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Appendix A

List of Recommendations

1. The Advisory Board recommends that the Phosphorus Removal Construction Project be placed on indefinite hold pending receipt of \$500 thousand toward the operations of the Clinton Wastewater Treatment Plant. ([Page 24](#))
2. The Advisory Board grants approval under Section 8 (d) of the MWRA's Enabling Act for the MWRA to provide water to the Commonwealth at its McLaughlin Fish Hatchery subject to the execution of a legally binding agreement between the Authority and the Commonwealth guaranteeing no less than \$2.5 million, as well as confirmation of the grant funding necessary to construct the hydropower turbine. ([Page 33](#))
3. The Advisory Board reverses its prior recommendation to remove the Hatchery Pipeline Project from the MWRA's Capital Improvement Program, subject to the terms of the prior recommendation. ([Page 33](#))
4. The Advisory Board recommends that the Authority identifies the causes for continued capital underspending and takes the steps necessary to bring capital spending closer to the baseline cap levels. ([Page 40](#))
5. The Advisory Board recommends that the rate revenue requirement for the FY16 Current Expense Budget be reduced by \$4,811,604, resulting in a 3.36% wholesale rate increase. ([Page 47](#))
6. The Advisory Board recommends that the \$6,663,030 CORE Fund deposit is removed from the final FY16 CEB. ([Page 53](#))
7. The Advisory Board recommends reducing the anticipated use of bond redemption funds by \$3,547,000. ([Page 53](#))
8. The Advisory Board recommends that the Authority adjusts its attrition/vacancy rate assumptions upward by the average value of three positions, for a reduction of \$300,000 (including associated fringe benefits). ([Page 58](#))
9. The Advisory Board recommends adding \$100,000 to fund additional personnel for the Toxic Reduction and Control (TRAC) department to begin preparation for issuing permits aimed at reducing molybdenum in the wastewater system ([Page 58](#), and [page 103](#))
10. In order to avoid triggering Operating Reserve Requirement related to Other Post-Employment Benefits (OPEB) contributions, the Advisory Board recommends that any strategy toward funding the OPEB liability be framed as the Authority's "approach" or "practice" rather than as a formally voted policy of the MWRA Board of Directors. ([Page 64-65](#))
11. The Advisory Board endorses designating the \$5,062,470 in the proposed FY16 CEB currently listed as "Post-Employment Benefits/Additional Pension Deposit" as an intended contribution toward the OPEB liability rather than as an additional pension payment. ([Page 65](#))
12. The Advisory Board recommends that the \$5,062,470 in the proposed FY16 CEB be deposited on the final day of FY 2016 to allow the Authority flexibility to use these funds for other purposes if deemed necessary. ([Page 65](#))
13. The Advisory Board recommends that the FY16 CEB be reduced by \$843,745 - the amount that had been budgeted in case OPEB contributions were found to trigger the Operating Reserve Requirement. ([Page 65](#))
14. The Advisory Board recommends that any future contributions to OPEB be no greater than 50% of the Actuarial Calculated Cost. ([Page 66](#))
15. The Advisory Board recommends that the Authority adopt the practice of depositing any funds intended as an OPEB contribution on the last day of the fiscal year in which they are intended to be deposited. ([Page 66](#))
16. The Advisory Board recommends that the Authority reduce the "additions to reserves" line item by \$207,404 FY16 to reflect reductions to applicable expenses as recommended by the Advisory Board (see Appendix C). ([Page 66](#))

Appendix A

17. The Advisory Board recommends that Department of Conservation and Recreation should pursue a "green" recertification of Division of Water Supply Protection lands through the Forest Stewardship Council. ([Page 68](#))
18. The Advisory Board recommends that the Division of Water Supply Protection make a formal presentation to the MWRA Board of Directors comparing the current status of the forestry program with the recommendations of the Quabbin Science and Technical Advisory Committee report to see what progress has been made. ([Page 68](#))
19. The Advisory Board recommends a reduction of \$58,000 to reflect a later start-up of the co-digestion pilot program until the last quarter of the fiscal year. ([Page 77](#), [Page 99](#))
20. The Advisory Board recommends that the Authority reduce the "other services" line item in the final FY16 CEB by \$5,425 consistent with the Advisory Board's final FY16 operating budget. ([Page 78](#))
21. The Advisory Board recommends that the Authority limit financial participation in the Mystic River Modeling Project to the amount committed to in the Joint Funding Agreement with USGS, and to revisit further contributions if and when the other collaborating entities secure funds for their portion of the project. ([Page 85](#))
22. The Advisory Board recommends a reduction of the Mystic River Modeling Project by \$116,000 in the final FY16 CEB. ([Page 85](#))
23. The Advisory Board supports the Authority's expected addition of \$435,000 in CEB spending and the estimated additional \$340,000 in CIP spending consistent with the additional contaminant monitoring needs. ([Page 89](#))
24. The Advisory Board recommends that Authority staff draft an informational staff summary and provide a detailed presentation to the full MWRA Board of Directors in July 2015 on the history and the significance of the issues at stake with regard to co-permittee language in the Deer Island NPDES permit. ([Page 96](#))
25. The Advisory Board recommends that the Authority join with the Advisory Board by actively pursuing NPDES delegation authority with the current administration. ([Page 97](#))
26. The Advisory Board recommends that the Authority put together a joint MWRA/Advisory Board working committee to review and identify areas where the Authority may be of assistance to the member communities in meeting the requirements of the MS4 General Permits, including but not necessarily limited to the public education and outreach requirements. ([Page 98](#))
27. The Advisory Board recommends that the Authority arrange a presentation to the MWRA Board of Directors from MassDEP on the status of the Organics Diversion Program. Additionally, the Advisory Board recommends that Authority staff then extrapolate from this information the viability of a market/supply for Deer Island should co-digestion be deemed viable. ([Page 99](#))
28. The Advisory Board recommends that the Authority convene a working group to develop an appropriate rate structure for Direct Source Water. Further that the recommendation of the working group be brought to the Operations Committee and full Advisory Board for a vote as a new admission policy for the MWRA. ([Page 100](#))
29. The Advisory Board recommends that a working group be convened to discuss a methodology for structuring Water Capacity Insurance to be offered to non-member communities, including members of the Advisory Board, as well as staff from both MWRA and the Advisory Board. Further, that the recommendation of this working group be brought to the Operations Committee and full Advisory Board for a vote as a new admission policy for the MWRA. ([Page 101](#))
30. The Advisory Board recommends that the Authority partner with the Advisory Board to take any and all actions necessary to ensure that 100% of the pellets from the Fore River Pelletization Plant are able to be placed within the Commonwealth year-round by FY 2017. ([Page 103](#))

Appendix A

31. The Advisory Board recommends that the Five-Year Strategic Business Plan makes more specific references throughout the list of initiatives to better help readers "crosswalk" between the Business Plan and more detailed backup such as the Orange Notebook. ([Page 105](#))

Appendix B

List of Comments

1. The Advisory Board supports the funds included in the proposed FY16 CIP to provide distributions to communities for Phase 9, Phase 10, and earlier phases as well. ([Page 28](#))
2. The Advisory Board supports the continued use of the defeasance account strategy, which clearly identifies a use of variable rate debt service savings that is consistent with the original intended use of the funds that were raised. ([Page 52](#))
3. The Advisory Board expects the Authority to reduce capital financing by an additional \$400,000 to reflect the spring 2015 defeasance transaction. ([Page 52](#))
4. The Advisory Board expects the Authority to increase the line item for State Revolving Fund (SRF) debt service by \$1,000,000 to reflect the updated amounts anticipated for FY16. ([Page 52](#))
5. The Advisory Board supports and endorses the recommendation of the Long-Term Rates Management Committee and subsequent vote of the MWRA Board of Directors for the intended use of the unencumbered released reserves including \$10 million as an initial deposit into the OPEB irrevocable trust. ([Page 55](#), [page 65](#))
6. The Advisory Board expects the Authority's health insurance costs to increase based on new data released this spring from the GIC. The Advisory Board estimates this increase to be \$350,000. ([Page 59](#))
7. The Advisory Board endorses the "virtual full funding" concept, which defines the pension as fully funded if the system's valuation is between 95% - 105% of the targeted funding level. ([Page 64](#))
8. The Advisory Board supports and endorses the MWRA Board of Directors' establishment of the irrevocable trust as presented at the April 2015 Board of Directors meeting. ([Page 64](#))
9. The Advisory Board expects that future contributions to the OPEB trust will not trigger the need for the one-sixth Operating Reserve Requirement, per the opinion of bond counsel. ([Page 64](#))
10. The Advisory Board supports the Authority's actions in making an \$800 thousand deposit into the OPEB irrevocable trust from the funds appropriated in a previous year for this purpose. ([Page 65](#))
11. The Advisory Board expects the Authority to decrease its FY16 CEB "utilities" line item. The Advisory Board's estimate of this reduction is \$1,600,000. ([Page 75](#))
12. The Advisory Board expects that the chemicals budget will be revised to reflect updated pricing and usage assumptions, including the reduction in fluoride dosing consistent with updated federal regulations. The Advisory Board estimates this to be a reduction of \$350,000. ([Page 81](#))
13. The Advisory Board agrees with the Authority's current belief that CSO/SSO discharges are not the primary cause of the Mystic River's water quality issues. ([Page 85](#))
14. The Advisory Board supports and endorses the increased staff training and participation in national groups and organizations provided there are checks and balances to ensure that there is no misuse of funds for these purposes, particularly with regard to out-of-state travel. ([Page 91](#))

Appendix C

Impact of Advisory Board Recommendations and Estimated Adjustments

IMPACTS ON RATE REVENUE REQUIREMENT		Amount
Projected FY2014 RRR	\$	628,721,003
Projected FY2015 RRR	\$	651,169,441
MWRA Proposed FY15 RRR Increase		3.57%
FY14 DSA "Pay it Forward" Recommendation	\$	(853,660)
Advisory Board Recommended FY15 RRR Increase		3.43%

IMPACTS ON EXPENDITURES	Amount	Description
MWRA ADVISORY BOARD RECOMMENDATIONS FOR FY15 CEB		
Chemicals (DITP NPDES permit)	\$ (650,000)	AB recommends no net change in chemicals for DITP NPDES permit in FY15
Staffing (vacancy rate assumptions)	\$ (300,000)	AB recommends increasing assumed vacancy rate by 3 positions; including associated benefits
Capitalization (Lab Equipment)	\$ (150,000)	AB recommends capitalizing \$150,000 lab equipment; move from CEB to CIP
Local Limits (reflect later start date)	\$ (125,000)	AB recommends assumption be reduced by 3 months; tied to DITP NPDES
Pellet Production (reduce by 1 ton)	\$ (99,000)	AB recommends tightening assumption based on historical averages
Deer Island Beach Erosion (reduce by)	\$ (50,000)	AB questions the need for this study in FY15
Subtotal AB Recommendations	\$ (1,374,000)	
ANTICIPATED ADJUSTMENTS TO PROPOSED FY15 CEB		
Defeasance of Debt Service (updated benefit)	\$ (501,000)	Updated defeasance benefit assumption for FY15
Professional Services (updated assumptions)	\$ (140,000)	Updated cost estimates for FY15
Fringe Benefits Costs (including GIC)	\$ (150,000)	Updated cost estimates for FY15
Watershed Reimbursement (DCR budget adjustment)	\$ (75,000)	Updated cost estimates for FY15
Maintenance (updated assumptions)	\$ (60,000)	Updated cost estimates for FY15
Advisory Board Operating Budget (updated)	\$ (5,800)	Updated cost estimates for FY15
Other Materials (updated assumptions)	\$ 16,500	Updated cost estimates for FY15
Utilities (updated assumptions)	\$ 125,000	Updated cost estimates for FY15
Subtotal Anticipated Adjustments	\$ (790,300)	
OPERATING RESERVE REQUIREMENT ADJUSTMENT		
Operating Reserve Requirement	\$ (264,717)	Updated based on applicable adjustments; does not apply to defeasance or Watershed adjustments
NET CHANGES TO FY15 CEB (Backed out of Rate Stabilization)	\$ (2,429,017)	AB recommends that all reductions in the proposed budget be backed out of the use of Rate Stabilization, preserving these funds for future budget challenges

Appendix D

	Total MWRA	FY14 Approved	FY15 Proposed	Change FY15 Proposed vs FY14 Approved Budget	
				\$	%
EXPENSES	Wages and Salaries	\$94,874,284	\$96,784,070	\$1,909,785	2.0%
	Overtime	3,580,025	3,620,600	40,575	1.1%
	Fringe Benefits	18,063,825	18,539,351	475,526	2.6%
	Workers' Compensation	2,000,000	2,200,000	200,000	10.0%
	Chemicals	10,671,225	10,667,110	(4,116)	0.0%
	Energy and Utilities	22,760,588	23,350,688	590,100	2.6%
	Maintenance	27,761,580	28,036,396	274,816	1.0%
	Training and Meetings	330,917	361,019	30,102	9.1%
	Professional Services	6,083,402	6,143,938	60,536	1.0%
	Other Materials	5,969,470	5,886,229	(83,241)	-1.4%
	Other Services	22,278,699	22,631,589	352,890	1.6%
	TOTAL DIRECT EXPENSES	214,374,017	218,220,990	3,846,969	1.8%
	Insurance	2,093,618	2,128,155	34,537	1.6%
	Watershed/PILOT	27,214,833	27,541,836	327,003	1.2%
	HEEC Payment	3,346,854	3,198,174	(148,680)	-4.4%
	Mitigation	1,566,797	1,605,967	39,170	2.5%
	Addition to Reserves	169,304	661,661	492,357	290.8%
	Retirement Fund	7,455,103	7,808,155	353,052	4.7%
	OPEB/Additional Pension Contribution	4,976,411	4,821,320	(155,091)	-3.1%
	TOTAL INDIRECT EXPENSES	46,822,920	47,765,268	942,348	2.0%
	Debt Service (before offsets)	397,226,267	418,605,411	21,379,144	5.4%
	Bond Redemption	-	(1,300,000)	(1,300,000)	
	Debt Service Assistance	0	0	0	
	TOTAL DEBT SERVICE	397,226,267	417,305,411	20,079,144	5.1%
	TOTAL EXPENSES	\$658,423,204	\$683,291,669	\$24,868,461	3.8%
REVENUE AND INCOME	Rate Revenue	628,721,000	651,169,442	22,448,442	3.6%
	Other User Charges	8,127,379	8,254,404	127,025	1.6%
	Other Revenue	6,444,291	6,196,586	(247,705)	-3.8%
	Rate Stabilization	3,500,000	7,861,673	4,361,673	124.6%
	Investment Income	11,630,534	9,809,564	(1,820,970)	-15.7%
	TOTAL REVENUE AND INCOME	658,423,205	\$683,291,669	\$24,868,465	3.8%

Appendix E

Cap Calculation versus Actual FY04-08 Spending

Final FY04 CIP	Baseline Cap FY04-08 (\$ millions)						
		FY04	FY05	FY06	FY07	FY08	Total FY04-08
	Projected Expenditures	\$237.0	\$190.2	\$195.2	\$217.3	\$183.6	\$1,023.3
	Contingency	19.4	14.1	15.5	19.8	18.1	86.9
	Inflation on Unawarded Construction	0.0	0.8	5.8	13.0	16.1	35.7
	Less: Chicopee Valley Aqueduct Projects	(5.4)	(1.5)	(1.4)	(0.1)	(3.0)	(11.4)
	FY04-08	\$250.9	\$203.5	\$215.2	\$250.1	\$214.8	\$1,134.5

FY08 Closeout Data	FY04-08 Actual Spending						
		FY04 Actual	FY05 Actual	FY06 Actual	FY07 Actual	FY08 Actual	Total FY04-08
	Projected Expenditures	\$194.0	\$167.7	\$152.3	\$177.7	\$196.8	\$888.5
	Contingency	0.0	0.0	0.0	0.0	0.0	0.0
	Inflation on Unawarded Construction	0.0	0.0	0.0	0.0	0.0	0.0
	Less: Chicopee Valley Aqueduct Projects	(0.4)	(0.5)	(2.4)	(3.3)	(1.8)	(8.4)
	FY04-08	\$193.6	\$167.2	\$149.9	\$174.4	\$195.0	\$880.1

Change	Baseline Cap FY04-08 to Actual Spending						
		FY04	FY05	FY06	FY07	FY08	Total FY04-08
	Projected Expenditures	(\$43.0)	(\$22.5)	(\$42.9)	(\$39.6)	\$13.2	(\$134.8)
	Contingency	(19.4)	(14.1)	(15.5)	(19.8)	(18.1)	(86.9)
	Inflation on Unawarded Construction	0.0	(0.8)	(5.8)	(13.0)	(16.1)	(35.7)
	Less: Chicopee Valley Aqueduct Projects	5.0	1.0	(1.0)	(3.2)	1.2	3.0
	FY04-08 CAP Δ (\$)	(\$57.4)	(\$36.4)	(\$65.2)	(\$75.6)	(\$19.8)	(\$254.4)
	FY04-08 CAP Δ (%)	-22.9%	-17.9%	-30.3%	-30.2%	-9.2%	-22.4%

Appendix F

Cap Calculation versus Proposed FY14 Updated Projections

Final FY09 CIP	Baseline Cap FY09-13 (\$ millions)						
		FY09	FY10	FY11	FY12	FY13	Total FY09-13
	Projected Expenditures	\$230.0	\$251.7	\$224.3	\$196.7	\$178.7	\$1,081.4
	Contingency	15.6	13.8	12.0	12.1	11.4	64.8
	Inflation on Unawarded Construction	0.0	0.5	2.8	7.8	11.3	22.4
	Less: Chicopee Valley Aqueduct Projects	(1.2)	(1.9)	(9.1)	(9.5)	(2.9)	(24.8)
	FY09-13 CAP	\$244.4	\$264.1	\$230.0	\$207.0	\$198.4	\$1,143.8

Proposed FY14 CIP	FY09-13 Actual Spending						
		FY09	FY10	FY11	FY12	FY13	Total FY09-13
	Projected Expenditures	\$182.2	\$211.4	\$139.3	\$137.6	\$161.9	\$832.4
	Contingency	0.0	0.0	0.0	0.0	0.0	\$0.0
	Inflation on Unawarded Construction	0.0	0.0	0.0	0.0	0.0	\$0.0
	Less: Chicopee Valley Aqueduct Projects	(0.6)	(0.5)	(0.9)	(0.1)	0.0	(\$2.1)
	Projected FY14-18	\$181.6	\$210.9	\$138.4	\$137.5	\$161.9	\$835.2

Change	Baseline Cap FY09-13 to Actual Spending						
		FY09	FY10	FY11	FY12	FY13	Total FY09-13
	Projected Expenditures	(\$47.8)	(\$40.2)	(\$85.0)	(\$59.1)	(\$16.8)	(\$248.9)
	Contingency	(15.6)	(13.8)	(12.0)	(4.9)	(1.7)	(48.0)
	Inflation on Unawarded Construction	0.0	(0.5)	(2.8)	(7.8)	(11.3)	(22.4)
	Less: Chicopee Valley Aqueduct Projects	0.6	1.4	8.3	9.4	1.2	20.9
	FY09-13 CAP Δ (\$)	(\$62.8)	(\$53.2)	(\$91.6)	(\$69.5)	(\$31.7)	(\$308.6)
	FY09-13 CAP Δ (%)	-25.7%	-20.1%	-39.8%	-33.6%	-16.0%	-27.0%

Appendix G

Program/Project/Subphase	Notice To Proceed	Substantial Completion	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18
Total MWRA			5,715,894,229	3,688,117,050	2,027,777,180	117,003,070	124,636,758	145,927,942	170,272,923	160,999,656	718,840,349
Wastewater			2,758,903,381	1,736,000,644	1,022,902,737	62,357,580	73,106,737	80,136,482	91,443,461	82,329,481	389,373,742
Interception & Pumping			870,574,354	520,540,063	350,034,291	7,172,672	12,970,366	26,982,560	31,840,333	36,110,649	115,076,580
102 Quincy Pump Facilities	completed project		25,907,202	25,907,202	-						
104 Braintree-Weymouth Relief Facilities			232,453,932	227,703,932	4,750,000					309,146	309,146
105 New Neponset Valley Relief Sewer	completed project		30,300,304	30,300,304	-						
106 Wellesley Extension Replacement Sewer	completed project		64,358,543	64,358,543	-						
107 Framingham Extension Relief Sewer	completed project		47,855,986	47,855,986	-						
127 Cummingsville Replacement Sewer	completed project		8,998,768	8,998,768	-						
130 Siphon Structure Rehabilitation			6,519,979	939,770	5,580,209	13,065	17,418	17,417			47,900
131 Upper Neponset Valley Sewer System	completed project		54,174,077	54,174,077	-						
132 Corrosion & Odor Control			16,345,847	3,001,406	13,344,441		166,667	500,000	333,333		1,000,000
136 West Roxbury Tunnel			11,313,573	10,313,573	1,000,000						
137 Wastewater Central Monitoring			20,482,201	19,782,201	700,000			143,181	190,908	190,908	524,997
139 South System Relief Project			4,939,244	3,439,244	1,500,000						
141 Wastewater Process Optimization			10,359,951	1,205,179	9,154,772	222,456	74,150		656,649	875,532	1,828,787
142 Wastewater Meter Sys-Equip. Replacement			26,337,912	5,137,912	21,200,000		55,555	3,133,333	3,011,112	4,000,000	10,200,000
143 Regional I/I Management Planning	completed project		168,987	168,987	-						
145 Facility Asset Protection			304,307,848	17,252,979	287,054,868	6,937,151	12,656,576	23,188,629	27,648,330	30,735,063	101,165,750
146 D.I. Cross Harbor Tunnel			5,000,000	-	5,000,000						
147 Randolph Trunk Sewer Relief			750,000	-	750,000						

Appendix G

Program/Project/Subphase	Notice To Proceed	Substantial Completion	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18
Treatment			703,611,723	184,722,770	518,888,953	23,798,348	41,336,297	47,718,413	54,752,097	38,932,989	205,538,143
182 DI Primary and Secondary Treatment	completed project		(957,878)	(957,878)	-						
200 DI Plant Optimization	completed project		33,436,678	33,436,678	-						
206 DI Treatment Plant Asset Protection			651,662,090	147,500,576	504,161,514	23,411,839	39,450,342	45,339,299	50,355,591	36,964,308	195,521,379
210 Clinton Wastewater Treatment Plant			17,253,158	2,525,720	14,727,438	386,510	1,885,955	2,379,114	4,396,506	1,968,681	11,016,766
211 Laboratory Services	completed project		2,227,674	2,227,674	-						
Residuals			168,020,224	64,535,816	103,484,409	484,408	60,606	1,681,818	3,931,818	4,931,818	11,090,468
261 Residuals	completed project		63,810,848	63,810,848	-						
271 Residuals Asset Protection			104,209,377	724,968	103,484,409	484,408	60,606	1,681,818	3,931,818	4,931,818	11,090,468
CSO			893,831,218	837,706,314	56,124,904	31,687,058	19,139,869	3,266,746	8,701	760,863	54,863,237
CSO MWRA Managed			433,010,435	429,878,466	3,131,969	921,978	1,709,567	497,723	2,701		3,131,969
339 North Dorchester Bay			221,650,329	221,620,595	9,734	9,735					9,735
347 East Borton Branch Sewer Relief			85,638,310	85,645,996	(7,686)	(7,685)					(7,685)
348 BOS019 Storage Conduit	completed project		14,287,581	14,287,581	-						
349 Chelsea Trunk sewer	completed project		29,779,319	29,779,319	-						
350 Union Park Detention Treatment facility	completed project		49,583,407	49,583,407	-						
353 Upgrade Existing CSO Facilities	completed project		22,385,200	22,385,200	-						
354 Hydraulic Relief Projects	completed project		2,294,549	2,294,549	-						
355 MWR003 Gate & Siphon			3,778,664	648,745	3,129,919	919,928	1,709,567	497,723	2,701		3,129,919
357 Charles River CSO Controls	completed project		3,633,077	3,633,077	-						

Appendix G

Program/Project/Subphase	Notice To Proceed	Substantial Completion	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18
CSO Community Managed											
			410,510,564	358,463,436	52,047,128	31,908,801	17,887,302	2,751,023			52,047,126
340 Dorch Bay Sewer Separation (Fox Point)			54,168,551	54,152,295	16,256		16,256				16,256
341 Dorch Bay Sew Separation (Commercial Pt.)			64,829,613	61,147,149	3,682,464	(96,000)	3,778,462				3,682,462
342 Neponset River Sewer Separation	completed project		2,444,395	2,444,395	-						
343 Constitution Beach Sewer Separation	completed project		3,768,888	3,768,888	-						
344 Stony Brook Sewer Separation			44,332,539	44,198,384	134,155			134,155			134,155
346 Cambridge Sewer Separation			92,440,373	50,484,205	41,956,168	28,186,000	11,931,000	1,839,170			41,956,170
351 BWSC Floatables Controls	completed project		932,979	932,979	-						
352 Cambridge Floatables Control	completed project		1,086,925	1,086,925	-						
356 Fort Point Channel Sewer Separation	completed project		12,006,708	12,006,708	-						
358 Morrissey Boulevard Drain			32,814,545	32,346,788	467,757	(199)		467,957			467,758
359 Reserved Channel Sewer Separation			65,088,914	60,039,901	5,049,013	3,819,000	1,006,475	223,537			5,049,012
360 Brookline Sewer Separation			26,652,473	25,997,364	655,109		655,109				655,109
361 Bulfinch Triangle Sewer Separation			9,943,660	9,857,456	86,204			86,204			86,204
CSO Planning & Support											
			50,310,219	49,364,412	945,807	(1,143,721)	43,000	18,000	6,000	760,863	(315,858)
324 CSO Support			50,310,219	49,364,413	945,806	(1,143,721)	43,000	18,000	6,000	760,863	(315,858)
Other Wastewater											
			122,865,861	128,495,680	(5,629,819)	(784,906)	(400,400)	486,945	910,513	1,593,162	1,805,314
128 I/ Local Financial Assistance			122,584,985	128,214,804	(5,629,819)	(784,906)	(400,400)	486,945	910,512	1,593,162	1,805,313
138 Sewerage System Mapping Upgrades	completed project		280,876	280,876	-						

Appendix G

Program/Project/Subphase	Notice To Proceed	Substantial Completion	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18
Waterworks			2,833,943,285	1,874,674,563	959,268,722	48,381,781	41,979,867	55,844,441	70,190,998	74,296,915	290,694,002
Drinking Water Quality Improvements			658,147,750	595,207,527	62,940,223	35,296,376	17,390,835	5,600,945	2,045,825	714,243	61,048,223
542 Carroll Water Treatment Plant			433,433,984	411,208,516	22,225,468	4,567,241	8,140,638	5,251,755	2,015,834	358,000	20,333,468
543 Quabbin Water Treatment Plant			18,147,189	12,768,242	5,378,947	4,366,622	881,923	130,402			5,378,947
544 Norumbega Covered Storage	completed project		106,674,147	106,674,147	-						
545 Blue Hills Covered Storage			40,546,671	39,962,823	583,848	143,294	31,040	23,280	29,991	356,243	583,848
550 Spot Pond Storage Facility			59,345,761	24,593,801	34,751,960	26,219,218	8,337,234	195,508			34,751,960
Transmission			1,197,515,763	755,038,156	442,477,607	6,115,242	18,066,111	25,561,450	27,981,207	17,764,225	95,488,235
597 Winsor Station Pipeline			27,433,503	1,395,591	26,037,912	442,738	567,504	1,592,481	7,072,597	7,506,791	17,182,111
601 Sluice Gate Rehabilitation	completed project		9,158,411	9,158,411	-						
604 MetroWest Tunnel			708,688,962	695,398,508	13,290,454	1,495,346	298,089	1,038,000	1,013,000	1,335,000	5,180,435
615 Chicopee Valley Aqueduct Redundancy	completed project		8,666,292	8,666,292	-						
616 Quabbin Transmission System			13,572,242	7,202,464	6,369,778	269,778		450,000	650,000	2,500,000	3,869,778
617 Sudbury/Weston Aqueduct Repairs			4,339,547	659,948	3,679,599			250,000	1,073,700	257,899	1,581,599
620 Wachusett Reservoir Spillway Improvements	completed project		9,287,460	9,287,460	-						
621 Watershed Land			24,000,000	17,342,400	6,657,600	1,500,000	1,500,000	1,500,000	1,500,000	657,600	6,657,600
623 Dam Projects			5,540,300	3,085,182	2,455,118	382,745	872,368	292,858	432,143	432,144	2,412,258
625 Long Term Redundancy			386,829,045	2,841,899	383,987,146	2,023,635	14,828,150	20,438,111	16,239,767	5,074,791	59,604,454

Appendix G

Program/Project/Subphase	Notice To Proceed	Substantial Completion	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18
Distribution And Pumping											
			929,367,670	372,703,577	556,664,094	7,943,968	7,702,825	21,538,785	36,500,507	49,934,541	123,620,625
618 Northern High NW Transmission Section 70			1,000,000	-	1,000,000			750,000	250,000		1,000,000
677 Valve Replacement			22,540,301	12,016,378	10,523,923	438,879	585,173	616,832	711,807	1,074,442	3,427,133
678 Boston Low Service - Pipe & Valve Rehab	completed project		23,690,863	23,690,863	-						
683 Heath Hill Road Pipe Replacement	completed project		19,358,036	19,358,036	-						
689 James L. Gillis Pump Station	completed project		33,419,007	33,419,007	-						
692 Northern High Service - Section 27 Improve.			1,071,382	123,646	947,736	1,000	1,000	4,000	12,000	159,506	177,506
693 NHS - Reverse & Malden Pipeline Improve.			48,987,956	26,832,740	22,155,216		350,000	731,000	4,426,000	7,306,534	12,813,534
702 New Connecting Mains - Shaft 7 to WASM 3			33,909,119	10,960,807	22,948,312	7,341		500,000	1,516,000	4,089,000	6,112,341
704 Rehab of Other Pump Stations			55,057,852	30,057,852	25,000,000						
706 NHS - Connecting Mains from Section 91	completed project		2,360,194	2,360,194	-						
708 Northern Extra High Service - New Pipelines			7,776,432	3,692,119	4,144,313	9,500	16,500	133,000	130,000	917,114	1,206,114
712 Catholic Protection of Distribution Mains			1,635,972	140,913	1,495,059			249,177	249,177		498,354
713 Spot Pond Supply Mains Rehab			66,396,817	60,982,001	5,414,816	80,000	220,000	1,020,000	1,017,517	850,000	3,187,517
714 Southern Extra High - Sections 41 & 42	completed project		3,657,244	3,657,244	-						
719 Chestnut Hill Connecting Mains			31,731,335	17,486,675	14,244,660				345,000	460,000	805,000
720 Warren Cottage Line Rehab	completed project		1,204,821	1,204,821	-						
721 Southern Spine Distribution Mains			74,081,841	36,691,649	37,390,192	23,560				375,000	398,560
722 NIH Redundancy & Storage			88,504,621	5,974,364	82,530,257	2,996,229	1,123,000	5,760,776	13,202,000	16,616,000	39,698,005
723 Northern Low Service Rehab - Section 8			22,963,864	2,320,986	20,642,878		4,000	14,000	214,000	522,088	754,088
725 Hydraulic Model Update	completed project		598,358	598,358	-						
727 SEH Redundancy & Storage			96,143,364	6,756,970	89,386,394	570,714	1,456,833	1,218,000	4,444,000	14,002,000	21,691,547
730 Weston Aqueduct Supply Mains			274,952,874	66,043,296	208,909,578	3,516,413	3,946,319	10,542,000	9,852,006	3,037,857	30,894,595
731 Lynnfield Pipeline			5,977,854	5,677,522	300,332	300,333					300,333
732 Walnut St. & Fisher Hill Pipeline Rehab	completed project		2,717,141	2,717,141	-						
735 Section 80 Rehabilitation			9,630,430	-	9,630,430				131,000	525,000	656,000

Appendix G

Program/Project/Subphase	Notice To Proceed	Substantial Completion	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18
Other Waterworks											
			48,912,102	151,725,903	(102,813,201)	(973,805)	(1,179,904)	3,143,261	3,663,460	5,883,906	10,536,918
753 Central Monitoring System			19,392,423	15,803,729	3,588,694	188,694	128,571	1,571,430	1,571,428	128,571	3,588,694
763 Distribution Systems Facilities Mapping			1,798,919	1,036,368	762,551			228,765	305,020	228,766	762,551
764 Local Water Infrastructure Rehab	completed project		7,487,762	7,487,762	-						
765 Local Water System Assistance Program			-	126,859,242	(126,859,242)	(1,162,499)	(1,308,475)	(1,380,933)	(1,721,988)	865,569	(4,708,326)
766 Waterworks Facility Asset Protection			20,232,998	538,203	19,694,795			2,724,000	3,509,000	4,661,000	10,894,000
Business & Operations Support											
			123,047,563	771,441,842	45,605,720	6,263,709	9,550,154	9,947,018	8,638,463	4,373,261	38,772,605
881 Equipment Purchase			19,892,939	12,107,329	7,785,610	1,724,348	2,745,762	835,500	873,000	683,000	6,861,610
925 Technical Assistance			1,200,000	-	1,200,000		400,000	400,000	400,000		1,200,000
930 MWRA Facility - Chelsea	completed project		9,813,635	9,813,635	-						
931 Business Systems Plan			24,480,106	24,451,230	28,876	19,245	9,631				28,876
932 Environmental Remediation	completed project		1,478,802	1,478,802	-						
933 Capital Maintenance Planning & Develop.			15,812,717	10,124,225	5,688,492	1,555,155	1,599,999	1,599,999	933,339		5,688,492
934 MWRA Facilities Management			2,150,535	370,533	1,780,002						
935 Alternative Energy Initiatives			25,682,239	17,196,804	8,485,435	271,155	150,000	2,143,684	1,339,236	965,000	4,867,075
940 Application Improvement Program			10,050,000	73,125	9,976,875	245,416	2,341,047	2,679,079	2,969,715	1,559,452	9,794,709
942 Information Security Program (ISP)			1,292,950	535,190	757,760	293,722	230,705	200,000	33,333		757,760
944 Information Technology Management Prog.			922,640	-	922,640	167,450	264,739	227,238	210,572	52,641	922,640
946 IT Infrastructure Program			10,271,000	1,290,971	8,980,029	1,987,218	1,808,271	1,861,518	1,879,268	1,115,168	8,651,443

Appendix H

Overview of the FY15 Proposed CIP and Changes from the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Total MWRA	5,628,539	717,958	1,072,185	149,016
Wastewater	2,685,135	368,930	500,147	74,374
Interception & Pumping	846,541	118,371	180,439	26,816
102 Quincy Pump Facilities	25,907	-	-	-
104 Braintree-Weymouth Relief Facilities	233,869	1,364	4,441	-
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	5,603	4,581	82	-
131 Upper Neponset Valley Sewer	54,174	-	-	-
132 Corrosion & Odor Control	16,260	1,000	12,259	-
134 Ashland Extension Sewer	-	-	-	-
135 System Master Plan Interceptors	-	-	-	-
136 West Roxbury Tunnel	11,314	-	1,000	-
137 Wastewater Central Monitoring	20,482	700	-	-
139 South System Relief Project	4,939	-	1,500	-
140 Neponset Valley Relief Sewer	-	-	-	-
141 Wastewater Process Optimization	10,328	2,542	5,845	698
142 Wastewater Meter System-Equipment	26,438	5,531	7,692	8,077
143 Regional I/I Management Planning	169	-	-	-
145 Facility Asset Protection	279,794	102,653	141,870	18,042
146 D.I. Cross Harbor Tunnel Inspection	5,000	-	5,000	-
147 Randolph Trunk Sewer Relief	750	-	750	-
Treatment	659,597	199,138	225,271	46,757
182 DI Primary and Secondary	-	-	-	-
200 DI Plant Optimization	33,456	-	-	-
206 DI Treatment Plant Asset Protection	606,848	188,385	221,677	46,757
210 Clinton Wastewater Treat Plant	17,059	10,753	3,594	-
211 Laboratory Services	2,235	-	-	-
Residuals	168,020	1,549	98,237	3,672
261 Residuals	63,811	-	-	-
271 Residuals Asset Protection	104,209	1,549	98,237	3,672
CSO	888,111	48,066	1,271	63
340 Dorchester Bay Sewer Separation (Fox Point)	54,169	16	-	-
341 Dorchester Bay Sewer Separation (Commercial Point)	64,776	3,628	-	-

Total Budget Amount	FY15 Proposed			
	FY14-18	FY19-23	Beyond 23	
5,715,894	718,840	1,030,771	278,165	
2,758,903	389,374	525,706	107,823	
870,574	115,077	205,673	29,285	
25,907	-	-	-	-
232,454	309	4,441	-	-
30,300	-	-	-	-
64,359	-	-	-	-
47,856	-	-	-	-
8,999	-	-	-	-
6,520	48	5,532	-	-
54,174	-	-	-	-
16,346	1,000	12,344	-	-
-	-	-	-	-
-	-	-	-	-
11,314	-	1,000	-	-
20,482	525	175	-	-
4,939	-	1,500	-	-
-	-	-	-	-
10,360	1,829	5,794	1,533	
26,338	10,200	-	11,000	
169	-	-	-	-
304,308	101,166	169,136	16,753	
5,000	-	5,000	-	-
750	-	750	-	-
703,612	206,538	264,814	47,537	
(958)	-	-	-	-
33,427	-	-	-	-
651,662	195,521	261,103	47,537	
17,253	11,017	3,711	-	-
2,228	-	-	-	-
168,020	11,090	58,644	33,750	
63,811	-	-	-	-
104,209	11,090	58,644	33,750	
893,831	54,863	1,262	-	
54,169	16	-	-	-
64,830	3,682	-	-	-

Total Budget Amount	Change from FY14 Final		
	FY14-18	FY19-23	Beyond 23
87,355	883	(41,413)	129,149
73,768	20,444	25,559	33,449
24,034	(3,294)	25,233	2,469
-	-	-	-
(1,415)	(1,055)	-	-
-	-	-	-
-	-	-	-
-	-	-	-
917	(4,533)	5,450	-
86	-	85	-
-	-	-	-
-	-	-	-
32	(713)	(51)	835
(100)	4,669	(7,692)	2,923
-	-	-	-
24,514	(1,487)	27,266	(1,289)
-	-	-	-
-	-	-	-
44,015	7,400	39,543	780
(958)	-	-	-
(29)	-	-	-
44,814	7,136	39,426	780
194	264	117	-
(7)	-	-	-
-	9,542	(39,593)	30,078
-	-	-	-
-	9,541	(39,593)	30,078
5,720	6,797	(10)	(63)
-	-	-	-
54	54	-	-

Appendix H

Overview of the FY15 Proposed CIP and Changes from the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
342 Neponset River Sewer Separation	2,444	-	-	-
343 Constitution Beach Sewer Separation	3,769	-	-	-
344 Stony Brook Sewer Separation	44,333	-	-	-
346 Cambridge Sewer Separation	85,834	35,349	-	-
351 BWSC Floatables Controls	933	-	-	-
352 Cambridge Floatables Control	1,087	-	-	-
356 Fort Point Channel Sewer Separation	12,007	-	-	-
358 Morrissey Boulevard Drain	32,815	468	-	-
359 Reserved Channel Sewer Separation	64,809	4,769	-	-
360 Brookline Sewer Separation	25,977	(20)	-	-
361 Bulfinch Triangle Sewer Separation	9,944	86	-	-
339 North Dorchester Bay	223,060	807	250	63
347 East Boston Branch Sewer Relief	85,874	-	-	-
348 BOS019 Storage Conduit	14,288	-	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-
350 Union Park Detention Treatment Facility	49,583	-	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-
355 MWR003 Gate & Siphon	4,005	3,278	-	-
357 Charles River CSO Controls	3,633	-	-	-
324 CSO Support	50,315	(315)	1,021	-
Other Wastewater	122,866	1,806	(5,072)	(2,934)
128 I/I Local Financial Assistance	122,585	1,806	(5,072)	(2,934)
138 Sewerage System Mapping Upgrade	281	-	-	-
Total Waterworks	2,820,956	307,134	568,048	74,642
Drinking Water Quality	657,172	57,311	79	-
542 Carroll Water Treatment Plant	433,253	21,026	79	-
543 Quabbin Water Treatment Plant	17,393	5,035	-	-
544 Norumbega Covered Storage	106,674	-	-	-
545 Blue Hills Covered Storage	40,704	600	-	-
550 Spot Pond Storage Facility	59,149	30,650	-	-
Transmission	1,185,972	80,007	231,353	118,737
597 Winsor Station Pipeline	27,256	5,007	20,778	-
601 Sluice Gate Rehabilitation	9,158	-	-	-
604 MetroWest Tunnel	708,786	7,697	5,660	-
615 Chicopee Valley Aqueduct Redundancy	8,666	-	-	-
616 Quabbin Transmission System	13,516	3,261	3,130	-
617 Sudbury/Weston Aqueduct Repairs	4,327	3,667	-	-
620 Wachusett Reservoir Spillway Improvement	9,287	-	-	-
621 Watershed Land	24,000	6,000	-	-

Program and Project	FY15 Proposed			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
342 Neponset River Sewer Separation	2,444	-	-	-
343 Constitution Beach Sewer Separation	3,769	-	-	-
344 Stony Brook Sewer Separation	44,333	134	-	-
346 Cambridge Sewer Separation	92,440	41,956	-	-
351 BWSC Floatables Controls	933	-	-	-
352 Cambridge Floatables Control	1,087	-	-	-
356 Fort Point Channel Sewer Separation	12,007	-	-	-
358 Morrissey Boulevard Drain	32,815	468	-	-
359 Reserved Channel Sewer Separation	65,089	5,049	-	-
360 Brookline Sewer Separation	26,652	655	-	-
361 Bulfinch Triangle Sewer Separation	9,944	86	-	-
339 North Dorchester Bay	221,630	10	-	-
347 East Boston Branch Sewer Relief	85,638	(8)	-	-
348 BOS019 Storage Conduit	14,288	-	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-
350 Union Park Detention Treatment Facility	49,583	-	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-
355 MWR003 Gate & Siphon	3,779	3,130	-	-
357 Charles River CSO Controls	3,633	-	-	-
324 CSO Support	50,310	(316)	1,262	-
Other Wastewater	122,866	1,805	(4,686)	(2,749)
128 I/I Local Financial Assistance	122,585	1,805	(4,686)	(2,749)
138 Sewerage System Mapping Upgrade	281	-	-	-
Total Waterworks	2,833,943	290,694	498,232	170,343
Drinking Water Quality	658,148	61,048	1,892	-
542 Carroll Water Treatment Plant	433,434	20,333	1,892	-
543 Quabbin Water Treatment Plant	18,147	5,379	-	-
544 Norumbega Covered Storage	106,674	-	-	-
545 Blue Hills Covered Storage	40,547	584	-	-
550 Spot Pond Storage Facility	59,346	34,752	-	-
Transmission	1,197,516	95,488	235,130	111,859
597 Winsor Station Pipeline	27,434	17,182	8,856	-
601 Sluice Gate Rehabilitation	9,158	-	-	-
604 MetroWest Tunnel	708,689	5,180	8,110	-
615 Chicopee Valley Aqueduct Redundancy	8,666	-	-	-
616 Quabbin Transmission System	13,572	3,870	2,500	-
617 Sudbury/Weston Aqueduct Repairs	4,340	1,582	2,098	-
620 Wachusett Reservoir Spillway Improvement	9,287	-	-	-
621 Watershed Land	24,000	6,658	-	-

Program and Project	Change from FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
342 Neponset River Sewer Separation	-	-	-	-
343 Constitution Beach Sewer Separation	-	-	-	-
344 Stony Brook Sewer Separation	-	134	-	-
346 Cambridge Sewer Separation	6,606	6,607	-	-
351 BWSC Floatables Controls	-	-	-	-
352 Cambridge Floatables Control	-	-	-	-
356 Fort Point Channel Sewer Separation	-	-	-	-
358 Morrissey Boulevard Drain	-	-	-	-
359 Reserved Channel Sewer Separation	280	280	-	-
360 Brookline Sewer Separation	675	675	-	-
361 Bulfinch Triangle Sewer Separation	(1,430)	(797)	(250)	(63)
339 North Dorchester Bay	(236)	(8)	-	-
347 East Boston Branch Sewer Relief	-	-	-	-
348 BOS019 Storage Conduit	-	-	-	-
349 Chelsea Trunk Sewer	-	-	-	-
350 Union Park Detention Treatment Facility	-	-	-	-
353 Upgrade Existing CSO Facilities	-	-	-	-
354 Hydraulic Relief Projects	(226)	(148)	-	-
355 MWR003 Gate & Siphon	-	-	-	-
357 Charles River CSO Controls	(5)	(1)	241	-
324 CSO Support	-	-	-	-
Other Wastewater	-	-	386	185
128 I/I Local Financial Assistance	-	(1)	386	185
138 Sewerage System Mapping Upgrade	-	-	-	-
Total Waterworks	12,987	(16,440)	(69,816)	95,702
Drinking Water Quality	976	3,737	1,813	-
542 Carroll Water Treatment Plant	181	(693)	1,813	-
543 Quabbin Water Treatment Plant	754	344	-	-
544 Norumbega Covered Storage	(157)	(16)	-	-
545 Blue Hills Covered Storage	197	4,102	-	-
550 Spot Pond Storage Facility	-	-	-	-
Transmission	11,544	15,481	3,777	(6,878)
597 Winsor Station Pipeline	178	12,175	(11,922)	-
601 Sluice Gate Rehabilitation	-	-	-	-
604 MetroWest Tunnel	(97)	(2,517)	2,450	-
615 Chicopee Valley Aqueduct Redundancy	-	-	-	-
616 Quabbin Transmission System	56	609	(630)	-
617 Sudbury/Weston Aqueduct Repairs	13	(2,085)	2,098	-
620 Wachusett Reservoir Spillway Improvement	-	-	-	-
621 Watershed Land	-	658	-	-

Appendix H

Overview of the FY15 Proposed CIP and Changes from the FY14 Final CIP

Program and Project	FY14 Final			FY14 Final		
	Total Budget Amount	FY14-18	FY19-23	Beyond 23		
622 Cosgrove/Wachusett Redundancy	-	-	-	-		
623 Dam Projects	5,540	2,328	43	-		
625 Long Term Redundancy	375,435	52,047	201,742	118,737		
Distribution & Pumping	931,433	153,475	296,471	108,726		
618 Northern High NW Tran Sections 70 & 71	1,000	1,000	-	-		
677 Valve Replacement	22,311	3,131	7,163	-		
678 Boston Low Service-Pipe & Valve Rehabilitation	23,691	-	-	-		
683 Heath Hill Road Pipe Replacement	19,358	-	-	-		
689 James L. Gillis Pump Station Rehabilitation	33,419	-	-	-		
692 NHS - Section 27 Improvements	1,043	178	742	-		
693 NHS - Revere & Malden Pipeline Improvement	48,622	12,604	9,185	-		
702 New Connect Mains-Shaft 7 to WASM 3	33,351	10,824	11,559	-		
704 Rehabilitation of Other Pump Stations	55,058	-	15,073	9,927		
706 NHS-Connecting Mains from Section 91	2,360	-	-	-		
708 Northern Extra High Service New Pipelines	7,653	1,198	2,815	-		
712 Catholic Protection Of Distribution Mains	1,591	725	725	-		
713 Spot Pond Supply Mains Rehabilitation	66,243	2,975	2,288	-		
714 Southern Extra High Sections 41 & 42	3,657	-	-	-		
719 Chestnut Hill Connecting Mains	31,301	837	7,701	5,277		
720 Warren Cottage Line Rehabilitation	1,205	-	-	-		
721 South Spine Distribution Mains	73,568	1,158	12,137	23,333		
722 NIH Redundancy & Storage	84,956	42,079	36,748	-		
723 Northern Low Service Rehabilitation Section 8	22,440	754	19,365	-		
724 Northern High Service - Pipeline Rehabilitation	-	-	-	-		
725 Hydraulic Model Update	598	-	-	-		
727 Southern Extra High Redundancy & Storage	93,460	26,521	8,566	51,550		
730 Weston Aqueduct Supply Mains	286,418	48,742	153,700	18,640		
731 Lynnfield Pipeline	6,073	113	-	-		
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717	-	-	-		
733 NHS Pipeline Rehabilitation 13-18 & 48	-	-	-	-		
734 Southern Extra High Pipelines-Sections 30, 39,40, & 44	-	-	-	-		
735 Section 80 Rehabilitation	9,340	636	8,704	-		
Other	46,380	16,341	40,145	(152,822)		
753 Central Monitoring System	16,992	1,129	-	-		
763 Distribution Systems Facilities Mapping	1,799	763	-	-		
764 Local Water Infrastructure Rehabilitation Assistance Program	7,488	-	-	-		
765 Local Water Pipeline Improvement Loan Program	-	2,927	32,969	(153,687)		

Total Budget Amount	FY15 Proposed			Beyond 23
	FY14-18	FY19-23		
-	-	-	-	-
5,540	2,412	43	-	-
386,829	58,604	213,524	111,859	
929,368	123,621	300,793	132,251	
1,000	1,000	-	-	-
22,540	3,427	7,097	-	-
23,691	-	-	-	-
19,358	-	-	-	-
33,419	-	-	-	-
1,071	178	770	-	-
48,988	12,814	9,342	-	-
33,909	6,112	16,836	-	-
55,058	-	18,750	6,250	
2,360	-	-	-	-
7,776	1,206	2,938	-	-
1,636	498	748	249	
66,397	3,188	2,227	-	-
3,657	-	-	-	-
31,731	805	8,031	5,408	
1,205	-	-	-	-
74,082	399	4,000	32,992	
88,505	39,698	42,832	-	-
22,964	754	19,889	-	-
-	-	-	-	-
598	-	-	-	-
96,143	21,692	14,539	53,156	
274,953	30,895	143,819	34,196	
5,978	300	-	-	-
2,717	-	-	-	-
-	-	-	-	-
-	-	-	-	-
9,630	656	8,974	-	-
48,912	10,537	(39,583)	(73,767)	
19,392	3,589	-	-	-
1,799	763	-	-	-
7,488	-	-	-	-
-	(4,708)	(47,519)	(74,632)	

Change from FY14 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
-	-	-	-
-	84	-	-
11,394	6,557	11,782	(6,878)
(2,065)	(29,854)	4,322	23,524
-	-	-	-
229	296	(66)	-
-	-	-	-
-	-	-	-
-	-	-	-
28	-	28	-
366	210	157	-
558	(4,712)	5,277	-
-	-	3,677	(3,677)
-	-	-	-
123	8	123	-
45	(227)	23	249
154	213	(61)	-
-	-	-	-
430	(32)	330	131
-	-	-	-
514	(759)	(8,137)	9,659
3,549	(2,381)	6,084	-
524	-	524	-
-	-	-	-
-	-	-	-
2,683	(4,829)	5,973	1,606
(11,465)	(17,847)	(9,881)	15,556
(95)	187	-	-
-	-	-	-
-	-	-	-
-	-	-	-
290	20	270	-
2,532	(5,804)	(79,728)	79,056
2,400	2,460	-	-
-	-	-	-
-	-	-	-
-	(7,635)	(80,488)	79,055

Appendix H

Overview of the FY15 Proposed CIP and Changes from the FY14 Final CIP

Program and Project	FY14 Final		
	Total Budget Amount	FY14-18	FY19-23
766 Waterworks Facility Asset Protection	20,101	11,522	7,176
Business & Operations Support	122,448	41,895	3,990
881 Equipment Purchase	18,483	7,019	-
925 Technical Assistance	1,200	1,200	-
930 MWRA Facility - Chelsea	9,814	-	-
931 Business Systems Plan	24,475	12	-
932 Environmental Remediation	1,479	-	-
933 Capital Maintenance Planning	15,701	5,646	-
934 MWRA Facilities Management	2,151	1,780	-
935 Alternative Energy Initiatives	28,230	6,965	3,652
940 Applicat Improv Program	9,150	8,986	159
942 Info Security Program ISP	1,293	792	-
944 Info Tech Mgmt Program	1,493	1,493	-
946 IT Infrastructure Program	8,980	8,002	179

Total Budget Amount	FY15 Proposed		
	FY14-18	FY19-23	Beyond 23
20,233	10,894	7,936	865
123,048	38,773	6,833	-
19,893	6,862	924	-
1,200	1,200	-	-
9,814	-	-	-
24,480	29	-	-
1,479	-	-	-
15,813	5,688	-	-
2,151	-	1,780	-
25,682	4,867	3,618	-
10,050	9,795	182	-
1,293	758	-	-
923	923	-	-
10,271	8,651	329	-

Total Budget Amount	Change from FY14 Final		
	FY14-18	FY19-23	Beyond 23
132	(628)	760	-
600	(3,122)	2,843	-
1,410	(157)	924	-
-	-	-	-
-	-	-	-
5	17	-	-
-	-	-	-
112	42	-	-
-	(1,780)	1,780	-
(2,548)	(2,098)	(34)	-
900	809	23	-
-	(34)	-	-
(570)	(570)	-	-
1,291	649	150	-

Appendix I

New Capital Projects Added to the FY15 Proposed CIP

Program	Project	Subphase	Total Contract Amount	FY14	FY15	FY16	FY17	FY18	FY14-18	Beyond FY18	Total Expenditures
Treatment	DITP Asset Protection	DI Gas Distribution System Modifications Design	\$2,000,000			\$166,667	\$666,666	250,000	\$1,083,333	\$916,667	\$2,000,000
Treatment	DITP Asset Protection	DI Gas Distribution System Modifications Construction	\$8,000,000					666,667	\$666,667	\$7,333,333	\$8,000,000
Treatment	DITP Asset Protection	Combined Heat and Power Facility Design	\$4,000,000			\$250,000	1,000,000	750,000	\$2,000,000	\$2,000,000	\$4,000,000
Treatment	DITP Asset Protection	Combined Heat and Power Facility Construction	\$21,000,000						\$0	\$21,000,000	\$21,000,000
Treatment	DITP Asset Protection	Co-Digestion Design/ESDC/REI - Pilot	\$750,000			\$100,000	200,000	300,000	\$600,000	\$150,000	\$750,000
Treatment	DITP Asset Protection	Co-Digestion Construction - Pilot	\$2,500,000					1,667,000	\$1,667,000	\$833,000	\$2,500,000
Interception & Pumping	Facility Asset Protection	Prison Point Rehabilitation Construction	\$4,202,400				820,733	1,400,800	\$2,221,533	\$1,980,867	\$4,202,400
Interception & Pumping	Facility Asset Protection	Cottage Farm Construction 1 (PCB)	\$2,101,200				1,225,700	875,500	\$2,101,200	\$0	\$2,101,200
Interception & Pumping	Facility Asset Protection	Cottage Farm Construction 2	\$7,354,200					3,881,383	\$3,881,383	\$3,472,817	\$7,354,200
Summary:											
Total Wastewater Projects			\$51,907,800	\$0	\$0	\$516,667	\$3,913,099	\$9,791,350	\$14,221,116	\$37,686,684	\$51,907,800
Total Projects			\$51,907,800	\$0	\$0	\$516,667	\$3,913,099	\$9,791,350	\$14,221,116	\$37,686,684	\$51,907,800

Appendix J

CSO Project Cost and Schedules

Project		Cost [1] (\$millions)	Commence Design	Commence Construction	Complete Construction
North Dorchester Bay Storage Tunnel and Related Facilities		218.4	Aug-97	Aug-06	May-11
Pleasure Bay Storm Drain Improvements		3.2	Sep-04	Sep-05	Mar-06
Hydraulic Relief Projects	CAM005 Relief	2.3	Aug-97	Jul-99	May-00
	BOS017 Relief			Jul-99	Aug-00
East Boston Branch Sewer Relief		85.6	Mar-00	Mar-03	Jul-10
BOS019 CSO Storage Conduit		14.3	Jul-02	Mar-05	Mar-07
Chelsea Relief Sewers	Chelsea Trunk Sewer Relief	29.8	Jun-97	Sep-99	Aug-00
	Chelsea Branch Sewer Relief			Dec-99	Jun-01
	CHE008 Outfall Repairs			Dec-99	Jun-01
Union Park Detention and Treatment Facility		49.6	Dec-99	Mar-03	Apr-07
CSO Facility Upgrades and MWRA Floatables Control	Cottage Farm Facility Upgrade	22.4	Jun-96	Mar-98	Jan-00
	Prison Point Facility Upgrade			May-99	Sep-01
	Commercial Point Facility Upgrade			Nov-99	Sep-01
	Fox Point Facility Upgrade			Nov-99	Sep-01
	Somerville-Marginal Fac. Upgrade			Nov-99	Sep-01
	MWRA Cloatables and Closings			Mar-99	Mar-00
Cottage Farm Brookline Connection & Inflow Controls		3.0	Sep-06	Jun-08	Jun-09
Charles River Interceptor Gate Controls (Design)		0.7	Jan-08	[2]	[2]
Prison Point CSO Facility Optimization			Mar-06	Mar-07	Apr-08
South Dorchester Bay Sewer Separation		118.9	Jun-96	Apr-99	Jun-07
Stony Brook Sewer Separation		44.2	Jul-98	Jul-00	Sep-06
Neponset River Sewer Separation		2.5		Apr-96	Jun-00
Constitution Beach Sewer Separation		3.7	Sep-97	Apr-99	Oct-00
Fort Point Channel Conduit Sewer Separation		11.9	Jul-02	Mar-05	Mar-07
Morrissey Boulevard Storm Drain		32.3	Jun-05	Dec-06	Jul-09
Reserved Channel Sewer Separation		72.6	Jul-06	May-09	Dec-15
Bulfinch Triangle Sewer Separation		9.1	Nov-06	Sep-08	Jul-10
Brookline Sewer Separation		24.9	Nov-06	Nov-08	Jul-13
Somerville Baffle Manhole Separation [3]				Apr-96	Dec-96
Cambridge / Alewife Brook Sewer Separation	CAM004 Outfall and Wetland Basin	13.8		Apr-11	Apr-13
	CAM004 Sewer Separation	71.8	Jan-97	Sep-12	Dec-15
	CAM400 Manhole Separation	4.8	Oct-08	Jan-10	Mar-11
	Interceptor Connection Relief/Floatables	2.9	Oct-08	Jan-10	Oct-10
	SOM01A Connection with Floatables	0.8	Apr-12	Sep-13	Dec-13
MWR003 Gate and Rindge Ave. Siphon		3.7	Apr-12	Aug-14	Oct-15
Region-wide Floatables Control and Outfall Closings		0.9	Sep-96	Mar-99	Dec-07
Planning & Support		50.3			
Total Cost		898.3			

[1] From MWRA Proposed FY16 Capital Improvement Program

[2] Construction of this project was deleted from the CSO Plan and Schedule Seven in April 2011

[3] Cost in "Planning & Support," below



A 30-Year History

Appendix K

30 Years of the MWRA and Advisory Board

Creating the Best Regional Water and Wastewater Solution in the United States

The following document covers the 30-year history of the MWRA and Advisory Board with a timeline of major MWRA accomplishments in each calendar year and a narrative of the Advisory Board's involvement in the process of shaping the MWRA of today. Below is a brief history of how the MWRA and Advisory Board came to be, followed by six 5-year periods, and a final look at the future challenges facing both entities.

With the Acts of 1984, the **Massachusetts Water Resources Authority (MWRA)** and a separate entity, the **Advisory Board**, were created and put into effect on July 1, 1985 (Fiscal Year 1986). The MWRA took control from the previous agency that handled water and wastewater services in the Greater Boston area, the **Metropolitan District Commission (MDC)**, which had failed to provide services in compliance with federal and state regulations.

The true genesis of the MWRA came in December of 1977 when Congress passed amendments to the Clean Water Act that allowed publicly owned treatment works (POTW) like the MDC to apply for a waiver from requirements to upgrade secondary treatment. The MDC applied in 1979 and was denied. In December of 1982 the City of Quincy filed a suit against the MDC claiming violation of the **Massachusetts Clean Water Act** for discharges from the Nut and Deer Island facilities into Boston Harbor. Judge Paul Garrity was assigned to the case. Congruently, the Conservation Law Foundation sued the MDC in June of 1983 in federal court, claiming that sewage discharges violated the federal Clean Water Act. Judge Mazzone was assigned the case.

In July, 1983, Judge Garrity appointed Charles M. Haar as Special Master and he issued the Report of the Special Master in August of 1983 recommending that the MDC evaluate the need for an independent sewerage authority. In November of 1983 Judge Garrity issued an **injunction barring new sewer tie-ins until a new independent authority was created** and set a trial date to consider placing the MDC in receivership. In December of 1984, due to federal and state court decisions, the Massachusetts Legislature passed the Acts of 1984 that established the MWRA and the Advisory Board, set to take effect for the following fiscal year, beginning on July 1st.

To get their foot in the door and have control over the new MWRA, the **Environmental Protection Agency (EPA)** also filed a suit, which was then joined with the existing Conservation Law Foundation suit in January 1985. Also at this time, the newly created Advisory Board of the MWRA reviewed the first MWRA current expense budget for Fiscal Year 1986, and shortly thereafter, the MWRA assumed responsibility for the MDC water and sewer systems. After assuming control, the MWRA Board of Directors voted to build new treatment facilities on Deer Island in response to the recommendation of the **Final Environmental Impact Report**. Additionally, the report recommended that the existing Nut Island Treatment Plant be decommissioned and converted into a headworks facility when the South System flows were transferred to the new Deer Island Treatment Plant (DITP).

At the tail end of 1985 Judge Mazzone found the MWRA to be liable for the MDC's acts, which mainly entailed underinvestment in the water and wastewater systems to the point of near system failure. Judge Mazzone issued a court-ordered schedule for projects deemed necessary for compliance with the Clean Water Act which included a series of deadlines.

The following timeline starts from Day 1 of MWRA control of the waterworks and wastewater systems.

Appendix K

1986 to 1990

A New Era

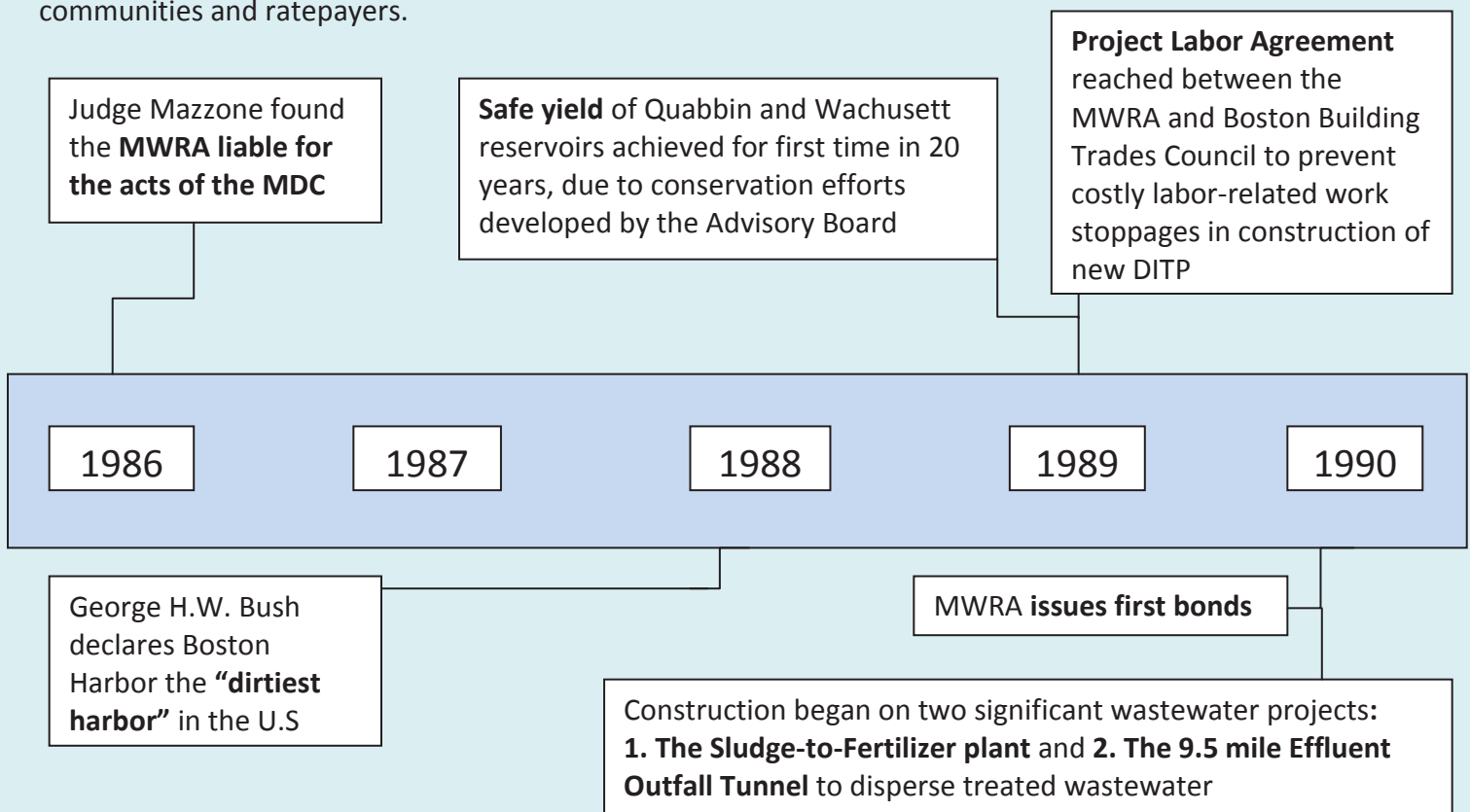
The MWRA Begins to Borrow for Court-Mandated Projects and the Advisory Board Fights to Cut Costs

The early years of the MWRA followed a consistent theme: state and federal court mandates and legal decisions went against the Authority costing ratepayers billions of dollars. By January 1986, Judge Mazzone found that the MWRA was liable for the acts of the MDC, meaning that the Authority not only had to comply with new mandates, but also address previous failings of the old agency. The cost of these mandates required that the Authority have the ability to borrow, which the MDC had not been able to do. The costs associated with this borrowing have become the main driver of rate assessment increases ever since with \$7.9 billion in capital spending being borrowed from 1986 through 2014.

In addition to fighting back against the more stringent mandates handed down, the Advisory Board also helped craft MWRA policy to allow for compliance with existing mandates. In 1987, the Advisory Board developed a rate assessment policy to encourage water conservation and recommended that the MWRA begin metering wastewater. Because of these policies, by 1989 water demand had dropped and the safe yield of Quabbin and Wachusett reservoirs was achieved for the first time in 20 years.

During this period the Advisory Board also took aim at the state for forcing control of the Clinton Wastewater Treatment Plant on the Authority, for which the MWRA assumed operational responsibility in 1987. The cost of operating the facility was the main concern of the Advisory Board, which fought to ensure the state or the Town of Clinton pay for its fair share (*see 1991-1995 for more information on Clinton*).

This initial period set the tone regarding the role that the Advisory Board has had to play in keeping MWRA costs under control for the sake of the ratepayer. In 1990 the Advisory Board forced the Authority to lower its proposed combined rate assessment increases down from 46% to 20%. Controlling rate assessment increases has always been one of the driving forces for Advisory Board members because they represent their communities and ratepayers.



Appendix K

1991 to 1995

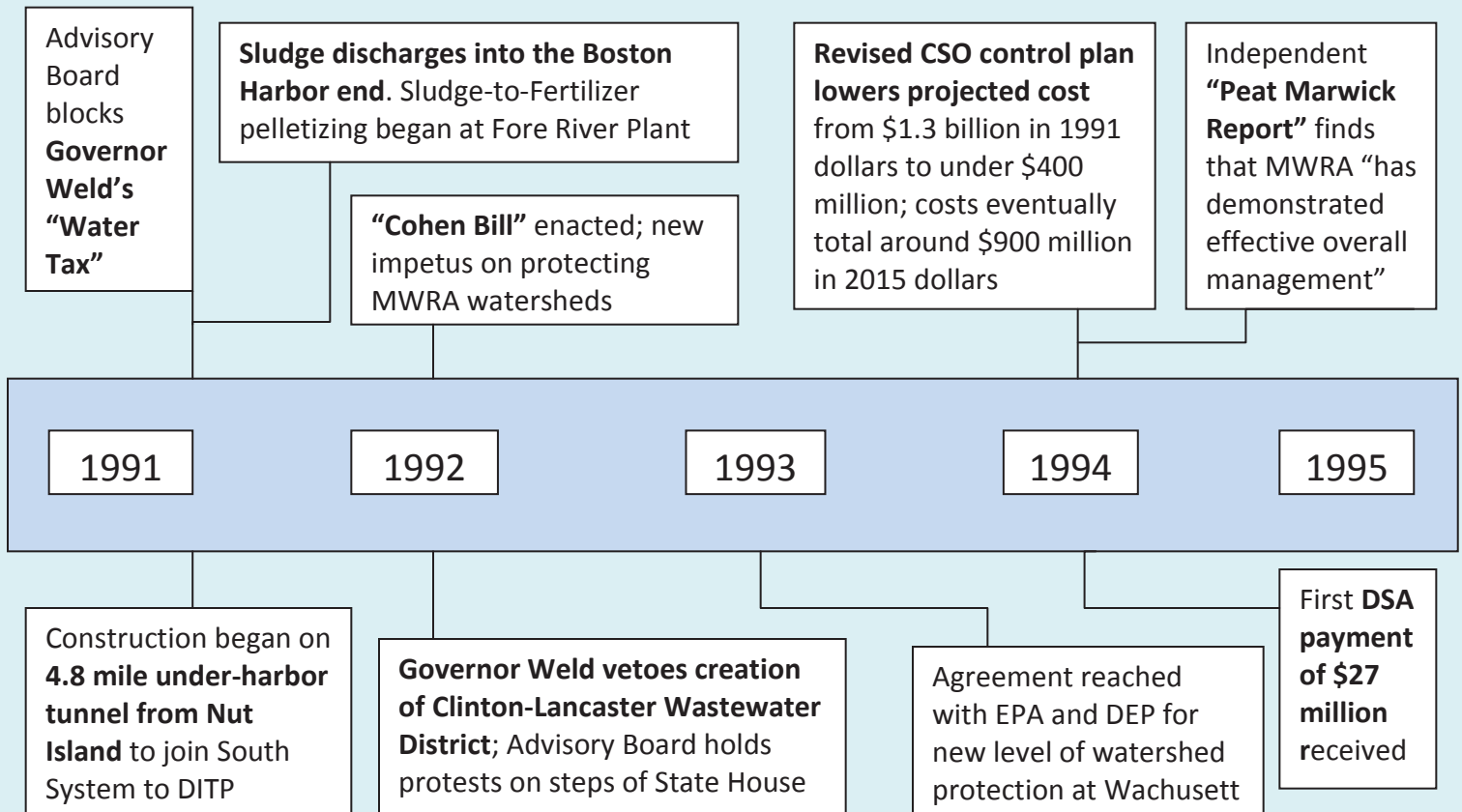
In Full Swing

The MWRA and Advisory Board Optimize Water and Sewer Systems and Policies

The Advisory Board focuses on fairness for all of its communities. This philosophy led to a lawsuit against the Town of Clinton for nonpayment of user charges, as all communities must pay their fair share of the system. The initial court ruling favored the MWRA in the amount of \$6.1 million, but was appealed to the Supreme Judicial Court (see 1996-2000 period for result). A cry for fairness from member communities also led the Advisory Board to restructure the sewer rate methodology, creating a new “flow-based” method in June 1995. This sewer rate methodology has been in place ever since and the Advisory Board, through its dedicated members, was instrumental at getting all communities to agree on a fairer system.

In addition to fairness among communities, the Advisory Board pushed for fairness from regulators, pointing out that state and federal mandates were costing ratepayers millions of dollars and increasing the cost of water and sewer services rapidly. To address this, the Advisory Board put forth an initiative to have the Legislature enact the Commonwealth Sewer Rate Relief Fund (Debt Service Assistance), which allowed the MWRA to recoup some of its debt service expenses on court-mandated projects. Additionally, the Advisory Board pushed to have some court-mandated projects rolled back in size and scope for the purpose of saving eventual debt service costs that would be picked up by ratepayers. As an example, in October 1995, the proposed secondary treatment “Battery D” was eliminated from the Deer Island construction plan saving an estimated \$125 million in design and construction costs. Finally, in 1991, the Advisory Board spearheaded legal action against Governor Weld’s proposed “water tax” and won the landmark decision.

With the introduction of Debt Service Assistance and the continued financial oversight performed by the Advisory Board, the FY1995 rate assessment increase was kept to 0% for the first time since the MWRA was created 10 years earlier. Unfortunately, this would not become the norm, as increasingly stringent state and federal regulations continued to hammer the Authority and subsequently, the ratepayers.



Appendix K

1996 - 2000

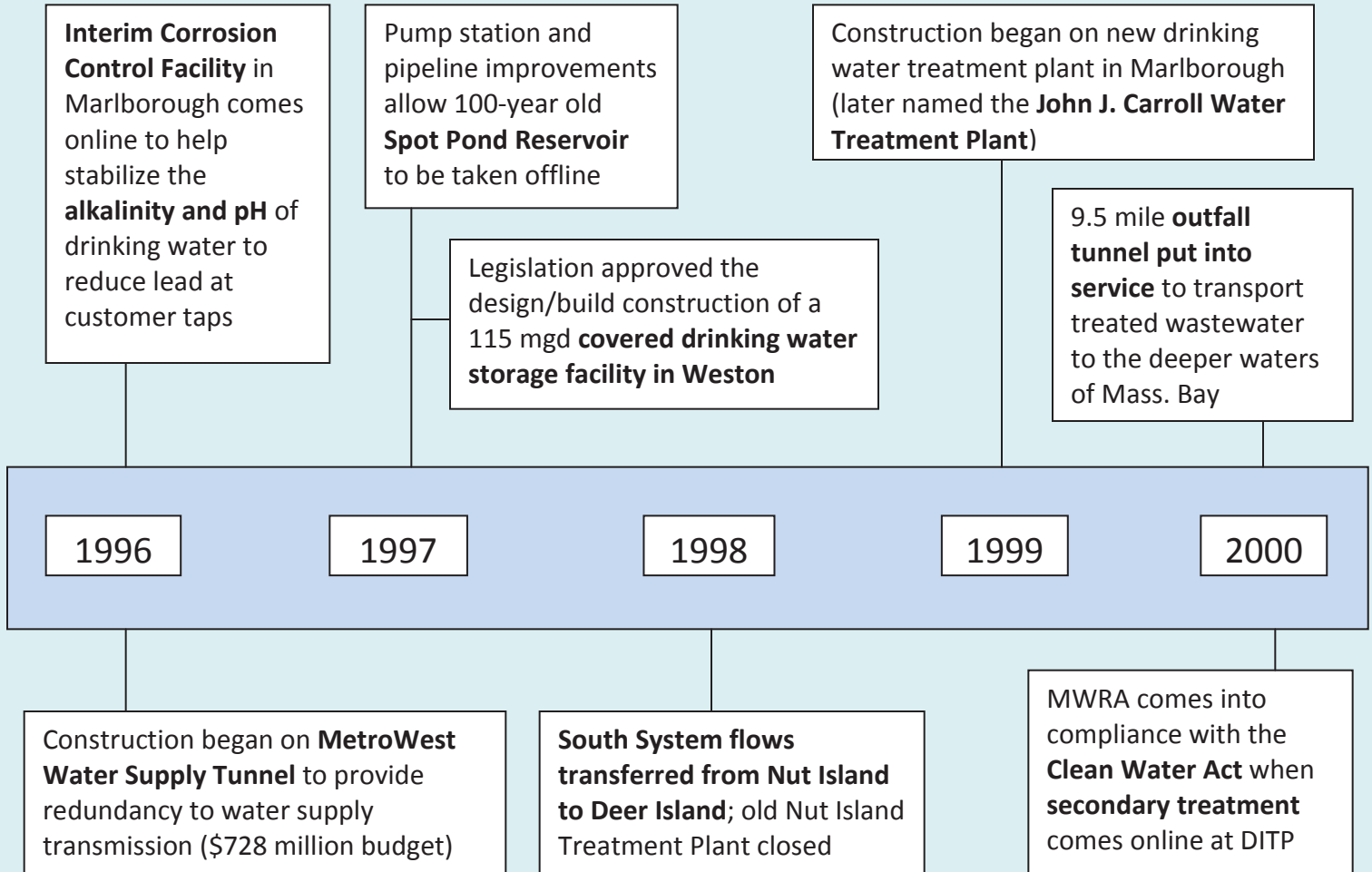
Cutting Back

The Advisory Board Combats Rising Water and Sewer Rate Assessments

Not all major costs of the Authority were court-ordered, many projects were done to improve the system and ensure quality water and wastewater services could be provided with no interruptions in service. An example is the MetroWest Tunnel, which provides redundant water supply transmission to MWRA customers. Construction began in June of 1996 but because it was not considered to be court mandated it was not eligible for Debt Service Assistance. By December 1996 the Advisory Board had successfully petitioned to make the project eligible, gaining vital funding to offset the cost to ratepayers.

Also, in 1996 the Advisory Board finished the drawn out battle over the costs of the Clinton Wastewater Treatment Plant by securing \$4 million from the Legislature as part of a settlement agreement of the lawsuit against the Town of Clinton. While this was a great victory at the time for the Advisory Board, continued attempts by the state to push off expenses of this facility onto the MWRA have led to various battles.

While major accomplishments were reached during this period – namely, transferring South System flows from Nut Island to Deer Island – the impacts of rising costs on communities and ratepayers reached almost extreme levels and the Advisory Board was once again forced to take the role of “fiscal watchdog.” In 1999, the Advisory Board recommended cutting \$10.8 million from the MWRA’s budget and \$91.9 million from the MWRA’s capital plan to combat rising rate assessments. These cuts led to conversations about how to reduce spending through personnel costs (personnel study) and capital projects (5-year CIP spending cap). *(see next period)*



Appendix K

2001 - 2005

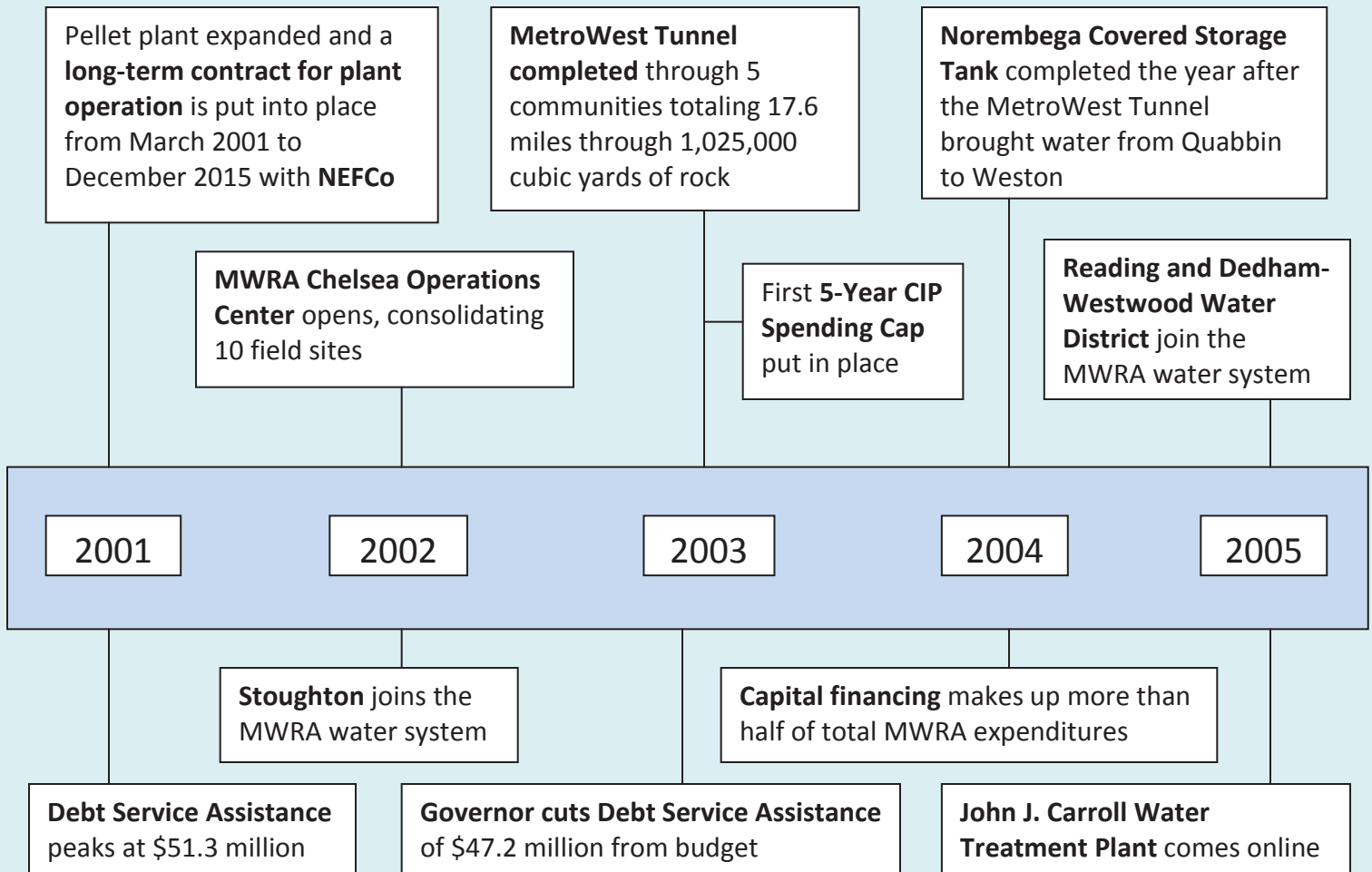
Brand New Waterworks System

Completion of Major Water Initiatives and Entry of New Water Communities

The beginning of 2001 held the finishing touches on the Deer Island Treatment Plant as the punch-list was completed. This turned significantly more attention to the waterworks system and between 2003 and 2005 three major initiatives were completed, including the MetroWest Tunnel, the Norembega Covered Storage Tanks, and the John J. Carroll Water Treatment Plant.

These significant projects, detailed below, optimized the waterworks system and helped support the expansion of the system with Stoughton, Reading, and Dedham-Westwood all joining the MWRA between 2002 and 2005. Important to note is that the Enabling Act explicitly calls for the Advisory Board to vote on any new communities who wish to join the MWRA. At this time, there was discussion about whether the MWRA should sell more water with opposition coming from certain environmental groups who were calling for more water conservation. Ultimately, the Advisory Board's member communities decided that more water customers could be served by the MWRA without any harm to the system while also lowering the shared costs of the system by adding new members.

Finally, this period illustrates one of the most significant steps that the Advisory Board has taken to combat rising costs of debt service: the institution of a **5-Year CIP Spending Cap**, put in place for the 2004-2008 timeframe. The cap set a strict limit on the amount of capital spending that could be undertaken by the Authority. The cap was extremely effective and was followed up by two 5-Year CIP Spending Caps since then in 2009-2013 and the measurably lower cap for 2014-2018.



Appendix K

2006 to 2010

Planning Ahead

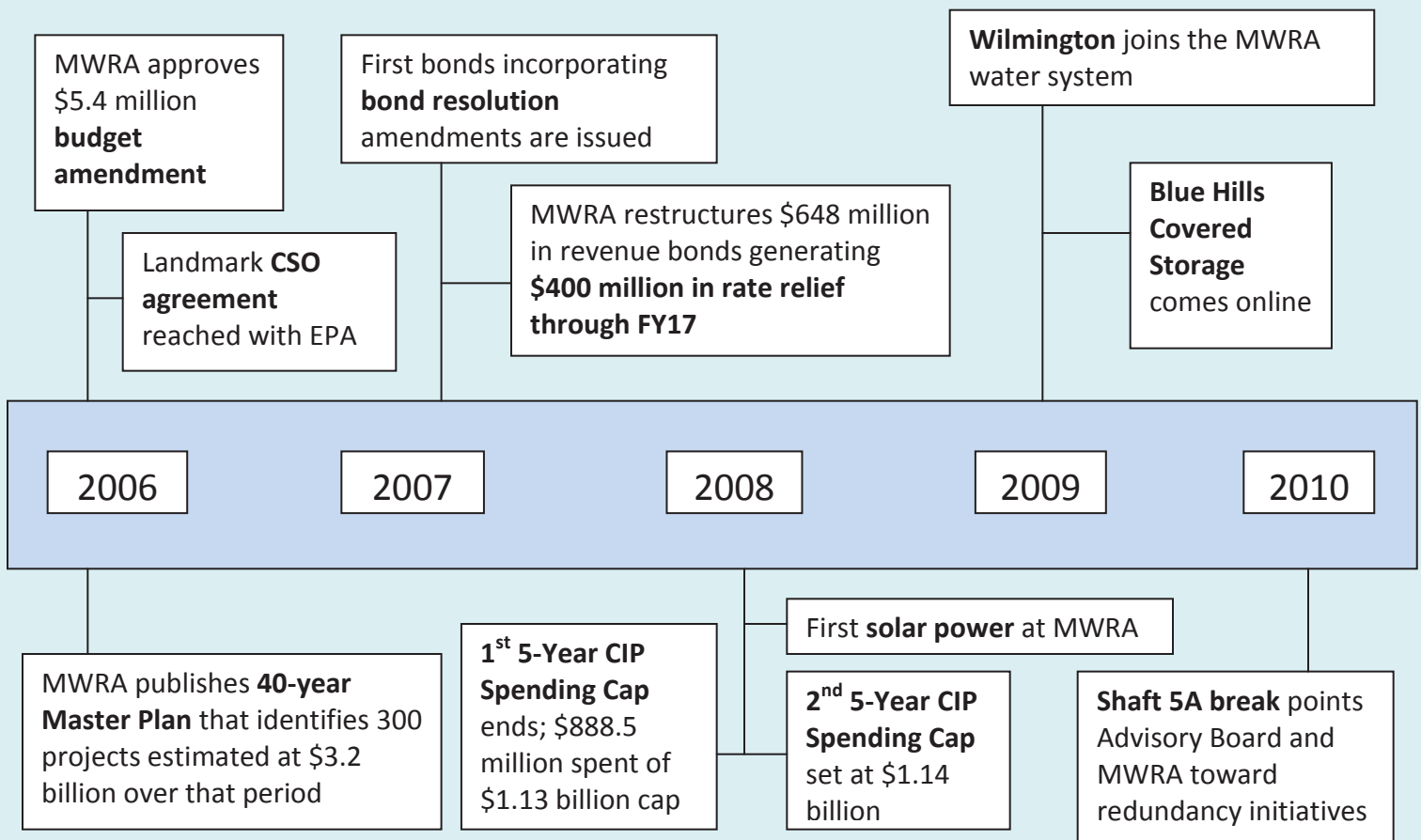
Creation of the Master Plan and a 5-Year Capital Spending Cap

The most common “fight” that the Advisory Board had to undertake prior to 2006 was with state and federal regulators over increasingly stringent regulations and mandates. But between 2006 and 2010, the Advisory Board focused mainly on how the Authority could alter its organizational structure and philosophy to save ratepayer money, while still delivering the same level of service.

First, the Advisory Board continued to recommend that the Authority develop a “Master Plan” that prioritized projects and detailed what areas of the system needed to be focused on and in what order. With this list of priorities, the Advisory Board helped develop the second 5-year capital spending cap with the Authority, which would limit the amount of capital spending that could be done from 2009 to 2013. Additionally, the Master Plan was able to identify more efficient ways to restructure the organization.

Restructuring also led to a question of how large, in terms of personnel, the Authority should be to run efficiently. In February 2010, the Advisory Board wrote a letter to the Board of Directors of the MWRA requesting that the Authority undertake a staffing study to determine the appropriate level of staffing for the organization. The staffing study then allowed the Authority to slowly restructure, while keeping their personnel costs low as skyrocketing health care costs were offset by a declining headcount.

Finally, one of the simple but significant victories from this “Planning Ahead” period was the removal of the “back-up landfill” annual standby fee of \$1.25 million. After years of paying to keep a landfill in Utah on retainer, in the event the residuals plant failed, the Advisory Board successfully got the requirement reduced to the point where a few less distant back up options would suffice, savings millions of dollars.



Appendix K

2011 to 2015

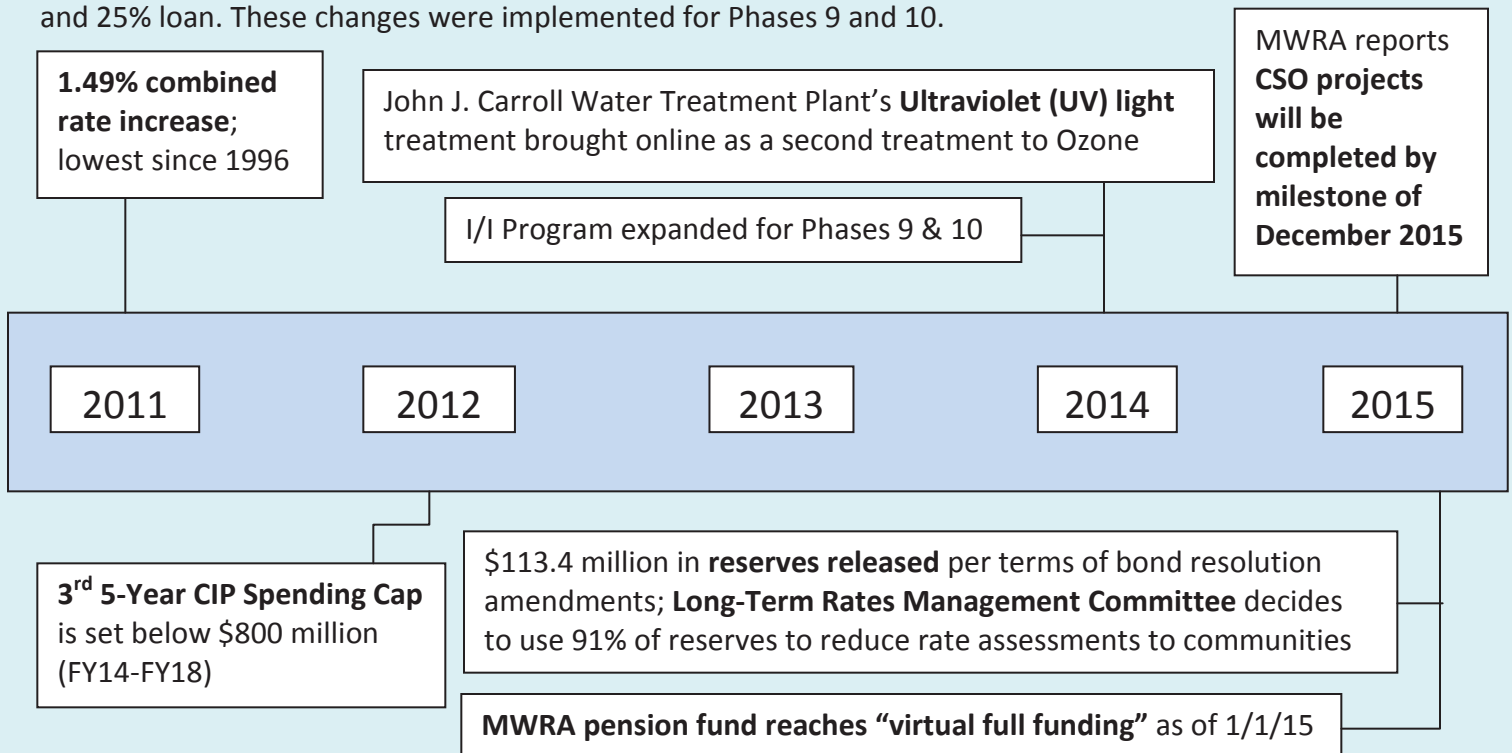
The Home Stretch

Sustainable and Predictable Rate Assessments for Communities and Ratepayers

With both water and wastewater systems having gone through substantial transformations prior to 2011, the real challenge in the “Home Stretch” was managing rate assessment increases while the costs of major projects were paid off through debt service each year. There were points when the Advisory Board and Authority have had an adversarial relationship, like in 2011 when the Advisory Board called for a 0% rate increase with an eventual compromise of 1.49% accepted. After that, the Advisory Board staff and membership reached agreement with the MWRA on an approach aimed at “sustainable and predictable” rate increases, allowing communities to better plan for each year’s budget.

This approach to rate assessment increases was based on the structure of outstanding debt related to previous court-ordered projects and the schedule to pay off that debt. The Advisory Board got onboard with this approach when the MWRA agreed to certain stipulations. First, the Advisory Board pushed for any annual surplus to go toward **defeasing, or pre-paying, future debt service**, targeting the most challenging years for debt service. For example, in its 2012 budget review the Advisory Board put a “bulls-eye” on FY2017, which was considered a challenging year for debt service and a risk for a high rate assessment increase. While initially projected to have a rate increase of 8%, FY2017 now complies with the Advisory Board’s mantra of **“Four No More,”** which means no more combined rate assessment increases over 4% ever again.

Finally, the Advisory Board scored three major victories on behalf of member communities. First, the Advisory Board fought hard for a landmark infrastructure bill, which was passed in 2014 and provided funding for new communities to join the system on the waterworks side by covering half of their entrance fee. Second, the Advisory Board recommended that a new payment plan be accepted for entrance fees to make it easier financially for new communities to join the system; this was adopted by the MWRA Board of Directors in 2014. The third victory was the expansion of the I/I Local Financial Assistance Program, which provides communities funding to do crucial I/I work. The Advisory Board recommended doubling the program from \$40 million phases to \$80 million phases and changing the split of the program from 45% grant and 55% loan to 75% grant and 25% loan. These changes were implemented for Phases 9 and 10.



Appendix K

The Future

Advisory Board and Authority Plan for Future Without Court-Mandated Projects

This document isn't meant to be a victory lap of the Advisory Board or the MWRA. Instead, it is reminder of how far the system has come, and the lens through which we view the challenges ahead. Often, Advisory Board recommendations can take years to develop before their effects are fully realized. New challenges, not foreseen at this time, will inevitably materialize. But below are the challenges we can see on the horizon right now, and how the Advisory Board plans to address them.

In January 2018, the MWRA will commence a three-year performance assessment of the **Long-Term CSO Control Plan**, including post-construction monitoring. A report will be made by December 2020, with the EPA and MassDEP then making final decisions regarding water quality standards for the Charles River and Alewife Brook. It is important that the Advisory Board continue to highlight the impacts of the CSO control plan, because while this will mark the end of work associated with these court-mandated projects, the costs of these projects will be felt by ratepayers for years to come.

With the understanding that the Authority is approaching the end of court-mandated work, the Authority now enters a stage of “debt-management” due to the costs of these projects, slowly being paid down over time. The Advisory Board, therefore, no longer has a role in scaling back capital spending as aggressively as before, instead aiming its sights on how to combat the capital financing costs created by past capital spending (Note: there are still significant capital projects on the horizon, especially related to water redundancy initiatives, but these pale in comparison to previous capital spending levels). To this end, the Advisory Board has laid down a significant challenge as peak debt service years approach: **“Four No More.”** This means no more combined rate assessments increases above 4% from year to year, ever. One thing to keep in mind is that 4% is not a target, it is a ceiling.

But the Advisory Board is not simply setting a ceiling; there are specific ways in which the Advisory Board has continued to support the reduction of future rate increases. First, with the policy recommendation of **“defeasing” debt service**, and then with an agreement with the Authority to aim for **“sustainable and predictable”** rate assessments each year, both of which are policies that the Advisory Board expects to be carried into the future. Also, the Advisory Board continues to strive for revenue sources outside of rate assessments, evident in the Infrastructure Bill of 2014. The Advisory Board will work within the parameters of this bill to provide sources of funding for the “forgotten infrastructure.”

On the policy side, the Advisory Board will continue to fight unnecessarily stringent regulations such as **MassDEP's molybdenum limit** for fertilizer (10 mg/kg for pastureland), which forces the MWRA to ship its pellets out of state, increasing the carbon emissions related to placing the product. While this topic may not excite the majority of ratepayers, it's a prime example of poorly conceived regulations that make it harder for the MWRA to operate on a daily basis and undermine the ability of the MWRA to collaborate with other interested parties, such as Western Massachusetts farmers who would benefit from cheap and effective biosolids (fertilizer).

“The Future” signifies a shift away from the rat race of catching up with changing regulations, and instead leading the nation in efficiencies of water and wastewater systems to deliver the best possible service to communities and their ratepayers. The Advisory Board will continue to work with the Authority to ensure that all decisions are made in the best interest of current member communities and encourage non-member communities to join the system (on the water side only) to be able to take advantage of the great resources that the MWRA has developed over the past 30 years.

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