



City of Cambridge

Executive Department

LOUIS A. DePASQUALE
City Manager

LISA C. PETERSON
Deputy City Manager

March 26, 2018

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 a 7.5% increase in the sewer use block rate, resulting in a 5.6% increase in the combined rate for the period beginning April 1, 2018 and ending March 31, 2019. This is the eighth consecutive year that the City has been able to produce a 0% increase in the water rate.

In last year's recommendation, the projected FY19 rate increases for water, sewer, and combined were 1.9%, 7.8%, and 6.3%, respectively, based on March 2017 consumption rates and projected budgets. We have been able to produce a lower water rate than estimated primarily due to lower operating budget projections in the Water Budget. The sewer rate is slightly lower than anticipated primarily due to the City issuing less sewer debt during the March 2018 bond sale than we anticipated at this time last year.

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. Historically, 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 sufficient revenues: water consumption and the budget. The total FY19 Water Budget reflects a slight increase from the FY18 Budget. The Water Department is able to offset costs related to cost-of-living allowances, pensions, and health benefits in the salaries and wages portion of the operating budget with decreases in debt service payments and chemical costs.

The planned FY19 capital allocation is \$3,500,000 using pay-as-you-go capital funding based on current revenues. FY19 capital projects include waterworks construction, water treatment plant equipment and systems upgrades, 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 75.1% 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 lower rate compared to the previous fiscal year.

Table 4 on page 5 indicates the details of Water Fund projected revenues and expenditures for FY18-23. Table 7 on page 7 shows actual Water Fund balances for FY13-17 and the projected balance for FY18.

SEWER

The FY19 Sewer Budget reflects a \$2,693,038 increase from the FY18 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 90.3% of the total FY19 Sewer Budget.

The preliminary FY19 MWRA assessment is scheduled to increase by \$995,110 from the final FY18 assessment. The MWRA rate increase projected for the City is subject to change based on the MWRA budget, which is adopted later in spring 2018. 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 increases attributable to the \$16,590,000 general obligation bonds issued in March 2018, which include sewer projects in Alewife, Cambridgeport, Harvard Square, and The Port, as well as capital repairs and climate change sewer projects.

The FY19 capital allotment of \$1,250,000 in sewer revenues will continue to finance the remedial reconstruction program and development.

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 (FY19-23) calls for an additional investment of approximately \$143.3 million (primarily sewer, \$118.1 million) in the water and sewer systems. The City carefully monitors the issuance of debt to fund authorized sewer projects and makes adjustments to ensure that debt service cost increases, which impact the sewer rate, are moderate.

Subsidies from the State Revolving Fund (SRF) loan program will cover only \$44,374 or 0.2% of the total debt service of \$23,841,310 for all FY19 sewer projects. The City will continue to receive state subsidies on existing debt. The FY20-23 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 FY18-23.

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

	FY18 Projected	FY19 Budget	% Change
Water	\$17,495,000	\$17,494,333	0.0%
Sewer	\$50,332,185	\$54,125,156	7.5%
Combined Water / Sewer Revenue	\$67,827,185	\$71,619,489	5.6%

FY19 projected revenues are based on FY18 projected collections and reflect our practice of conservative revenue projections.

The table below reflects the FY18 actual and FY19 proposed water and sewer rates.

TABLE 2

	Annual Consumption*	FY18 Water Rate	FY19 Proposed Water Rate	FY18 Sewer Rate	FY19 Proposed Sewer Rate
Block 1	0 – 40 CcF	\$3.02	\$3.02	\$10.23	\$11.00
Block 2	41 – 400 CcF	\$3.24	\$3.24	\$10.82	\$11.63
Block 3	401 – 2,000 CcF	\$3.44	\$3.44	\$11.62	\$12.49
Block 4	2,001 – 10,000 CcF	\$3.65	\$3.65	\$12.51	\$13.45
Block 5	Over 10,000 CcF	\$3.96	\$3.96	\$13.30	\$14.30

*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	FY18 Average	FY19 Projected	Annual Variance	% Change
Single Family	\$841	\$888	\$47	5.6%
Two Family	\$1,060	\$1,119	\$59	5.6%
Three Family	\$1,556	\$1,643	\$87	5.6%

SENIOR DISCOUNT PROGRAM

There are currently 2,650 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 81 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 FY18, the income guidelines are as follows: single, income of \$25,721 with assets of \$51,439 or less; married, income of \$38,582 with assets of \$70,730 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 FY15-19 period were as follows: water, 0.0%; sewer, 6.1%; and combined, 4.4%.

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 FY18 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 4.8% for FY19-23. The projected increase is the result of the City's commitment to bonding sewer infrastructure improvement projects and increases in the MWRA assessment (based on estimates received from the MWRA). MWRA increases are projected to be 3.8% in FY20-22 and 3.1% in FY23. If increases in the MWRA assessment are more moderate, the rate increases that are shown will be lowered. If consumption increases and therefore revenues increase, rate increases will be affected positively. 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 invest in our infrastructure.

Very truly yours,

Louis A. DePasquale
City Manager

Attachments

**TABLE 4
FY18-23 Water Projections**

	FY18	FY18	FY19	FY20	FY21	FY22	FY23
	Budget/Recap	Projected	Budget	Projected	Projected	Projected	Projected
Water Expenditures:							
Operating	11,349,345	11,164,790	11,470,350	11,929,164	12,406,331	12,902,584	13,418,687
Existing Debt	2,624,505	2,624,505	2,503,505	471,501	-	-	-
Subtotal Operating Budget	13,973,850	13,789,295	13,973,855	12,400,665	12,406,331	12,902,584	13,418,687
Capital	3,500,000	3,500,000	3,500,000	5,330,000	5,590,000	5,375,000	5,375,000
Finance	225,000	225,000	225,000	225,000	225,000	225,000	225,000
Conservation	54,125	54,125	55,478	56,865	58,287	59,744	61,237
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	18,192,975	18,008,420	18,194,333	18,452,530	18,719,618	19,002,328	19,519,924
<u>Assumptions:</u>							
1) Operating Budget for FY19 is based on City Manager's Submitted Budget and increases 4% for FY20-23.							
2) Debt Service decreases according to Debt Service Schedule.							
3) Capital as shown.							
4) All others remain constant from FY19-23, but Conservation will increase by 2.5%.							
Financing Plan							
Beginning Fund Balance	9,948,999	9,948,999	10,235,579	10,235,579	10,235,579	10,235,579	10,235,579
Revenue:							
Meter Revenue	17,492,975	17,495,000	17,494,333	17,752,530	18,019,618	18,302,328	18,819,924
Miscellaneous Water Charges	700,000	800,000	700,000	700,000	700,000	700,000	700,000
From Fund Balance	-						
Total Revenue	18,192,975	18,295,000	18,194,333	18,452,530	18,719,618	19,002,328	19,519,924
Total Expenditures	18,192,975	18,008,420	18,194,333	18,452,530	18,719,618	19,002,328	19,519,924
From Fund Balance	-						
Ending Fund Balance	9,948,999	10,235,579	10,235,579	10,235,579	10,235,579	10,235,579	10,235,579
Projected Rate Increase			0.0%	1.5%	1.5%	1.6%	2.8%

**TABLE 5
FY18-23 Sewer Projections**

	FY18	FY18	FY19	FY20	FY21	FY22	FY23
	Budget/Recap	Projected	Budget	Projected	Projected	Projected	Projected
Sewer Expenditures:							
Public Works	3,610,140	3,610,140	3,800,470	3,952,489	4,110,588	4,275,012	4,446,013
Capital	1,000,000	1,000,000	1,250,000	2,250,000	3,000,000	3,000,000	3,000,000
Existing Debt	22,344,312	22,344,312	21,116,253	22,842,824	24,180,239	24,484,746	25,454,495
New Debt			2,725,057	2,672,281	2,692,225	3,741,250	4,798,750
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	24,952,540	24,713,140	25,708,250	26,685,164	27,699,200	28,751,769	29,643,074
Total Expenditures	52,176,492	51,937,092	54,869,530	58,672,258	61,951,752	64,522,277	67,611,832
Assumptions:							
1) The FY19 MWRA assessment is based on the preliminary estimate received from the MWRA and reflects a 4.0% increase from the final FY18 assessment. FY20-23 assessments are based on annual rate increases of 3.8%, 3.8%, 3.8%, and 3.1% respectively (source: MWRA, February 2018).							
2) Public Works allocation increases by 4% in FY20-23.							
3) Capital as shown.							
4) Debt Service increases according to Debt Service schedule.							
5) All others remain constant.							
Financing Plan							
Revenue:							
Sewer Service Charge	51,432,185	50,332,185	54,125,156	57,927,818	61,207,245	63,777,703	66,867,191
Non- Metered Sewer Revenues	700,000	1,200,000	700,000	700,000	700,000	700,000	700,000
MWPAT Subsidy (existing)	44,307	44,170	44,374	44,440	44,507	44,574	44,641
Total Revenue	52,176,492	51,576,355	54,869,530	58,672,258	61,951,752	64,522,277	67,611,832
Projected Sewer Service Charge Increase			7.5%	7.0%	5.7%	4.2%	4.8%

TABLE 6
FY18-23 Combined Water and Sewer Projections

	FY18	FY18	FY19	FY20	FY21	FY22	FY23
	Budget/Recap	Projected	Budget	Projected	Projected	Projected	Projected
Metered Water Revenue	17,492,975	17,495,000	17,494,333	17,752,530	18,019,618	18,302,328	18,819,924
Metered Sewer Revenue	51,432,185	50,332,185	54,125,156	57,927,818	61,207,245	63,777,703	66,867,191
Total	68,925,160	67,827,185	71,619,489	75,680,348	79,226,863	82,080,031	85,687,115
% Increase	-	-	5.6%	5.7%	4.7%	3.6%	4.4%

TABLE 7
FY13-18 Water Fund Balances

	As of 6/30/13	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
	(Actual)	(Actual)	(Actual)	(Actual)	(Actual)	(Projected)
Water Fund Balance	9,075,357	9,741,315	11,687,672	10,338,547	9,948,999	10,235,579