



City of Cambridge

Executive Department

LOUIS A. DePASQUALE
City Manager

LISA C. PETERSON
Deputy City Manager

March 25, 2019

To the Honorable, the City Council:

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 7.0% increase in the sewer use block rate, resulting in a 5.2% increase in the combined rate for the period beginning April 1, 2019 and ending March 31, 2020. This is the ninth consecutive year that the City has been able to produce a 0% increase in the water rate.

In last year's recommendation, the projected FY20 rate increases for water, sewer, and combined were 1.5%, 7.0%, and 5.7%, respectively, based on March 2018 consumption rates and projected budgets. We have been able to produce a lower water rate than estimated primarily due to revised capital budget projections in the Water Budget 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 total FY20 Water Budget reflects a decrease from the FY19 Budget. This will be the last year the Water department is able to offset the increased operating budget costs related to cost-of-living allowances, pension and healthcare benefits with the declining debt service payments since the last debt service payment for the Water Treatment Plant occurs in FY20.

The planned FY20 capital allocation is \$4,500,000 using pay-as-you-go capital funding based on current revenues. This is a \$1,000,000 increase from FY19. FY20 capital projects consist of significant improvements to our water distribution system including water mains (\$2M), 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, and hydroelectric renewable energy generation.



Water and sewer charges are directly linked to water consumption, with sewer costs comprising approximately 76.1% of total water and sewer expenditures. When consumption declines, revenues are negatively impacted. In the current fiscal year, water is being consumed at a slightly higher rate compared to the previous fiscal year. However, the City continues its campaign to reduce water consumption with a conservation reminder flyer included in bills.

Table 4 on page 5 indicates the details of Water Fund projected revenues and expenditures for FY19-24. Table 7 on page 7 shows actual Water Fund balances for FY14-18 and the projected balance for FY19.

SEWER

The FY20 Sewer Budget reflects a \$2,975,753 increase from the FY19 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 89.9% of the total FY20 Sewer Budget.

The preliminary FY20 MWRA assessment is scheduled to increase by \$1,117,623 or 4.38% from the final FY19 assessment. The MWRA rate increase projected for the City is subject to change based on the MWRA budget, which is adopted later in spring 2020. 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 \$14,160,000 general obligation bonds (net of premium) issued in March 2019, used to fund sewer projects in The Port, Harvard Square, and River Street, as well as capital repairs and climate change sewer projects. It should be noted that the City also received a MWRA Local I/I 0% interest loan (\$2,812,625) and grant distribution (\$8,437,875) on March 7, 2019 to fund “The Port” project resulting in a reduction of the sewer debt issued in FY19.

The FY20 capital allotment of \$1,500,000 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 (FY20-24) calls for an additional investment of approximately \$166,927,275 (primarily sewer, \$144,197,275) 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 \$44,440 or 0.1% of the total debt service of \$25,193,254 for all FY20 sewer projects. The City will continue to receive state subsidies on existing debt. The FY20-24 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 FY19-24.

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

	FY19 Projected	FY20 Budget	% Change
Water	\$17,400,000	\$17,355,160	0.0%
Sewer	\$53,172,644	\$56,911,119	7.0%
Combined Water / Sewer Revenue	\$70,572,644	\$74,266,279	5.2%

FY20 projected revenues are based on FY19 projected collections and reflect our practice of conservative revenue projections.

The table below reflects the FY19 actual and FY20 proposed water and sewer rates.

TABLE 2

	Annual Consumption*	FY19 Water Rate	FY20 Proposed Water Rate	FY19 Sewer Rate	FY20 Proposed Sewer Rate
Block 1	0 – 40 CcF	\$3.02	\$3.02	\$11.00	\$11.77
Block 2	41 – 400 CcF	\$3.24	\$3.24	\$11.63	\$12.44
Block 3	401 – 2,000 CcF	\$3.44	\$3.44	\$12.49	\$13.36
Block 4	2,001 – 10,000 CcF	\$3.65	\$3.65	\$13.45	\$14.39
Block 5	Over 10,000 CcF	\$3.96	\$3.96	\$14.30	\$15.30

*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

Residential Type	FY19 Average	FY20 Projected	Annual Variance	% Change
Single Family	\$ 888	\$934	\$46	5.2%
Two Family	\$1,119	\$1,177	\$58	5.2%
Three Family	\$1,643	\$1,728	\$85	5.2%

SENIOR DISCOUNT PROGRAM

There are currently 2,588 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 90 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 FY19, the income guidelines are as follows: single, income of \$26,364 with assets of \$52,725 or less; married, income of \$39,547 with assets of \$72,498 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 FY16-20 period were as follows: water, 0.0%; sewer, 6.4%; 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 FY19 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 5.1% for FY20-24. The projected increase is the result of the City's commitment to bonding sewer infrastructure improvement projects and increases in the MWRA assessment of 4.4% (based upon the FY20 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
FY19-24 Water Projections

	FY19	FY19	FY20	FY21	FY22	FY23	FY24
	Budget/Recap	Projected	Budget	Projected	Projected	Projected	Projected
Water Expenditures:							
Operating	11,470,350	11,470,350	12,361,794	12,856,266	13,370,516	13,905,337	14,461,551
Existing Debt	2,503,501	2,503,501	471,501	-	-	-	-
Subtotal Operating Budget	13,973,851	13,973,851	12,833,295	12,856,266	13,370,516	13,905,337	14,461,551
Capital	3,500,000	3,500,000	4,500,000	4,730,000	4,500,000	4,500,000	4,500,000
Finance	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Conservation	55,478	55,478	56,865	58,287	59,744	61,237	62,768
Public Works	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Community Development	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Animal Commission	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Total Expenditures	18,194,329	18,194,329	18,055,160	18,309,552	18,595,261	19,131,574	19,689,318
Assumptions:							
1) Operating Budget for FY20 is based on City Manager's Submitted Budget and increases 4% for FY21-24.							
2) Debt Service decreases according to Debt Service Schedule.							
3) Capital as shown.							
4) All others remain constant from FY21-24, but Conservation will increase by 2.5%.							
Financing Plan							
Beginning Fund Balance	10,655,609	10,655,609	10,671,280	10,671,280	10,671,280	10,671,280	10,671,280
Revenue:							
Meter Revenue	17,494,329	17,400,000	17,355,160	17,609,552	17,895,261	18,431,574	18,989,318
Miscellaneous Water Charges	700,000	810,000	700,000	700,000	700,000	700,000	700,000
From Fund Balance	-	-	-	-	-	-	-
Total Revenue	18,194,329	18,210,000	18,055,160	18,309,552	18,595,261	19,131,574	19,689,318
Total Expenditures	18,194,329	18,194,329	18,055,160	18,309,552	18,595,261	19,131,574	19,689,318
From Fund Balance	-	-	-	-	-	-	-
Ending Fund Balance	10,655,609	10,671,280	10,671,280	10,671,280	10,671,280	10,671,280	10,671,280
Projected Rate Increase			0.0%	1.5%	1.6%	3.0%	3.0%

**TABLE 5
FY19-24 Sewer Projections**

	FY19	FY19	FY20	FY21	FY22	FY23	FY24
	Budget/Recap	Projected	Budget	Projected	Projected	Projected	Projected
Sewer Expenditures:							
Public Works	3,800,470	3,800,470	4,056,655	4,218,921	4,387,678	4,563,185	4,745,713
Capital	1,250,000	1,250,000	1,500,000	1,500,000	2,500,000	3,500,000	4,000,000
Existing Debt	23,841,309	23,841,309	22,842,824	23,941,346	25,063,785	26,156,317	25,794,729
New Debt			2,350,430	3,523,750	3,887,500	4,318,750	5,893,750
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	25,708,250	25,518,527	26,636,150	27,808,141	29,031,699	30,309,094	31,642,694
Total Expenditures	54,869,529	54,679,806	57,655,559	61,261,658	65,140,162	69,116,846	72,346,386
Assumptions:							
1) The FY20 MWRA assessment is based on the preliminary estimate received from the MWRA and reflects a 4.4% increase from the final FY19 assessment. FY21-24 assessments are based on annual rate increases of 4.4% (source: MWRA, February 2019).							
2) Public Works allocation increased by 6.7% in the FY20 budget and increased by 4% in FY21-24.							
3) Capital as shown.							
4) Debt Service increases according to Debt Service schedule.							
5) All others remain constant.							
Financing Plan							
Revenue:							
Sewer Service Charge	54,125,156	53,172,644	56,911,119	60,517,151	64,395,588	68,372,205	71,646,386
Non- Metered Sewer Revenues	700,000	1,200,000	700,000	700,000	700,000	700,000	700,000
MWPAT Subsidy (existing)	44,374	44,374	44,440	44,507	44,574	44,641	-
Total Revenue	54,869,530	54,417,018	57,655,559	61,261,658	65,140,162	69,116,846	72,346,386
Projected Sewer Service Charge Increase			7.0%	6.3%	6.4%	6.2%	4.8%

**Table 6
Combined Water and Sewer
FY19-24**

	FY19	FY19	FY20	FY21	FY22	FY23	FY24
	Budget/Recap	Projected	Budget	Projected	Projected	Projected	Projected
Metered Water Revenue	17,494,329	17,400,000	17,355,160	17,609,552	17,895,261	18,431,574	18,989,318
Metered Sewer Revenue	54,125,156	53,172,644	56,911,119	60,517,151	64,395,588	68,372,205	71,646,386
Total	71,619,485	70,572,644	74,266,279	78,126,704	82,290,849	86,803,780	90,635,704
% Increase	-	-	5.2%	5.2%	5.3%	5.5%	4.4%

**Table 7
Water Fund Balances
FY14-19**

	As of 6/30/14	As of 6/30/15	As of 6/30/16	As of 6/30/17	As of 6/30/18	As of 6/30/19
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Projected)
Water Fund Balance	9,741,315	11,687,672	10,338,547	9,948,999	10,655,609	10,671,280