

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 21, 2023
SUBJECT: Final 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

The Proposed FY24 Current Expense Budget was submitted to the Advisory Board at the February 2023 Board meeting and included a 3.4% combined assessment increase.

MWRA's long-term goal has been to provide sustainable and predictable assessments to its member communities. In the past few years, the Advisory Board challenged MWRA to limit the assessment increases at a level less than 4%. MWRA has continuously been successful in achieving this goal by utilizing a multi-year rates management strategy, which includes controlled spending, the use of historical variable rate assumptions, and the practice of targeted debt defeasance.

Staff have met the Advisory Board's five-year challenge and recommend a combined assessment increase of 2.4%, which includes a 1.6% increase for sewer assessments and a 3.9% increase for water assessments.

RECOMMENDATION:

To adopt the following effective July 1, 2023:

- 1) Water system assessments of \$299,675,872 and sewer system assessments of \$534,592,128 for FY24.
- 2) FY24 sewer assessments of \$500,000 for the Town of Clinton and \$509,130 for the Lancaster Sewer District.
- 3) FY24 charge to the City of Worcester of \$241,807 representing approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant.
- 4) FY24 water assessments of \$3,934,629 for the City of Chicopee, \$779,537 for South Hadley Fire District #1, and \$880,070 for the Town of Wilbraham.
- 5) A wholesale water rate of \$4,536.10 per million gallons.
- 6) A retail sewer rate of \$8,536.37 per million gallons.

DISCUSSION:

The Final FY24 Current Expense Budget (CEB) includes a Rate Revenue Requirement of \$834,357,000, an increase of 2.42% over the FY23 requirement.

	Rate Revenue Requirement		Change from FY23	
	FY24 Final	FY23 Approved	Dollars	Percent
Water	\$299,675,872	\$288,304,865	\$11,371,007	3.9%
Sewer	\$534,592,128	\$526,343,135	\$ 8,248,993	1.6%
Total	\$834,268,000	\$814,648,000	\$19,620,000	2.4%

Attachment 1 details the FY24 wholesale water and sewer charges for each MWRA community.

The estimated annual impact of the 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 \$16.

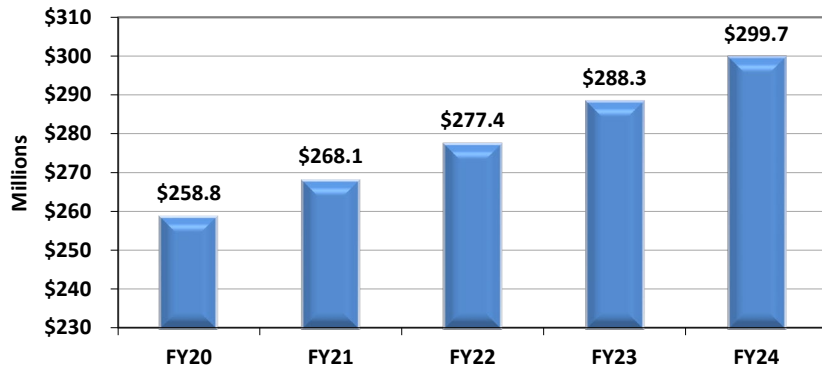
Water Assessments

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. FY24 water assessments are based on each community's share of CY22 water use of 66.065 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.

Preliminary FY24 water assessments were calculated based on preliminary CY22 water use as of February 2023. Since February, ongoing review of CY22 water meter data resulted in revised water use for the City of Boston. Boston’s CY22 water use has been reduced by 34.3 million gallons, and will result in a \$103,000 decrease to their FY24 water assessment.

The graph below illustrates the water Rate Revenue Requirement for the past 5 years. The changes from FY23 to FY24 are primarily the result of increased debt service related to water system rehabilitation and improvements.

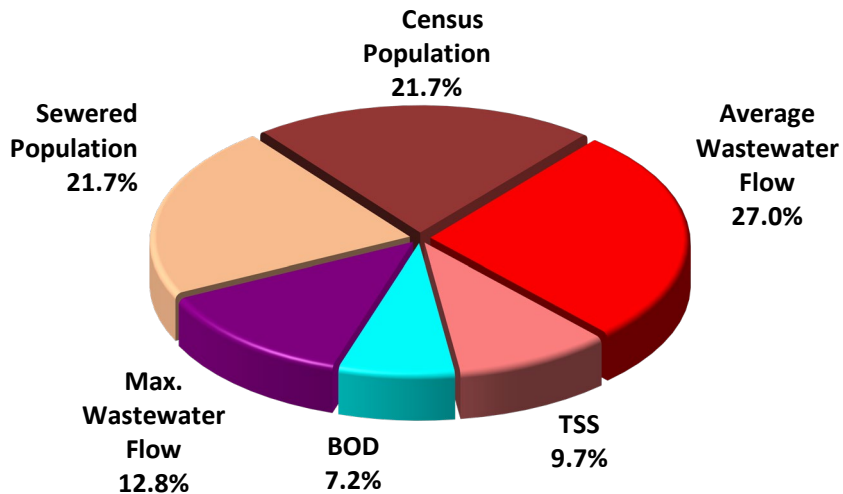
MWRA Water Rate Revenue Requirement



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 sewered population.

On average, approximately 57% of a community's 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 43% is based on population as illustrated in the following graph.



The population component of FY24 assessments were 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.

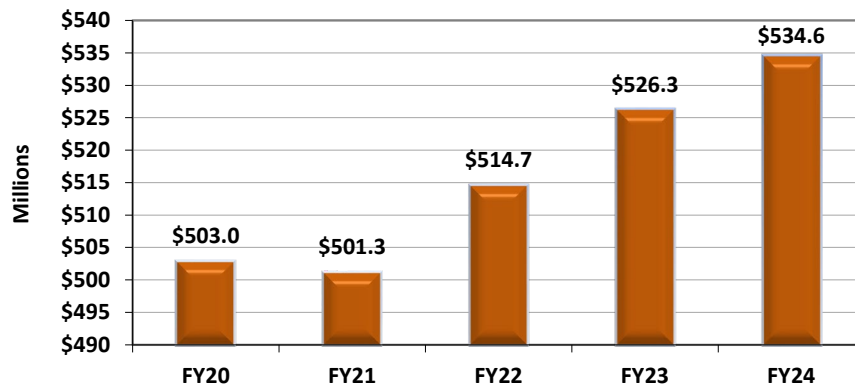
The flow component of the FY24 assessments were calculated using the average of CY20, CY21 and CY22 wastewater flows and strength of flows. CY20 and CY22 flows are based on actual metered flow, and CY21 flows were estimated during the sewer system meter replacement project.

Since preliminary assessments were calculated in February, ongoing review of CY22 wastewater meter data resulted in revised wastewater flows for several communities resulting in assessment

impacts for Boston (+\$144,880 or 0.10%), Brookline (-\$35,884 or 0.25%), Canton, (+\$66,306 or 1.30%), Chelsea (+\$89,433 or 0.92%), Dedham (+\$11,521 or 0.18%), Malden (-\$16,566 or 0.11%), Norwood (-\$57,211 or 0.61%), Revere (-\$78,836 or 0.62%), Stoneham (+\$1,709 or 0.03%), Stoughton (-\$79,740 or 1.35%), Winchester (+\$964 or 0.02%), and Woburn (-\$132,774 or 1.23%).

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 Sewer Service Area Assessments

FY24 operating and maintenance (O&M) and capital expenses attributable to the Clinton Wastewater Treatment Plant are \$5,311,973, an increase of 8.9% from FY23. This includes a 14.9% increase in operating costs, and a 2.5% 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. FY24 direct operating expenses for the plant total \$3,056,600, resulting in an FY24 charge of \$241,807 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 FY24 expenses and CY22 wastewater flows, Lancaster’s FY24 charge is \$509,130, an increase of 10.7% from FY23.

The FY24 charge for the Town of Clinton is \$4,507,522. 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 FY24 CIP and CEB for the Chicopee Valley Aqueduct (CVA) water system, the FY24 system assessment is \$5,595,236, 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, FY24 assessments are as follows:

- City of Chicopee: \$3,934,629 (+3.4%)
- South Hadley Fire District #1: \$ 779,537 (-3.2%)
- Town of Wilbraham: \$ 880,070 (+4.1%)

As with the metropolitan water system, changes in 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 wholesale water rate for FY24 is \$4,536.10 per million gallons. The FY24 CEB includes revenue of \$149,335 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 FY24 sewer assessments, the FY24 retail sewer rate is \$8,536.37 per million gallons. The FY24 CEB includes revenue of \$66,476 from these customers.

ATTACHMENTS:

1. 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	Final FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Final 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	\$5,723,767	1.3%	\$9,392,520	\$9,375,412	-0.2%	\$15,040,615	\$15,099,179	\$58,564	0.4%
BELMONT	3,134,847	3,281,643	4.7%	5,677,771	5,652,772	-0.4%	8,812,618	8,934,415	121,797	1.4%
BOSTON (BWSC)	99,390,501	101,284,742	1.9%	149,691,865	148,321,901	-0.9%	249,082,366	249,606,643	524,277	0.2%
BROOKLINE	8,018,472	8,536,286	6.5%	14,277,393	13,902,081	-2.6%	22,295,865	22,438,367	142,502	0.6%
CHELSEA	5,460,876	5,466,192	0.1%	9,362,781	9,640,943	3.0%	14,823,657	15,107,135	283,478	1.9%
EVERETT	6,422,774	6,179,040	-3.8%	10,050,691	10,045,294	-0.1%	16,473,465	16,224,334	(249,131)	-1.5%
FRAMINGHAM	9,531,024	9,526,952	0.0%	13,631,754	14,213,653	4.3%	23,162,778	23,740,605	577,827	2.5%
LEXINGTON	8,493,467	8,832,742	4.0%	8,432,789	8,861,891	5.1%	16,926,256	17,694,633	768,377	4.5%
MALDEN	8,758,033	8,565,543	-2.2%	14,707,651	14,777,974	0.5%	23,465,684	23,343,517	(122,167)	-0.5%
MEDFORD	7,666,268	7,823,249	2.0%	13,036,799	13,530,297	3.8%	20,703,067	21,353,546	650,479	3.1%
MELROSE	3,499,715	3,520,729	0.6%	7,179,811	7,002,292	-2.5%	10,679,526	10,523,021	(156,505)	-1.5%
MILTON	4,022,582	4,176,564	3.8%	6,075,110	6,314,438	3.9%	10,097,692	10,491,002	393,310	3.9%
NEWTON	14,157,661	14,430,518	1.9%	22,803,614	23,540,735	3.2%	36,961,275	37,971,253	1,009,978	2.7%
NORWOOD	4,502,690	4,646,813	3.2%	8,789,271	9,252,685	5.3%	13,291,961	13,899,498	607,537	4.6%
QUINCY	13,856,502	14,041,679	1.3%	22,536,756	23,052,419	2.3%	36,393,258	37,094,098	700,840	1.9%
READING	2,807,828	2,826,508	0.7%	5,378,343	5,245,406	-2.5%	8,186,171	8,071,914	(114,257)	-1.4%
REVERE	6,348,919	6,411,786	1.0%	12,301,606	12,448,042	1.2%	18,650,525	18,859,828	209,303	1.1%
SOMERVILLE	9,471,778	9,500,557	0.3%	17,021,568	17,759,770	4.3%	26,493,346	27,260,327	766,981	2.9%
STONEHAM	3,289,382	3,617,722	10.0%	5,652,234	5,906,212	4.5%	8,941,616	9,523,934	582,318	6.5%
WALTHAM	11,044,210	11,996,268	8.6%	14,787,236	14,796,930	0.1%	25,831,446	26,793,198	961,752	3.7%
WATERTOWN	4,147,401	4,202,656	1.3%	6,800,255	7,004,552	3.0%	10,947,656	11,207,208	259,552	2.4%
WINTHROP	1,918,276	1,865,387	-2.8%	3,970,824	3,978,407	0.2%	5,889,100	5,843,794	(45,306)	-0.8%
TOTAL	\$241,591,301	\$246,457,343	2.0%	\$381,558,642	\$384,624,106	0.8%	\$623,149,943	\$631,081,449	\$7,931,506	1.3%

MWRA Sewer and Partial Water Customers	Final FY23 Water Assessment	Final FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Final 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	\$2,924,453	1.3%	\$2,886,179	\$2,924,453	\$38,274	1.3%
BURLINGTON	1,253,355	1,668,047	33.1%	6,021,745	6,153,342	2.2%	7,275,100	7,821,389	546,289	7.5%
CANTON	2,022,211	2,490,180	23.1%	4,862,293	5,085,296	4.6%	6,884,504	7,575,476	690,972	10.0%
NEEDHAM	1,464,186	1,887,130	28.9%	6,760,857	7,084,841	4.8%	8,225,043	8,971,971	746,928	9.1%
STOUGHTON	118,822	103,566	-12.8%	5,471,765	5,714,438	4.4%	5,590,587	5,818,004	227,417	4.1%
WAKEFIELD	2,617,209	3,337,730	27.5%	6,848,039	6,826,973	-0.3%	9,465,248	10,164,703	699,455	7.4%
WELLESLEY	3,325,451	4,211,496	26.6%	6,273,591	6,630,804	5.7%	9,599,042	10,842,300	1,243,258	13.0%
WILMINGTON	716,510	1,145,370	59.9%	3,230,781	3,173,321	-1.8%	3,947,291	4,318,691	371,400	9.4%
WINCHESTER	1,943,817	2,356,818	21.2%	4,592,965	4,875,271	6.1%	6,536,782	7,232,089	695,307	10.6%
WOBURN	5,385,782	5,851,127	8.6%	9,810,353	10,478,117	6.8%	15,196,135	16,329,244	1,133,109	7.5%
TOTAL	\$18,847,343	\$23,051,464	22.3%	56,758,568	58,946,856	3.9%	\$75,605,911	\$81,998,320	\$6,392,409	8.5%

MWRA Sewer-only Customers	Final FY23 Water Assessment	Final FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Final 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	\$3,784,242	2.4%	\$3,696,476	\$3,784,242	\$87,766	2.4%
BRAINTREE				10,873,607	10,766,148	-1.0%	10,873,607	10,766,148	(107,459)	-1.0%
CAMBRIDGE				28,578,466	30,213,141	5.7%	28,578,466	30,213,141	1,634,675	5.7%
DEDHAM				6,153,063	6,409,056	4.2%	6,153,063	6,409,056	255,993	4.2%
HINGHAM SEWER DISTRICT				2,132,148	2,172,503	1.9%	2,132,148	2,172,503	40,355	1.9%
HOLBROOK				1,936,897	2,028,551	4.7%	1,936,897	2,028,551	91,654	4.7%
NATICK				6,287,053	6,408,947	1.9%	6,287,053	6,408,947	121,894	1.9%
RANDOLPH				6,940,976	7,144,574	2.9%	6,940,976	7,144,574	203,598	2.9%
WALPOLE				4,449,490	4,614,313	3.7%	4,449,490	4,614,313	164,823	3.7%
WESTWOOD				3,274,618	3,249,150	-0.8%	3,274,618	3,249,150	(25,468)	-0.8%
WEYMOUTH				13,703,131	14,230,541	3.8%	13,703,131	14,230,541	527,410	3.8%
TOTAL				\$88,025,925	\$91,021,166	3.4%	\$88,025,925	\$91,021,166	\$2,995,241	3.4%

MWRA Water-only Customers	Final FY23 Water Assessment	Final FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Final 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	\$945,917	9.3%				\$865,543	\$945,917	\$80,374	9.3%
MARBLEHEAD	2,941,372	3,130,039	6.4%				2,941,372	3,130,039	188,667	6.4%
NAHANT	578,355	592,489	2.4%				578,355	592,489	14,134	2.4%
SAUGUS	5,020,868	5,446,924	8.5%				5,020,868	5,446,924	426,056	8.5%
SOUTHBOROUGH	984,014	1,202,081	22.2%				984,014	1,202,081	218,067	22.2%
SWAMPSCOTT	2,552,649	2,610,031	2.2%				2,552,649	2,610,031	57,382	2.2%
WESTON	2,456,156	2,867,622	16.8%				2,456,156	2,867,622	411,466	16.8%
TOTAL	\$15,398,957	\$16,795,103	9.1%				\$15,398,957	\$16,795,103	\$1,396,146	9.1%

MWRA Partial Water-only Customers	Final FY23 Water Assessment	Final FY24 Water Assessment	Percent Change from FY23	Final FY23 Sewer Assessment	Final 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	\$670,890	162.0%				\$256,078	\$670,890	\$414,812	162.0%
LYNN (LWSC)	187,732	133,677	-28.8%				187,732	133,677	(54,055)	-28.8%
MARLBOROUGH	6,733,069	7,138,193	6.0%				6,733,069	7,138,193	405,124	6.0%
NORTHBOROUGH	1,508,715	1,476,411	-2.1%				1,508,715	1,476,411	(32,304)	-2.1%
PEABODY	3,781,670	3,952,791	4.5%				3,781,670	3,952,791	171,121	4.5%
TOTAL	\$12,467,264	\$13,371,962	7.3%				\$12,467,264	\$13,371,962	\$904,698	7.3%
SYSTEMS TOTAL	\$288,304,865	\$299,675,872	3.94%	\$526,343,135	\$534,592,128	1.57%	\$814,648,000	\$834,268,000	\$19,620,000	2.41%

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

BUDGETED EXPENSES: Preliminary FY24	
Clinton Direct Operating Expenses:	\$3,056,600
MWRA Support Allocation:	616,268
Subtotal O&M Expenses:	\$3,672,868
Total Debt Service Expenses:	\$1,639,105
Total Clinton Service Area Expenses	\$5,311,973
Less Revenue (City of Worcester Payment)	-241,807
Clinton WWTP Rate Revenue Requirement:	\$5,070,165

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	\$3,672,868
Less Revenue (City of Worcester Payment)	-241,807
O&M Expenses to be Recovered	\$3,431,061
Clinton's Share of Flow	88.90%
Clinton's Share of O&M Costs	\$3,050,311
Total Clinton O&M Charge	\$3,050,311
Debt Service Costs to be Recovered	\$1,639,105
Clinton's Share of Wastewater Flow	88.90%
Total Clinton Debt Service Charge	\$1,457,211
Total Clinton O&M and Debt Service Charge	\$4,507,522
Less MWRA Water Ratepayer Subsidy	-4,007,522
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	\$3,672,868
Less Revenue (City of Worcester Payment)	-241,807
O&M Expenses to be Recovered	\$3,431,061
Lancaster's Share of Flow	11.10%
Lancaster's Share of O&M Costs	\$380,750
Total Lancaster Sewer District O&M Charge	\$380,750
Debt Service Costs to be Recovered	\$1,639,105
Lancaster's Share of Wastewater Flow	11.10%
Total Lancaster Sewer District Debt Service Charge	\$181,894
Total Lancaster O&M and Debt Service Charge	\$562,644
Billable Charge to Lancaster Sewer District	\$562,644

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.)	\$562,644		
Lancaster Sewer District (prior yr. adj.)	-\$53,514		
Lancaster Sewer District (billable)	\$509,130	\$49,246	10.7%
Total Billable Sewer Use Charges	\$1,009,130		
City of Worcester	\$241,807	\$31,276	14.9%

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
\$127,283	\$127,283	\$127,283	\$127,283
\$252,283	\$252,283	\$252,283	\$252,283
\$0	\$0	\$241,807	\$0

Massachusetts Water Resources Authority

Chicopee Valley Aqueduct Water System Assessment

FY2024 Budget and Assessments

CVA Operating Budget	FY23	FY24	Change from Prior Year	
			Dollars	Percent
CVA Cost Center Expenses	\$1,077,970	\$1,210,632	\$132,662	12.3%
Allocated Waterworks Expenses	149,654	143,193	-6,461	-4.3%
Allocated Watershed/PILOT	509,913	502,979	-6,934	-1.4%
Allocated Watershed Land Acquisition	30,433	28,853	-1,580	-5.2%
Allocated MWRA Indirect Expenses	700,654	702,601	1,946	0.3%
SUBTOTAL OPERATING BUDGET	\$2,468,624	\$2,588,257	\$119,633	4.8%

CVA Capital Budget	FY23	FY24	Change from Prior Year	
			Dollars	Percent
Capital Expenses	\$3,047,744	\$3,153,967	\$106,223	3.5%
TOTAL CVA BUDGET	\$5,516,368	\$5,742,224	\$225,856	4.1%

BASE COMMUNITY ASSESSMENT	FY23 ¹	FY24 ²	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,847,836	\$4,037,457	\$189,620	4.9%
South Hadley Fire District #1	814,572	801,557	-13,015	-1.6%
Wilbraham	853,960	903,210	49,250	5.8%
CVA BASE SYSTEM ASSESSMENT	\$5,516,368	\$5,742,224	\$225,856	4.1%

PRIOR PERIOD ADJUSTMENTS ³	FY23	FY24	Change from Prior Year	
			Dollars	Percent
Chicopee	-\$43,446	-\$102,827	-\$59,381	136.7%
South Hadley Fire District #1	-9,107	-22,020	-12,913	141.8%
Wilbraham	-8,833	-23,141	-14,307	162.0%
TOTAL ADJUSTMENTS	-\$61,386	-\$147,988	-\$86,602	141.1%

ADJUSTED ASSESSMENT	FY23	FY24	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,804,390	\$3,934,629	\$130,239	3.4%
South Hadley Fire District #1	805,465	779,537	-25,928	-3.2%
Wilbraham	845,127	880,070	34,943	4.1%
ADJUSTED ASSESSMENT	\$5,454,982	\$5,594,236	\$139,254	2.55%

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.