
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	27,153,096	26,630,300	27,943,480	29,172,993	30,456,605	31,796,695	33,195,750
<b>Total Expenditures</b>	<b>61,287,064</b>	<b>60,764,268</b>	<b>61,532,892</b>	<b>66,048,937</b>	<b>69,698,498</b>	<b>74,083,684</b>	<b>78,549,341</b>
<u>Assumptions:</u>							
1) The FY22 MWRA assessment is based on the preliminary estimate received from the MWRA and reflects a 4.9% increase from the final FY21 assessment.							
FY23-26 assessments are based on annual rate increases of 4.4% (source: MWRA, February 2021).							
2) Public Works allocation increased by 2.5% in the FY22 budget and increased by 4% in FY23-26.							
3) Capital as shown.							
4) Debt Service increases according to Debt Service schedule.							
5) All others remain constant.							
<b>Financing Plan</b>							
<b>Revenue:</b>							
Sewer Service Charge	60,542,557	56,000,000	60,488,318	65,304,297	68,998,498	73,383,684	77,849,341
Property Tax							
Non- Metered Sewer Revenues	700,000	1,200,000	1,000,000	700,000	700,000	700,000	700,000
MWPAT Subsidy (existing)	44,507	44,507	44,574	44,641	-	-	-
<b>Total Revenue</b>	<b>61,287,064</b>	<b>57,244,507</b>	<b>61,532,892</b>	<b>66,048,937</b>	<b>69,698,498</b>	<b>74,083,684</b>	<b>78,549,341</b>
<b>Projected Sewer Service Charge Increase</b>			8.0%	8.0%	5.7%	6.4%	6.1%

**TABLE 6**  
**Combined Water and Sewer**  
**FY21-26**

	<b>FY21</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>
	<b>Budget/Recap</b>	<b>Projected</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
Metered Water Revenue	17,381,677	16,080,000	16,241,569	16,563,735	17,106,766	17,671,496	18,258,791
Metered Sewer Revenue	60,542,557	56,000,000	60,488,318	65,304,296	68,998,498	73,383,684	77,849,341
<b>Total</b>	<b>77,924,234</b>	<b>72,080,000</b>	<b>76,729,887</b>	<b>81,868,031</b>	<b>86,105,264</b>	<b>91,055,180</b>	<b>96,108,132</b>
<b>% Increase</b>	<b>-</b>	<b>-</b>	<b>6.5%</b>	<b>6.7%</b>	<b>5.2%</b>	<b>5.7%</b>	<b>5.5%</b>

**TABLE 7**  
**Water Fund Balances**  
**FY16-21**

	As of 6/30/16	As of 6/30/17	As of 6/30/18	As of 6/30/19	As of 6/30/20	As of 6/30/21
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Projected)
<b>Water Fund Balance</b>	<b>10,338,547</b>	<b>9,948,999</b>	<b>10,655,609</b>	<b>11,662,943</b>	<b>12,221,893</b>	<b>10,448,366</b>