



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: February 15, 2023
SUBJECT: Preliminary FY24 Water and Sewer Assessments

COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE

Michael Cole, Budget Director
Leo Norton, Asst. Mgr, Rates, Revenue and Finance
 Preparer/Title


Thomas J. Durkin
 Director of Finance

Consistent with the Proposed FY24 Current Expense Budget (CEB), preliminary FY24 water and sewer assessments are based on a Rate Revenue Requirement of \$842,545,600, a 3.4% increase over the FY23 Rate Revenue Requirement. This includes a 3.9% increase for water assessments, and a 3.1% increase for sewer assessments.

The preliminary FY24 Rate Revenue Requirement will be allocated to MWRA communities based on their respective shares of CY22 MWRA water use, the average of CY20-CY22 wastewater flows, corresponding strength of flows, and population.

RECOMMENDATION:

For information only. This staff summary provides information on preliminary FY24 wholesale water and sewer assessments. Staff plan to transmit preliminary FY24 assessments to MWRA communities on or before Thursday, February 16, 2023.

DISCUSSION:

The Proposed FY24 CEB recommends a Rate Revenue Requirement of \$842,545,600, an increase of 3.4% over the final FY23 requirement.

	Rate Revenue Requirement		Change from FY23	
	FY24 Preliminary	FY23 Approved	\$\$	Percent
Water	\$299,674,196	\$288,304,865	\$11,369,331	3.9%
Sewer	\$542,871,404	\$526,343,135	\$16,528,269	3.1%
Total	\$842,545,600	\$814,648,000	\$27,897,600	3.4%

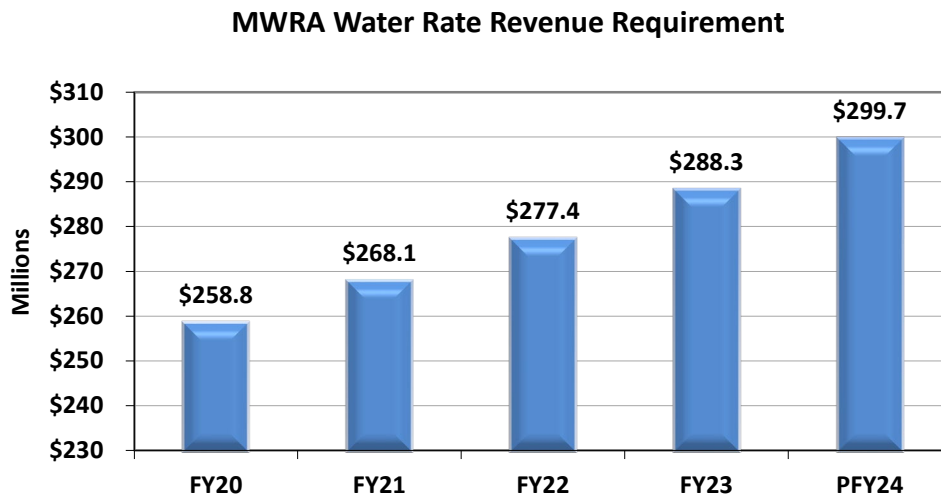
Attachment 1 summarizes preliminary FY24 wholesale water and sewer charges for each MWRA community.

The estimated annual impact of the preliminary FY24 assessment increase on the MWRA portion of the average household bill for water and sewer service in a fully served MWRA community that uses close to the system average of 61,000 gallons of water per year is approximately \$20.

Water Assessments

MWRA calculates water assessments for customer communities by apportioning the water rate revenue requirement according to each community's share of total water use for the most recent calendar year. Preliminary FY24 assessments are based on each community's share of CY22 water use of 66.099 billion gallons, a 6.1% increase compared to CY21 water use of 62.294 billion gallons. Changes in FY24 water assessments for customer communities compared to FY23 assessments will vary considerably, depending on each community's use of water and how that use factors into their share of the water system in CY22 compared to CY21. This is particularly true for communities that receive only part of their water from MWRA.

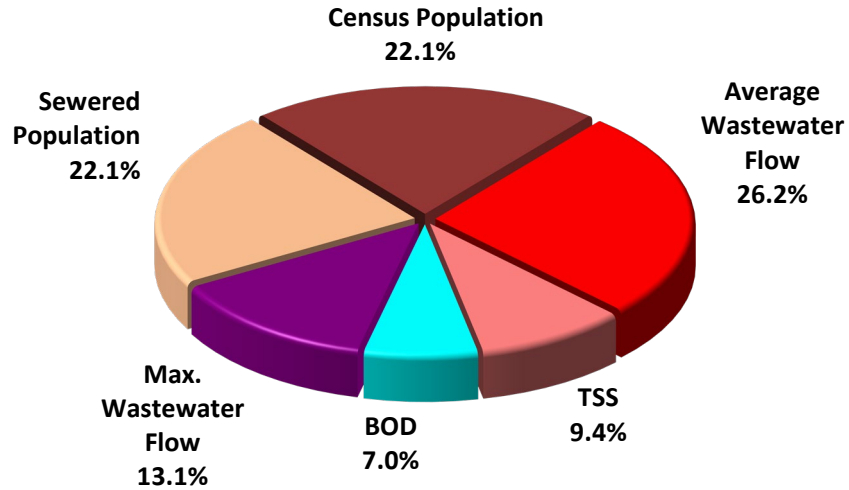
The graph below illustrates the water Rate Revenue Requirement for the past 5 years. The changes from FY23 to PFY24 are primarily the result of increased debt service related to water system rehabilitation and improvements.



Sewer Assessments

MWRA allocates sewer assessments based on each community's share of the following allocation parameters: three-year average of annual wastewater flow, maximum month flow, strength of flow, census population, and sewer population.

On average, approximately 56% of a community's preliminary FY24 sewer assessment is based on each community's share of wastewater flow and strength of flow (total suspended solids or TSS and biochemical oxygen demand or BOD), and approximately 44% is based on population as illustrated in the following graph.

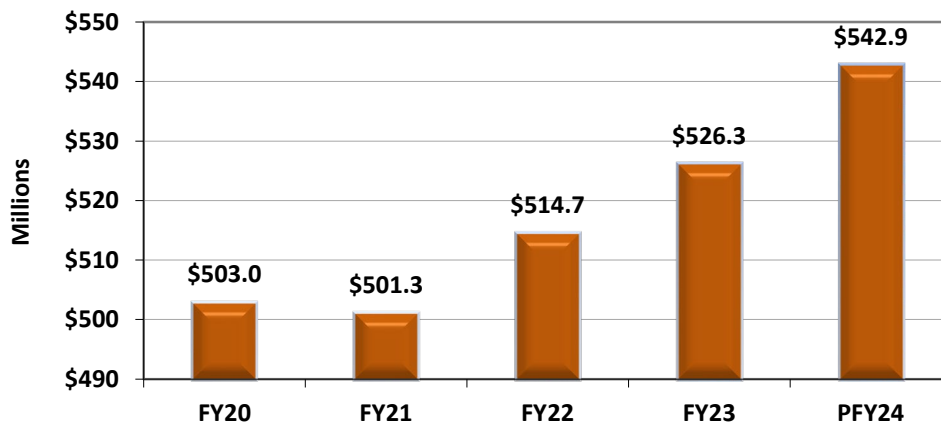


Both the preliminary and final FY24 assessments for population will be calculated using July 2021 community population estimates from the U.S. Census Bureau, as well as the percentage of total population receiving municipal sewer service reported by each MWRA community.

Preliminary FY24 assessments have also been calculated using the average of CY20, CY21 and CY22 wastewater flows. CY21 wastewater flows were estimated during the sewer system meter replacement project, and are based on the average of CY18, CY19, and CY20 flows.

The graph below illustrates the sewer Rate Revenue Requirement for the past 5 years. As with the water utility, the annual changes continue to be primarily the result of increased debt service related to sewer system rehabilitation and improvements.

MWRA Sewer Rate Revenue Requirement



Clinton and Lancaster Sewer Assessments

Proposed FY24 operating and maintenance (O&M) and capital expenses attributable to the Clinton Wastewater Treatment Plant are \$5,255,341, an increase of 7.7% from FY23. This includes a 10.3% increase in operating costs, and a 2.4% increase in capital expenses.

In accordance with the agreement that allows the City of Worcester to take water from the Wachusett watershed, Worcester is charged approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant. Proposed FY24 direct operating expenses for the plant total \$3,016,112, resulting in a preliminary FY24 charge of \$238,604 for the City of Worcester. Worcester has been paying this annual charge to MWRA or its predecessors since 1914.

The Town of Clinton and the Lancaster Sewer District are allocated proportional shares of the remaining expenses based on annual metered wastewater flow to the Clinton Plant. Based on proposed FY24 expenses and CY22 wastewater flows, Lancaster's preliminary FY24 charge is \$503,432, an increase of 9.5% from FY23.

The preliminary FY24 charge for the Town of Clinton is \$4,460,022. However, pursuant to Chapter 307, Section 8 of the Acts of 1987, Clinton is only liable for the first \$500,000 of its share of O&M and capital costs.

Attachment 2 details the expenses and corresponding charges for the Clinton Sewer Service Area.

CVA Water Assessments

Based on the Proposed FY24 CIP and CEB for the Chicopee Valley Aqueduct (CVA) water system, the preliminary FY24 system assessment is \$5,595,448, an increase of 2.6% from FY23.

MWRA's CVA water assessment methodology allocates CVA assessments to the three communities served by the CVA system based on their share of prior calendar year water use. Based on CY22 water use, preliminary FY24 assessments are as follows:

- City of Chicopee: \$3,934,611 (+3.4%)
- South Hadley Fire District #1: \$ 780,674 (-3.1%)
- Town of Wilbraham: \$ 880,163 (+4.1%)

As with the metropolitan water system, changes in preliminary FY24 water assessments for each CVA community compared to FY23 assessments vary depending on their water use and how that use factors into their share of the CVA water system in CY22 compared to CY21.

Attachment 3 details the expenses and corresponding assessments for the CVA Water Service Area.

Wholesale Water Rate

MWRA's wholesale water rate per million gallons is applied to customers purchasing MWRA water on a pay-as-you-go basis (including customers with emergency agreements). The preliminary wholesale water rate for FY24 is \$4,533.73 per million gallons. The proposed FY24 CEB includes revenue of \$149,264 from these customers.

Retail Sewer Rate

MWRA provides direct retail sewer service to Regis College in Weston and the New England Center for Children in Southborough. In accordance with MWRA Policy #OP.11, "Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area", both entities are charged a modified per million gallon "retail" rate that captures both sanitary and non-sanitary flows. Based on preliminary FY24 sewer assessments, the FY24 retail sewer rate will be \$8,624.33 per million gallons. The Proposed FY24 CEB includes revenue of \$66,300 from these customers.

ATTACHMENTS:

1. Preliminary FY24 Water and Sewer Assessments
2. Clinton Wastewater Treatment Plant Sewer User Charge Determination
3. Chicopee Valley Aqueduct System Assessment

MWRA Fully Served Water and Sewer Customers	Final FY23 Water Assessment	Preliminary FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Preliminary FY24 Sewer Assessment	Percent Change from FY23	Final FY23 Combined Assessment	Final FY24 Combined Assessment	Dollar Change from FY23	Percent Change from FY23
ARLINGTON	\$5,648,095	\$5,720,769	1.3%	\$9,392,520	\$9,540,188	1.6%	\$15,040,615	\$15,260,957	\$220,342	1.5%
BELMONT	3,134,847	3,279,924	4.6%	5,677,771	5,750,128	1.3%	8,812,618	9,030,052	217,434	2.5%
BOSTON (BWSC)	99,390,501	101,386,970	2.0%	149,691,865	150,452,142	0.5%	249,082,366	251,839,112	2,756,746	1.1%
BROOKLINE	8,018,472	8,531,815	6.4%	14,277,393	14,169,817	-0.8%	22,295,865	22,701,632	405,767	1.8%
CHELSEA	5,460,876	5,463,330	0.0%	9,362,781	9,685,642	3.4%	14,823,657	15,148,972	325,315	2.2%
EVERETT	6,422,774	6,175,804	-3.8%	10,050,691	10,215,285	1.6%	16,473,465	16,391,089	(82,376)	-0.5%
FRAMINGHAM	9,531,024	9,521,962	-0.1%	13,631,754	14,461,853	6.1%	23,162,778	23,983,815	821,037	3.5%
LEXINGTON	8,493,467	8,828,116	3.9%	8,432,789	8,984,837	6.5%	16,926,256	17,812,953	886,697	5.2%
MALDEN	8,758,033	8,561,057	-2.2%	14,707,651	15,024,152	2.2%	23,465,684	23,585,209	119,525	0.5%
MEDFORD	7,666,268	7,819,151	2.0%	13,036,799	13,751,572	5.5%	20,703,067	21,570,723	867,656	4.2%
MELROSE	3,499,715	3,518,885	0.5%	7,179,811	7,110,592	-1.0%	10,679,526	10,629,477	(50,049)	-0.5%
MILTON	4,022,582	4,174,377	3.8%	6,075,110	6,417,188	5.6%	10,097,692	10,591,565	493,873	4.9%
NEWTON	14,157,661	14,422,960	1.9%	22,803,614	23,854,723	4.6%	36,961,275	38,277,683	1,316,408	3.6%
NORWOOD	4,502,690	4,644,379	3.1%	8,789,271	9,423,014	7.2%	13,291,961	14,067,393	775,432	5.8%
QUINCY	13,856,502	14,034,325	1.3%	22,536,756	23,400,943	3.8%	36,393,258	37,435,268	1,042,010	2.9%
READING	2,807,828	2,825,027	0.6%	5,378,343	5,337,985	-0.8%	8,186,171	8,163,012	(23,159)	-0.3%
REVERE	6,348,919	6,408,428	0.9%	12,301,606	12,736,382	3.5%	18,650,525	19,144,810	494,285	2.7%
SOMERVILLE	9,471,778	9,495,582	0.3%	17,021,568	18,045,573	6.0%	26,493,346	27,541,155	1,047,809	4.0%
STONEHAM	3,289,382	3,615,828	9.9%	5,652,234	5,988,841	6.0%	8,941,616	9,604,669	663,053	7.4%
WALTHAM	11,044,210	11,989,985	8.6%	14,787,236	15,019,139	1.6%	25,831,446	27,009,124	1,177,678	4.6%
WATERTOWN	4,147,401	4,200,455	1.3%	6,800,255	7,130,880	4.9%	10,947,656	11,331,335	383,679	3.5%
WINTHROP	1,918,276	1,864,410	-2.8%	3,970,824	4,041,335	1.8%	5,889,100	5,905,745	16,645	0.3%
TOTAL	\$241,591,301	\$246,483,539	2.0%	\$381,558,642	\$390,542,211	2.4%	\$623,149,943	\$637,025,750	\$13,875,807	2.2%

MWRA Sewer and Partial Water Customers	Final FY23 Water Assessment	Preliminary FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Preliminary FY24 Sewer Assessment	Percent Change from FY23	Final FY23 Combined Assessment	Final FY24 Combined Assessment	Dollar Change from FY23	Percent Change from FY23
ASHLAND	\$0	\$0	-	\$2,886,179	\$2,983,380	3.4%	\$2,886,179	\$2,983,380	\$97,201	3.4%
BURLINGTON	1,253,355	1,667,173	33.0%	6,021,745	6,244,520	3.7%	7,275,100	7,911,693	636,593	8.8%
CANTON	2,022,211	2,488,876	23.1%	4,862,293	5,093,614	4.8%	6,884,504	7,582,490	697,986	10.1%
NEEDHAM	1,464,186	1,886,141	28.8%	6,760,857	7,197,220	6.5%	8,225,043	9,083,361	858,318	10.4%
STOUGHTON	118,822	103,512	-12.9%	5,471,765	5,887,949	7.6%	5,590,587	5,991,461	400,874	7.2%
WAKEFIELD	2,617,209	3,335,982	27.5%	6,848,039	6,926,012	1.1%	9,465,248	10,261,994	796,746	8.4%
WELLESLEY	3,325,451	4,209,290	26.6%	6,273,591	6,739,505	7.4%	9,599,042	10,948,795	1,349,753	14.1%
WILMINGTON	716,510	1,144,770	59.8%	3,230,781	3,217,849	-0.4%	3,947,291	4,362,619	415,328	10.5%
WINCHESTER	1,943,817	2,355,584	21.2%	4,592,965	4,959,019	8.0%	6,536,782	7,314,603	777,821	11.9%
WOBURN	5,385,782	5,848,063	8.6%	9,810,353	10,756,215	9.6%	15,196,135	16,604,278	1,408,143	9.3%
TOTAL	\$18,847,343	\$23,039,391	22.2%	56,758,568	60,005,283	5.7%	\$75,605,911	\$83,044,674	\$7,438,763	9.8%

MWRA Sewer-only Customers	Final FY23 Water Assessment	Preliminary FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Preliminary FY24 Sewer Assessment	Percent Change from FY23	Final FY23 Combined Assessment	Final FY24 Combined Assessment	Dollar Change from FY23	Percent Change from FY23
BEDFORD				\$3,696,476	\$3,833,925	3.7%	\$3,696,476	\$3,833,925	\$137,449	3.7%
BRAINTREE				10,873,607	10,899,682	0.2%	10,873,607	10,899,682	26,075	0.2%
CAMBRIDGE				28,578,466	30,601,129	7.1%	28,578,466	30,601,129	2,022,663	7.1%
DEDHAM				6,153,063	6,487,689	5.4%	6,153,063	6,487,689	334,626	5.4%
HINGHAM SEWER DISTRICT				2,132,148	2,203,534	3.3%	2,132,148	2,203,534	71,386	3.3%
HOLBROOK				1,936,897	2,066,903	6.7%	1,936,897	2,066,903	130,006	6.7%
NATICK				6,287,053	6,533,310	3.9%	6,287,053	6,533,310	246,257	3.9%
RANDOLPH				6,940,976	7,268,264	4.7%	6,940,976	7,268,264	327,288	4.7%
WALPOLE				4,449,490	4,695,133	5.5%	4,449,490	4,695,133	245,643	5.5%
WESTWOOD				3,274,618	3,305,699	0.9%	3,274,618	3,305,699	31,081	0.9%
WEYMOUTH				13,703,131	14,428,642	5.3%	13,703,131	14,428,642	725,511	5.3%
TOTAL				\$88,025,925	\$92,323,910	4.9%	\$88,025,925	\$92,323,910	\$4,297,985	4.9%

MWRA Water-only Customers	Final FY23 Water Assessment	Preliminary FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Preliminary FY24 Sewer Assessment	Percent Change from FY23	Final FY23 Combined Assessment	Final FY24 Combined Assessment	Dollar Change from FY23	Percent Change from FY23
LYNNFIELD WATER DISTRICT	\$865,543	\$945,421	9.2%				\$865,543	\$945,421	\$79,878	9.2%
MARBLEHEAD	2,941,372	3,128,400	6.4%				2,941,372	3,128,400	187,028	6.4%
NAHANT	578,355	592,179	2.4%				578,355	592,179	13,824	2.4%
SAUGUS	5,020,868	5,444,071	8.4%				5,020,868	5,444,071	423,203	8.4%
SOUTHBOROUGH	984,014	1,201,452	22.1%				984,014	1,201,452	217,438	22.1%
SWAMPSCOTT	2,552,649	2,608,664	2.2%				2,552,649	2,608,664	56,015	2.2%
WESTON	2,456,156	2,866,120	16.7%				2,456,156	2,866,120	409,964	16.7%
TOTAL	\$15,398,957	\$16,786,307	9.0%				\$15,398,957	\$16,786,307	\$1,387,350	9.0%

MWRA Partial Water-only Customers	Final FY23 Water Assessment	Preliminary FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Preliminary FY24 Sewer Assessment	Percent Change from FY23	Final FY23 Combined Assessment	Final FY24 Combined Assessment	Dollar Change from FY23	Percent Change from FY23
DEDHAM-WESTWOOD WATER DISTRICT	\$256,078	\$670,539	161.8%				\$256,078	\$670,539	\$414,461	161.8%
LYNN (LWSC)	187,732	133,607	-28.8%				187,732	133,607	(54,125)	-28.8%
MARLBOROUGH	6,733,069	7,134,455	6.0%				6,733,069	7,134,455	401,386	6.0%
NORTHBOROUGH	1,508,715	1,475,638	-2.2%				1,508,715	1,475,638	(33,077)	-2.2%
PEABODY	3,781,670	3,950,720	4.5%				3,781,670	3,950,720	169,050	4.5%
TOTAL	\$12,467,264	\$13,364,959	7.2%				\$12,467,264	\$13,364,959	\$897,695	7.2%
SYSTEMS TOTAL	\$288,304,865	\$299,674,196	3.94%	\$526,343,135	\$542,871,404	3.14%	\$814,648,000	\$842,545,600	\$27,897,600	3.42%

Massachusetts Water Resources Authority
 Clinton Wastewater Treatment Plant
 Sewer User Charge Determination

BUDGETED EXPENSES: Preliminary FY24	
Clinton Direct Operating Expenses:	\$3,016,112
MWRA Support Allocation:	601,166
Subtotal O&M Expenses:	\$3,617,278
Total Debt Service Expenses:	\$1,638,063
Total Clinton Service Area Expenses	\$5,255,341
Less Revenue (City of Worcester Payment)	-238,604
Clinton WWTP Rate Revenue Requirement:	\$5,016,737

WASTEWATER FLOW and FLOW SHARES:	CY2022		
	Town of Clinton Flow	Lancaster Sewer District Flow	Total Wastewater Flow
Average Daily Flow (MGD)	2.039	0.254	2.293
Average Flow (MG/YR)	744.134	92.885	837.019
Proportional Share of Flow	88.90%	11.10%	100.0%

Sewer User Charge Determination

TOWN OF CLINTON	
O&M Expenses	\$3,617,278
Less Revenue (City of Worcester Payment)	-238,604
O&M Expenses to be Recovered	\$3,378,673
Clinton's Share of Flow	88.90%
Clinton's Share of O&M Costs	\$3,003,737
Total Clinton O&M Charge	\$3,003,737
Debt Service Costs to be Recovered	\$1,638,063
Clinton's Share of Wastewater Flow	88.90%
Total Clinton Debt Service Charge	\$1,456,285
Total Clinton O&M and Debt Service Charge	\$4,460,022
Less MWRA Water Ratepayer Subsidy	-3,960,022
Billable Charge to the Town of Clinton as per CH. 307, Section 8 The Acts of 1987	\$500,000

LANCASTER SEWER DISTRICT	
O&M Expenses	\$3,617,278
Less Revenue (City of Worcester Payment)	-238,604
O&M Expenses to be Recovered	\$3,378,673
Lancaster's Share of Flow	11.10%
Lancaster's Share of O&M Costs	\$374,936
Total Lancaster Sewer District O&M Charge	\$374,936
Debt Service Costs to be Recovered	\$1,638,063
Lancaster's Share of Wastewater Flow	11.10%
Total Lancaster Sewer District Debt Service Charge	\$181,778
Total Lancaster O&M and Debt Service Charge	\$556,714
Billable Charge to Lancaster Sewer District	\$556,714

Clinton WWTP Charges and Payment Schedule

Sewer Customer	Billable Charges	Change from Prior Year	
		Amount	Percentage
Town of Clinton (billable)	\$500,000	\$0	0.0%
Lancaster Sewer District (before adj.)	\$556,714		
Lancaster Sewer District (prior yr. adj.)	-\$53,282		
Lancaster Sewer District (billable)	\$503,432	\$43,548	9.5%
Total Billable Sewer Use Charges	\$1,003,432		
City of Worcester	\$238,604	\$210,531	13.3%

Payment 1 on or before Sept 15, 2023	Payment 2 on or before Nov 15, 2023	Payment 3 on or before Feb 15, 2024	Payment 4 on or before May 15, 2024
\$125,000	\$125,000	\$125,000	\$125,000
\$125,858	\$125,858	\$125,858	\$125,858
\$250,858	\$250,858	\$250,858	\$250,858
\$0	\$0	\$238,604	\$0

Massachusetts Water Resources Authority

Chicopee Valley Aqueduct Water System Assessment

Preliminary FY2024 Budget and Assessments

CVA Operating Budget	FY23	PFY24	Change from Prior Year	
			Dollars	Percent
CVA Cost Center Expenses	\$1,077,970	\$1,198,278	\$120,308	11.2%
Allocated Waterworks Expenses	149,654	140,609	-9,045	-6.0%
Allocated Watershed/PILOT	509,913	492,720	-17,193	-3.4%
Allocated Watershed Land Acquisition	30,433	29,889	-544	-1.8%
Allocated MWRA Indirect Expenses	700,654	696,055	-4,599	-0.7%
SUBTOTAL OPERATING BUDGET	\$2,468,624	\$2,557,551	\$88,927	3.6%

CVA Capital Budget	FY23	PFY24	Change from Prior Year	
			Dollars	Percent
Capital Expenses	\$3,047,744	\$3,080,800	\$33,056	1.1%
TOTAL CVA BUDGET	\$5,516,368	\$5,638,351	\$121,983	2.2%

BASE COMMUNITY ASSESSMENT	FY23 ¹	PFY24 ²	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,847,836	\$3,964,421	\$116,585	3.0%
South Hadley Fire District #1	814,572	787,057	-27,514	-3.4%
Wilbraham	853,960	886,872	32,912	3.9%
CVA BASE SYSTEM ASSESSMENT	\$5,516,368	\$5,638,351	\$121,983	2.2%

PRIOR PERIOD ADJUSTMENTS ³	FY23	PFY24	Change from Prior Year	
			Dollars	Percent
Chicopee	-\$43,446	-\$29,810	\$13,636	-31.4%
South Hadley Fire District #1	-9,107	-6,384	2,723	-29.9%
Wilbraham	-8,833	-6,709	2,125	-24.1%
TOTAL ADJUSTMENTS	-\$61,386	-\$42,903	\$18,484	-30.1%

ADJUSTED ASSESSMENT	FY23	PFY24	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,804,390	\$3,934,611	\$130,221	3.4%
South Hadley Fire District #1	805,465	780,674	-24,791	-3.1%
Wilbraham	845,127	880,163	35,036	4.1%
ADJUSTED ASSESSMENT	\$5,454,982	\$5,595,448	\$140,466	2.58%

¹ Based on CY2021 water use and before prior period adjustments.

² Based on CY2022 water use and before prior period adjustments.

³ Prior period adjustment to account for budget to actual expenses.