



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 6, 2020
SUBJECT: Final FY21 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 FY21 Current Expense Budget (CEB) was submitted to the Advisory Board at the February 2020 Board meeting and included a 3.63% combined assessment increase.

As a result of the economic impacts of the Coronavirus Pandemic, MWRA and Advisory Board staff have undertaken several initiatives to provide financial relief to MWRA's member communities. One of those initiatives has been to reduce the combined assessment increase of 3.63% in the FY21 Proposed Budget to 1.00% in the FY21 Draft Final Budget.

Consistent with the FY21 Draft Final Budget, the combined assessment increase is 1.00%, and includes a 0.34% decrease for sewer assessments, and a 3.60% increase for water assessments.

RECOMMENDATION:

To adopt the following effective July 1, 2020:

- 1) Water system assessments of \$268,071,397 and sewer system assessments of \$501,313,603 for FY21.
- 2) FY21 sewer assessments of \$500,000 for the Town of Clinton and \$433,771 for the Lancaster Sewer District.
- 3) FY21 charge to the City of Worcester of \$214,711 representing approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant.
- 4) FY21 water assessments of \$3,707,406 for the City of Chicopee, \$766,608 for South Hadley Fire District #1, and \$808,343 for the Town of Wilbraham.
- 5) A wholesale water rate of \$4,320.63 per million gallons.
- 6) A retail sewer rate of \$7,788.00 per million gallons.

DISCUSSION:

The Draft Final FY21 Current Expense Budget includes a Rate Revenue Requirement of \$769,385,000, an increase of 1.0% over the FY20 requirement.

	FY21 Draft Final	FY20 Approved	Change from FY20	
			Dollars	Percent
Water	\$268,071,397	\$258,751,692	\$ 9,319,705	3.60%
Sewer	\$501,313,603	\$503,015,308	(\$ 1,701,705)	-0.34%
Total	\$769,385,000	\$761,767,000	\$ 7,618,000	1.00%

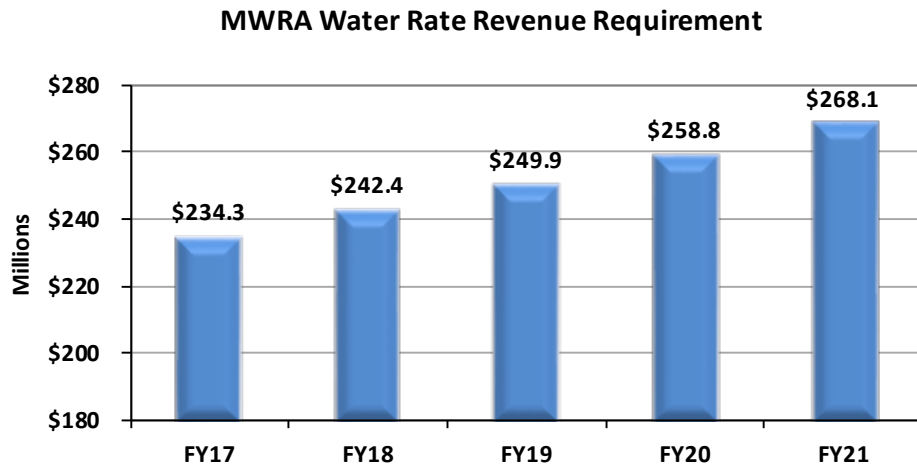
Attachment 1 summarizes FY21 wholesale water and sewer charges for each MWRA community.

The estimated annual impact of the FY21 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 \$8.

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. FY21 water assessments are based on each community's share of CY19 water use of 62.045 billion gallons, a 3.6% decrease compared to CY18 water use of 64.343 billion gallons. Changes in FY21 water assessments for customer communities compared to FY20 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 CY19 compared to CY18. This is particularly true for communities that receive only part of their water from MWRA.

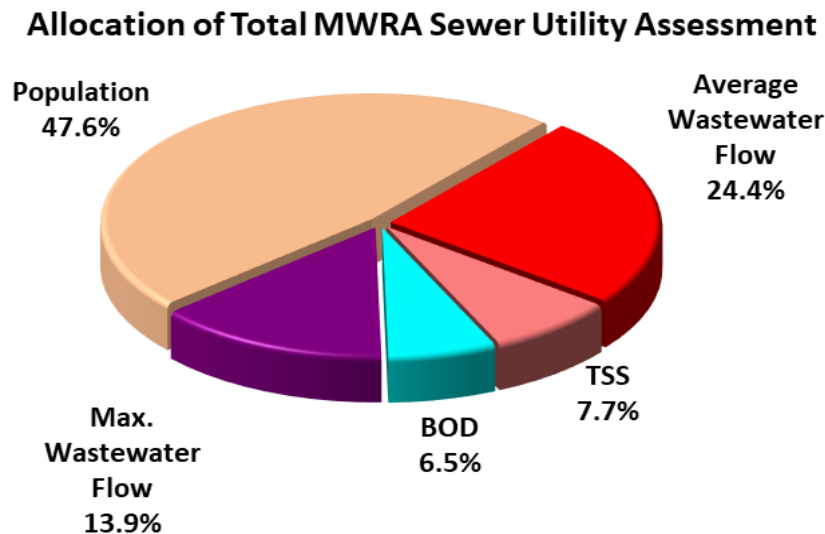
The graph below illustrates the water Rate Revenue Requirement for the past 5 years. The changes from FY20 to FY21 are primarily the result of increased debt service related to water system rehabilitation and improvements.



Sewer Assessments

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

On average, approximately 52% of a community's FY21 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 48% is based on population as illustrated in the next graph.

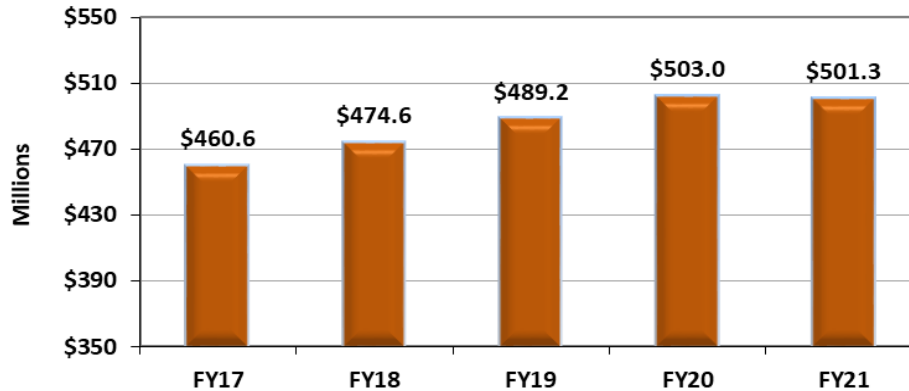


The population component of the FY21 assessments were calculated using the most recent (July 2018) community population estimates from the U.S. Census Bureau, as well as the percentage of total population receiving municipal sewer service as reported by each MWRA community.

The flow component of the FY21 assessments were calculated using the average of CY17, CY18 and CY19 wastewater flows and strength of flows.

The following graph 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 system rehabilitation and improvements.

MWRA Sewer Rate Revenue Requirement



Water and Sewer Flow Data

The potential need for an adjustment to Somerville’s CY19 water flows discussed in the February preliminary assessment staff summary has not been resolved at this time. Staff in Somerville and MWRA continue to investigate possible reasons for the apparent discrepancy in flow numbers. In addition, due in part to reductions in field work resulting from MWRA and contractor adjustments for pandemic safety, there are a number of sewer meters in various communities which may require flow adjustments after the final budget is approved. Staff will use MWRA’s established processes for retroactive adjustments and any necessary changes will be reflected in FY22 assessments.

Clinton Sewer Service Area Assessments

FY21 operating and maintenance (O&M) and capital expenses attributable to the Clinton Wastewater Treatment Plant are \$4,677,742, an increase of 3.6% over FY20 expenses. This includes a 2.3% increase in operating costs, and a 7.1% increase in capital expenses related primarily to the landfill cell #1 closure, digester cover replacement, and valve and screw pump replacement projects.

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. FY21 direct operating expenses for the plant total \$2,714,083, resulting in an FY21 charge of \$214,711 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 FY21 expenses and CY19 wastewater flows, Lancaster’s FY21 charge is \$433,771, an increase of 15.4% from the FY20 charge of \$375,767.

The FY21 charge for the Town of Clinton is \$4,042,330. 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 Draft Final FY21 CIP and CEB for the Chicopee Valley Aqueduct (CVA) water system, the FY21 system assessment is \$5,282,357, an increase of 2.6% from FY20 assessments.

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 CY19 water use, FY21 assessments are as follows:

- City of Chicopee: \$3,707,406 (+2.8%)
- South Hadley Fire District #1: \$ 766,608 (+5.9%)
- Town of Wilbraham: \$ 808,343 (-1.2%)

As with the metropolitan water system, changes in FY21 water assessments for each CVA community compared to FY20 assessments vary depending on their water use and how that use factors into their share of the CVA water system in CY19 compared to CY18.

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 FY21 is \$4,320.63 per million gallons. The FY21 CEB includes revenue of \$140,293 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 FY21 sewer assessments, the FY21 retail sewer rate will be \$7,788.00 per million gallons. The Draft Final FY21 CEB includes revenue of \$101,135 from these customers.

ATTACHMENTS:

1. FY21 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 FY20 Water Assessment	Final FY21 Water Assessment	Percent Change from FY20	Final FY20 Sewer Assessment	Final FY21 Sewer Assessment	Percent Change from FY20	Final FY20 Combined Assessment	Final FY21 Combined Assessment	Dollar Change from FY20	Percent Change from FY20
ARLINGTON	5,428,333	5,627,090	3.7%	8,921,155	8,872,540	-0.5%	\$14,349,488	\$14,499,630	\$150,142	1.0%
BELMONT	3,001,852	3,040,437	1.3%	5,321,061	5,332,639	0.2%	8,322,913	8,373,076	50,163	0.6%
BOSTON (BWSC)	93,413,175	97,981,545	4.9%	145,875,583	145,976,286	0.1%	239,288,758	243,957,831	4,669,073	2.0%
BROOKLINE	7,300,560	7,543,434	3.3%	13,202,213	13,249,272	0.4%	20,502,773	20,792,706	289,933	1.4%
CHELSEA	4,939,423	5,158,804	4.4%	8,626,321	8,585,318	-0.5%	13,565,744	13,744,122	178,378	1.3%
EVERETT	5,543,676	5,958,067	7.5%	9,310,473	9,529,946	2.4%	14,854,149	15,488,013	633,864	4.3%
FRAMINGHAM	8,448,119	8,834,401	4.6%	13,569,073	13,209,393	-2.7%	22,017,192	22,043,794	26,602	0.1%
LEXINGTON	7,413,364	8,006,399	8.0%	7,851,947	7,922,359	0.9%	15,265,311	15,928,758	663,447	4.3%
MALDEN	7,552,824	7,980,333	5.7%	13,705,355	13,376,032	-2.4%	21,258,179	21,356,365	98,186	0.5%
MEDFORD	6,542,736	6,872,249	5.0%	12,493,747	12,312,099	-1.5%	19,036,483	19,184,348	147,865	0.8%
MELROSE	2,977,071	3,105,038	4.3%	6,723,984	6,642,072	-1.2%	9,701,055	9,747,110	46,055	0.5%
MILTON	3,508,765	3,524,251	0.4%	5,736,340	5,780,577	0.8%	9,245,105	9,304,828	59,723	0.6%
NEWTON	12,721,936	13,532,097	6.4%	22,443,151	21,895,848	-2.4%	35,165,087	35,427,945	262,858	0.7%
NORWOOD	3,963,726	4,246,016	7.1%	8,171,535	8,188,530	0.2%	12,135,261	12,434,546	299,285	2.5%
QUINCY	11,714,243	12,401,474	5.9%	21,091,455	20,972,691	-0.6%	32,805,698	33,374,165	568,467	1.7%
READING	2,370,637	2,399,752	1.2%	5,377,793	5,250,778	-2.4%	7,748,430	7,650,530	(97,900)	-1.3%
REVERE	5,262,364	5,591,863	6.3%	10,896,609	10,748,405	-1.4%	16,158,973	16,340,268	181,295	1.1%
SOMERVILLE	8,240,009	8,711,112	5.7%	17,492,310	16,822,763	-3.8%	25,732,319	25,533,875	(198,444)	-0.8%
STONEHAM	3,019,242	2,870,605	-4.9%	4,812,709	4,988,619	3.7%	7,831,951	7,859,224	27,273	0.3%
WALTHAM	9,621,955	10,046,663	4.4%	13,961,534	13,972,854	0.1%	23,583,489	24,019,517	436,028	1.8%
WATERTOWN	3,898,438	3,935,832	1.0%	6,729,234	6,648,177	-1.2%	10,627,672	10,584,009	(43,663)	-0.4%
WINTHROP	1,848,357	1,958,437	6.0%	3,718,688	3,714,891	-0.1%	5,567,045	5,673,328	106,283	1.9%
TOTAL	\$218,730,805	\$229,325,899	4.8%	\$366,032,270	\$363,992,089	-0.6%	\$584,763,075	\$593,317,988	\$8,554,913	1.5%

MWRA Sewer and Partial Water Customers	Final FY20 Water Assessment	Final FY21 Water Assessment	Percent Change from FY20	Final FY20 Sewer Assessment	Final FY21 Sewer Assessment	Percent Change from FY20	Final FY20 Combined Assessment	Final FY21 Combined Assessment	Dollar Change from FY20	Percent Change from FY20
CANTON	2,136,764	1,626,637	-23.9%	4,620,738	4,599,635	-0.5%	\$6,757,502	\$6,226,272	(\$531,230)	-7.9%
NEEDHAM	1,412,709	1,122,902	-20.5%	6,399,114	6,399,895	0.0%	7,811,823	7,522,797	(289,026)	-3.7%
STOUGHTON	146,695	141,002	-3.9%	5,240,340	5,226,978	-0.3%	5,387,035	5,367,980	(19,055)	-0.4%
WAKEFIELD	2,581,082	2,874,557	11.4%	6,585,727	6,577,299	-0.1%	9,166,809	9,451,856	285,047	3.1%
WELLESLEY	1,476,827	1,835,381	24.3%	5,933,569	5,955,781	0.4%	7,410,396	7,791,162	380,766	5.1%
WILMINGTON	732,142	599,456	-18.1%	2,987,771	2,953,524	-1.1%	3,719,913	3,552,980	(166,933)	-4.5%
WINCHESTER	1,732,283	1,835,487	6.0%	4,458,416	4,440,715	-0.4%	6,190,699	6,276,202	85,503	1.4%
WOBURN	4,119,106	4,199,480	2.0%	9,475,387	9,434,265	-0.4%	13,594,493	13,633,745	39,252	0.3%
TOTAL	\$14,337,608	\$14,234,902	-0.7%	\$45,701,062	45,588,092	-0.2%	\$60,038,670	\$59,822,994	(\$215,676)	-0.4%

MWRA Sewer-only Customers	Final FY20 Water Assessment	Final FY21 Water Assessment	Percent Change from FY20	Final FY20 Sewer Assessment	Final FY21 Sewer Assessment	Percent Change from FY20	Final FY20 Combined Assessment	Final FY21 Combined Assessment	Dollar Change from FY20	Percent Change from FY20
ASHLAND				2,747,924	2,675,100	-2.7%	\$2,747,924	\$2,675,100	(\$72,824)	-2.7%
BEDFORD				3,630,690	3,563,964	-1.8%	3,630,690	3,563,964	(66,726)	-1.8%
BRAINTREE				9,896,915	10,046,123	1.5%	9,896,915	10,046,123	149,208	1.5%
BURLINGTON				5,815,487	5,969,600	2.7%	5,815,487	5,969,600	154,113	2.7%
CAMBRIDGE				26,400,678	26,630,300	0.9%	26,400,678	26,630,300	229,622	0.9%
DEDHAM				5,860,551	5,877,037	0.3%	5,860,551	5,877,037	16,486	0.3%
HINGHAM SEWER DISTRICT				1,937,252	2,005,219	3.5%	1,937,252	2,005,219	67,967	3.5%
HOLBROOK				1,857,144	1,816,238	-2.2%	1,857,144	1,816,238	(40,906)	-2.2%
NATICK				6,044,147	5,916,657	-2.1%	6,044,147	5,916,657	(127,490)	-2.1%
RANDOLPH				6,747,779	6,743,289	-0.1%	6,747,779	6,743,289	(4,490)	-0.1%
WALPOLE				4,096,111	4,125,676	0.7%	4,096,111	4,125,676	29,565	0.7%
WESTWOOD				3,161,944	3,121,245	-1.3%	3,161,944	3,121,245	(40,699)	-1.3%
WEYMOUTH				13,085,354	13,242,974	1.2%	13,085,354	13,242,974	157,620	1.2%
TOTAL				\$91,281,976	\$91,733,422	0.5%	\$91,281,976	\$91,733,422	\$451,446	0.5%

MWRA Water-only Customers	Final FY20 Water Assessment	Final FY21 Water Assessment	Percent Change from FY20	Final FY20 Sewer Assessment	Final FY21 Sewer Assessment	Percent Change from FY20	Final FY20 Combined Assessment	Final FY21 Combined Assessment	Dollar Change from FY20	Percent Change from FY20
LYNNFIELD WATER DISTRICT	801,241	764,867	-4.5%				\$801,241	\$764,867	(\$36,374)	-4.5%
MARBLEHEAD	2,576,446	2,664,131	3.4%				2,576,446	2,664,131	87,685	3.4%
NAHANT	457,313	514,383	12.5%				457,313	514,383	57,070	12.5%
SAUGUS	4,221,536	4,465,635	5.8%				4,221,536	4,465,635	244,099	5.8%
SOUTHBOROUGH	927,672	1,003,016	8.1%				927,672	1,003,016	75,344	8.1%
SWAMPSCOTT	2,161,811	2,342,440	8.4%				2,161,811	2,342,440	180,629	8.4%
WESTON	2,413,951	2,395,031	-0.8%				2,413,951	2,395,031	(18,920)	-0.8%
TOTAL	\$13,559,970	\$14,149,503	4.3%				\$13,559,970	\$14,149,503	\$589,533	4.3%

MWRA Partial Water-only Customers	Final FY20 Water Assessment	Final FY21 Water Assessment	Percent Change from FY20	Final FY20 Sewer Assessment	Final FY21 Sewer Assessment	Percent Change from FY20	Final FY20 Combined Assessment	Final FY21 Combined Assessment	Dollar Change from FY20	Percent Change from FY20
DEDHAM-WESTWOOD WATER DISTRICT	181,946.00	1,037,861.00	470.4%				\$181,946	\$1,037,861	\$855,915	470.4%
LYNN (LWSC)	392,593	396,099	0.9%				392,593	396,099	3,506	0.9%
MARLBOROUGH	5,875,229	6,194,747	5.4%				5,875,229	6,194,747	319,518	5.4%
NORTHBOROUGH	1,312,711	1,422,346	8.4%				1,312,711	1,422,346	109,635	8.4%
PEABODY	4,360,830	1,310,040	-70.0%				4,360,830	1,310,040	(3,050,790)	-70.0%
TOTAL	\$12,123,309	\$10,361,093	-14.5%				\$12,123,309	\$10,361,093	(\$1,762,216)	-14.5%
SYSTEMS TOTAL	\$258,751,692	\$268,071,397	3.6%	\$503,015,308	\$501,313,603	-0.3%	\$761,767,000	\$769,385,000	\$7,618,000	1.0%

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

BUDGETED EXPENSES: Draft Final FY21	
Clinton Direct Operating Expenses:	\$2,714,083
MWRA Support Allocation:	648,211
Subtotal O&M Expenses:	\$3,362,294
Total Debt Service Expenses:	\$1,315,448
Total Clinton Service Area Expenses	\$4,677,742
Less Revenue (City of Worcester Payment)	-214,711
Clinton WWTP Rate Revenue Requirement:	\$4,463,032

WASTEWATER FLOW and FLOW SHARES:	CY2019		
	Town of Clinton Flow	Lancaster Sewer District Flow	Total Wastewater Flow
Average Daily Flow (MGD)	2.339	0.243	2.583
Average Flow (MG/YR)	853.904	88.869	942.773
Proportional Share of Flow	90.57%	9.43%	100.0%

Sewer User Charge Determination

TOWN OF CLINTON	
O&M Expenses	\$3,362,294
Less Revenue (City of Worcester Payment)	-214,711
O&M Expenses to be Recovered	\$3,147,584
Clinton's Share of Flow	90.57%
Clinton's Share of O&M Costs	\$2,850,881

LANCASTER SEWER DISTRICT	
O&M Expenses	\$3,362,294
Less Revenue (City of Worcester Payment)	-214,711
O&M Expenses to be Recovered	\$3,147,584
Lancaster's Share of Flow	9.43%
Lancaster's Share of O&M Costs	\$296,702

Total Clinton O&M Charge	\$2,850,881
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Total Lancaster Sewer District O&M Charge	\$296,702
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Debt Service Costs to be Recovered	\$1,315,448
Clinton's Share of Wastewater Flow	90.57%

Debt Service Costs to be Recovered	\$1,315,448
Lancaster's Share of Wastewater Flow	9.43%

Total Clinton Debt Service Charge	\$1,191,449
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Total Lancaster Sewer District Debt Service Charge	\$123,999
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Total Clinton O&M and Debt Service Charge	\$4,042,330
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Total Lancaster O&M and Debt Service Charge	\$420,701
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Less MWRA Water Ratepayer Subsidy	-3,542,330
Billable Charge to the Town of Clinton as per CH. 307, Section 8 The Acts of 1987	\$500,000

Billable Charge to Lancaster Sewer District	\$420,701
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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.)	\$420,701		
Lancaster Sewer District (prior yr. adj.)	\$13,070		
Lancaster Sewer District (billable)	\$433,771	\$58,004	15.4%

Total Billable Sewer Use Charges	\$933,771
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City of Worcester	\$214,711	\$208,773	2.8%
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Payment 1 on or before Sept 15, 2020	Payment 2 on or before Nov 15, 2020	Payment 3 on or before Feb 15, 2021	Payment 4 on or before May 15, 2021
\$125,000	\$125,000	\$125,000	\$125,000
\$108,443	\$108,443	\$108,443	\$108,443

\$233,443	\$233,443	\$233,443	\$233,443
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\$0	\$0	\$214,711	\$0
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Massachusetts Water Resources Authority

Chicopee Valley Aqueduct Water System Assessment

FY2021 Budget and Assessments

CVA Operating Budget	FY20	FY21	Change from Prior Year	
			Dollars	Percent
CVA Cost Center Expenses	\$935,590	\$965,147	\$29,556	3.2%
Allocated Waterworks Expenses	149,935	152,731	2,796	1.9%
Allocated Watershed/PILOT	495,188	482,312	-12,876	-2.6%
Allocated Watershed Land Acquisition	27,935	29,675	1,740	6.2%
Allocated MWRA Indirect Expenses	629,553	650,516	20,963	3.3%
SUBTOTAL OPERATING BUDGET	\$2,238,201	\$2,280,381	\$42,180	1.9%

CVA Capital Budget	FY20	FY21	Change from Prior Year	
			Dollars	Percent
Capital Expenses	\$3,064,467	\$3,099,516	\$35,050	1.1%
TOTAL CVA BUDGET	\$5,302,668	\$5,379,897	\$77,230	1.5%

BASE COMMUNITY ASSESSMENT	FY20 ¹	FY21 ²	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,728,618	\$3,776,791	\$48,173	1.3%
South Hadley Fire District #1	748,587	780,962	32,374	4.3%
Wilbraham	825,463	822,145	-3,318	-0.4%
CVA BASE SYSTEM ASSESSMENT	\$5,302,668	\$5,379,897	\$77,230	1.5%

PRIOR PERIOD ADJUSTMENTS	FY20 ³	FY21 ³	Change from Prior Year	
			Dollars	Percent
Chicopee	-\$123,896	-\$69,385	\$54,512	-44.0%
South Hadley Fire District #1	-25,004	-14,354	10,650	-42.6%
Wilbraham	-7,657	-13,802	-6,145	80.3%
TOTAL ADJUSTMENTS	-\$156,557	-\$97,540	\$59,016	-37.7%

ADJUSTED ASSESSMENT	FY20	FY21	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,604,721	\$3,707,406	\$102,685	2.8%
South Hadley Fire District #1	723,584	766,608	43,024	5.9%
Wilbraham	817,806	808,343	-9,463	-1.2%
ADJUSTED ASSESSMENT	\$5,146,111	\$5,282,357	\$136,246	2.65%

¹ Based on CY2018 water use and before prior period adjustments.

² Based on CY2019 water use and before prior period adjustments.

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