


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 22, 2022
SUBJECT: Approval of the FY2023 Final Capital Improvement Program

COMMITTEE: Administration, Finance & Audit

 INFORMATION
 X VOTE

Michael J. Cole, Budget Director
James J. Coyne, Budget Manager
Preparer/Title


Thomas J. Durkin
Director, Finance

RECOMMENDATION:

To approve the FY2023 Final Capital Improvement Program with a total budget of \$278.5 million for FY2023 including \$230.0 million in project spending and \$48.5 million in community assistance.

DISCUSSION:

The Fiscal Year 2023 Final Capital Improvement Program (CIP) represents an update to the program presented to the Board in January 2022. This budget includes the latest cost estimates and revised schedules that were the result of prioritizing the planned projects to support the MWRA’s core operations, and meet regulatory requirements.

The FY23 Final CIP projects \$278.5 million in spending for FY23, of which \$109.8 million supports Wastewater System Improvements, \$133.1 million supports Waterworks System Improvements, and \$35.7 million is for Business and Operations Support. The projects with significant spending include Local Water System Assistance Program, Inflow and Infiltration (I/I) Local Financial Assistance, Nut Island Odor Control and HVAC Improvements, Office Space Modifications at Deer Island and Chelsea, Waltham Water Pipeline Construction, and CP-3 Section 23, 24, 47 Rehabilitation.

Several upcoming projects have seen increases in cost estimates including the Western Aqueduct Supply Mains (WASM) 3 Rehab CP-2 (\$28 million), Deer Island Primary & Secondary Clarifier Rehab Phase 2 (\$20 million), Combined Heat & Power (\$19 million), and Eastern Seawall Construction (\$11 million).

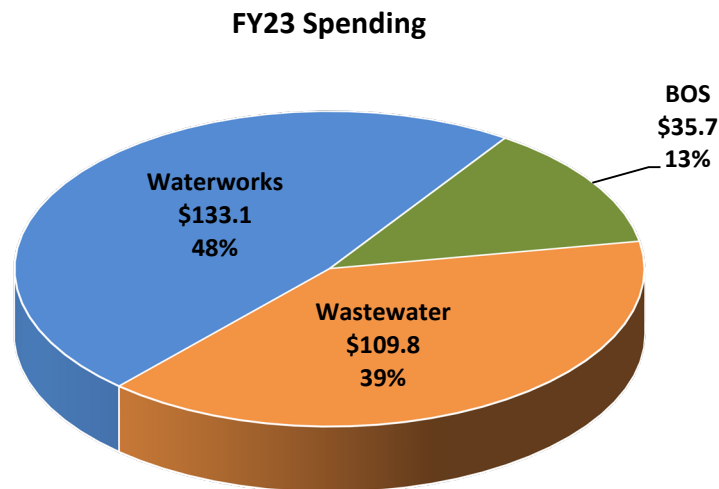
The CIP Program continues to address critical redundancy improvements for the Metropolitan Tunnel System. The FY23 Final CIP includes approximately \$1.5 billion in spending for this project, the same as in the FY23 Proposed budget. The initial contract for Program Support Services was awarded in March 2019 with a budget of \$17.5 million and spanning over a nine-year period. The second contract, Preliminary Design and MEPA Review (Massachusetts

Environmental Policy Act), for \$15.7 million was awarded in May 2020 with projected spending through FY24.

Today, the Authority is better positioned to reinvest in rehabilitation and replacement of aging facilities as a result of conservative fiscal management which includes judicious control of expenses, and the fact that MWRA has implemented the practice of utilizing available funds for defeasances resulting in the reduction of debt service expense. MWRA projects an overall reduction in outstanding principal of debt during the FY19-23 cap period.

FY23 Final CIP Spending

The FY23 Final Capital Improvement Program projects \$278.5 million spending for FY23, of which \$109.8 million supports Wastewater System Improvements, \$133.1 million supports Waterworks System Improvements, and \$35.7 million is for Business and Operations Support.



The FY23 Final CIP includes \$48.5 million for community assistance programs, which are a combination of loan and partial grant programs, with net expenditures of \$25.1 million for the local Infiltration/Inflow Program and net expenditures of \$23.4 million for the Local Water Pipeline Program.

The following table lists project contracts with projected FY23 spending greater than \$5.0 million, excluding local community assistance programs, totaling \$112.8 million and account for 40.5% of projected annual spending.

Project	Subphase	FY23 \$s in Millions
Corrosion & Odor Control	NI Odor Ctrl HVAC Improvements Construction Phase 2	\$16.1
DI Treatment Plant Asset Protection	Clarifier Rehabilitation Phase 2 - Construction	\$16.0
MWRA Facilities Management	Office Space Modifications	\$15.3
Metro Redundancy Interim Improvements	Waltham Water Pipeline Construction	\$14.5
New Connecting Mains-Shaft 7	CP3-Sect 23,24,47, Rehabilitation	\$12.2
Metro Redundancy Interim Improvements	WASM/SPSM West PRV Construction	\$7.9
NIH Redundancy & Storage	Section 89 & 29 Repl - Construction	\$7.6
Northern Extra High Service New Pipelines	CP-1 NEH Improvements	\$6.5
Central Monitoring System	CWTP SCADA Upgrade Construction	\$5.9
Facility Asset Protection	Ward St & Colum Pk Headworks Des/CA	\$5.6
Metro Redundancy Interim Improvements	WASM 3 CP-1	\$5.3
	Top Spending Subphases FY19-23	\$112.8
	% of FY23 Spending	40.5%
	Remaining FY19-23 Spending	\$165.7
	Total Projected FY19-23 Spending	\$278.5

Nut Island Odor Control and HVAC Improvements - Construction Phase 2 - \$16.1 million (\$60.6 million total construction cost). Improvements to the Nut Island Headworks odor control, HVAC and energy management systems. This contract began in February 2020. These are the long-term improvement projects that arose following the January 2016 fire, and the evaluation contract of the odor control, HVAC, and energy management completed in February 2017.

Clarifier Rehabilitation Phase 2 Construction - \$16.0 million (\$180.0 million total construction cost). This project will rehabilitate the sludge removal system in the primary tanks and the aeration/recirculation systems in the secondary tanks. The influent gates, effluent launders and aeration systems, and concrete corrosion in primary clarifiers will also be addressed and repaired. This contract is expected to be award in the Fall of 2022.

MWRA Facilities Management Office Space Modifications - \$15.3 million (\$15.3 million total construction cost). Office space reconfiguration required as MWRA leaves Charlestown for space at Deer Island and Chelsea facilities.

Waltham Water Pipeline Construction - \$14.5 million (\$27.6 million total construction cost). This contract will include installation of approximately 8,920 linear feet of new 36-inch diameter water main along Lexington Street in Waltham, from Meter 182 to a new meter near Totten Pond Road, including installation of valves, meters and other appurtenances, by-pass pumping, replacement of certain utilities, pavement restoration, traffic and environmental controls.

CP3 Sections 23, 24 and 47 Rehabilitation - \$12.2 million (\$24.2 million total construction cost). This contract includes cleaning and cement mortar lining approximately 4,500 linear feet of Section 23, which is a 36-inch diameter cast iron water main, 10,800 feet of 20-inch Section 24 and Section 47 cast iron water mains, and 500 feet of 20-inch steel water main along Section 24.

The construction work will also include installing, by open-cut, 3,600 feet of 36-inch ductile iron Section 23 water main, 6,400 feet of 24-inch ductile iron Section 24 water main, and new valves and appurtenances, and replacing the check valve assembly at Boston Meter 120. Additionally, the construction contract will include replacing approximately 2,400 linear feet of City of Newton 20-inch diameter, 140 year old cast iron water main on Ward Street between Manet Road and Waverly Avenue. This contract was awarded in October 2021.

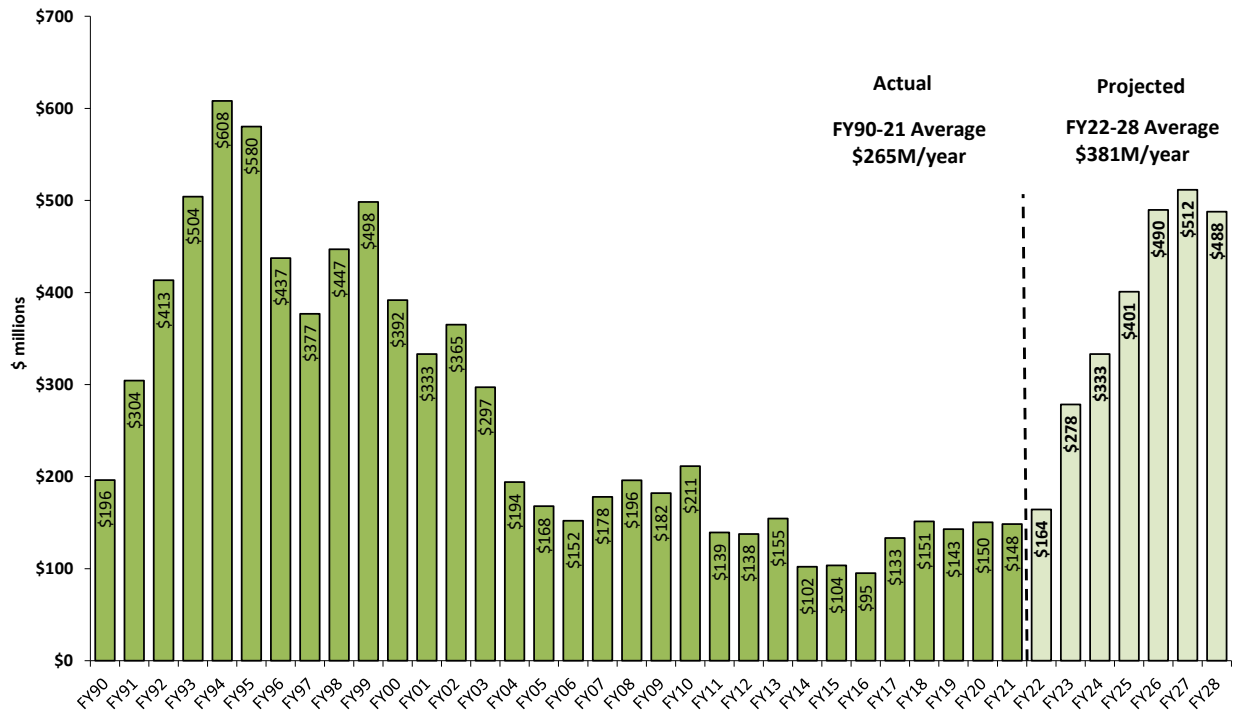
Western Aqueduct Supply Mains (WASM)/Spot Pond Supply Mains (SPSM) West Pressure Reducing Valve Construction - \$7.9 million (\$11.6 million total construction cost). The project will allow the Low Service system to be utilized to increase the supply to the Gillis Pump Station in Stoneham to avoid the need to pump out of the Spot Pond Reservoir in an emergency. The Low Service pipelines would be operated at grade lines consistent with WASM 3 grade line to push additional flow to the Gillis Pump Station in an emergency. Some Low Service revenue meters may require pressure reducing valves to lower pressures to communities along the way. In addition, PRV's on WASM 3/4 would also require replacement to maximize the supply to the north. This contract began in June 2021.

Northern Intermediate High Redundancy Section 89 and 29 Replacement Construction - \$7.6 million (\$32.6 million total construction cost). This is a redundancy project for MWRA's Northern Intermediate High service area. Section 89 will be replaced now that the redundant pipeline is completed. This contract was awarded in May 2021.

Historical and Projected Spending

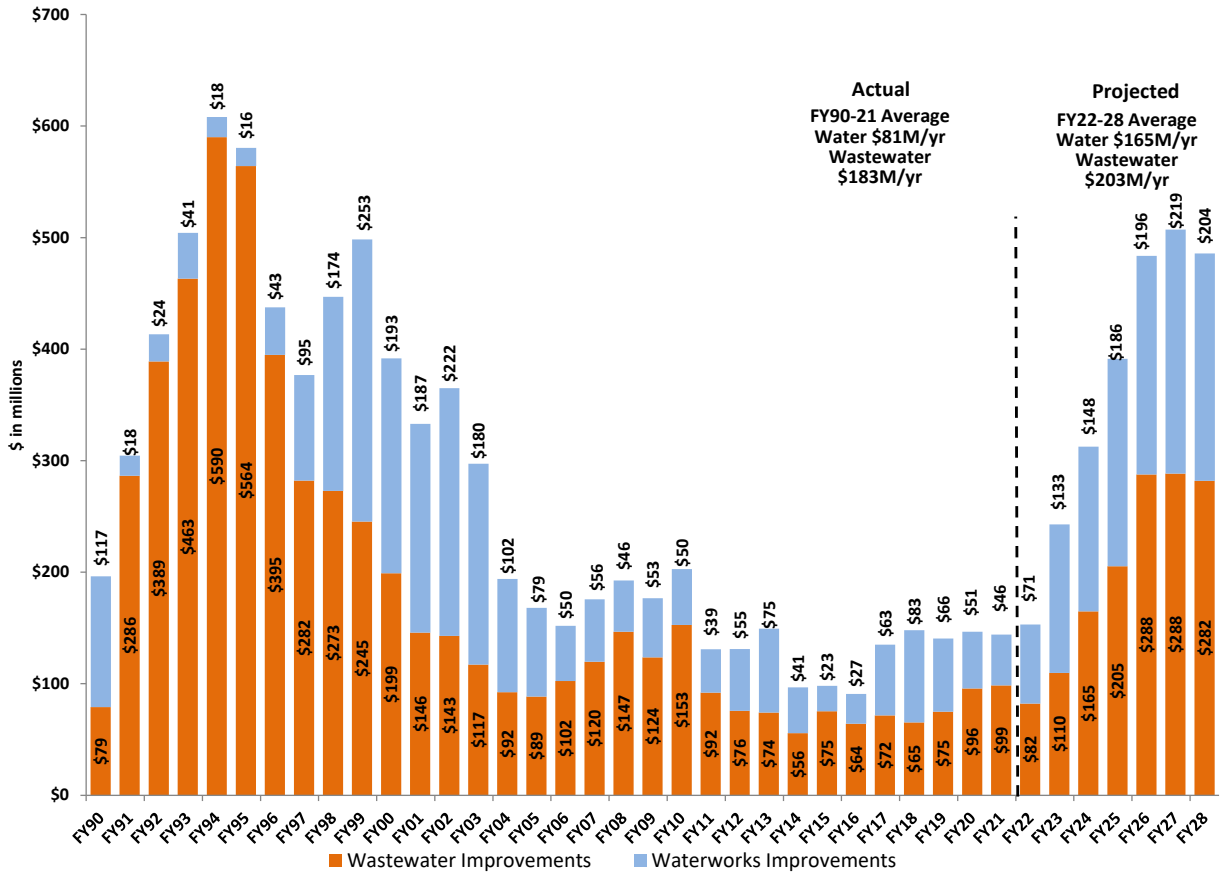
The following chart captures the historical CIP spending through FY21 and projects spending through FY28 based on the FY23 Final CIP. Average annual CIP spending through FY21 was \$265 million. Average annual CIP spending for the FY21-28 period is projected to be \$381 million.

Annual CIP Spending



The following chart shows the historical CIP spending from FY90 through FY21 by utility with projections through FY28. Average annual CIP spending through FY21 was \$81 million for Waterworks and \$183 million for Wastewater. Average annual CIP spending for the proposed FY21-28 period is projected to be \$165 million for Waterworks and \$203 million for Wastewater.

Annual CIP Spending by Utility



The spending projections set forth here include updates to FY23 Proposed CIP with the latest cost estimates, revised schedules, and new projects.

FY19-23 Expenditures & Five-Year Spending Cap

Spending during the FY19-23 timeframe is planned to be \$884.5 million, including local community spending of \$160.3 million for the I/I loan and grant program and \$68.4 million for the water pipeline loan program. Yearly projected expenditures for the FY19-23 Cap period by Division are shown below in millions:

	FY19	FY20	FY21	FY22	FY23	Total FY19-23
Wastewater System Improvements	\$74.8	\$95.7	\$98.6	\$82.2	\$109.8	\$461.1
Waterworks System Improvements	\$65.6	\$50.9	\$45.6	\$70.8	\$133.1	\$366.1
Business & Operations Support	\$2.4	\$3.7	\$4.2	\$11.3	\$35.7	\$57.3
Total MWRA	\$142.9	\$150.4	\$148.4	\$164.4	\$278.5	\$884.5

The FY19-23 cap cash flow totals \$672.6 million, \$312.3 million below the approved Cap of \$984.8 million and \$74.7 million under the FY23 Proposed Cap calculation. Annual cash flows for the proposed Cap period are shown below in millions:

FY23 Final		FY19	FY20	FY21	FY22	FY23	Total FY19-23
	Projected Expenditures	\$142.9	\$150.4	\$148.4	\$164.4	\$278.5	\$884.5
I/I Program	(39.6)	(33.7)	(31.3)	(30.6)	(25.1)	(160.3)	
Water Loan Program	(13.8)	(4.3)	(14.9)	(12.0)	(23.4)	(68.4)	
MWRA Spending	\$89.4	\$112.3	\$102.2	\$121.8	\$230.0	\$655.8	
Contingency	0.0	0.0	0.0	0.0	14.6	14.6	
Inflation on Unawarded Construction	0.0	0.0	0.0	0.0	2.2	2.2	
Chicopee Valley Aqueduct Projects	(0.0)	0.0	0.0	0.0	0.0	(0.0)	
FY23 Proposed FY19-23 Spending	\$89.4	\$112.3	\$102.2	\$121.8	\$246.8	\$672.6	

The format of the Cap table has changed to account separately for MWRA spending, which excludes the local I/I grant and loan program and the local water pipeline loan spending which are both outside of MWRA's control. As in past Caps, contingency for each fiscal year is incorporated into the CIP to fund the uncertainties inherent to construction. The contingency budget is calculated as a percentage of budgeted expenditure outlays. Specifically, contingency is 7% for non-tunnel projects and 15% for tunnel projects. Inflation is added for unawarded construction contracts. Finally, the Cap excludes Chicopee Valley Aqueduct system projects.

It is important to emphasize that the majority of spending within the Wastewater and Waterworks programs is concentrated in several larger projects with significant spending in the FY19-23 timeframe. Project contracts with expenditures greater than \$13 million for the FY19-23 timeframe total \$267.2 million, which excludes local community assistance programs, and accounts for slightly over 30% of total spending. Large initiatives include, Nut Island Odor Control HVAC Improvement at \$60.6 million (\$60.6 million total cost), Chelsea Creek Upgrades at \$52.6 million (\$84.1 million total cost), Clarifier Rehab at Deer Island \$16.0 million (\$180.0 million total cost), and Office Space Rehabilitation at \$15.3 million (\$15.3 million total cost).

The table below highlights major project spending in the FY19-23 timeframe:

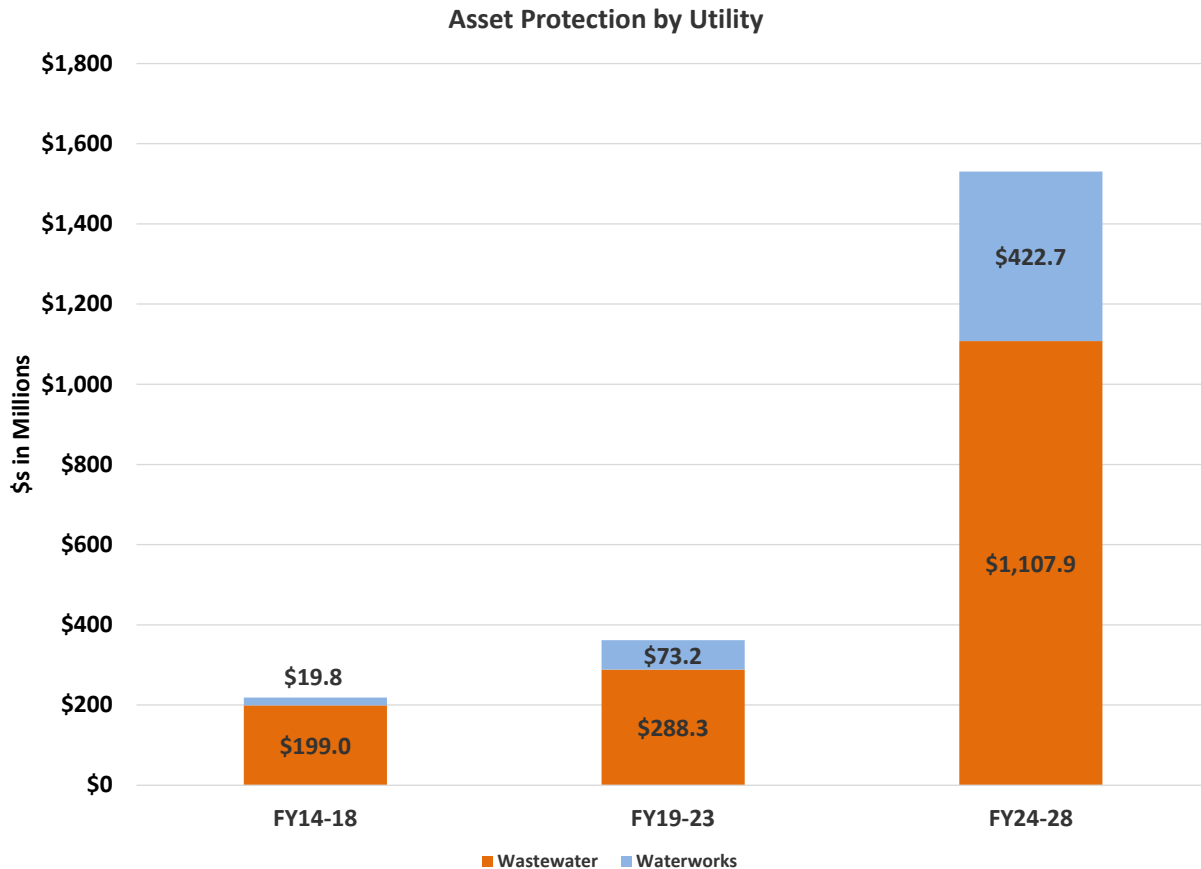
Project	Subphase	FY19-23 \$s in Millions
Corrosion & Odor Control	NI Odor Ctrl HVAC Imp Construction Phase 2	\$60.6
Facility Asset Protection	Chelsea Creek Upgrades - Construction	\$52.6
SEH Redundancy & Storage	Redundancy Pipeline Sect 111 - Construction 3	\$20.0
DI Treatment Plant Asset Protection	Gravity Thickener Rehabilitation	\$20.0
NIH Redundancy & Storage	Section 89 & 29 Redundancy Construction Phase 2	\$19.8
Metro Redundancy Interim Improvements	WASM 3 CP-1	\$19.3
DI Treatment Plant Asset Protection	Clarifier Rehab Phase 2 - Construction	\$16.0
MWRA Facilities Management	Office Space Modifications	\$15.3
New Connecting Mains-Shaft 7	CP3-Sect 23,24,47, Rehabilitation	\$15.3
Metro Redundancy Interim Improvements	Waltham Water Pipeline Construction	\$14.5
SEH Redundancy & Storage	Redundancy Pipeline Sect 111 - Construction 2	\$13.9
Top Spending Subphases FY19-23		\$267.2
% of FY19-23 Spending		30.2%
Remaining FY19-23 Spending		\$617.3
Total Projected FY19-23 Spending		\$884.5

Asset Protection accounts for the largest share of capital expenditures for the FY19-23 period. The FY23 Final CIP includes \$372.8 million for asset protection initiatives, representing 42.1% of total MWRA spending in the FY19-23 timeframe. Wastewater and Waterworks Asset Protection are \$288.3 million and \$73.2 million, respectively. Deer Island Treatment Plant Asset Protection alone accounts for \$84.6 million of Asset Protection spending. Spending for water system redundancy projects total \$201.3 million in the same FY19-23 period, accounting for 22.8% of projected spending.

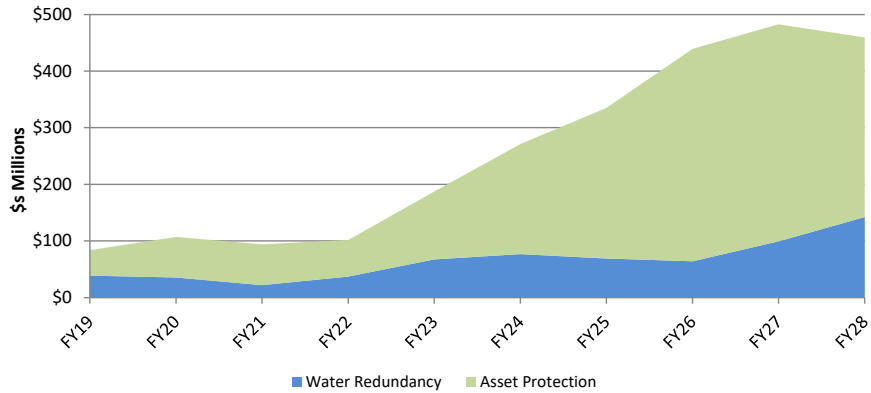
Changing Nature of the CIP by Category

Project Category	Total Contract	FY14-18	FY19-23	FY24-28
Asset Protection	\$3,447.7	\$222.8	\$372.8	\$1,535.2
Water Redundancy	\$3,208.7	\$174.6	\$201.3	\$452.0
CSO	\$890.8	\$64.7	\$12.3	\$0.8
Other	\$1,506.5	\$123.5	\$298.1	\$235.3
Total	\$9,053.7	\$585.6	\$884.5	\$2,223.3
Asset Protection	38.1%	38.0%	42.1%	69.1%
Water Redundancy	35.4%	29.8%	22.8%	20.3%
CSO	9.8%	11.0%	1.4%	0.0%
Other	16.6%	21.1%	33.7%	10.6%
Total	100.0%	100.0%	100.0%	100.0%

In terms of utility spending, wastewater asset protection accounts for nearly 33% of the FY19-23 projected spending at \$288.3 million of which \$84.6 million is designated for the Deer Island Wastewater Treatment Plant and \$203.7 million for headworks, pump stations, residuals facility, and pipelines. The \$73.2 million targeted for waterworks asset protection which includes \$36.6 million for water pipelines represents just over 8% of FY19-23 projected spending.



As illustrated in the following graph, the next two waves of spending over the FY19-23 period and the FY24-28 period will be for asset protection and water redundancy. This reflects MWRA’s commitment to maintaining its physical plant and addressing the need for water system redundancy in some critical service areas. Total asset protection spending for FY19-23 is projected at \$372.8 million or 42.1% of projected spending. Similarly, water redundancy spending for FY19-23 is projected at \$201.3 million or 22.8% of projected FY19-23 spending. For the FY24-28 spending window, total asset protection is projected at \$1.5 billion or 69.1% of projected spending. Similarly, water redundancy spending for FY24-28 is projected at \$452.0 million or 20.3% of projected FY24-28 spending.



New Projects

The FY23 budget cycle includes spending for 7 new projects totaling \$26.4 million with \$9.5 million designated for wastewater and \$16.9 million targeted for waterworks. Nearly all new project spending is expected in the FY24-28 timeframe. The two largest projects are Belle Island Sandcatcher and Carroll Water Treatment Plant Permanent Corrosion Control with projected spending of \$5.0 million and \$12.5 million, respectively. Some new project details and spending are presented in the table below. Additional new project details are available in Attachment C.

Project	Total Contract Amount	FY24-28 Spending
Belle Isle Sandcatcher Rehabilitation Design & Construction	\$5.0	\$4.9
Phase IV Fuel Oil Tank Replacement	\$1.5	\$1.5
Phase V Fuel Oil Tank Replacement	\$1.5	\$1.5
Somerville Marginal New Pipe Connection	\$1.3	\$1.3
Intermediate Pump Station Transformer Replacement	\$0.3	\$0.2
Total Wastewater	\$9.5	\$9.4
Interim Corrosion Control REI & Construction	\$4.4	\$4.4
Permanent Corrosion Control Design & REI & Construction	\$12.5	\$12.5
Total Waterworks	\$16.9	\$16.9
7 New Projects	\$26.4	\$26.3

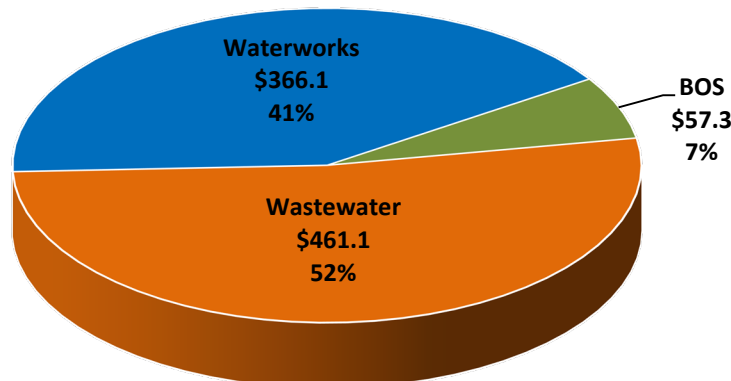
FY23 CIP Future Expenditures

The FY23 Final CIP contains future spending (beyond FY23) estimated at \$3.9 billion. The table below represents the projected spending by the major project categories:

	Future Spending Beyond FY21	FY19	FY20	FY21	FY22	FY23	Total FY19-23	Beyond 23
Wastewater System Improvements	\$1,823.0	\$74.8	\$95.7	\$98.6	\$82.2	\$109.8	\$461.1	\$1,631.0
Interception & Pumping	589.7	23.1	33.1	45.9	39.1	38.9	180.1	511.7
Treatment	1,035.2	10.0	14.2	17.6	7.7	43.1	92.7	984.4
Residuals	90.6	0.8	13.4	1.4	0.0	0.0	15.7	90.6
CSO	9.5	1.2	1.3	2.3	4.8	2.7	12.3	2.1
Other Wastewater	97.9	39.6	33.7	31.3	30.6	25.1	160.3	42.2
Waterworks System Improvements	\$2,425.4	\$65.6	\$50.9	\$45.6	\$70.8	\$133.1	\$366.1	\$2,221.5
Drinking Water Quality Improvements	78.3	0.8	1.5	1.6	4.8	4.1	12.8	69.5
Transmission	1,811.6	9.9	12.8	17.5	33.6	58.9	132.7	1,719.2
Distribution & Pumping	569.4	36.6	26.6	10.7	15.3	35.1	124.4	519.0
Other Waterworks	(34.0)	18.4	9.9	15.8	17.1	35.1	96.2	(86.2)
Business & Operations Support	\$89.9	\$2.4	\$3.7	\$4.2	\$11.3	\$35.7	\$57.3	\$42.9
Total MWRA	\$4,338.3	\$142.9	\$150.4	\$148.4	\$164.4	\$278.5	\$884.5	\$3,895.5

Spending over the FY19-23 period totals \$884.5 million with Wastewater projects accounting for \$461.1 million of total period spending or 52.1% and Waterworks planned spending following at \$366.1 million or 41.4%. Spending beyond FY23 totals \$3.9 billion, including \$1.6 billion for Wastewater projects and \$2.2 billion for Waterworks projects. Beyond FY23, spending is split between Redundancy and Asset Protection initiatives with projected spending of \$1.8 billion and \$2.1 billion, respectively. Beyond FY23 spending for the Metro Tunnel Redundancy project is estimated at \$1.5 billion. Redundancy project spending accelerates in the FY24-28 window.

FY19-23 Spending



Major Planned Contract Awards for FY23

In Fiscal Year 2023, 69 contracts totaling \$503.6 million are projected to be awarded. The largest ten projected contract awards total \$359.6 million and account for 71.5% of expected awards and are presented in the following table.

Project	Subphase	Notice to Proceed	Total Contract Amount \$s in Millions
DI Treatment Plant Asset Protection	Clarifier Rehab Phase 2 - Construction	Oct-22	\$180.0
Metro Redundacy Interim Improvements	WASM 3 Rehab CP-2	Jan-23	\$49.8
DI Treatment Plant Asset Protection	Fire Alarm System Replacement -	Mar-23	\$31.0
DI Treatment Plant Asset Protection	MCC & Switchgear Replacement	Oct-22	\$19.5
MWRA Facilities Management	Office Space Modifications	Aug-22	\$15.3
DI Treatment Plant Asset Protection	CHP Des/ESDC/REI	Jan-23	\$14.5
New Connecting Mains-Shaft 7	Sect 25 & 24 - Construction CP-2	Apr-23	\$14.2
Metro Tunnel Redundancy	Geotechnical Support Services	Dec-22	\$13.5
New Connecting Mains-Shaft 7	Section 75 Extension - Construction CP-1	May-23	\$12.1
Braintree-Weymouth Relief	B/W Improvements - Construction	Aug-22	\$10.0
Top 10 Planned Contract Awards			\$359.9
% of Total Planned Awards			71.5%
69 Planned Contract Awards			\$503.6

Of the 69 planned contract awards for FY23, 33 Wastewater 24 are for Waterworks, and 12 Business and Operation Services with associated dollar awards of \$345.9 million, \$127.6 million, and \$30.0 million, respectively. Deer Island's Clarifier Rehabilitation Phase 2 Construction is the largest planned award at \$180.0 million with a targeted notice to proceed of October 2022.

ATTACHMENTS:

- A. FY23 Project Level Expenditure Forecast
- B. Overview of the FY23 Final CIP and Changes from the FY22 Final CIP
- C. New Capital Projects

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
Total MWRA	9,053,707,598	4,715,382,655	4,338,324,943	164,369,899	278,485,151	884,475,401	2,223,252,837	1,672,217,025
Wastewater	4,153,423,923	2,330,409,091	1,823,014,828	82,224,925	109,752,157	461,069,061	1,228,234,045	402,803,685
Interception & Pumping	1,294,210,406	704,520,464	589,689,940	39,092,648	38,928,015	180,140,995	376,408,305	135,260,973
102 Quincy Pump Facilities Total	25,907,202	25,907,202	-			-	-	-
104 Braintree-Weymouth Relief Facilities Total	243,824,679	228,818,901	15,005,777	30,009	4,440,000	5,584,290	9,675,121	860,645
105 New Neponset Valley Relief Sewer Total	30,300,304	30,300,304	-			-	-	-
106 Wellesley Extension Replacement Sewer Total	64,358,543	64,358,543	-			-	-	-
107 Framingham Extension Relief Sewer Total	47,855,986	47,855,986	-			-	-	-
127 Cummingsville Replacement Sewer Total	8,998,768	8,998,768	-			-	-	-
130 Siphon Structure Rehabilitation Total	19,422,582	2,146,510	17,276,072	676,000	2,775,900	4,658,641	13,824,172	
131 Upper Neponset Valley Sewer System Total	54,174,077	54,174,077	-			-	-	-
132 Corrosion & Odor Control Total	101,976,988	31,272,866	70,704,122	23,545,056	17,588,563	66,226,543	28,694,718	875,785
136 West Roxbury Tunnel Total	11,313,573	10,313,573	1,000,000	-	-	-	1,000,000	-
137 Wastewater Central Monitoring Total	27,482,036	19,925,773	7,556,263	40,000	50,000	233,737	7,368,263	98,000
139 South System Relief Project Total	4,939,244	3,439,244	1,500,000	-	-	-	1,500,000	-
141 Wastewater Process Optimization Total	8,310,171	1,903,229	6,406,942	299,444	-	700,906	2,953,830	3,153,668
142 Wastewater Meter System - Equipment Replacement Total	21,029,908	8,538,679	12,491,230	3,332,369	32,521	6,179,200	-	9,126,341
143 Regional I/I Management & Planning Total	168,987	168,987	-			-	-	-

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
145 Facility Asset Protection Total	618,449,858	166,397,822	452,052,034	11,169,770	14,041,031	96,557,678	305,694,701	121,146,534
146 Deer Island Cross Harbor Tunnel Total	5,000,000	-	5,000,000	-	-	-	5,000,000	-
147 Randolph Trunk Sewer Relief Total	697,500	-	697,500	-	-	-	697,500	-
Treatment	1,378,266,149	343,052,748	1,035,213,397	7,679,486	43,106,508	92,681,957	730,848,236	253,579,168
182 Deer Island Primary and Secondary Treatment Total	(957,878)	(957,878)	-	-	-	-	-	-
200 Deer Island Plant Optimization Total	33,278,598	33,278,598	-	-	-	-	-	-
206 Deer Island Treatment Plant Asset Protection Total	1,308,808,739	292,370,599	1,016,438,137	6,533,915	38,086,508	84,631,586	718,989,446	252,828,268
210 Clinton Wastewater Treatment Plant Total	34,925,016	16,149,755	18,775,260	1,145,571	5,020,000	8,050,371	11,858,790	750,900
211 Laboratory Services Total	2,211,674	2,211,674	-	-	-	-	-	-
Residuals	171,338,027	80,694,984	90,643,043	13,862	-	15,661,823	8,986,093	81,643,088
261 Residuals Total	63,810,848	63,810,848	-	-	-	-	-	-
271 Residuals Asset Protection Total	107,527,179	16,884,136	90,643,043	13,862	-	15,661,823	8,986,093	81,643,088
CSO	916,743,461	907,211,034	9,532,427	4,801,799	2,663,000	12,279,416	2,067,611	0
CSO MWRA Managed	436,194,311	433,534,310	2,660,000	0	1,400,000	1,400,000	1,260,000	0
339 North Dorchester Bay Total	221,509,794	221,509,793	-	-	-	-	-	-
347 East Boston Branch Sewer Relief Total	85,637,164	85,637,164	-	-	-	-	-	-
348 BOS019 Storage Conduit Total	14,287,581	14,287,581	-	-	-	-	-	-
349 Chelsea Trunk Sewer Total	31,179,319	29,779,320	1,400,000	-	1,400,000	1,400,000	-	-

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
350 Union Park Detention Treatment Facility Total	49,583,407	49,583,407	-			-	-	-
353 Upgrade Existing CSO Facilities Total	22,385,200	22,385,200	-			-	-	-
354 Hydraulic Relief Projects Total	3,554,549	2,294,549	1,260,000	-	-	-	1,260,000	-
355 MWR003 Gate & Siphon Total	4,424,220	4,424,219	-			-	-	-
357 Charles River CSO Controls Total	3,633,077	3,633,077	-			-	-	-
CSO Community Managed	423,780,127	421,026,785	2,753,341	2,753,324	0	3,763,053	0	0
340 Dorchester Bay Sewer Separation (Fox Point) Total	55,028,985	55,028,985	-			-	-	-
341 Dorchester Bay Sewer Separation (Commercial Point) Total	61,443,027	60,871,370	571,658	571,657	-	1,581,386	-	-
342 Neponset River Sewer Separation Total	2,491,747	2,491,747	-			-	-	-
343 Constitution Beach Sewer Separation Total	3,731,315	3,731,315	-			-	-	-
344 Stony Brook Sewer Separation Total	44,319,314	44,319,314	-			-	-	-
346 Cambridge Sewer Separation Total	104,552,056	104,552,054	-			-	-	-
351 BWSC Floatables Controls Total	945,936	945,936	-			-	-	-
352 Cambridge Floatables Controls Total	1,126,708	1,126,708	-			-	-	-
356 Fort Point Channel Sewer Separation Total	11,507,257	11,507,256	-			-	-	-
358 Morrissey Boulevard Drain Total	32,181,036	32,181,034	-			-	-	-
359 Reserved Channel Sewer Separation Total	70,524,212	70,524,205	-			-	-	-
360 Brookline Sewer Separation Total	24,715,291	24,715,291	-			-	-	-
361 Bulfinch Triangle Sewer Separation Total	9,031,576	9,031,575	-			-	-	-

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
362 East Boston CSO Control Total	2,181,667	-	2,181,667	2,181,667	-	2,181,667	-	-
CSO Planning & Support	56,769,023	52,649,939	4,119,086	2,048,475	1,263,000	7,116,363	807,611	0
324 CSO Support Total	56,769,023	52,649,939	4,119,086	2,048,475	1,263,000	7,116,363	807,611	-
Other Wastewater	392,865,880	294,929,861	97,936,021	30,637,130	25,054,634	160,304,870	109,923,800	(67,679,544)
128 I/I Local Financial Assistance Total	392,585,004	294,648,985	97,936,021	30,637,130	25,054,634	160,304,870	109,923,800	(67,679,544)
138 Sewerage System Mapping Upgrades Total	280,876	280,876	-			-	-	-
Waterworks	4,698,981,860	2,273,591,850	2,425,389,999	70,825,251	133,078,739	366,080,583	952,072,663	1,269,413,340
Drinking Water Quality Improvements	732,200,449	653,893,486	78,306,953	4,794,055	4,059,950	12,775,120	41,181,947	28,271,000
542 Carroll Water Treatment Plant (CWTP) Total	442,141,035	426,191,923	15,949,112	3,251,568	1,243,716	7,570,785	11,453,827	-
543 Quabbin Water Treatment Plant Total	19,972,883	19,972,879	-			-	-	-
544 Norumbega Covered Storage Facility Total	106,674,147	106,674,146	-			-	-	-
545 Blue Hills Covered Storage Total	40,082,837	40,082,837	-			-	-	-
550 Spot Pond Covered Storage Facility Total	60,126,092	60,126,087	-			-	-	-
555 Carroll Water Treatment Plant (CWTP) Asset Protection Total	63,203,455	845,614	62,357,841	1,542,487	2,816,234	5,204,335	29,728,120	28,271,000
Transmission	2,677,079,742	865,448,013	1,811,631,728	33,564,254	58,883,061	132,695,058	379,131,838	1,340,052,575
597 Winsor Station Pipeline Total	59,086,679	5,937,805	53,148,875	1,693,003	46,001	1,942,924	50,757,371	652,500
601 Sluice Gate Rehabilitation Total	9,158,411	9,158,411	-			-	-	-
604 MetroWest Tunnel Total	700,184,178	697,182,356	3,001,823	-	-	-	3,001,822	-

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
615 Chicopee Valley Aqueduct Redundancy Total	8,666,292	8,666,291	-			-	-	-
616 Quabbin Transmission System Total	24,125,656	9,363,976	14,761,680	1,086,523	8,136,044	9,919,700	5,489,113	50,000
617 Sudbury/Weston Aqueduct Repairs Total	12,814,780	4,122,756	8,692,024	747,392	-	2,638,420	7,277,632	667,000
620 Wachusett Reservoir Spillway Improvements Total	9,287,460	9,287,460	-			-	-	-
621 Watershed Land Total	29,000,000	26,546,900	2,453,100	1,027,999	1,425,101	6,153,600	-	-
622 Cosgrove Tunnel Redundancy Total	58,618,586	58,618,586	-			6,600,691	-	-
623 Dam Projects Total	8,322,800	3,459,582	4,863,218	226,141	202,600	772,577	4,434,477	-
625 Metropolitan Tunnel Redundancy Total	1,557,718,409	8,801,114	1,548,917,294	10,615,273	9,770,000	25,730,420	196,708,946	1,331,823,075
628 Metropolitan Redundancy Interim Improvements Total	176,731,402	23,183,409	153,547,992	16,615,392	35,178,315	72,139,828	99,154,286	2,600,000
630 Watershed Division Capital Improvements Total	23,365,089	1,119,367	22,245,722	1,552,531	4,125,000	6,796,898	12,308,191	4,260,000

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
Distribution And Pumping	1,107,746,284	538,299,911	569,446,374	15,349,438	35,074,111	124,365,968	439,344,478	79,678,347
618 Peabody Pipeline Project Total	1,447,968	1,447,967	-			388,886	-	-
677 Valve Replacement Total	22,635,349	12,016,378	10,618,971	5	-	5	6,747,302	3,871,664
678 Boston Low Service - Pipe & Valve Rehabilitation Total	23,690,863	23,690,863	-			-	-	-
683 Heath Hill Road Pipe Replacement Total	19,358,036	19,358,036	-			-	-	-
689 James L. Gillis Pump Station Rehabilitation Total	33,419,007	33,419,008	-			-	-	-
692 Northern High Service (NHS) - Section 27 Improvements Total	2,163,779	123,646	2,040,133	19,443	8,063	27,506	2,012,627	-
693 NHS - Revere & Malden Pipeline Improvements Total	84,861,372	32,707,408	52,153,964	1,189,194	1,723,043	7,058,337	46,589,849	2,651,879
702 New Connecting Mains - Shaft 7 to WASM 3 Total	88,293,121	15,041,836	73,251,285	4,550,750	14,010,975	20,678,947	54,689,559	-
704 Rehab of Other Pump Stations Total	51,572,308	30,090,462	21,481,846	-	-	32,610	19,499,501	1,982,345
706 NHS - Connecting Mains from Section 91 Total	2,360,194	2,360,194	-			-	-	-
708 Northern Extra High Service (NEH) - New Pipelines Total	51,303,918	3,775,595	47,528,324	3,047,721	7,703,520	10,894,717	36,437,000	340,082
712 Cathodic Protection Of Distribution Mains Total	39,284,412	1,160,129	38,124,283	-	2,531,000	3,421,500	34,769,036	824,247
713 Spot Pond Supply Mains Rehabilitation Total	66,696,809	65,492,909	1,203,900	314,900	89,000	407,500	800,000	-
714 Southern Extra High Sections 41 & 42 Total	3,657,244	3,657,244	-			-	-	-
719 Chestnut Hill Connecting Mains Total	43,503,992	18,286,518	25,217,474	-	-	-	24,940,633	276,841
720 Warren Cottage Line Rehabilitation Total	1,204,821	1,204,821	-			-	-	-
721 Southern Spine Distribution Mains Total	104,191,439	38,201,537	65,989,902	443,190	323,635	2,285,260	64,515,391	707,686
722 Northern Intermediate High (NIH) Redundancy & Storage Tot	141,220,655	74,440,899	66,779,756	4,758,793	8,533,990	38,838,527	53,486,972	-

**ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level**

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
723 Northern Low Service Rehabilitation - Section 8 Total	69,346,263	5,591,574	63,754,689	338,908	12,513	2,988,380	62,174,155	1,229,115
725 Hydraulic Model Update Total	598,358	598,358	-			-	-	-
727 Southern Extra High (SEH) Redundancy & Storage Total	146,425,455	64,963,699	81,461,757	685,409	83,000	37,287,296	19,967,990	60,725,358
730 Weston Aqueduct Supply Mains (WASM) Total	80,457,224	80,402,977	54,247	-	54,247	54,247	-	-
731 Lynnfield Pipeline Total	5,625,829	5,625,828	-			-	-	-
732 Walnut St. & Fisher Hill Pipeline Rehabilitation Total	2,717,141	2,717,141	-			-	-	-
735 Section 80 Rehabilitation Total	21,710,727	1,924,884	19,785,843	1,125	1,125	2,250	12,714,463	7,069,130
Other Waterworks	181,955,385	215,950,445	(33,995,058)	17,117,504	35,061,617	96,244,438	92,414,400	(178,588,583)
753 Central Monitoring System Total	43,156,733	22,364,406	20,792,327	3,964,747	6,887,373	12,511,950	9,940,206	-
763 Distribution Systems Facilities Mapping Total	3,087,386	1,036,368	2,051,018	360,238	288,467	648,705	1,402,313	-
764 Local Water Infrastructure Rehab Total	7,487,762	7,487,762	-			-	-	-
765 Local Water System Assistance Program Total	-	173,296,889	(173,296,888)	11,959,581	23,407,570	68,390,828	1,530,621	(210,194,662)
766 Waterworks Facility Asset Protection Total	128,223,504	11,765,020	116,458,485	832,938	4,478,207	14,692,955	79,541,260	31,606,079

ATTACHMENT A
FY23 Final CIP
Expenditure Forecast at Project Level

Program / Project / Contract	Total Contract Amount	Payments through FY21	Remaining Balance	FY22	FY23	FY19-FY23	FY24-FY28	Beyond FY28
Business & Operations Support	201,301,830	111,381,714	89,920,116	11,319,725	35,654,256	57,325,758	42,946,130	0
881 Equipment Purchase Total	42,357,367	25,290,690	17,066,677	2,875,881	3,660,600	9,970,261	10,530,194	-
925 Technical Assistance Total	1,300,000	-	1,300,000	433,000	432,000	865,000	435,000	-
930 MWRA Facility - Chelsea Total	9,812,071	9,812,071	-			-	-	-
931 Business Systems Plan Total	24,562,104	24,562,104	-	-	-	(500)	-	-
932 Environmental Remediation Total	1,478,602	1,478,602	-			-	-	-
933 Capital Maintenance Planning/Development Total	28,764,059	18,704,199	10,059,860	3,720,857	2,193,483	10,417,877	4,145,520	-
934 MWRA Facilities Management & Planning Total	18,375,285	370,533	18,004,752	2,330	15,304,750	15,307,080	2,697,672	-
935 Alternative Energy Initiatives Total	26,183,717	18,183,712	8,000,004	-	-	(233,852)	8,000,000	-
940 Applications Improvements Program Total	21,458,670	3,792,308	17,666,361	2,161,095	4,999,001	8,060,274	10,506,266	-
942 Information Security Program (ISP) Total	8,427,814	2,337,653	6,090,161	557,097	1,502,973	2,689,818	4,030,092	-
944 Information Technology Management Program Total	1,566	1,566	-	-	-	1,566		-
946 IT Infrastructure Program Total	18,580,577	6,848,277	11,732,300	1,569,464	7,561,449	10,248,234	2,601,386	-

ATTACHMENT B
Overview of the FY23 Final CIP and Changes from the FY22 Final CIP

Program and Project	FY22 Final			
	Total Budget Amount	FY19-23	FY24-28	Beyond 28
Total MWRA	8,622,863	986,483	2,005,231	1,357,392
Wastewater	3,948,852	573,167	1,150,131	164,234
Interception & Pumping	1,254,100	233,562	342,826	75,312
102 Quincy Pump Facilities	25,907	-	-	-
104 Braintree-Weymouth Relief Facilities	242,386	10,080	4,601	-
105 New Neponset Valley Relief Sewer	30,300	-	-	-
106 Wellesley Extension Replacement Sewer	64,359	-	-	-
107 Framingham Extension Relief Sewer	47,856	-	-	-
127 Cummingsville Replacement Sewer	8,999	-	-	-
130 Siphon Structure Rehabilitation	19,023	8,513	9,570	-
131 Upper Neponset Valley Sewer	54,174	-	-	-
132 Corrosion & Odor Control	100,175	64,414	28,741	840
136 West Roxbury Tunnel	11,314	-	1,000	-
137 Wastewater Central Monitoring	27,482	747	6,953	-
139 South System Relief Project	4,939	-	1,500	-
141 Wastewater Process Optimization	8,310	701	4,531	1,577
142 Wastewater Meter System-Equipment	21,938	7,087	-	9,126
143 Regional I/I Management Planning	169	-	-	-
145 Facility Asset Protection	581,071	142,020	280,232	63,769
146 D.I. Cross Harbor Tunnel Inspection	5,000	-	5,000	-
147 Randolph Trunk Sewer Relief	698	-	698	-
Treatment	1,218,236	154,000	672,878	90,200
182 DI Primary and Secondary	(958)	-	-	-
200 DI Plant Optimization	33,279	-	-	-
206 DI Treatment Plant Asset Protection	1,150,209	145,502	662,147	90,201
210 Clinton Wastewater Treat Plant	33,494	8,498	10,731	-
211 Laboratory Services	2,212	-	-	-
Residuals	170,503	16,616	23,114	65,726
261 Residuals	63,811	-	-	-
271 Residuals Asset Protection	106,692	16,616	23,114	65,726

Total Budget Amount	FY23 Final		
	FY19-23	FY24-28	Beyond 28
9,053,709	884,477	2,223,255	1,672,220
4,153,426	461,069	1,228,234	402,803
1,294,212	180,142	376,409	135,262
25,907	-	-	-
243,825	5,584	9,675	861
30,300	-	-	-
64,359	-	-	-
47,856	-	-	-
8,999	-	-	-
19,423	4,659	13,824	-
54,174	-	-	-
101,977	66,227	28,695	876
11,314	-	1,000	-
27,482	234	7,368	98
4,939	-	1,500	-
8,310	701	2,954	3,154
21,030	6,179	-	9,126
169	-	-	-
618,450	96,558	305,695	121,147
5,000	-	5,000	-
698	-	698	-
1,378,267	92,682	730,848	253,578
(958)	-	-	-
33,279	-	-	-
1,308,809	84,632	718,989	252,828
34,925	8,050	11,859	751
2,212	-	-	-
171,338	15,662	8,986	81,643
63,811	-	-	-
107,527	15,662	8,986	81,643

Total Budget Amount	Change from Final FY22		
	FY19-23	FY24-28	Beyond 28
430,844	(102,007)	218,025	314,825
204,574	(112,098)	78,103	238,569
40,112	(53,420)	33,583	59,950
-	-	-	-
1,439	(4,496)	5,074	861
-	-	-	-
-	-	-	-
-	-	-	-
400	(3,854)	4,254	-
-	-	-	-
1,802	1,813	(46)	36
-	-	-	-
-	(513)	415	98
-	-	-	-
-	-	(1,577)	1,577
(908)	(908)	-	-
-	-	-	-
37,379	(45,462)	25,463	57,378
-	-	-	-
-	-	-	-
160,031	(61,318)	57,970	163,378
-	-	-	-
-	-	-	-
158,600	(60,870)	56,842	162,627
1,431	(448)	1,128	751
-	-	-	-
835	(954)	(14,128)	15,917
-	-	-	-
835	(954)	(14,128)	15,917

ATTACHMENT B
Overview of the FY23 Final CIP and Changes from the FY22 Final CIP

Program and Project	FY22 Final				FY23 Final				Change from Final FY22			
	Total Budget Amount	FY19-23	FY24-28	Beyond 28	Total Budget Amount	FY19-23	FY24-28	Beyond 28	Total Budget Amount	FY19-23	FY24-28	Beyond 28
CSO	913,147	10,606	143	-	916,743	12,278	2,067	-	3,596	1,672	1,924	-
324 CSO Support	55,210	6,221	144	-	56,769	7,116	808	-	1,559	895	664	-
339 North Dorchester Bay	221,510	-	-	-	221,510	-	-	-	-	-	-	-
340 Dorchester Bay Sewer Separation (Fox Point)	55,029	-	-	-	55,029	-	-	-	-	-	-	-
341 Dorchester Bay Sewer Separation (Commercial Point)	61,443	1,581	-	-	61,443	1,581	-	-	-	-	-	-
342 Neponset River Sewer Separation	2,492	-	-	-	2,492	-	-	-	-	-	-	-
343 Constitution Beach Sewer Separation	3,731	-	-	-	3,731	-	-	-	-	-	-	-
344 Stony Brook Sewer Separation	44,319	-	-	-	44,319	-	-	-	-	-	-	-
346 Cambridge Sewer Separation	104,552	-	-	-	104,552	-	-	-	-	-	-	-
347 East Boston Branch Sewer Relief	85,637	-	-	-	85,637	-	-	-	-	-	-	-
348 BOS019 Storage Conduit	14,288	-	-	-	14,288	-	-	-	-	-	-	-
349 Chelsea Trunk Sewer	30,402	623	-	-	31,179	1,400	-	-	777	777	-	-
350 Union Park Detention Treatment Facility	49,583	-	-	-	49,583	-	-	-	-	-	-	-
351 BWSC Floatables Controls	946	-	-	-	946	-	-	-	-	-	-	-
352 Cambridge Floatables Control	1,127	-	-	-	1,127	-	-	-	-	-	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-	22,385	-	-	-	-	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-	3,555	-	1,260	-	1,260	-	1,260	-
355 MWR003 Gate & Siphon	4,424	-	-	-	4,424	-	-	-	-	-	-	-
356 Fort Point Channel Sewer Separation	11,507	-	-	-	11,507	-	-	-	-	-	-	-
357 Charles River CSO Controls	3,633	-	-	-	3,633	-	-	-	-	-	-	-
358 Morrissey Boulevard Drain	32,181	-	-	-	32,181	-	-	-	-	-	-	-
359 Reserved Channel Sewer Separation	70,524	-	-	-	70,524	-	-	-	-	-	-	-
360 Brookline Sewer Separation	24,715	-	-	-	24,715	-	-	-	-	-	-	-
361 Bulfinch Triangle Sewer Separation	9,032	-	-	-	9,032	-	-	-	-	-	-	-
362 East Boston CSO Control	2,182	2,182	-	-	2,182	2,182	-	-	-	-	-	-
Other Wastewater	392,866	158,383	111,170	(67,004)	392,866	160,305	109,924	(67,680)	-	1,922	(1,246)	(676)
128 I/I Local Financial Assistance	392,585	158,383	111,170	(67,004)	392,585	160,305	109,924	(67,680)	-	1,922	(1,246)	(676)
138 Sewerage System Mapping Upgrade	281	-	-	-	281	-	-	-	-	-	-	-
Total Waterworks	4,493,700	359,949	829,185	1,193,161	4,698,980	366,083	952,075	1,269,417	205,280	6,134	122,890	76,256
Drinking Water Quality	709,234	13,527	17,464	28,271	732,200	12,775	41,182	28,271	22,966	(752)	23,718	-
542 Carroll Water Treatment Plant	438,843	6,477	9,250	-	442,141	7,571	11,454	-	3,298	1,094	2,204	-
543 Quabbin Water Treatment Plant	19,973	-	-	-	19,973	-	-	-	-	-	-	-
544 Norumbega Covered Storage	106,674	-	-	-	106,674	-	-	-	-	-	-	-
545 Blue Hills Covered Storage	40,083	-	-	-	40,083	-	-	-	-	-	-	-
550 Spot Pond Storage Facility	60,126	-	-	-	60,126	-	-	-	-	-	-	-
555 CWTP Asset Protection	43,535	7,050	8,214	28,271	63,203	5,204	29,728	28,271	19,668	(1,846)	21,514	-

ATTACHMENT B
Overview of the FY23 Final CIP and Changes from the FY22 Final CIP

Program and Project	FY22 Final				FY23 Final				Change from Final FY22			
	Total Budget Amount	FY19-23	FY24-28	Beyond 28	Total Budget Amount	FY19-23	FY24-28	Beyond 28	Total Budget Amount	FY19-23	FY24-28	Beyond 28
Transmission	2,562,768	128,934	321,699	1,286,941	2,677,081	132,698	379,133	1,340,055	114,313	3,764	57,434	53,114
597 Winsor Station Pipeline	52,770	993	45,391	653	59,087	1,943	50,757	653	6,317	950	5,366	-
601 Sluice Gate Rehabilitation	9,158	-	-	-	9,158	-	-	-	-	-	-	-
604 MetroWest Tunnel	700,184	-	3,002	-	700,184	-	3,002	-	-	-	-	-
615 Chicopee Valley Aqueduct Redundancy	8,666	-	-	-	8,666	-	-	-	-	-	-	-
616 Quabbin Transmission System	21,598	9,009	3,897	25	24,126	9,920	5,489	50	2,528	911	1,592	25
617 Sudbury/Weston Aqueduct Repairs	12,958	2,804	7,255	667	12,815	2,638	7,278	667	(143)	(166)	23	-
620 Wachusett Reservoir Spillway Improvement	9,287	-	-	-	9,287	-	-	-	-	-	-	-
621 Watershed Land	29,000	6,154	-	-	29,000	6,154	-	-	-	-	-	-
622 Cosgrove/Wachusett Redundancy	58,628	6,610	-	-	58,619	6,601	-	-	(9)	(9)	-	-
623 Dam Projects	7,223	3,583	525	-	8,323	773	4,434	-	1,100	(2,810)	3,909	-
625 Metro Tunnel Redundancy	1,500,218	22,939	188,228	1,285,594	1,557,718	25,730	196,709	1,331,823	57,500	2,791	8,481	46,229
628 Metro Redundancy Interim Improvement	129,526	69,815	56,874	-	176,731	72,140	99,154	2,600	47,205	2,325	42,280	2,600
630 Watershed Division Capital Improvement	23,550	7,025	16,525	-	23,365	6,797	12,308	4,260	(185)	(228)	(4,217)	4,260
Distribution & Pumping	1,053,151	130,297	395,512	62,987	1,107,743	124,366	439,346	79,678	54,592	(5,931)	43,834	16,691
618 Peabody Pipeline	1,448	389	-	-	1,448	389	-	-	-	-	-	-
677 Valve Replacement	22,249	-	6,747	3,485	22,635	-	6,747	3,872	386	-	-	387
678 Boston Low Service-Pipe & Valve Rehabilitation	23,691	-	-	-	23,691	-	-	-	-	-	-	-
683 Heath Hill Road Pipe Replacement	19,358	-	-	-	19,358	-	-	-	-	-	-	-
689 James L. Gillis Pump Station Rehabilitation	33,419	-	-	-	33,419	-	-	-	-	-	-	-
692 NHS - Section 27 Improvements	1,665	28	1,514	-	2,164	28	2,013	-	499	-	499	-
693 NHS - Revere & Malden Pipeline Improvement	85,985	9,880	45,350	2,193	84,861	7,058	46,590	2,652	(1,124)	(2,822)	1,240	459
702 New Connect Mains-Shaft 7 to WASM 3	60,694	16,546	31,224	-	88,293	20,679	54,690	-	27,599	4,133	23,466	-
704 Rehabilitation of Other Pump Stations	51,290	780	20,453	-	51,572	33	19,500	1,982	282	(747)	(953)	1,982
706 NHS-Connecting Mains from Section 91	2,360	-	-	-	2,360	-	-	-	-	-	-	-
708 Northern Extra High Service New Pipelines	42,467	5,440	33,000	395	51,304	10,895	36,437	340	8,837	5,455	3,437	(55)
712 Cathodic Protection Of Distrubution Mains	61,586	4,815	56,502	-	39,284	3,422	34,769	824	(22,302)	(1,393)	(21,733)	824
713 Spot Pond Supply Mains Rehabilitation	66,534	545	500	-	66,697	408	800	-	163	(137)	300	-
714 Southern Extra High Sections 41 & 42	3,657	-	-	-	3,657	-	-	-	-	-	-	-
719 Chestnut Hill Connecting Mains	38,886	-	20,590	9	43,504	-	24,941	277	4,618	-	4,351	268
720 Warren Cottage Line Rehabilitation	1,205	-	-	-	1,205	-	-	-	-	-	-	-
721 South Spine Distribution Mains	89,798	2,587	50,302	226	104,191	2,285	64,515	708	14,393	(302)	14,213	482
722 NIH Redundancy & Storage	140,130	44,640	46,585	10	141,221	38,839	53,487	-	1,091	(5,801)	6,902	(10)
723 Northern Low Service Rehabilitation Section 8	60,834	5,901	51,290	688	69,346	2,988	62,174	1,229	8,512	(2,913)	10,884	541
724 Northern High Service - Pipeline Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-
725 Hydraulic Model Update	598	-	-	-	598	-	-	-	-	-	-	-
727 Southern Extra High Redundancy & Storage	140,513	37,951	18,136	55,981	146,425	37,287	19,968	60,725	5,912	(664)	1,832	4,744
730 Weston Aqueduct Supply Mains	80,457	54	-	-	80,457	54	-	-	-	-	-	-
731 Lynnfield Pipeline	5,626	-	-	-	5,626	-	-	-	-	-	-	-
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717	-	-	-	2,717	-	-	-	-	-	-	-

ATTACHMENT B
Overview of the FY23 Final CIP and Changes from the FY22 Final CIP

Program and Project	FY22 Final				FY23 Final				Change from Final FY22			
	Total Budget Amount	FY19-23	FY24-28	Beyond 28	Total Budget Amount	FY19-23	FY24-28	Beyond 28	Total Budget Amount	FY19-23	FY24-28	Beyond 28
733 NHS Pipeline Rehabilitation 13-18 & 48	-	-	-	-	-	-	-	-	-	-	-	-
734 Southern Extra High Pipelines-Sections 30, 39,40, & 44	-	-	-	-	-	-	-	-	-	-	-	-
735 Section 80 Rehabilitation	15,985	742	13,318	-	21,711	2	12,714	7,069	5,726	(740)	(604)	7,069
Other	168,547	87,191	94,510	(185,040)	181,956	96,244	92,414	(178,589)	13,409	9,053	(2,096)	6,451
753 Central Monitoring System	43,729	14,954	8,070	-	43,157	12,512	9,940	-	(572)	(2,442)	1,870	-
763 Distribution Systems Facilities Mapping	2,799	885	878	-	3,087	649	1,402	-	288	(236)	524	-
764 Local water infrastructure rehabilitation Assistance	7,488	-	-	-	7,488	-	-	-	-	-	-	-
765 Local Water Pipeline Improvement Loan Program	-	55,104	20,215	(215,592)	-	68,391	1,531	(210,195)	-	13,287	(18,684)	5,397
766 Waterworks Facility Asset Protection	114,531	16,249	65,347	30,552	128,224	14,693	79,541	31,606	13,693	(1,556)	14,194	1,054
Business & Operations Support	180,311	53,367	25,915	-	201,303	57,325	42,946	-	20,990	3,957	17,032	-
881 Equipment Purchase	41,106	10,092	9,157	-	42,357	9,970	10,530	-	1,251	(122)	1,373	-
925 Technical Assistance	1,350	899	451	-	1,300	865	435	-	(50)	(34)	(16)	-
930 MWRA Facility - Chelsea	9,812	-	-	-	9,812	-	-	-	-	-	-	-
931 Business Systems Plan	24,562	(1)	-	-	24,562	(1)	-	-	-	-	-	-
932 Environmental Remediation	1,479	-	-	-	1,479	-	-	-	-	-	-	-
933 Capital Maintenance Planning	26,869	12,669	-	-	28,764	10,418	4,146	-	1,895	(2,251)	4,146	-
934 MWRA Facilities Management	5,071	3,075	1,625	-	18,375	15,307	2,698	-	13,304	12,232	1,073	-
935 Alternative Energy Initiatives	23,684	(234)	5,500	-	26,184	(234)	8,000	-	2,500	-	2,500	-
940 Applicat Improv Program	20,227	11,417	5,918	-	21,459	8,060	10,506	-	1,232	(3,357)	4,588	-
942 Info Security Program ISP	7,976	4,568	1,700	-	8,428	2,690	4,030	-	452	(1,878)	2,330	-
944 Info Tech Mgmt Program	200	200	-	-	2	2	-	-	(198)	(198)	-	-
946 IT Infrastructure Program	17,977	10,683	1,563	-	18,581	10,248	2,601	-	604	(435)	1,038	-

**Attachment C
New Capital Projects Added to the FY23 CIP**

Program	Project	Subphase	Contract Number	Total Contract Amount	NTP	SC	FY23	FY24	FY25	FY26	FY27	FY28	FY24-28	Total Expenditures
Interception & Pumping	Facility Asset Protection	Belle Isle Sandcatcher Rehab Design/ESDC/REI	7989	\$ 1,000,000	Nov-22	Nov-26	\$ 104,166	\$ 250,000	\$ 250,000	\$ 250,000	\$ 145,834		\$ 895,834	\$ 1,000,000
Interception & Pumping	Facility Asset Protection	Belle Isle Sandcatcher Rehabilitation	7988	\$ 4,000,000	Jan-23	Jul-24		\$ 3,000,000	\$ 1,000,000				\$ 4,000,000	\$ 4,000,000
Interception & Pumping	Facility Asset Protection	Fuel Oil Tank Replacement - Phase 4 Construction	7986	\$ 1,500,000	Jul-24	Dec-25			\$ 750,000	\$ 750,000			\$ 1,500,000	\$ 1,500,000
Interception & Pumping	Facility Asset Protection	Fuel Oil Tank Replacement - Phase 5 Construction	7987	\$ 1,500,000	Jan-26	Jun-27				\$ 750,000	\$ 750,000		\$ 1,500,000	\$ 1,500,000
CSO MWRA Managed	Hydraulic Relief Projects	Somerville Marginal New Pipe Connection	7985	\$ 1,260,000	Jul-23	Jan-24		\$ 1,260,000					\$ 1,260,000	\$ 1,260,000
Interception & Pumping	Braintree-Weymouth Relief	Intermediate Pump Station Transformer Replacement	7995	\$ 250,000	Jul-22	Dec-23	\$ 50,000	\$ 200,000					\$ 200,000	\$ 250,000
Drinking Water Quality Improvements	CWTP Asset Protection	Interim Corrosion Control Construction	7999	4,000,000	Sep-23	Mar-25		1,555,554	2,444,446				\$ 4,000,000	\$ 4,000,000
Drinking Water Quality Improvements	CWTP Asset Protection	Interim Corrosion Control REI	8000	400,000	Sep-23	Mar-25		155,554	244,446				\$ 400,000	\$ 400,000
Drinking Water Quality Improvements	CWTP Asset Protection	Permanent Corrosion Control Design	8001	2,000,000	Sep-23	Mar-27		333,333	571,428	571,428	523,811		\$ 2,000,000	\$ 2,000,000

**Attachment C
New Capital Projects Added to the FY23 CIP**

Program	Project	Subphase	Contract Number	Total Contract Amount	NTP	SC	FY23	FY24	FY25	FY26	FY27	FY28	FY24-28	Total Expenditures
Drinking Water Quality Improvements	CWTP Asset Protection	Permanent Corrosion Control Construction	8002	10,000,000	Sep-24	Sep-26			2,916,662	4,999,992	2,083,346		\$ 10,000,000	\$ 10,000,000
Drinking Water Quality Improvements	CWTP Asset Protection	Permanent Corrosion Control REI	8003	500,000	Sep-24	Sep-26			145,831	249,996	104,173		\$ 500,000	\$ 500,000
SUMMARY:														
Total Wastewater Projects				\$ 9,510,000			\$ 154,166	\$ 4,710,000	\$ 2,000,000	\$ 1,750,000	\$ 895,834	\$ -	\$ 9,355,834	\$ 9,510,000
Total Water Projects				\$ 16,900,000			\$ -	\$ 2,044,441	\$ 6,322,813	\$ 5,821,416	\$ 2,711,330	\$ -	\$ 16,900,000	\$ 16,900,000
Total Projects				\$ 26,410,000			\$ 154,166	\$ 6,754,441	\$ 8,322,813	\$ 7,571,416	\$ 3,607,164	\$ -	\$ 26,255,834	\$ 26,410,000