



# City of Cambridge

## Executive Department

**LOUIS A. DePASQUALE**  
City Manager

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March 23, 2020

To the Honorable, the City Council:

The setting of the Water/Sewer rate occurs each March. We understand that based on current circumstances, the timing is not ideal. However, the moderate sewer rate increase provided in this recommendation will not take effect until July 1. The City will continue to explore opportunities to provide relief to our tax, fee and rate payers in these difficult times. It should be noted that the Sewer Budget is comprised mostly of fixed costs such as debt service and the MWRA assessment, which total 87.5%. The Water/Sewer invoices that will be issued in July will be for the usage period April- June 2020 and will reflect the new sewer rate. The water rate reflects no increase from FY20.

### **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 0% increase in the water consumption block rate and an 6.3% increase in the sewer use block rate, resulting in a 4.8% increase in the combined rate for the period beginning April 1, 2020 and ending March 31, 2021. This is the tenth consecutive year that the City has been able to produce a 0% increase in the water rate.

In last year's recommendation, the projected FY21 rate increases for water, sewer, and combined were 1.5%, 6.3%, and 5.2%, respectively, based on March 2019 consumption rates and projected budgets. We have been able to produce a lower water rate than estimated primarily due to the use of \$1million from the Water Fund balance, and the Sewer Rate is consistent with prior year projections.

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 FY21 Water Operating Budget reflects a decrease from the FY20 Budget primarily due to a reduction in debt service payments.

The planned FY21 capital allocation is \$5,680,000 using pay-as-you-go capital funding based on current revenues. This is a \$1,180,000 increase from FY20. FY21 capital projects consist of significant improvements to our water distribution system including water mains (\$2.1M), Filter Media replacement water treatment plant equipment and systems upgrade, reservoir facilities improvements, Fresh Pond

Master Plan implementation and reservation projects, reservoir gaging station maintenance, water meter replacement, watershed consulting services, hydroelectric renewable energy generation, and PC upgrades.

Water and sewer charges are generally linked to water consumption, with sewer costs comprising approximately 76.2% of total water and sewer expenditures. Table 4 on page 5 indicates the details of Water Fund projected revenues and expenditures for FY20-25. Table 7 on page 8 shows actual Water Fund balances for FY15-19 and the projected balance for FY20.

## **SEWER**

The FY21 Sewer Budget reflects a \$3,866,976 increase from the FY20 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 87.5% of the total FY21 Sewer Budget.

The preliminary FY21 MWRA assessment is scheduled to increase by \$752,418 or 2.8% from the final FY20 assessment. The MWRA rate increase projected for the City is subject to change based on the MWRA budget, which is adopted later in spring 2021. 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 \$17,165,000 general obligation bonds (net of premium) issued in March 2020, used to fund sewer projects in The Port, Cambridgeport, Alewife and River Street, as well as capital repairs and climate change sewer projects.

The FY21 capital allotment of \$3,050,000 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 (FY21-25) calls for an additional investment of approximately \$170,002,640 (primarily sewer, \$146,922,640) 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 \$44,507 or 0.1% of the total debt service of \$26,453,538 for all FY21 sewer projects. The City will continue to receive state subsidies on existing debt. The FY21-25 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 FY20-25.

## **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>FY20 Projected</b>	<b>FY21 Budget</b>	<b>% Change</b>
Water	\$17,375,160	\$17,381,677	0.0%
Sewer	\$56,950,000	\$60,542,557	6.3%
Combined Water / Sewer Revenue	\$74,325,160	\$77,924,234	4.8%

FY21 projected revenues are based on FY20 projected collections and reflect our practice of conservative revenue projections.

The table below reflects the FY20 actual and FY21 proposed water and sewer rates.

**TABLE 2**

	<b>Annual Consumption*</b>	<b>FY20 Water Rate</b>	<b>FY21 Proposed Water Rate</b>	<b>FY20 Sewer Rate</b>	<b>FY21 Proposed Sewer Rate</b>
<b>Block 1</b>	0 – 40 CcF	\$3.02	\$3.02	\$11.77	\$12.51
<b>Block 2</b>	41 – 400 CcF	\$3.24	\$3.24	\$12.44	\$13.22
<b>Block 3</b>	401 – 2,000 CcF	\$3.44	\$3.44	\$13.36	\$14.20
<b>Block 4</b>	2,001 – 10,000 CcF	\$3.65	\$3.65	\$14.39	\$15.30
<b>Block 5</b>	Over 10,000 CcF	\$3.96	\$3.96	\$15.30	\$16.26

\*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>FY20 Average</b>	<b>FY21 Projected</b>	<b>Annual Variance</b>	<b>% Change</b>
Single Family	\$934	\$ 979	\$45	4.8%
Two Family	\$1,177	\$1,233	\$56	4.8%
Three Family	\$1,728	\$1,811	\$83	4.8%



### **SENIOR DISCOUNT PROGRAM**

There are currently 2,624 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 75 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 FY20, the income guidelines are as follows: single, income of \$27,234 with assets of \$54,465 or less; married, income of \$40,852 with assets of \$74,890 or less.

### **FUTURE OUTLOOK FOR RATES**

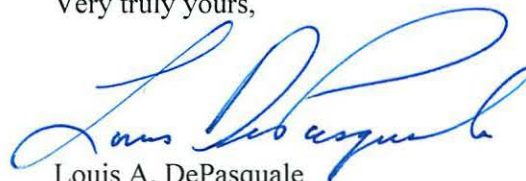
Overall, the City has been extremely successful over the past five years in producing minimal water and sewer rate increases. The average annual increases for the FY17-21 period were as follows: water, 0.0%; sewer, 6.3%; and combined, 4.7%.

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 FY20 Fund Balance. Although the City currently does not project the use of Fund Balance in the out years, it 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 5.2% for FY21-25. The projected increase is the result of the City's commitment to bonding sewer infrastructure improvement projects and increases in the MWRA assessment of 2.8% (based upon the FY21 MWRA wholesale Assessment schedule). 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,



Louis A. DePasquale  
City Manager

Attachments

**TABLE 4**  
**FY20-25 Water Projections**

	<b>FY20</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>
	<b>Budget/Recap</b>	<b>Projected</b>	<b>Budget</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
<b>Water Expenditures:</b>							
<b>Operating</b>	12,361,794	12,110,299	12,728,390	13,237,526	13,767,027	14,317,708	14,890,416
<b>Existing Debt</b>	471,501	471,501	-	-	-	-	-
<b>Subtotal Operating Budget</b>	12,833,295	12,581,800	12,728,390	13,237,526	13,767,027	14,317,708	14,890,416
<b>Capital</b>	4,500,000	4,500,000	5,680,000	4,500,000	4,300,000	4,300,000	4,300,000
<b>Finance</b>	225,000	225,000	225,000	225,000	225,000	225,000	225,000
<b>Conservation</b>	56,865	56,865	58,287	59,744	61,237	62,768	64,338
<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>	18,055,160	17,803,665	19,131,677	18,462,269	18,793,264	19,345,476	19,919,754
<b>Assumptions:</b>							
1) Operating Budget for FY21 is based on City Manager's Submitted Budget and increases 4% for FY22-25.							
2) Debt Service decreases according to Debt Service Schedule.							
3) Capital as shown.							
4) All others remain constant from FY22-25, but Conservation will increase by 2.5%.							
<b>Financing Plan</b>							
<b>Beginning Fund Balance</b>	11,662,943	11,662,943	12,009,438	11,009,438	11,009,438	11,009,438	11,009,438
<b>Revenue:</b>							
<b>Meter Revenue</b>	17,355,160	17,375,160	17,381,677	17,712,269	18,043,264	18,595,476	19,169,754
<b>Miscellaneous Water Charges</b>	700,000	775,000	750,000	750,000	750,000	750,000	750,000
<b>From Fund Balance</b>	-	-	1,000,000	-	-	-	-
<b>Total Revenue</b>	18,055,160	18,150,160	19,131,677	18,462,269	18,793,264	19,345,476	19,919,754
<b>Total Expenditures</b>	18,055,160	17,803,665	19,131,677	18,462,269	18,793,264	19,345,476	19,919,754
<b>From Fund Balance</b>	-	-	1,000,000	-	-	-	-
<b>Ending Fund Balance</b>	11,662,943	12,009,438	11,009,438	11,009,438	11,009,438	11,009,438	11,009,438
<b>Projected Rate Increase</b>		0.0%	0.0%	1.9%	1.9%	3.1%	3.1%

**TABLE 5**  
**FY20-25 Sewer Projections**

	<b>FY20 Budget/Recap</b>	<b>FY20 Projected</b>	<b>FY21 Budget</b>	<b>FY22 Projected</b>	<b>FY23 Projected</b>	<b>FY24 Projected</b>	<b>FY25 Projected</b>
<b>Sewer Expenditures:</b>							
Public Works	4,056,655	4,056,655	4,360,930	4,535,367	4,716,782	4,905,453	5,101,672
Capital	1,500,000	1,500,000	3,050,000	4,000,000	5,000,000	6,500,000	6,000,000
Existing Debt	25,193,255	25,193,255	23,941,345	24,225,559	25,343,515	25,152,603	28,366,038
New Debt			2,512,193	3,887,500	4,468,750	5,556,175	5,372,500
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	26,636,150	26,400,678	27,153,096	28,347,832	29,595,137	30,897,323	32,256,805
<b>Total Expenditures</b>	<b>57,655,560</b>	<b>57,420,088</b>	<b>61,287,064</b>	<b>65,265,758</b>	<b>69,393,683</b>	<b>73,281,054</b>	<b>77,366,515</b>
<b>Assumptions:</b>							
1) The FY21 MWRA assessment is based on the preliminary estimate received from the MWRA and reflects a 2.8% increase from the final FY20 assessment (source: MWRA, February 2020). FY22-25 assessments are based on annual rate increases of 4.4% .							
2) Public Works allocation increased by 7.5% in the FY21 budget and increased by 4% in FY22-25.							
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	56,911,915	56,950,000	60,542,557	64,521,185	68,649,043	72,581,054	76,666,515
Non- Metered Sewer Revenues	700,000	1,200,000	700,000	700,000	700,000	700,000	700,000
MWPAT Subsidy (existing)	44,440	44,440	44,507	44,574	44,641	-	-
<b>Total Revenue</b>	<b>57,656,355</b>	<b>58,194,440</b>	<b>61,287,064</b>	<b>65,265,758</b>	<b>69,393,683</b>	<b>73,281,054</b>	<b>77,366,515</b>
<b>Projected Sewer Service Charge Increase</b>			<b>6.3%</b>	<b>6.6%</b>	<b>6.4%</b>	<b>5.7%</b>	<b>5.6%</b>

**TABLE 6**  
**Combined Water and Sewer**  
**FY20-25**

	<b>FY20 Budget/Recap</b>	<b>FY20 Projected</b>	<b>FY21 Budget</b>	<b>FY22 Projected</b>	<b>FY23 Projected</b>	<b>FY24 Projected</b>	<b>FY25 Projected</b>
<b>Metered Water Revenue</b>	17,355,160	17,375,160	17,381,677	17,712,269	18,043,264	18,595,476	19,169,754
<b>Metered Sewer Revenue</b>	56,911,915	56,950,000	60,542,557	64,521,185	68,649,043	72,581,054	76,666,515
<b>Total</b>	74,267,075	74,325,160	77,924,234	82,233,454	86,692,307	91,176,530	95,836,268
<b>% Increase</b>	-	-	4.8%	5.5%	5.4%	5.2%	5.1%

**TABLE 7**  
**Water Fund Balances**  
**FY15-20**

	As of 6/30/15 (Actual)	As of 6/30/16 (Actual)	As of 6/30/17 (Actual)	As of 6/30/18 (Actual)	As of 6/30/19 (Actual)	As of 6/30/20 (Projected)
<b>Water Fund Balance</b>	<b>11,687,672</b>	<b>10,338,547</b>	<b>9,948,999</b>	<b>10,655,609</b>	<b>11,662,943</b>	<b>12,009,438</b>