

Capital Improvement Program

PROPOSED FISCAL YEAR 2005



MASSACHUSETTS WATER RESOURCES AUTHORITY

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by the Rates and Budget Department together with the participation of MWRA staff.

January 15, 2004

Katherine Haynes Dunphy, Chairwoman
MWRA Advisory Board
11 Beacon Street
Boston, MA 02108

Dear Chairwoman Dunphy:

This letter transmits to the Advisory Board MWRA's Proposed Capital Improvement Program (CIP) for fiscal year 2005. The MWRA Board of Directors approved the transmittal on December 17, 2003. The proposed CIP for review by the Advisory Board complies with the total spending limit for fiscal years 2004 to 2008 as set by the Board of Directors in June 2003.

The proposed CIP document provides an overview of MWRA's capital program, including projected expenditures by program area, and highlights changes within the cap period. MWRA staff utilize the capital budget process as one means to support its planning for future system improvements. This document highlights new capital initiatives expected to start within the 10-year horizon of the capital budget. Over the coming months and years ahead, staff will continue to review and refine the planned improvements presented in this document and expect to work closely with the MWRA's Board of Directors and Advisory Board as new initiatives near implementation.

The document and appendices provide additional detail on the proposed changes in costs and schedules at the project and sub-phase levels, and include detailed expenditure forecasts.

Questions or comments on this document or information available on the Internet should be directed to the MWRA Rates and Budget Department.

Please accept our apologies for the late transmittal of this document. I assure you that the proper staff is aware of the importance of this document to support the Advisory Board's review process. We look forward to receiving the Advisory Board's recommendations.

Sincerely,

Frederick A. Laskey
Executive Director

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Proposed FY05 Capital Improvement Program

Overview

MWRA was created by the Massachusetts legislature in 1985. Since that time MWRA has expended \$6.1 billion, two-thirds of which supported improvements to the wastewater treatment, interceptor, pumping, and combined sewer overflow systems. The remaining third supported waterworks treatment, transmission, distribution, and water protection improvements. Between fiscal year 2004 and fiscal year 2014, MWRA expects to spend an additional \$1.9 billion on improvements to the systems bringing total completed and planned improvements to \$8 billion over the 28-year period from 1985 to 2014, the final year in this budget. This extensive expenditure reflects the low levels of capital investment in the 20 years prior to MWRA's creation, the need to make major improvements to the system to comply with new regulatory requirements, and the need to upgrade the infrastructure on a periodic basis to meet service demands.

Capital Improvement Program Expenditure Summary											
Proposed FY05 CIP (December 2003)											
\$ in Millions											
Program Area	Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	Beyond FY13
Wastewater System Improvements	\$ 1,685.3	\$ 664.3	\$ 1,021.0	\$ 104.1	\$ 100.6	\$ 126.9	\$ 137.1	\$ 91.5	\$ 560.2	\$ 416.3	\$ 85.7
Waterworks System Improvements	\$ 2,045.5	\$ 1,275.6	\$ 769.9	\$ 118.5	\$ 83.4	\$ 68.2	\$ 92.7	\$ 78.4	\$ 441.1	\$ 327.5	\$ 19.5
Business & Operations Support	\$ 64.5	\$ 30.6	\$ 33.9	\$ 7.0	\$ 12.3	\$ 7.8	\$ 3.9	\$ 1.2	\$ 32.2	\$ 1.7	\$ -
TOTAL MWRA	\$ 3,795.3	\$ 1,970.6	\$ 1,824.7	\$ 229.6	\$ 196.3	\$ 202.9	\$ 233.6	\$ 171.1	\$ 1,033.5	\$ 745.6	\$ 105.3
Contingency	153.6	-	153.6	-	15.2	17.1	23.1	18.0	73.5	71.7	8.4
TOTAL MWRA with Contingency	\$ 3,948.9	\$ 1,970.6	\$ 1,978.3	\$ 229.6	\$ 211.5	\$ 220.0	\$ 256.7	\$ 189.1	\$ 1,107.0	\$ 817.3	\$ 113.7

The benefits and services to be provided to MWRA ratepayers by the CIP over the next ten years include:

- Completion of the Walnut Hill Water Treatment Plant to ensure continued provision of high quality drinking water to all customers.
- Completion of the connection of the MetroWest Water Supply Tunnel to the Walnut Hill Water Treatment Plant, providing redundancy to the Hultman Aqueduct thus making water delivery to all MWRA customers more reliable.
- Completion of covered storage facilities, including Norumbega and Blue Hills Covered Storage, to provide safe, reliable storage for water treated at Walnut Hill and transported through the MetroWest Tunnel and Hultman Aqueduct.
- Rehabilitation of the Wachusett and Hultman Aqueducts as well as rehabilitation of top shaft structures on the Quabbin Tunnel, Dorchester Tunnel, City Tunnel, Southborough Tunnel, and City Tunnel Extension.
- Rehabilitation of a significant portion of the West Roxbury Tunnel.

- Completion of the long-term CSO control plan, resulting in closing 35 of 84 CSO outfalls and reducing CSO discharges to Boston Harbor and the Mystic, Charles, and Neponset Rivers by 88% from 1987, when MWRA accepted responsibility for CSO control, with 95% of remaining discharges receiving treatment.
- Construction of new interceptor facilities to serve Braintree, Hingham, Holbrook, Randolph, Weymouth, and sections of Quincy, and to reduce sewage overflows into the Weymouth Fore River.
- Continued rehabilitation of the water distribution system at a rate of seven to ten miles per year (2.5% to 3% of the total 265 miles of MWRA pipeline).
- Improvement and replacement of equipment on Deer Island to ensure that the plant continues to operate efficiently and effectively.
- Security improvements to protect MWRA facilities.

Highlights

At its June 11, 2003 meeting, the MWRA Board of Directors adopted a five-year capital spending cap that limits total expenditures for fiscal years 2004 to 2008 to \$1.1 billion. Annual spending within the five-year period may vary within plus or minus 20% of the initial budget amounts as long as the five-year total is not exceeded. The proposed FY05 CIP presented for review by MWRA's Advisory Board complies with the total spending limit for the five-year period. Table 1 provides a comparison of total cap spending, by component, of the baseline and proposed CIP.

	Jun-2003 Baseline	Dec-2003 Proposed	Net Change
Projected Expenditures	\$1,023.3	\$1,033.5	\$10.3
Contingency	86.9	73.5	(13.4)
Inflation	35.7	38.2	2.5
Less: Chicopee Valley Aqueduct Projects	(11.4)	(11.1)	0.3
FY04-08 CAP	\$1,134.5	\$1,134.2	(\$0.3)

Spending changes by fiscal year are within the limits established when the cap was adopted. Table 2 provides a comparison of cap spending, by fiscal year, against the baseline (June 2003) and proposed (December 2003) CIP. Explanation of changes within the cap period and changes to the 10-year capital improvement program are discussed later. A comparison, by project, of projected expenditures for the FY04-08 cap period is provided in Appendix 1.

	FY04	FY05	FY06	FY07	FY08	Total FY04-08
Baseline (Jun-2003)	\$250.9	\$203.5	\$215.2	\$250.1	\$214.8	\$1,134.5
Proposed CIP (Dec-2003)	228.0	206.1	225.9	271.5	202.6	1,134.2
\$ Change	(\$22.9)	\$2.6	\$10.8	\$21.5	(\$12.2)	(\$0.3)
% Change	-9.1%	1.3%	5.0%	8.6%	-5.7%	0.0%

Changes within the CAP Period -

As part of the proposed CIP update process, staff review all projects and make adjustments to incorporate new information. Adjustments include: 1) updated cost estimates based on design submittals or adjustments to approved and expected change orders or amendments; 2) schedule revisions to reflect additional time to review design submittals, incorporate scope changes, and/or address permitting issues; and 3) revised spending based on activity to-date or comparison with similar project spending. In addition, new capital needs expected over the ten-year period are reviewed and incorporated. As discussed later, some of this new capital work is expected to start within the cap period. These changes, plus revised calculations for contingency and inflation cap components, are incorporated into revised projected expenditures that must comply with the cap limit.

Table 3 provides a summary of the changes within the cap period. As shown in Table 3, increases of \$75 million within the cap period were offset by decreases of \$75.3 million resulting in a net decrease of \$0.3 million within the cap period.

	Net Increases	Net Decreases
Cost Changes	\$29.0	
Contingency		(\$13.4)
Schedule Revisions		(\$30.3)
Revisions to Spending Assumptions		(\$31.6)
New Projects/Phases	\$43.4	
Inflation	\$2.6	
TOTAL CAP Period CHANGE	\$75.0	(\$75.3)

Appendix 1 provides a comparison of projected expenditures, by project, for the FY04-08 cap period. The comparison includes explanations for changes of plus or minus \$1 million, which account for 85% of the change. Project changes of plus or minus \$5 million are summarized below:

Increases within the Cap Period -

- \$14.7 million for the Walnut Hill Water Treatment Plant, of which \$8.1 million is for cost increases and \$6.4 million is for new work. Cost changes include additional design and

construction management services for Wachusett and Walnut Hill treatment plants (\$2.3m) to support startup and operational assistance, additional change order work for inspection of the Cosgrove Tunnel and security improvements for vents and hatches (\$3.2m), and a revised estimate for CP-7 ICCF construction (\$3m). New work includes as-needed design services for potential post warranty work and Ultra Violet (UV) treatment to meet the Long Term 2 Surface Water Treatment Rule (LT2SWTR). Design services for the UV work are expected to start in FY06.

- \$8.5 million for settlements related to the residuals plant at FRSA.
- \$8.5 million for the West Roxbury Tunnel project. The schedule for the start of tunnel design has been moved ahead by 12-months to start in September 2005 and construction moved ahead by 6-months to start in December 2007.

Decreases within the Cap Period -

- \$21.2 million for the Local Water Pipeline Loan Program. This program is authorized for \$25 million per year, but loan activity to-date is averaging closer to \$18 million per year. Based on historical activity, projected spending has been revised, resulting in a net reduction of \$21.2 million within the cap period.
- \$8.2 million for DI Asset Protection, to reflect pace of work expected to be completed within the cap period.
- \$6.3 million for North Dorchester Bay and Reserved Channel project, reflecting refinement of spending projections in FY07 and FY08.
- \$6 million for Northern Low Service Rehabilitation of Section 8, to align projected spending with the start of construction scheduled for July 2008 (FY09).

CIP Expenditures by Program Area

The chart below presents the CIP budget by capital program areas and program category. Individual project summaries with changes from the Final FY04 CIP are provided later and available on-line at www.mwra.state.ma.us.

Capital Improvement Program Expenditure Summary											
Proposed FY05 CIP (December 2003)											
\$ in Millions											
Program Area	Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	Beyond FY13
Wastewater System Improvements	\$ 1,685.3	\$ 664.3	\$ 1,021.0	\$ 104.1	\$ 100.6	\$ 126.9	\$ 137.1	\$ 91.5	\$ 560.2	\$ 416.3	\$ 85.7
Interception & Pumping	764.5	342.5	422.1	34.7	29.7	55.5	35.1	17.1	172.1	199.4	84.5
Treatment	135.3	10.2	125.2	3.3	15.9	19.8	11.5	7.4	58.0	64.8	14.4
Residuals	67.3	56.6	10.7	10.0	-	-	-	-	10.0	-	0.7
CSO	649.2	205.3	443.9	53.0	51.2	48.7	88.1	64.1	305.1	138.8	-
Other	68.9	49.7	19.1	3.1	3.8	2.9	2.4	2.9	15.1	13.2	(13.9)
Waterworks System Improvements	\$ 2,045.5	\$ 1,275.6	\$ 769.9	\$ 118.5	\$ 83.4	\$ 68.2	\$ 92.7	\$ 78.4	\$ 441.1	\$ 327.5	\$ 19.5
Drinking Water Quality Improvements	605.0	386.3	218.8	63.7	30.1	20.7	14.3	5.5	134.2	79.1	18.2
Transmission	788.9	619.4	169.5	12.5	14.3	6.1	6.0	11.1	50.1	98.6	38.9
Distribution And Pumping	623.0	198.6	424.4	29.3	27.0	31.1	64.1	55.2	206.7	152.3	72.9
Other	28.6	71.3	(42.7)	13.0	12.0	10.3	8.3	6.6	50.2	(2.5)	(110.4)
Business & Operations Support	\$ 64.5	\$ 30.6	\$ 33.9	\$ 7.0	\$ 12.3	\$ 7.8	\$ 3.9	\$ 1.2	\$ 32.2	\$ 1.7	\$ -
TOTAL MWRA	\$ 3,795.3	\$ 1,970.6	\$ 1,824.7	\$ 229.6	\$ 196.3	\$ 202.9	\$ 233.6	\$ 171.1	\$ 1,033.5	\$ 745.6	\$ 105.3
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Wastewater System Improvements

The Wastewater System Improvements program area consists of 48 projects in the five program categories listed below.

Capital Improvement Program Expenditure Summary											
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\$ in Millions											
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Interception & Pumping	764.5	342.5	422.1	34.7	29.7	55.5	35.1	17.1	172.1	199.4	84.5
Treatment	135.3	10.2	125.2	3.3	15.9	19.8	11.5	7.4	58.0	64.8	14.4
Residuals	67.3	56.6	10.7	10.0	-	-	-	-	10.0	-	0.7
CSO	649.2	205.3	443.9	53.0	51.2	48.7	88.1	64.1	305.1	138.8	-
Other	68.9	49.7	19.1	3.1	3.8	2.9	2.4	2.9	15.1	13.2	(13.9)

Interception and Pumping - MWRA is undertaking, and in some cases has completed, several major projects to extend, enlarge, and rehabilitate large sewer interceptors and pump stations. These projects are necessitated by the age of the pipelines and facilities and their inadequate capacity to serve existing or projected populations. As MWRA completes the projects, the increased capacity and improved operation alleviates sewer surcharging and reduces or eliminates overflow problems. The budgets for interceptor sewer and pumping projects total \$764.5 million, of which \$342.5 million was expended by the end of FY03 and \$172.1 million is budgeted for FY04-08. These projects are integral components of MWRA's environmental protection program for Boston Harbor

and correct severe operational and environmental deficiencies of the sewer system growing out of many years of under-investment in basic system infrastructure. The largest interception and pumping project is the \$227 million Braintree-Weymouth Relief Facilities project, which was approximately 76% constructed as of November 2003. When completed in FY07, the project will provide capacity for peak flows in Braintree, Hingham, Holbrook, Randolph, Weymouth, and sections of Quincy.

Treatment - As the new Deer Island treatment facilities have become operational, plant staff have assumed responsibility for maintenance and ongoing capital improvements. The proposed CIP includes \$135.3 million for these improvements, including \$65 million for equipment and system replacement and upgrades over the next ten years through the Deer Island Treatment Plant (DITP) Asset Protection project. The \$65 million amount is an estimate that is refined annually, as additional operational and maintenance information becomes available.

Residuals - MWRA has completed modification of four existing processing trains and added two new trains to its sludge processing facilities in Quincy to accommodate the increased sludge volumes generated by secondary treatment and to increase efficiency. Final construction work at the processing plant was completed in December 2001. In FY04, MWRA resolved an outstanding construction claim.

Combined Sewer Overflows - Discharges of combined wastewater and stormwater runoff from 63 remaining CSO outfalls in the MWRA system and four of the service area community systems (Boston, Cambridge, Chelsea, and Somerville) affect water quality in the Charles, Mystic, and Neponset Rivers and in Boston Harbor. Pursuant to a 1987 stipulation entered in the Clean Water Act case, MWRA has responsibility for developing and implementing a long-term plan for CSO control at all locations. MWRA first proposed the current long-term plan in its CSO Conceptual Plan and Sewer System Master Plan in December 1994. The CSO Conceptual Plan, developed in accordance with EPA's National CSO Policy, incorporated then current information about the volume of CSO flows and water quality impacts.

MWRA completed its Final CSO Facilities Plan and Environmental Impact Report based on the CSO Conceptual Plan in July 1997. The Final CSO Facilities Plan comprises 25 site-specific projects, including such measures as sewer separation, interceptor improvements, CSO treatment upgrades and new CSO treatment facilities, and storage. The court order includes more than 50 milestones directing the design and construction of the projects. Fourteen of the projects are complete, and four are in construction. Portions of two additional projects, the Cambridge/Alewife Brook Sewer Separation project and the East Boston Branch Sewer Relief project, have been constructed, but the remaining portions of these projects are subject to ongoing engineering reassessments and regulatory review to determine the most appropriate approaches to complete the projects and attain CSO control goals, in light of significantly higher cost estimates. The remaining five projects are in design. Three of these (North Dorchester Bay Conduit, Reserved Channel Conduit, and Reserved Channel CSO Treatment Facility) make up the South Boston CSO plan for which MWRA suspended design work in 2000 pending a full project reassessment due to community opposition to the siting of the CSO treatment facility. MWRA intends to file a Supplemental Environmental Impact Report in March 2004, which will present a new recommended plan for North Dorchester Bay and Reserved Channel.

DEP and EPA have approved most of the CSO facilities plan and have made most of the regulatory determinations necessary for the facilities plan to comply with state water quality standards. The plan for CSOs affecting the Charles River, Upper Mystic River and Alewife Brook areas has received approval through variances from water quality standards, pending the outcome of studies being conducted to determine whether additional controls are appropriate.

The proposed CIP includes \$649.2 million for planning, design, and construction costs for these CSO projects.

Waterworks System Improvements

The Waterworks System Improvements program area consists of 55 projects in the four program categories listed below. The projects in MWRA's Integrated Water Supply Improvement Program, including the MetroWest Water Supply Tunnel, the Walnut Hill Water Treatment Plant, covered storage facilities, and pipeline replacement and rehabilitation, cross all Waterworks program categories. The timing of these major projects is designed around the initial operation of the MetroWest Water Supply Tunnel which will convey water from the new Walnut Hill Treatment Plant to be stored in the new Loring Road Covered Storage facility (20 million gallons) and the new Norumbega Covered Storage facility (115 million gallons) to meet the demand in the metropolitan area. Construction of these facilities is synchronized to facilitate joint operation in 2004, following a period of extensive testing and start up activities.

Total estimated expenditures for Waterworks system projects for fiscal years 2004 through 2008 are \$441.1 million, with another \$327.5 million in spending forecast through fiscal year 2013.

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Waterworks System Improvements	\$ 2,045.5	\$ 1,275.6	\$ 769.9	\$ 118.5	\$ 83.4	\$ 68.2	\$ 92.7	\$ 78.4	\$ 441.1	\$ 327.5	\$ 19.5
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Transmission	788.9	619.4	169.5	12.5	14.3	6.1	6.0	11.1	50.1	98.6	38.9
Distribution And Pumping	623.0	198.6	424.4	29.3	27.0	31.1	64.1	55.2	206.7	152.3	72.9
Other	28.6	71.3	(42.7)	13.0	12.0	10.3	8.3	6.6	50.2	(2.5)	(110.4)

Waterworks System Improvements projects are designed to upgrade and extend the useful life of the water supply, transmission, and distribution systems in order to assure a high level of water quality and reliable distribution.

Drinking Water Quality Improvements. This program area consists of aggressive watershed protection, construction of modern treatment facilities, and completion of distribution system improvements including construction of covered storage facilities and pipeline rehabilitation. Total estimated costs of the projects related to water treatment improvements, provision of covered storage facilities, and aggressive protection of source water quality are \$605 million, of which \$424.7 million is for water treatment, and \$180.3 million is for covered storage facilities and watershed

protection. By the end of FY03, \$386.3 million was expended for these projects, and \$134.2 million is budgeted for FY04-08.

MWRA is constructing the new Walnut Hill Water Treatment Plant to treat water delivered from the Wachusett Reservoir (including water transferred to the Wachusett Reservoir from the Quabbin Reservoir) through ozonation and chloramination. Construction of the treatment plant began in November 2000. When construction and testing are completed in December 2004, the plant will be able to treat 405 mgd of drinking water.

Existing uncovered distribution reservoirs are vulnerable to airborne contaminants and allow the growth of bacteria, plants, and algae. MWRA is eliminating the use of open distribution reservoirs by constructing covered storage facilities. These facilities will replace active distribution storage of approximately 2.4 billion gallons in open reservoirs with more than 30 million gallons of covered storage downstream of the planned Walnut Hill Water Treatment Plant by 2004. In FY00, MWRA awarded a contract for the design and construction of the Norumbega covered storage facility, in the amount of \$89.5 million. Construction began in November 1999 and was approximately 91% complete through November 2003.

Transmission. Critical needs of MWRA's aqueduct system include correction of structural conditions to reduce leakage and provision of redundancy for critical sections of the transmission system, such as the Hultman Aqueduct and the Southborough Tunnel, where transmission now depends on a single conduit. The total estimated cost of transmission projects in the CIP is \$788.9 million, of which \$619.4 million was expended by the end of FY03, and \$50.1 million is budgeted for FY04-08.

MWRA's largest transmission project is the MetroWest Water Supply Tunnel, a 17.6-mile long, 14-foot diameter deep rock tunnel running from Marlborough to Weston. The MetroWest Water Supply Tunnel is critical to provide an appropriate level of transmission redundancy and is a key element in the planning, design, and eventual operation of the water treatment plant and covered distribution storage projects described above. Construction of the tunnel, which began in June 1996, is complete and the tunnel was placed in service in November 2003. The proposed CIP includes a total cost of \$677.4 million for the MetroWest Water Supply Tunnel.

Distribution and Pumping. The proposed CIP includes projects for rehabilitation, upgrade, or new construction of pipelines, pumping facilities, valves, and meters. The budgets for these projects total \$623 million, of which \$198.6 million was expended by the end of FY03, and \$206 million is budgeted for FY04-08. Over the next 30 years, MWRA plans to rehabilitate or replace 200 miles of unlined pipe at a rate of approximately seven miles of pipe each year.

Other Waterworks Projects. These projects include expansion of the Waterworks system's central monitoring system, various system rehabilitation projects, and two local community financial assistance programs. The total budgeted cost of these projects is \$28.6 million.

Business and Operations Support

The Business and Operations Support program area consist of projects that sustain MWRA's mission by supporting MWRA operations.

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\$ in Millions											
Program Area	Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	Beyond FY13
Business & Operations Support	\$ 64.5	\$ 30.6	\$ 33.9	\$ 7.0	\$ 12.3	\$ 7.8	\$ 3.9	\$ 1.2	\$ 32.2	\$ 1.7	\$ -
Capital Maintenance Development	6.4	2.2	4.2	0.1	0.7	1.3	1.4	0.6	4.1	-	-
Equipment Purchase	13.9	0.8	13.1	4.3	7.0	1.8	-	-	13.1	-	-
MWRA Facility - Chelsea	10.2	8.6	1.6	1.2	0.5	-	-	-	1.7	-	-
Technical Assistance	2.1	-	2.1	-	0.7	0.7	0.7	-	2.1	-	-
Business Systems Plan	26.2	18.0	8.2	1.2	2.7	3.2	1.2	-	8.3	-	-
Environmental Remediation	1.8	1.1	0.6	0.2	0.1	0.2	0.1	0.1	0.7	-	-
MWRA Facilities Planning	4.0	-	4.0	-	0.7	0.6	0.6	0.5	2.4	1.6	-

Capital Maintenance Planning and Development

This project was initially part of the Wastewater Facilities Asset Management Program in the Wastewater program area. The first phase of the project was evaluation of maintenance strategies for process equipment and systems on Deer Island, and adoption of Reliability Centered Maintenance (RCM) as the DITP maintenance strategy. MWRA is now implementing RCM at all its facilities. As a result this project was renamed and moved to Business and Operations Support.

Equipment Purchase

The proposed CIP includes \$13.9 million for equipment, \$12 million of which is for the purchase and installation of security systems and improvements to protect various MWRA sites and facilities. Additional equipment to be purchased includes a backhoe, a vactor truck, power sweeper, crane, and laboratory equipment to test for high sensitivity metals in wastewater as required by MWRA's NPDES permit.

Business Systems Plan

The Business Systems Plan is a multi-year project to maintain and improve the management of information and communication systems essential to MWRA financial and business functions. To date MWRA has spent \$18 million on this project. The remaining \$8 million in projected expenditures for includes work to upgrade the Geographical Information Systems portfolio, improve TV inspection data software, replace minicomputers with open virtual memory systems, and replace the laboratory information management system (LIMS).

MWRA Chelsea Facility

In June 2001 MWRA began moving staff to its new Chelsea facility, a major step designed to improve operations by consolidating maintenance, operations, administrative, and equipment storage functions into a single new facility serving the northern service area. Maintenance staff began

moving to Chelsea in November 2001, and the facility is now fully operational. Lease payments for the facility are budgeted in MWRA's Current Expense Budget. Remaining expenditures are to complete MIS data links and some fitout of the facility.

Environmental Remediation

The Environmental Remediation project funds clean up of oil contaminated soil, replacement of underground storage tanks, and other environmental remediation work. With the exception of some ongoing monitoring, all work in this program is complete.

MWRA Facilities Planning

This is a new project that consolidates existing MWRA projects (DI Maintenance Facilities and DI CSB Demolition) to provide a central point of review and decision making for space planning decisions. Of the \$4 million project budget, \$2.6 million is a transfer of existing projects and \$1.4 million is for new work. The new work includes funds to rehab or demolish the old Admin Building on Deer Island as the building has deteriorated (i.e. the roof leaks, windows need to be replaced), certain structures need to be upgraded to current standards if it is to remain occupied (bathrooms, electrical, and plumbing systems); funds to complete installation of the sandblast booth and the paint booth, purchased from the developer, in the Maintenance Building at Chelsea for a fully functional shop, and funds to construct a washdown area to sanitize tools, equipment, and parts before working on them in the shop areas at Chelsea.

New Capital Initiatives -

The proposed budget reflects new initiatives estimated at \$289 million of which 15% or \$43 million is projected to be expended within the cap period. These new initiatives begin to shape and define the next five-year cap. At this point, these projects are presented in the capital budget to recognize the need for capital improvements and to assess their relative priority against other projects in the budget.

New major initiatives are noted below and described in the appendix. Staff intend to present separate informational briefings to the Board before these new initiatives are implemented.

- \$114 million for a multiyear Interceptor Renewal program to rehabilitate pipelines that pose the highest risk and/or consequence of failure as assessed by MWRA staff. Initial work is expected to start in FY06 with \$3 million in projected expenditures within the cap period.
- \$44 million for Walnut Hill Ultra Violet (UV) Treatment. The Long Term 2 Surface Water Treatment Rule (LT2WTR) is expected to require that two primary disinfectants be used on unfiltered water by the year 2012. Design services for the UV work are expected to start in FY06 with \$4 million in projected expenditures within the cap period. Construction would be complete by 2012.
- \$39 million for Sudbury Aqueduct rehabilitation. Inspections done in 2002 revealed that the

aqueduct is in need of rehabilitation to restore it to a reliable emergency supply until the northern or southern tunnel loop is constructed. Design work is expected to start in FY09, outside the cap period.

- \$24 million for optimization of the Cambridge Branch Sewer (CBS) to provide surcharge relief, contribute to CSO reductions, operational flexibility, and ensure redundancy of a critical siphon section. This project will 1) design and construct an interconnection between the upstream end of the Somerville-Medford Branch Sewer and North Metropolitan Relief Sewer (2800 feet) to bypass flow around the CBS and Delaurie Pump Station; 2) design and construct an additional siphon(s) adjacent to the 5-foot single barrel siphon; and 3) design and construct improvements to the Delaurie Pump Station to increase the facilities pumping capacity by 20 mgd. Design work is expected to start in FY07 with \$0.1 million in projected expenditures within the cap period.
- \$18 million for a Phase V Infiltration/Inflow (I/I) Grant/Loan Program. This program will provide \$40 million to fund local community I/I reduction and sewer system rehabilitation projects. The funds will be distributed as 45% grants (\$18 million) and 55% interest-free loans (\$22 million) repaid over 10 years. Phase V is expected to start in FY05 with net spending of \$13.4 million within the cap period.
- \$6.5 million for As-Needed Design Services. These services will provide multi discipline design services, which have flexibility to meet capital needs and enhance delivery of smaller value capital projects. This type of contract has been used on Deer Island since the completion of the BHP. The proposed CIP includes \$2 million for Deer Island to continue its program, \$1.5 million for a similar program for the post-warranty phase for the Walnut Hill Treatment Plant, and \$3 million to provide general water and wastewater design services for other as-needed capital projects. These services are expected to start in FY05 with \$6.5 million to be expended within the cap period.

There will be additional opportunities to review these initiatives and any new initiatives added to a subsequent capital budget as part of the annual budget process each year.

There are still risks which are not yet funded in the CIP, the largest of which is potential cost changes to the CSO program depending on the outcome of regulatory reviews. Should this risk or other risks adversely impact spending within the FY04-08 cap period, staff will assess the implications and alternatives to stay within the cap.

Contingency

There are costs associated with the Capital Improvement Program that are not possible to predict with any degree of certainty. These costs include legal fees, claims settlements, acquisition of land, and a variety of study, design, and construction change orders and contract amendments. MWRA uses a contingency budget to cover these costs if they exceed the approved budget. The contingency budget is calculated as a percentage of expected capital expenditure cash outlays (15% for tunnel construction and approximately 10% for all other projects).

The total contingency budget for the ten-year CIP is \$153.6 million. The contingency budget for FY04-08 is \$73.5 million.

The next section of the document provides an overview of each project. The information presented is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). It highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

S.102 Quincy Pump Facilities

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

MWRA's three pump facilities in Quincy (Quincy, Squantum, Hough's Neck) were beyond their useful lives and prone to failure. Force mains connected to the stations were corroded and maintained a very low velocity resulting in high-energy losses because of friction and other flow constraints. Under this project MWRA is constructing new pump stations and has rehabilitated force mains to ensure continuous pumping of sewage flows to treatment facilities. Operating costs have been reduced as a result of reduced staffing needs following the completion of the automated Quincy Pump Station. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$26,290	25,442	848	750	97	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$26,013	26,290	277	Jul-03	Sep-03	2	\$568	847	279

Explanation of Changes

- Project Cost - Design and construction changes to resolve pump problems at the Squantum Pump station resulted in increased project cost of \$277,000 and schedule extension to September 2003.
- Schedule – None.
- CAP Impact - Completion of construction changes, expected in FY03, to be completed in FY04.

S.104 Braintree-Weymouth Relief Facilities

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Construction of relief facilities and the resulting reduction in community infiltration and inflow will provide capacity for peak sewage flow from Braintree, Hingham, Holbrook, Randolph, Weymouth, and sections of Quincy. This project will reduce surcharging in Braintree and Weymouth, and reduce frequent overflows into the Weymouth Fore River during wet weather. This project is being completed in accordance with a DEP administrative consent order. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$227,013	154,772	72,241	28,104	14,253	20,241	7,760	1,583	300

Project Status	81%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$226,556	227,013	457	Jun-07	Jun-07	-	\$70,001	71,941	1,940

Explanation of Changes

- Project Cost - A close-out credit change order for unexpended bid items for the Tunnel Construction (contract 5315) was offset by additional design, resident inspection and construction services for contracts 5313 and 5331.
- Schedule -None.
- CAP Impact -Additional design, construction, and resident inspection services increased spending within the CAP period.

S.105 New Neponset Valley Relief Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Construction of relief facilities to correct structural and hydraulic deficiencies in the New Neponset Valley Interceptor Sewer System to reduce surcharging and sewage overflows which, combined with other pollution, threatened the Neponset River Watershed, the water supply for Canton and the Dedham/Westwood Water District. Completion of the facilities will also accommodate an anticipated increase in demand resulting from population growth in the service area. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$30,334	30,297	37	37	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$30,334	30,334	-	Jul-96	Jul-96	-	\$22	37	15

Explanation of Changes

- Project Cost – None.
- Schedule – None.
- CAP Impact – Remaining balances pending project close-out.

S.131 Upper Neponset Valley Sewer System

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

The Upper Neponset Valley Sewer is hydraulically deficient resulting in frequent community system back-ups and interceptor overflows during wet weather to adjacent residential areas and water bodies in Brookline, Boston, Newton, and Dedham. Construction of a new relief interceptor will reduce chronic wastewater overflows and surcharging during wet weather and improve service and water quality. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$28,293	1,684	26,609	840	4,392	14,237	6,976	119	45

Project Status	9%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$27,785	28,293	508	Sep-07	Sep-07	-	\$26,055	26,564	509

Explanation of Changes

- Project Cost – Change due to revised appraisal estimates for easements for land acquisition to support this project.
- Schedule – None.
- CAP Impact – Due to land acquisition costs noted above.

S.140 Neponset Valley Relief Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

The Neponset Valley Sewer is hydraulically deficient. Construction of a new interceptor will reduce chronic wastewater overflows and surcharging and improve service and water quality. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$12,333	-	12,333	-	-	-	-	-	12,332

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$12,345	12,333	(12)	Jul-15	Jul-18	37	\$734	-	(734)

Explanation of Changes

- Project Cost – Updated inflation estimates based on projection of Boston construction index.
- Schedule – Shifted schedule due to competing project priorities and staffing limits.
- CAP Impact – Project planning phase shifted to January 2010, outside the current CAP period.

S.106 Wellesley Ext Replacement Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Construction of a replacement sewer and rehabilitation of sections of existing sewer lines has largely alleviated capacity constraints, improved the water quality of the Charles River, protected the aquifers, and reduced back-ups in Needham and Dedham. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$88,108	64,359	23,750	90	2	404	219	608	22,425

Project Status	73%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$88,131	88,108	(23)	Jan-11	Jul-12	18	\$1,755	1,323	(432)

Explanation of Changes

- Project Cost – Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – Shifted schedule due to competing project priorities and staffing limits.
- CAP Impact – Shifted start of design for construction 8, which reduced planned spending within the CAP period.

S.107 Framingham Extension Relief Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

The Framingham Extension Sewer had inadequate capacity to serve current and projected demand, resulting in surcharging and discharging of sewage into local water bodies such as the Charles River and Beaverdam Brook. The installation of a new force main and gravity sewer, construction of a new pump station, and rehabilitation of approximately 23,000 linear feet of existing pipe will provide sufficient capacity to transport peak flows and reduce overflows. This project is being completed in accordance with an EPA/DEP administrative consent order. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$48,037	47,900	137	110	26	1	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$48,382	48,037	(345)	Sep-04	Sep-04	-	\$-	137	137

Explanation of Changes

- Project Cost – Change due to credit close-out change order for Late Sewer Rehab. (contract 5342).
- Schedule – None.
- CAP Impact – Miscellaneous design activities carried forward from FY03 increased spending within CAP period.

S.127 Cummingsville Replacement Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Capacity deficiencies in the MWRA system may be associated with overflows of local sewers upstream from the Cummingsville Branch System. Sewer moratoriums are in effect in the upstream communities of Woburn and Burlington. Construction of a replacement sewer and rehabilitation of existing sewers will provide additional capacity to ensure adequate and reliable wastewater service for upstream communities. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$7,017	1,271	5,746	100	363	2,201	2,951	129	2

Project Status	20%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$6,173	7,017	844	Apr-07	Apr-07	-	\$4,879	5,744	865

Explanation of Changes

- Project Cost -Increase due to repackaging of construction phases to add Siphon Modifications of Section 113 to alleviate flooding.
- Schedule – None.
- CAP Impact – Additional Siphon Modification work to be completed within the CAP period.

S.130 Siphon Structure Rehabilitation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Completion of this project to rehabilitate and improve 127 siphon structures will improve flow conditions, increase odor control capabilities, reduce surcharging and overflows, and improve accessibility for ongoing maintenance. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$6,959	940	6,019	2	-	20	229	229	5,540

Project Status	14%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$6,965	6,959	(6)	Jun-10	Dec-10	6	\$617	480	(137)

Explanation of Changes

- Project Cost – None.
- Schedule – Shifted start of design and construction by six months due to competing project activities and staffing limits.
- CAP Impact – Shift of design deferred spending outside the CAP period.

S.134 Ashland Extension Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

MWRA will study the feasibility of constructing an extension sewer from the Framingham Extension Relief Sewer to the Framingham/Ashland line. MWRA member communities without direct connections to the MWRA sewer system have expressed concern that their capacity for development may be negatively affected without these direct connections. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$1,020	-	1,020	-	-	-	-	-	1,020

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$1,020	1,020	-	Dec-15	Dec-15	-	\$-		-

Explanation of Changes

- Project Cost – None.
- Schedule – None.
- CAP Impact – None.

S.135 System Master Plan Interceptors

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Completion of this project will reduce surcharging by replacing four interceptors: Mystic Valley, Revere Branch (Section 62), Cambridge Branch, and Malden Branch. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$10,915	-	10,915	-	-	-	-	-	10,915

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$10,926	10,915	(11)	Apr-20	Apr-20	-	\$-		-

Explanation of Changes

- Project Cost – Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – None.
- CAP Impact – None.

S.132 Corrosion & Odor Control

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

High sulfide levels in the Framingham Extension System cause corrosion and odors in that system and downstream in the Wellesley Extension Sewer System and West Roxbury Tunnel. A study has identified the causes of corrosion and odors and recommended corrective measures. Completion of corrosion control measures will extend the useful life of these assets and minimize the impact on the existing wastewater conveyance infrastructure. Improved odor control will mitigate the impact on surrounding areas. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$16,707	1,688	15,019	500	900	4,714	8,047	636	223

Project Status	13%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$16,604	16,707	103	Feb-07	Jun-07	4	\$14,967	14,797	(170)

Explanation of Changes

- Project Cost – Additional Design/Resident Inspection services for geotech investigation.
- Schedule – Construction completion date extended to reflect additional investigation during design.
- CAP Impact – Extension of Design/Resident Inspection reduced spending within the CAP period.

S.136 West Roxbury Tunnel

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Rehabilitation of the West Roxbury Tunnel sewer to repair severe corrosion to prevent structural failure, surcharging and overflows. This sewer, built in 1964, transports flows from the Wellesley Extension Relief Sewer System through the West Roxbury portion of Boston to the High Level Sewer. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$83,072	8,897	74,176	88	8	1,463	2,044	11,294	59,278

Project Status	11%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$84,072	83,072	(1,000)	Mar-11	Mar-11	-	\$6,419	14,897	8,478

Explanation of Changes

- Project Cost –Change reflects the deletion of the anticipated Planning/Environmental Impact Review (EIR) Phase for a reduction of \$1 million.
- Schedule – None.
- CAP Impact - Start of tunnel design moved ahead by 12 months to Sep-2005, reflecting the deletion of the planning/EIR phase. Construction moved ahead by six months to Dec-2007 reflecting criticality to start the project sooner. These changes increased spending within the CAP period.

S.137 Wastewater Central Monitoring

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To study, define, design, and implement a centralized monitoring and control system most appropriate for MWRA's wastewater transport system. SCADA implementation will improve wastewater system operation and maintenance through facility automation and remote monitoring, and is expected to result in estimated annual savings of more than \$2 million. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$13,938	912	13,026	1,140	4,599	5,833	1,454	-	-

Project Status	15%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$15,430	13,938	(1,492)	Jan-07	Jan-07	-	\$13,988	13,026	(962)

Explanation of Changes

- Project Cost – Change in scope to a landline communications mode has eliminated the need for microwave towers, reducing total project costs by \$1.5 million.
- Schedule – None.
- CAP Impact – Reduction from change to landline communication network offset by design services carried forward from FY03.

S.139 South System Relief Project

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To protect public health and property from sanitary system overflows and back-ups into homes and businesses during extreme wet weather events. Completion of the project will also extend the useful life of system assets and potentially avoid extraordinary costs resulting from system failures. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$4,546	3,440	1,106	-	115	125	565	300	-

Project Status	76%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$4,546	4,546	-	Dec-06	Dec-07	12	\$1,105	1,105	-

Explanation of Changes

- Project Cost – Increase in Land Acquisition /Easements offset by reduction and repackaging of Howard Street improvements.
- Schedule – Shifted schedule due to competing project priorities and staffing limits.
- CAP Impact – None. Schedule shift is within the CAP period.

S.141 Wastewater Process Optimization

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To optimize wastewater system operating procedures and make system improvements and modifications to ensure maximum wastewater treatment, minimize operating and maintenance costs, and extend the useful life of system assets. This project will be designed to maximize the benefit of SCADA system improvements. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$24,985	724	24,261	225	5	-	54	76	23,901

Project Status	4%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$823	24,985	24,162	-----	Jul-14	N/A	\$83	360	277

Explanation of Changes

- Project Cost - New work for siphon design and construction for optimization of the Cambridge Branch Sewer (CBS) to provide surcharge relief, contribute to CSO reductions, operational flexibility, and ensure redundancy of a critical siphon section. This project will evaluate options to: 1) design and construct an interconnection between the upstream end of the Somerville-Medford Branch Sewer and North Metropolitan Relief Sewer (2800 feet) to bypass flow around the CBS and Delaurie Pump Station; 2) design and construct an additional siphon(s) adjacent to the 5-foot single barrel siphon; and 3) design and construct improvements to the Delaurie Pump Station to increase the facilities pumping capacity by 20 mgd. New work increased project cost by \$24 million.
- Schedule - Proposed FY05 CIP reflects planned completion date of July 2014 for siphon construction.
- CAP Impact - Initial sewer design work is expected to start in FY07, within the cap period.

S.142 Wastewater Meter Sys-Equip Replace

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the accuracy of meter data used to determine wholesale wastewater charges. This will be accomplished by evaluating the existing wastewater metering system, including hardware and software, identify and evaluate current available technology, and develop a long-term plan.. This project will be coordinated with and support SCADA implementation for the wastewater system. Upgrades to meter sites are expected in the future. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$6,555	-	6,555	1,618	3,568	19	35	115	1,201

Project Status	25%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$5,300	6,555	1,255	Mar-10	Jan-11	10	\$4,900	5,355	455

Explanation of Changes

- Project Cost - Increase due to new subphases to design and construct permanent power and online access to half of the metering sites.
- Schedule - Change reflects planned completion date of the construction phase for permanent power and online data.
- CAP Impact - Revised projected spending for existing equipment replacement phase awarded in November 2003.

S.143 Regional I/I Management Planning

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To reduce the amount of water entering the MWRA sewerage system from infiltration and inflow. I/I contributes more than one-half of the total wastewater flow that MWRA treats. This depletes pipeline capacity that would otherwise be available to transport sanitary flows. This situation can result in sewer surcharging, overflows of untreated sewage, more frequent combined sewage overflows, and higher pumping and treatment costs. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$397	164	233	55	178	-	-	-	-

Project Status	55%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$460	397	(63)	Jun-04	Jun-05	12	\$228	233	5

Explanation of Changes

- Project Cost - Actual expenditures less than contract amount for Capacity Management Operations and Maintenance/Planning (CMOM/Planning). Reduced budget to actual.
- Schedule - Completion date for I/I and SSO reduction extended to June 2005.
- CAP Impact - Final payment for CMOM/Planning carried forward from FY03.

S.145 I&P Facility Asset Protection

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To protect the investment of MWRA ratepayers by ensuring effective maintenance and timely replacement of equipment and systems. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$128,023	1	128,022	994	1,214	6,210	4,757	2,053	112,794

Project Status	1%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$11,912	128,023	116,111	Aug-10	Jun-19	108	\$11,401	15,228	3,827

Explanation of Changes

- Project Cost - New multiyear Interceptor Renewal program to rehabilitate pipelines that pose the highest risk and/or consequence of failure as assessed by MWRA staff. Total multiyear program costs estimated at \$114 million. Balance of increase is for Prison Point Fuel/HVAC Upgrades, Alewife Brook Pump Replacement, and Section 93A construction 2.
- Schedule – Schedule shift reflects the addition of the Intercept Renewal program extending project completion to June 2019.
- CAP Impact - Initial work for Interceptor Renewal program anticipated to start in FY06 with \$3 million in projected expenditures within the cap period. Other new work noted above increases spending within the cap period.

S.200 DI Plant Optimization

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

This project addresses the need for capital investment to optimize plant operations after initial start-up. The project provides for design, construction support and services, and construction for work at the Deer Island Treatment Plant necessary for safe and efficient start-up and optimal operation. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$31,239	8,283	22,956	2,212	8,227	6,173	3,550	2,794	-

Project Status	34%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$28,822	31,239	2,417	Oct-07	Mar-08	5	\$20,392	22,956	2,564

Explanation of Changes

- Project Cost - Increase due to addition of phases for as needed design services (Phases 4-1 and 4-2) for \$2 million and transfer of BHP site completion contract from BHP (S.182) to this project.
- Schedule - Completion date for Ancillary Modifications Construction 4 extended to March 2008 due to additional scope revisions, competing project priorities, and staffing limits.
- CAP Impact - Additional as-needed design services increased spending by \$2 million within the cap period and transfer of BHP site completion contract to DI budget.

S.206 DI Treatment Plant Asset Protection

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To protect the investment of MWRA ratepayers in the new Deer Island treatment facility by ensuring effective maintenance and timely replacement of equipment and systems. Construction of the Deer Island Treatment Plant (DITP) was one of the largest wastewater projects ever undertaken in the United States. DITP construction was a 12-year, \$3.5 billion (not including the cost of off-island residuals) effort started in 1988. With the completion of the Effluent Outfall Tunnel in September 2000 the plant now discharges treated effluent 9.5 miles offshore in Massachusetts Bay through a series of 55 diffusers spaced along the last 1.5 miles of the tunnel. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$104,092	1,871	102,221	1,136	7,623	13,656	7,987	4,616	67,204

Project Status	3%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$106,444	104,092	(2,352)	Jun-14	Jun-14	-	\$43,174	35,018	(8,156)

Explanation of Changes

- Project Cost – Reduction reflects the transfer of phases for maintenance facilities design/construction and construction support building reuse to the new MWRA Facilities Planning project (S.934) to centralize review and decision making for space planning. New subphases defined within this project are funded from the equipment replacement line item and result in no net increase to the project budget.
- Schedule - None.
- Cap Impact - Revised anticipated level of work and pace of spending expected to be completed within the cap period. Projects will be prioritized within the cap period, which deferred \$7.5 million to beyond FY08. Other adjustments result in a net reduction of \$0.6m within the cap period.

S.261 Residuals

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To expand the residuals processing plant at the Fore River Staging Area (FRSA) in Quincy to provide the capacity to process all sludge produced at the Deer Island Treatment Plant. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$67,321	56,619	10,702	10,027	-	-	-	-	675

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$58,872	67,321	8,449	Dec-01	Dec-01	-	\$1,528	10,027	8,499

Explanation of Changes

- Project Cost - Increase due to a settlement agreement, approved by the Board of Directors, partially offset by a reduction in legal services.
- Schedule - None.
- CAP Impact - Settlement approved and paid in FY04.

S.339 North Dorch Bay & Reserved Channel

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Elimination of CSO discharges to South Boston beaches and reduction of CSO impacts to the Reserved Channel. Flows that exceed the proposed storage tunnel's capacity were to be treated at the Reserved Channel CSO Facility prior to discharge to the channel (expected to occur once every 1.5 to 2 years on average). The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. A reassessment of this project is now underway as MWRA was unable to acquire the proposed site for the CSO treatment facility. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$225,134	13,662	211,472	1,381	746	1,091	42,916	45,420	119,918

Project Status	7%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$225,086	225,134	48	Oct-09	Dec-09	2	\$97,829	91,554	(6,275)

Explanation of Changes

- Project Cost - Increase due to additional consultant resources for technical evaluations, collection system modeling, and water quality sampling.
- Schedule - Construction phases consolidated from 4 to 1 while scenarios are under evaluation and a recommended plan is approved.
- CAP Impact - Refined pace of spending from \$32 million to \$43 million and from \$62 million to \$45 million for FY07 and FY08 respectively, based on alternative scenarios under evaluation. These adjustments result in a net decrease of \$6.3 million within the cap period.

S.354 Hydraulic Relief Projects

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Elimination of hydraulic restrictions between local and MWRA systems at locations in Boston and Cambridge to improve transport of wet weather flows, thereby reducing CSO discharges into the Mystic and Charles Rivers. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,351	2,301	50	50	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,352	2,351	(1)	Aug-00	Aug-00	-	\$35	50	15

Explanation of Changes

- Project Cost – None.
- Schedule – None.
- CAP Impact – None.

S.347 East Boston Branch Sewer Relief

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To increase hydraulic capacity and provide long-term structural integrity through the replacement or rehabilitation of the existing sewers. Completion of this project to upgrade MWRA's East Boston Branch Sewer will increase wet weather transport capacity and reduce CSO discharges along the East Boston shoreline, minimizing CSO impacts to the Mystic/Chelsea Confluence and Boston Inner Harbor and facilitating the beneficial uses of these receiving water segments most of the time. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$58,935	3,045	55,891	5,548	500	12,730	25,937	11,101	75

Project Status	15%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$58,544	58,935	391	Jan-08	Jan-08	-	\$55,133	55,816	683

Explanation of Changes

- Project Cost - Increase primarily due to change orders for the East Boston Sewer Rehabilitation for relocation of bypass piping, additional bypass pumping capacity, and removal of flow obstructions. Revised estimate for design services amendment for project reassessment services.
- Schedule - None.
- CAP Impact - Project costs increases described above to be expended within the cap period.

S.348 Fort Pt. Channel & BOS019 Conduits

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To control CSO discharges at outfalls BOS072 and BOS073, and at BOS019, in accordance with MWRA's approved long-term CSO control plan. Outfalls BOS072 and BOS073 discharge to the Fort Point Channel. Outfall BOS019 discharges to the Little Mystic Channel in Charlestown. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$20,422	449	19,973	1,316	2,982	10,448	5,139	88	-

Project Status	9%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$20,435	20,422	(13)	Mar-07	Mar-07	-	\$19,311	19,973	662

Explanation of Changes

- Project Cost - Net increase based on revised estimates for BOS 019 reflecting a larger storage conduit, offset by reduced estimate for Fort Port Channel construction with regulatory acceptance of project change.
- Schedule - None.
- CAP Impact - Less than budgeted design services in FY03 carried forward within the cap period.

S.349 Chelsea Trunk Sewer

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Control CSO discharges at outfalls CHE002, CHE003, CHE004, and CHE008 in accordance with MWRA's approved long-term CSO control plan. These outfalls discharge to the Mystic River/Chelsea Creek Confluence and Chelsea Creek. In addition, the project relieves the MWRA Chelsea Branch Sewer as well as the lower portion of the Revere Extension Sewer to improve service and control surcharging. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$30,676	29,756	920	701	220	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$30,676	30,676	-	Jun-02	Jun-02	-	\$793	921	128

Explanation of Changes

- Project Cost - None.
- Schedule - None.
- CAP Impact - Balance for design services carried forward from FY03 pending project closeout.

S.350 Union Park Detention Treatment Fac

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To reduce the frequency and impacts of CSO discharges from the BWSC Union Park Pumping Station (CSO outfall BOS070). Outfall BOS070 discharges into the Fort Point Channel. This project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$41,812	5,883	35,929	15,964	15,673	4,217	75	-	-

Project Status	52%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$40,145	41,812	1,667	Oct-05	Oct-05	-	\$35,481	35,929	448

Explanation of Changes

- Project Cost - Increase due to change order work to perform site remediation inside the abandoned pump station, remove and dispose of wood piles and soil debris, redesign earth retention system for the east basin wall, analysis of soil for mercury, additional borings, and disposal of soil containing mercury, and to excavate a pocket of hazardous material at the existing Union Park pump station.
- Schedule - None.
- CAP Impact - Most of the project cost increase incurred in FY03, balance of \$448,000 to be incurred within the cap period.

S.353 Upgrade Existing CSO Facilities

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To minimize CSO impacts to the Lower Charles River, Upper Inner Harbor, Mystic/Chelsea Confluence, and South Dorchester Bay receiving waters by upgrading five MWRA CSO treatment facilities (Fox Point, Commercial Point, Cottage Farm, Prison Point, and Somerville Marginal), closing outfall MWR010, and providing floatables control at all MWRA CSO outfalls not associated with treatment facilities (located along the Charles River). These projects are court mandated, are in accordance with MWRA's approved long-term CSO control plan, and are required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$22,383	22,301	82	82	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$22,384	22,383	(1)	Dec-01	Dec-01	-	\$-	82	82

Explanation of Changes

- Project Cost – None.
- Schedule - None.
- CAP Impact - Balance for design services carried forward from FY03 pending project closeout.

S.355 MWR003 Gates & Siphon

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

New Project added to the Proposed CIP. Funding and scope of work is a transfer from the community managed Cambridge Sewer Separation project as this project component will now be managed by MWRA staff. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$1,371	-	1,371	-	108	834	429	-	-

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$-	1,371	1,371	----	Dec-06	N/A	\$-	1,371	1,371

Explanation of Changes

- Project Cost - Increase reflects a transfer of scope from the Cambridge Sewer Separation project.
- Schedule – None.
- CAP Impact - Increase within the cap period due to transfer of scope and is offset by reduced spending for Cambridge Sewer Separation project.

S.340 S. Dorch Bay Sew Separ (Fox Pt.)

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

This project, together with sewer separation at Commercial Point, will eliminate CSO discharges to South Dorchester Bay by separating combined sewer systems in Dorchester. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$53,837	26,196	27,641	7,298	7,832	6,317	3,633	1,913	648

Project Status	62%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$53,840	53,837	(3)	Nov-06	Nov-06	-	\$26,978	26,993	15

Explanation of Changes

- Project Cost - Minor inflation adjustment based on projected Boston construction cost index.
- Schedule - None.
- CAP Impact - Revised spending for design within the cap period offset by reduced construction spending within the cap period.

S.341 S. Dorch Bay Sew Separ (Comm. Pt.)

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

This project, together with sewer separation at Fox Point, will eliminate CSO discharges to South Dorchester Bay by separating combined sewer systems in Dorchester. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$59,793	27,062	32,731	5,755	7,468	4,657	8,716	5,255	880

Project Status	55%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$59,820	59,793	(27)	Nov-07	Nov-07	-	\$31,656	31,851	195

Explanation of Changes

- Project Cost - Minor inflation adjustment based on projected Boston construction cost index.
- Schedule - None.
- CAP Impact - Revised construction cashflow projections resulting in an increase within the cap period.

S.344 Stony Brook Sewer Separation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To minimize CSO discharges to Stony Brook Conduit and the Back Bay Fens, both of which drain to the Charles River, by separating combined sewer systems in parts of Roxbury and Jamaica Plain. Implementation of the recommended sewer separation plan will reduce the number of overflows to the Stony Brook Conduit from as many as 22 to zero in a typical year. This project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$43,649	15,924	27,725	8,623	12,020	6,612	470	-	-

Project Status	56%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$42,378	43,649	1,271	Sep-06	Sep-06	-	\$26,442	27,725	1,283

Explanation of Changes

- Project Cost - Increase reflects award of contract 03-309-005 greater than budgeted.
- Schedule - None.
- CAP Impact - Higher than budgeted award, noted above, increased spending within the cap period.

S.342 Neponset River Sewer Separation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Elimination of CSO discharges to the Neponset River and protection of water quality at downstream swimming areas in South Dorchester (primarily Tenean Beach) by separating combined sewer systems in the Neponset section of Dorchester and by permanently closing CSO regulators associated with outfalls BOS093 and BOS095. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,681	2,444	237	237	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,681	2,681	-	Oct-02	Oct-02	-	\$237	237	-

Explanation of Changes

- Project Cost - None.
- Schedule - None.
- CAP Impact - None.

S.343 Constitution Beach Sewer Separation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To eliminate CSO discharges at the Constitution Beach CSO facility by separating combined sewer systems in parts of East Boston. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$3,769	3,769	-	-	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$3,769	3,769	-	Apr-02	Apr-02	-	\$-		-

Explanation of Changes

- Project Cost - None.
- Schedule - None.
- CAP Impact - None.

S.346 Cambridge CAM002-004 Sew.Separation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To minimize CSO discharges to Alewife Brook by separating combined sewer systems in parts of Cambridge and provide hydraulic relief at interceptor connections. This project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$37,496	13,935	23,561	4,534	1,280	222	197	25	17,303

Project Status	49%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$38,496	37,496	(1,000)	Mar-12	Mar-12	-	\$4,618	6,258	1,640

Explanation of Changes

- Project Cost - Decrease in project costs reflects the scope transfer for MWR003 Gate & Siphon work which will be managed by MWRA and is added as a new project to the Proposed CIP. This transfer is partially offset by an increase in the estimate for final design services for stormwater outfall and wetland basin (contract 12) and additional work performed under extended MEPA review process.
- Schedule - None.
- CAP Impact - Transfer of MWR003 Gates & Siphon work noted above offset by work budgeted in FY03 to be completed in FY04, within the cap period.

S.351 BWSC Floatables Controls

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To limit the discharge of floatable materials from eight BWSC combined sewer outfalls and reduce the number of beach closings following wet weather events. The project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$933	933	-	-	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$933	933	-	Mar-02	Mar-02	-	\$-		-

Explanation of Changes

- Project Cost - None.
- Schedule - None.
- CAP Impact - None.

S.352 Cambridge Floatables Controls

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To limit the discharge of floatable materials from eight Cambridge CSO outfalls. This project is court mandated, is in accordance with MWRA's approved long-term CSO control plan, and is required to meet DEP water quality standards. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,518	377	2,141	551	796	794	-	-	-

Project Status	37%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,520	2,518	(2)	Jun-05	Jun-06	12	\$1,595	2,141	546

Explanation of Changes

- Project Cost - N/A.
- Schedule - Extension due to additional design services due to extended MEPA review process.
- CAP Impact - Increase within cap period due to construction work budgeted and not completed in FY03 to be completed within the cap period.

S.324 CSO Support

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

The goals of the CSO Program are to minimize CSO discharges and maximize the beneficial use of CSO receiving waters. This project includes CSO conceptual planning, system master planning, and facilities planning/environmental review. It also includes directly related watershed planning activities, development of short-term CSO control measures (known as System Optimization Plans or SOPs), various as-needed technical support activities, and acquisition of land and easements required for CSO control plan implementation. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$41,464	37,304	4,160	916	1,619	737	558	330	-

Project Status	92%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$40,889	41,464	575	Dec -03	Sep-04	10-	\$3,596	4,160	564

Explanation of Changes

- Project Cost - Revised estimate for land easements budget for Union Park permits and amendment for CSO Master Planning for modeling and support services during extended variance review period.
- Schedule – Extended Contract 5716 term associated with extensions to variance periods and related regulatory decisions.
- CAP Impact - Project cost increases noted above to be expended within the cap period.

S.128 I/I Local Financial Assistance

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Infiltration and inflow (I/I), groundwater and storm water that enter the collection system, contributes more than one-half of the total wastewater flow treated by MWRA. This depletes capacity that would otherwise be available to transmit sanitary flows, resulting in sewer surcharging, overflows of untreated sewage, more frequent combined sewage overflows, and higher pumping and treatment costs. The I/I Local Financial Assistance Program provides funding assistance for communities to rehabilitate their collection systems with the goal of structurally reducing I/I flows. Funding assistance for local projects complements other MWRA strategies for regional I/I reduction including wastewater metering to support flow based rates, provision of I/I estimates to communities, technical assistance to communities on local projects, regional coordination of I/I policy issues, and interaction with DEP and EPA. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$68,593	49,534	19,060	3,038	3,775	2,923	2,423	2,861	4,039

Project Status	77%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$50,593	68,593	18,000	May-10	May-13	37	\$18,455	15,020	(3,435)

Explanation of Changes

- Project Cost - Increase reflects addition of Phase V to fund local community I/I reduction and sewer system rehabilitation projects. Phase V will provide an additional \$40 million in funding through a 45% or \$18 million grant and 55% or \$22 million loan program to be repaid over 10 years. .
- Schedule - Completion date of May 2013 reflects the end date for Phase V loan disbursement.
- CAP Impact - Reconciled, reviewed and revised pace of grant and loan disbursements and repayments based on historical activity for existing community I/I program. Added new Phase V funding. Revised program spending for existing and new I/I program results in a net reduction of \$3.4 million within cap period.

S.138 Sewerage System Mapping Upgrade

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Completion of this project will enhance the accuracy of existing and newly created GIS maps of sewerage communities to improve the quality of hydraulic analysis and reduce staff time and effort necessary to respond to emergencies within the transport system. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$284	211	73	73	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$284	284	-	Dec-03	Apr-04	4	\$66	73	7

Explanation of Changes

- Project Cost - None.
- Schedule - Contract 2 duration extended to April 2004 to complete mapping of existing data.
- CAP Impact - Time extension noted above increased spending within the cap period for services not completed in FY03.

S.542 Walnut Hill Water Treatment Plant

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide high quality drinking water to MWRA customers and to ensure that the water delivered from the Wachusett Reservoir meets the drinking water quality standards established by the federal Safe Drinking Water Act (SDWA). Part of this objective will be met by constructing a 405 million-gallon per day (maximum) water ozonation/chloramination treatment plant primarily in Marlborough with portions of the facility located in Southborough and Northborough. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$409,747	286,022	123,725	50,057	16,204	8,388	4,573	2,306	42,198

Project Status	82%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$357,383	409,747	52,364	Dec-05	Dec-05	-	\$66,840	81,528	14,688

Explanation of Changes

- Project Cost - Additional construction management/resident inspection services for Walnut Hill (\$1.2m) and Wachusett (\$1m) water treatment plants to support startup and operational assistance, additional change order work for inspection of the Cosgrove Tunnel and security improvements for vents and hatches (\$3.2m), and a revised estimate for CP-7 ICCF construction (\$3m).

New Scope: 1) Walnut Hill Ultra Violet (UV) Treatment (\$44m). The Long Term 2 Surface Water Treatment Rule (LT2WTR) is expected to require that two primary disinfectants be used on unfiltered water by the year 2012. Design services for the UV work are expected to start in FY06 and construction would be complete by 2012. 2) As-needed design services for potential post warranty work (\$1.5m).

- Schedule – None.
- CAP Impact - Total change is \$14.7 million of which \$8.1 million is for cost increases and \$6.4 million is for new work. Cost changes, as mentioned above, include additional design and construction management services, additional change order work for inspection of the Cosgrove Tunnel and security improvements, and revised estimate for CP-7 ICCF construction. New scope spending for as-needed design and design services for the UV are expected to start in FY06.

S.543 Quabbin Water Treatment Plant

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the quality of drinking water delivered to the Chicopee Valley Aqueduct (CVA) communities of Chicopee, Wilbraham, and South Hadley Fire District No. 1, and to ensure that the water delivered meets the drinking water quality standards established by the federal Safe Drinking Water Act. Improvements to the CVA system thus far have included the construction of covered storage at Nash Hill and construction of disinfection and contact time (CT) monitoring facilities. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$14,983	9,443	5,540	571	268	177	236	1,657	2,632

Project Status	67%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$15,024	14,983	(41)	Apr-09	Sep-09	5	\$3,914	2,909	(1,005)

Explanation of Changes

- Project Cost - Adjusted contract value for Quabbin Water Treatment Plant design/construction administration services to actual expenditures.
- Schedule - Shifted start of construction which extended completion date to September 2009.
- CAP Impact - Shifted start of design by six months to November 2005 and construction by five months to October 2007 to account for timing of pilot study equipment purchases. This deferred spending outside the cap period.

S.544 Norumbega Covered Storage

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To help provide high quality drinking water to MWRA customers and to ensure that the water meets the drinking water quality standards established by the federal Safe Drinking Water Act (SDWA) by constructing a 115 million gallon covered storage facility at Norumbega Reservoir. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$107,261	89,274	17,987	12,746	3,246	808	723	13	450

Project Status	95%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$107,166	107,261	95	Jan-07	Jan-07	-	\$17,627	17,536	(91)

Explanation of Changes

- Project Cost – Increase due to change order work for additional disinfection of the tank.
- Schedule – None.
- CAP Impact – FY03 spending on the design/build was ahead of budgeted, which reduced planned spending in within the cap period.

S.545 Blue Hills Covered Storage

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To ensure sufficient distribution storage for MWRA's Southern High Service Area. Presently, the area relies on the existing open reservoir for emergency storage, creating the potential for supply disruption if repairs are needed on a major transmission line for Quincy and other communities in the Southern High Service Area. Covered distribution storage will also equalize pressure at the extremities of the Southern High pressure zone and provide potable emergency storage in case of unexpected interruptions of supply. New covered storage facilities at the Blue Hills Reservation will have a capacity of 20 million gallons. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$32,533	1,281	31,252	284	10,368	10,961	8,265	1,374	-

Project Status	5%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$32,314	32,533	219	Jan-07	Jun-07	5	\$30,921	31,252	331

Explanation of Changes

- Project Cost -Increase due to anticipated amendment for additional permitting and environmental oversight services.
- Schedule - Extended completion by 5 months due to delay in wetlands permitting.
- CAP Impact – Project increase noted above increased spending within the cap period.

S.546 Northern Intermed. High Covered Storage

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide an additional storage facility for the Northern Intermediate High System to ensure adequate water pressure and to provide redundancy to the existing Bear Hill Tank. Construction of a new six million gallon covered storage facility near the existing tank will double available storage for the Northern Intermediate High System. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$6,425	-	6,425	-	-	200	175	-	6,050

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$6,056	6,425	369	Dec-19	Dec-19	-	\$-	375	375

Explanation of Changes

- Project Cost - New study phase added to the proposed CIP which will examine effects of facilities under different potential scenarios, such as changing the location of Bear Hill Tank #2, changing the capacity of or rehabilitating Section 29, or reconfiguring the James Gillis pumps, based on completion of the Norumbega Covered Storage, the Northern Intermediate High or expansion of the system.
- Schedule – None.
- CAP Impact – New subphase noted above to be completed within the cap period.

S.549 SEH Additional Storage

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To increase capacity and ensure MWRA's ability to meet current and projected water demand by constructing a new 3.6 million-gallon tank. Hydraulic analysis and operational problems indicate the need for additional storage capacity for the Southern Extra High Service Area.. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$5,892	-	5,892	-	-	200	280	151	5,261

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$5,898	5,892	(6)	Jun-12	Dec-12	6	\$702	631	(71)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule - Schedule pushed out pending a more comprehensive review of the Southern Extra High system.
- CAP Impact – Shifted start of final design by seven months to January 2008, reducing expenditures within the cap period.

S.550 Low Service Storage Near Spot Pond

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To meet state and federal drinking water guidelines and MWRA's goal of providing a one-day supply of storage by constructing a new storage facility. With the Weston and Spot Pond Reservoirs removed from service, MWRA no longer meets the one-day supply goal. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$28,174	233	27,941	-	-	-	-	-	27,941

Project Status	1%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$28,062	28,174	112	Apr-14	Apr-14	-	\$-		-

Explanation of Changes

- Project Cost – New subphase added for environmental review with owner representation services for design/construction offset by closeout of existing environmental review contract as project schedule was previously shifted to start in April 2010.
- Schedule – None.
- CAP Impact - None.

S.604 MetroWest Tunnel

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide transmission redundancy for the Hultman Aqueduct ensuring reliable water delivery and providing sufficient hydraulic capacity to support the new Walnut Hill Water Treatment Plant and covered storage distribution facilities. This project consists of construction of a 17.6 mile deep rock tunnel from Shaft D in Marlborough to Shaft 5 of the City Tunnel in Weston, and to Shaft W, also in Weston, as well as the construction of a covered storage facility at Loring Road in Weston. Also includes construction of shafts and valve chambers for connections of Shaft 4 in Southborough and to the Norumbega Covered Storage facility. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$677,360	614,065	63,296	10,113	4,166	992	4,690	10,427	32,908

Project Status	92%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$659,598	677,360	17,762	Dec-10	Dec-13	37	\$31,119	30,388	(731)

Explanation of Changes

- Project Cost -The budget increase of \$17.8 million includes the addition of a new subphase, CP6A Hultman Interconnection Structural/Civil Inspection for \$15.0 million. Other increases include additional design work for CP-6 based on new cost estimates that was exactly offset by a \$1.8 million decrease in CP-1 as lining and concrete cost were less than originally estimated. Other budget increases include Middle Tunnel (CP2) which increased by \$0.9 million as unit price and material quantities used were more than originally budgeted and CM/RI increased \$0.7 million to provide additional resident inspection and start-up support, quality assurance, safety project support, and project specific professional liability. Owner Controlled Insurance Program (OCIP) increased by \$0.8 million based on revised estimate for additional labor as actual loss experience was more than originally estimated.
- Schedule - Hultman Rehabilitation (CP-9) completion date extended to December 2013. Critical interconnection and structural work packaged in CP-6A and 6B.
- CAP Impact – Net reduction within cap period based package changes between contracts 6A and 6B, offset by remaining work on the west tunnel (CP-1) budgeted in FY03 that carried forward within the cap period.

S.601 Sluice Gate Rehabilitation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Completion of this project will improve the condition of and access to sluice gates used to regulate the release of water from upstream reservoirs and streams via aqueducts in accordance with legislative and flood control requirements. Motorized gates will replace manual gates and 12 facilities will be rehabilitated at Sudbury Reservoir, Framingham Reservoir, Spot Pond, and various locations along the Sudbury Aqueduct. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$9,353	4,255	5,098	1,523	2,419	1,126	31	-	-

Project Status	62%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$9,400	9,353	(47)	Jul-05	Sep-05	2	\$5,161	5,099	(62)

Explanation of Changes

- Project Cost – Award Sluice Gate Construction 2 contract greater than budgeted, offset by deletion of expected amendment for design services.
- Schedule –Revised completion date for construction contract above based on issuance of NTP in September 2003.
- CAP Impact – Net change from greater than budgeted award and deletion of expected design amendment.

S.614 Metropolitan Tunnel Loop

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To evaluate the need for and means of providing redundancy for the City Tunnel, the Dorchester Tunnel, and the City Tunnel Extension in order to ensure reliable transmission capability and allow for inspection, maintenance, and repair of these facilities. Current plans for full redundancy recommend a closed loop tunnel system, as originally planned in 1936 by the system's designers, created by constructing a 16.5-mile deep rock tunnel from Norumbega Reservoir in Weston to Fells Reservoir and the City Tunnel Extension. A supplemental or alternative plan would be a tunnel loop from Norumbega Reservoir to Blue Hills Reservoir and the Dorchester Tunnel (southern tunnel loop). Because this study will examine both northern and southern routes as well as other alternatives and incremental levels of redundancy, it has been designated the Metropolitan Tunnel Loop. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,997	-	2,997	-	100	225	245	525	1,902

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$3,001	2,997	(4)	Jun-09	Dec-10	18	\$1,410	1,095	(315)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule - Shifted schedule due to competing project priorities and staffing limits.
- CAP Impact – Shifted start of Tunnel Shaft Rehabilitation to April 2009, outside the cap period.

S.615 Chicopee Valley Aqued. Redundancy

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide redundancy for water service for the three communities supplied by the Chicopee Valley Aqueduct (CVA) in case of a CVA failure or shutdown. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$8,592	823	7,768	595	6,129	826	219	-	-

Project Status	17%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$8,523	8,592	69	Jun-06	Jun-06	-	\$6,916	7,769	853

Explanation of Changes

- Project Cost – Increase due to expected design amendment for emergency connections and additional services to resolve community decisions.
- Schedule – None.
- CAP Impact – N/A. Chicopee Valley Aqueduct project excluded from cap calculation as these costs are recovered through the CVA assessment.

S.597 Winsor Dam Hydroelectric

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To license and rehabilitate the turbine generator at the Winsor Dam in Belchertown to allow the dam to produce hydroelectric power to be sold to the electric grid, or to potentially wheel power to other MWRA facilities. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$1,570	38	1,532	-	-	-	-	-	1,532

Project Status	2%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$783	1,570	787	Nov-12	Nov-13	12	\$15	-	(15)

Explanation of Changes

- Project Cost -Revised construction cost estimate to include a new turbine generator rather than rehabilitation of the existing generator. Additional funds for permitting, study, and license when the project resumes again in 2011.
- Schedule - Shifted schedule due to competing project priorities and staffing limits.
- CAP Impact – Shifted permitting, study, and license spending closes to start of design in July 2011, which is outside the cap period.

S.616 Quabbin Transmission System

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To ensure continued reliable delivery of high quality water to MWRA customer communities through inspection, evaluations, and rehabilitation as needed of the aging Quabbin Tunnel. The hydraulic control facilities of the Quabbin Tunnel are 70 to 80 years old and badly in need of renewal and upgrade. This is one of six projects that will upgrade the older working parts of the aqueduct-tunnel system and improve its interconnections with the distribution piping systems it supplies. Based on the findings and recommendations of this inspection phase, MWRA will add design and construction phases at a later date. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$13,150	-	13,150	250	1,298	2,652	750	150	8,050

Project Status	2%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$1,271	13,150	11,879	Jun-06	May-10	48	\$1,271	5,100	3,829

Explanation of Changes

- Project Cost -New subphases added for two phase approach to Oakdale Valves (Phase 1 for short term rehab and Phase 2 for long term improvements) increased design and construction costs by \$2.1 million and \$9.8 million, respectively.
- Schedule - Project scope change to include a two phase approach to rehab the Oakdale facility including new phase for Oakdale Valves.
- CAP Impact - New work including a two-phase approach to rehabilitate the Oakdale Hydropower Generator bypass Facility. The facility shows signs of deterioration, by-pass valves not properly functioning, pressure relief structure is old and corroded. Phase 1 will replace by-pass valves immediately (\$1.8m). Phase 2 design to start in FY06 with \$1.5m to be expended within the cap period. Phase 2 construction is outside the cap period.

S.617 Sudbury / Weston Aqueduct Repairs

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To ensure continued reliable delivery of high quality water to MWRA customer communities through study, design, and implementation of repairs to the Sudbury and Weston Aqueducts. These backup systems are both more than 100 years old, and need to be ready for emergency use. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$40,086	260	39,826	40	175	300	111	-	39,200

Project Status	1%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$672	40,086	39,414	Dec-06	Nov-13	84	\$399	626	227

Explanation of Changes

- Project Cost -The increase reflects the addition of a new design and construction phase added to ensure the availability of the Aqueduct as a safe and reliable emergency supply until the Northern or Southern Tunnel loop is built. Two initial alternatives are under consideration: Option 1 to rehabilitate the entire 17.4 miles or Option 2 to build a new tunnel from a shaft at Norumbega to the Sudbury Aqueduct in Wellesley. Revised estimate for inspection phase to include analysis of alternatives.
- Schedule - Change in completion date reflects addition of construction phase with a completion date in November 2013. December 2006 completion date is for existing inspection phase in the CIP.
- CAP Impact – Additional services for analysis of alternatives increased spending within the cap period.

S.618 Northern High NW Trans Sect 70-71

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

Improve service reliability by rehabilitation of 46,000 linear feet of pipeline serving the northern high service area. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$35,784	-	35,784	-	-	-	-	-	35,784

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$35,820	35,784	(36)	Nov-18	Nov-18	-	\$-		-

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – None.
- CAP Impact – None.

S.677 Valve Replacement

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To retrofit approximately 500 blow-off valves and replace several hundred main line valves within the pipeline distribution system. Blow-off valve retrofits eliminate cross-connections into sewers or drainage piping. Main line valve replacements improve MWRA's ability to respond to emergency situations such as pipe breaks and provide tight shutdown for pipeline construction projects. Faster responses reduce negative impacts on customers. Combining the two valve replacement efforts reduces the need for repeat construction at sites and alleviates traffic impacts, re-paving needs, and other site-specific issues. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$14,269	5,666	8,603	1,417	2,082	1,251	1,501	329	2,024

Project Status	50%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$14,622	14,269	(353)	May-09	May-10	12	\$7,321	6,580	(741)

Explanation of Changes

- Project Cost -Reduced budget for Phase 5 valve replacement based on consultant estimate in September 2003. Change order work to repair a sinkhole and drain line under Phase 4 offset some of the Phase 5 reduction.
- Schedule - Deferred start of Phase 7 to October 2008 (FY09) to comply with cap.
- CAP Impact – Reduced estimate for Phase 5 construction reduced spending within the cap period. Greater than budgeted work for Phase 4 completed in FY03, also reduced spending in FY04, and deferral of Phase 7 reduced spending within the cap period.

S.712 Cathodic Protection Of Distr.Mains

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To evaluate the condition of approximately 30 miles of steel pipelines and determine the feasibility of upgrading or installing cathodic protection systems to protect pipelines from corrosion. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$1,651	141	1,510	150	220	-	-	-	1,140

Project Status	18%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$1,663	1,651	(12)	May-09	May-11	24	\$1,236	370	(866)

Explanation of Changes

- Project Cost – Decrease reflects revised cost estimates for Test Station Installation, Phase 1.
- Schedule - Program schedule for Phases 2 through 4 shifted 2-years to comply with CAP.
- CAP Impact – Schedule changes above reduced spending to comply with CAP.

S.678 Boston Low Serv.-Pipe & Valve Rehab

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the condition and operability of the pipelines comprising the Boston Low Service System. These unlined, cast iron pipelines are more than 120 years old. The mains have numerous non-functional valves, and have experienced frequent breaks. Improvements include some pipeline replacement, cleaning and lining, and selective abandonment of unneeded segments. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$23,830	23,328	502	428	74	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$24,503	23,830	(673)	Jul-03	Sep-03	2	\$403	502	99

Explanation of Changes

- Project Cost -A final closeout credit change order for unexpended bid items reduced the contract amount for Construction Beacon Street by \$700,000.
- Schedule – Beacon Street phase extended two months to September 2003.
- CAP Impact – Schedule change above increased spending within the cap period.

S.730 Weston Aqueduct Supply Mains (WASMs)

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the condition and carrying capacity of these major supply lines and the quality of the water supplied to the communities in the Low, High, Intermediate, and Extra High pressure zones. Timely rehabilitation will reduce the costs of replacing corroded pipes, reduce red water and chlorine tastes, and improve water pressure. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$105,924	42,833	63,091	8,460	6,196	999	770	820	45,846

Project Status	48%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$105,601	105,924	323	Jan-16	Jan-17	12	\$20,446	17,245	(3,201)

Explanation of Changes

- Project Cost - Increase due primarily to additional change orders to Allston WASM 4 / Western Avenue Sewer phase to repair water leak at WASM 4 and repair weld seams and wall plate on existing pipeline as well as expected change orders for Boston WASM 1 & 2 for supplemental costs due to delays.
- Schedule - Revised Waltham WASM 3 (CP-4) completion date to January 2017.
- CAP Impact - Shifted start of construction of CP-3, Arlington WASM 3, by one-year to Jan-2009 to coincide with separate Shaft 7 to WASM 3 (S.702) work. This reduced spending within the cap period by \$4 million, partially offset by design services carried forward from FY03.

S.720 Warren Cottage Line Rehab

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the carrying capacity and internal condition of the Warren Cottage Line which serves a portion of Boston via the Southern High Service System. Improvements, which will also strengthen the surface connection between Shafts 7B and 7C of the Dorchester Tunnel, will include cleaning and lining to remove build up of rust deposits. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$1,211	1,202	10	10	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$1,211	1,211	-	Dec-02	Dec-02	-	\$8	10	2

Explanation of Changes

- Project Cost – None.
- Schedule – None.
- CAP Impact – Carry forward of FY03 costs pending final project closeout.

S.732 Walnut St. & Fisher Hill Pipeline Rehab.

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve water quality and hydraulic capacity of three pipelines serving Brookline and Chestnut Hill. Cleaning and cement mortar lining these cast iron mains will enhance water quality, and enable these pipelines to meet maximum demand conditions. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$6,675	-	6,675	5	10	7	1,757	2,173	2,724

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$6,681	6,675	(6)	May-11	May-11	-	\$3,957	3,952	(5)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – None.
- CAP Impact – Inflation adjustments reduced spending within the cap period.

S.683 Heath Hill Road Pipe Replacement

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To repair and improve pipelines and valves in the Southern High and Southern Extra High Service areas which are in poor condition. The targeted pipelines in Brookline and Boston have experienced numerous leaks and breaks, and their hydraulic performance is inadequate. Work includes a fast-track pipe replacement phase, and mostly cleaning and lining along the other pipe segments. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$17,985	9,487	8,498	68	421	354	3,983	3,001	671

Project Status	53%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$17,917	17,985	68	Jun-09	Jun-09	-	\$8,211	7,827	(384)

Explanation of Changes

- Project Cost – Increase due to additional construction administration/resident inspection Phase 2 services for Section 52 to coordinate repairs discovered during inspection, and a closeout payment for Phase 1.
- Schedule –None.
- CAP Impact – Greater than budgeted design work for Section 52 completed in FY03, which reduced spending within the CAP period.

S.721 Southern Spine Distribution Mains

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To increase carrying capacity and improve valve operability along the large surface mains that run parallel to the Dorchester Tunnel and provide service to the Southern High and Southern Extra High systems. Currently these mains have serious hydraulic deficiencies and many inoperable valves. Hydraulic performance improvements are needed to provide redundancy for the Dorchester Tunnel. Work will include rehabilitation of more than 12 miles of large diameter pipeline. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$60,492	3,197	57,294	2,921	5,564	781	5,938	8,781	33,309

Project Status	10%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$62,752	60,492	(2,260)	Nov-13	Nov-13	-	\$25,911	23,985	(1,926)

Explanation of Changes

- Project Cost – Contract award amounts for Section 22 and Contract 1A were less than budgeted.
- Schedule – None.
- CAP Impact – Less than budgeted contract award amounts noted above reduced spending within the CAP period.

S.714 South. Extra High Sects 41,42 & 74

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To increase the hydraulic capacity of the mains that carry water to the Bellevue Tanks, which serve the Southern Extra High System. Because Sections 41, 42 (80-year old cast iron mains), and 74 (45-year old pre-stressed concrete cylinder pipe) are severely limited in the pressures and flows they can convey, the Hyde Park Pump Station cannot operate efficiently. Improvements will include pipeline replacement and rehabilitation. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$4,545	2,559	1,986	1,795	191	-	-	-	-

Project Status	96%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$4,555	4,545	(10)	Aug-03	Sep-03	1	\$1,195	1,986	791

Explanation of Changes

- Project Cost – Balancing closeout credit change order for unexpended bit items for construction contract for Sections 41,42, & 74 (Contract 6300).
- Schedule – Completion of Contract 6300 achieved in September 2003.
- CAP Impact – Less than budgeted spending in FY03 for Contracts 6300 and paving work carried forward to the CAP period.

S.727 Southern Extra High Redundancy Loop

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

The Southern Extra High Service Area is served by an older pipeline with no source of redundancy. This loop will provide the communities of Canton, Stoughton, and Norwood with a second primary water supply route in the event of pipeline failure as well as improved water pressure as older pipeline is rehabilitated. In addition, the project may provide the means to add a second water meter to the town of Milton. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$19,463	-	19,463	-	-	-	-	-	19,462

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$19,481	19,463	(18)	Jun-15	Mar-16	9	\$200	-	(200)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – Planning/design schedule extended to provide for a more comprehensive review of SEH system, which shifted the planned start of construction to December 2012 and extended completion to March 2016.
- CAP Impact – Start of planning/design revised from April 2008 to July 2008, which reduced spending within the cap period.

S.719 Chestnut Hill Connecting Mains

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To simplify the complex arrangement of old pipes near the Chestnut Hill pump stations for safety and operability, and create a connection between Shaft 7 of the City Tunnel and the Southern Distribution surface mains to provide redundancy along the Dorchester Tunnel. MWRA is restructuring the piping arrangement through a combination of constructing new pipelines, rehabilitating older pipelines, sliplining abandoned aqueducts, replacing pressure regulating valves, replacing the emergency pumps at Chestnut Hill, and abandoning pipes and valves which are no longer needed for service. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$29,630	15,738	13,892	1,764	1,076	87	6,948	3,843	175

Project Status	59%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$27,177	29,630	2,453	Jun-08	Jun-08	-	\$11,645	13,718	2,073

Explanation of Changes

- Project Cost - Increase reflects repackaging of final pipe connection to two separate phases. Revised estimates for new phases greater than prior budget. Award of design for final pipe connection greater than budgeted.
- Schedule – None.
- CAP Impact - Revised estimate for final pipe connection construction and award of design contract greater than budget, increased spending within the cap period.

S.704 Rehab of Other Pumping Stations

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To rehabilitate five active pump stations (Brattle Court, Reservoir Road, Hyde Park, Belmont, and Spring Street). Each of the stations is more than 40 years old, and is overdue for renewal for safety, reliability, and efficiency reasons. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$22,136	3,675	18,461	245	1,730	6,202	5,364	3,924	996

Project Status	18%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$19,496	22,136	2,640	Oct-08	Sep-09	11	\$14,551	17,465	2,914

Explanation of Changes

- Project Cost - Increase due to new phase Phase 2 design services, partially offset by closeout existing contract. Remaining scope for closed contract moved to Phase 2 and will be competitively procured.
- Schedule - Change reflects additional time to procure Phase 2 design services.
- CAP Impact - Revised scope of new Phase 2 design services greater than closeout of existing contract resulting in an increase in spending within the cap period.

S.722 Bear Hill Improvements Sec 29

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the condition of this 96-year old pipeline because its hydraulic capacity has diminished as a result of rust and sediment build-up. This pipeline, which serves the Northern Intermediate High System, will be rehabilitated. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$3,370	-	3,370	-	-	-	-	7	3,364

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$3,378	3,370	(8)	Nov-09	Nov-09	-	\$361	7	(354)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – None.
- CAP Impact – Revised construction spending to align with planned start of construction in March 2009, outside the cap period.

S.689 James L. Gillis Pump Station Rehab.

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve and modernize pumping facilities and equipment at the 90-year old formerly named Spot Pond Pump Station. These improvements directly benefit the Northern High and Northern Intermediate High systems, and improve MWRA's system-wide emergency response capabilities. Project components included rehabilitation of the pump station, installation of a new suction line, rehabilitation of discharge lines, construction of a sanitary sewer, and remediation of a contaminated land site. Completion of this project also enables MWRA to comply with Safe Drinking Water Act requirements. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$34,285	33,109	1,176	382	60	75	659	-	-

Project Status	98%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$34,513	34,285	(228)	Nov-03	Jun-04	7	\$1,405	1,176	(229)

Explanation of Changes

- Project Cost - Final closeout of design/construction services contract for the pump station less than budgeted.
- Schedule - Revised schedule for pavement work along Woodland Road to be completed next spring.
- CAP Impact – Greater than budgeted spending in FY03 for construction of discharge pipe contract reduced spending within the CAP period.

S.713 Spot Pond Supply Mains - Rehab

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the condition, carrying capacity, and valve operability of the two long supply mains which extend north from Chestnut Hill to Spot Pond. These cast-iron mains, which are 100 years old, deliver water to the Northern Low Service System. Improvements involve a combination of replacement, cleaning and lining, and valve replacement depending on specific site conditions and needs. Improving these supply lines will reduce the need to take water from the City Tunnel to augment the Low Service System and improve the quality of water delivered to eight user communities. This project also includes the rehabilitation of approximately 10,000 feet of 36-inch steel, and 30-inch cast iron mains on Section 66 and Mystic Main 30. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$89,662	24,088	65,574	9,302	6,960	11,224	9,460	14,115	14,513

Project Status	37%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$80,772	89,662	8,890	Nov-09	Apr-10	5	\$49,159	51,061	1,902

Explanation of Changes

- Project Cost - Revised and repackaged project scope to include 6,000 additional feet of pipe for Riverside Avenue Sewer Repair and the addition of Section 57 increased the project budget by \$10.1 million. Design and construction administration/resident inspection scope added \$3.6 million. These increases were partially offset by transfer of scope from South (Cambridge/Boston) contract, and change orders for actual materials used less than anticipated for the Middle (Medford/Somerville) contract. Net change in project cost is \$8.9 million.
- Schedule - Schedule delayed to coincide with Construction CP5 Section 66 contract 6782.
- CAP Impact -Repackage and expanded scope described above and new design services work expected to start October 2005 and construction to start in April 2007, both within the cap period.

S.723 Nor Low Service Rehab Secs. 8

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the condition and reliability of an unlined pipeline serving a portion of the Northern Low System. This pipeline, Section 8, has reduced carrying capacity because of rust build-up, and has experienced leaks at above average rates. Improvements will consist primarily of replacement of a portion of Section 8 and cleaning, lining, and valve repairs along nearly 1.5 miles of water main. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$11,677	-	11,677	-	-	-	-	15	11,662

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$8,485	11,677	3,192	Nov-09	Nov-11	24	\$6,037	15	(6,022)

Explanation of Changes

- Project Cost – Added new phase to rehabilitate sections 37, 38, and 46 Chelsea/East Boston construction, which increased the project budget by \$3.2 million. Sections 37 and 46 are nearing 100 years old and supply a densely developed part of the service area which has little redundancy.
- Schedule – Completion date reflects anticipated completion date for new phase noted above.
- CAP Impact – Revised construction spending for Section 8 to align with anticipated start date of July 2008, which is outside the cap period. New scope described above is outside the cap period.

S.702 New Connecting Mains - Shaft 7 to ...

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide redundancy and improve the reliability of WASM 3; provide hydraulic looping and redundancy, enable Intermediate High Sections 59 and 60 to be taken off-line for rehabilitation, and improve water quality by reducing the length of unlined cast iron water mains in the MWRA system. Completion of this project will help provide the basis for a strong hydraulic network of piping among WASM 3, WASM 4, the City Tunnel, and the possible future Metropolitan Tunnel Loop. The future conversion of Sections 23 and 24 to the Intermediate High Service system to create a unified Intermediate High Service area connecting the Belmont and Commonwealth Avenue pump stations will also be possible. This project will involve installation of 31,415 linear feet of new pipeline, and rehabilitation of 62,910 linear feet of pipeline. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$68,836	3,050	65,786	1,600	2,117	9,277	21,165	11,599	20,029

Project Status	7%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$66,144	68,836	2,692	Oct-10	Nov-12	25	\$48,039	45,758	(2,281)

Explanation of Changes

- Project Cost – Added new design and construction phases to replace Section 25, which increased the project budget by \$2.5 million.
- Schedule – Revised to reflect anticipated completion date for new Section 25 work noted above.
- CAP Impact - Shifted start of construction for North Segment (CP1A) by 15 months to account for environmental reviews which reduced spending within the cap period by \$3.7 million. This was offset by offset by additional design services during the review period. Revised spending projections for other future work resulting in a net additional \$1 million reduction within the cap period.

S.706 NHS - Con. Mains from Sec. 91

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To integrate the new Section 91 pipeline with the existing grid network in the northeast portion of the Northern High Service System. Through various new connections, service pressures and reliability to community meters will be improved. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,765	2,401	365	365	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,797	2,765	(32)	Jun-02	Jun-02	-	\$70	365	295

Explanation of Changes

- Project Cost – Expected change order to relocate a 48-inch valve no longer anticipated and removed from the budget.
- Schedule – None.
- CAP Impact – Design services budgeted in FY03 carried forward to FY04 within the cap period pending final closeout review.

S.692 NHS - Section 27 Improvements

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve service to the communities north of Lynn by rehabilitating or replacing a segment of 98-year old pipe in Lynn which suffers from poor hydraulic performance and frequent leakage. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,330	124	2,206	5	-	-	-	-	2,202

Project Status	6%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,332	2,330	(2)	Mar-12	Mar-12	-	\$-	5	5

Explanation of Changes

- Project Cost – Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – None.
- CAP Impact – Charge back of technical assistance services, funded through Business & Operations and allocated project specific use.

S.693 NHS - Revere & Malden Pipeline Impr

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the delivery capabilities of major distribution lines serving the Northern High System. The existing pipelines are inadequate and suffer from extensive corrosion and leakage. Replacement, rehabilitation, and/or reinforcement will provide a strong and reliable means to convey water from the City Tunnel Extension to communities in the northern and eastern portions of the Northern High Service Area. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$32,565	23,854	8,712	19	6	8	2,007	1,243	5,429

Project Status	73%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$31,447	32,565	1,118	Nov-08	Nov-10	24	\$5,923	3,283	(2,640)

Explanation of Changes

- Project Cost – Increase for new work to replace approximately 2,000 feet of 36-inch pipe of the Shaft 9A-D line that remains to be connected to the newly constructed Spot Pond Pipeline (Section 99). This extension will complete the piping grid around Shaft 9A to the new Section 99 and Section 53.
- Schedule - Revised to reflect anticipated completion date for new Shaft 9A-D extension work noted above.
- CAP Impact – Deferred start of construction on Section 68 and 53A by one-year, from June 2007 to June 2008 to comply with cap.

S.724 Nor High Service - Pipeline Rehab

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve carrying capacity and water quality by rehabilitating a number of small diameter distribution pipelines near the coastline from East Boston north to Lynn. All these cast iron mains are unlined with C-values below 70, and most are more than 60 years old. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$16,287	-	16,287	-	-	-	-	736	15,552

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$16,304	16,287	(17)	Nov-10	Nov-11	12	\$1,526	736	(790)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule - Shifted schedule for start of design by one year to May 2007, which extended construction completion date to November 2011 due to competing project priorities and staffing limits.
- CAP Impact – Start of design shifted one year, as noted above, which reduced spending within the CAP period.

S.733 NHS Pipeline Rehab 13-18 & 48

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

This project will improve hydraulic service and reliability in portions of the Northern High Service System, as well as improve water quality. Improvements will include the rehabilitation of two pipe sections, over 100-years old, and the connection of the two sections via four existing water meters, to the Fells Reservoir Covered Storage Facility. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$26,364	-	26,364	-	-	-	-	-	26,363

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$18,383	26,364	7,981	Nov-13	Nov-16	37	\$2,058	-	(2,058)

Explanation of Changes

- Project Cost – Added new work to design and rehabilitate Sections 33, 49, 49A mains in conjunction with the rehabilitation of the Northern High Service (NHS) Pipeline Rehab 13-18 and 48 to minimize disruption to communities, improve coordination of interconnections between the two sets of mains, and to lower overall construction costs.
- Schedule – Revised to reflect anticipated completion date for new rehabilitation work noted above.
- CAP Impact - Delayed start of planning/EIR phase from November 2006 to November 2009 due to staffing limits and other project priorities.

S.731 Lynnfield Pipeline

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To meet fire flow and peak hour requirements in Lynnfield by replacing approximately 7,000 linear feet of 8-inch main. The Lynnfield Water District serves a portion of the Town of Lynnfield. The community meter is served by an 8-inch main, approximately 7,000 feet long. The main is undersized and its capacity is inadequate to meet fire flow and peak hour requirements. Rehabilitation of the main will not increase the capacity sufficiently. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$4,000	-	4,000	-	100	350	2,200	1,200	150

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$4,000	4,000	-	Nov-07	Nov-07	-	\$4,000	3,850	(150)

Explanation of Changes

- Project Cost – None.
- Schedule – None.
- CAP Impact – Revised projected spending for design/construction administration which reduced spending within the cap period.

S.708 Nor Extra High Serv - New Pipelines

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve hydraulic service and reliability for major portions of the Northern Extra High System. Existing lines are undersized and frequently experience pressure problems. Improvements will include rehabilitation of two pipe segments and installation of a new parallel main into Waltham. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$8,234	3,564	4,671	305	6	6	6	6	4,341

Project Status	47%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$8,239	8,234	(5)	Nov-10	Nov-10	-	\$40	329	289

Explanation of Changes

- Project Cost – Updated inflation estimates based on projection of Boston construction cost index.
- Schedule – None.
- CAP Impact – Less than budgeted spending for design/construction administration services for Contract 6905 in FY03 carried forward to FY04 pending final contract closeout review.

S.725 Hydraulic Model Update

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To bring MWRA hydraulic and water quality modeling capabilities up to modern standards, and to integrate the water quality model with MWRA's GIS, SCADA, and Telog systems. Completion of the project will also improve the use of the existing hydraulic model to manage system operations by making screen displays geographically accurate, standardizing model facility naming to coordinate with GIS, and allowing simulations to be conducted to predict changes to disinfection residual levels in the water as it moves through the MWRA system. The project builds on the foundation of the existing model and incorporates improvements already implemented in the GIS system. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$688	598	90	22	68	-	-	-	-

Project Status	90%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$688	688	-	Jun-04	Jun-05	12	\$88	90	2

Explanation of Changes

- Project Cost – None.
- Schedule – Extended model support services by one year due to delays in developing the data.
- CAP Impact – N/A.

S.734 SEH Pipelines-Sections 30,40,44,39

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To support MWRA's commitments to water quality, improving infrastructure, and more efficient and effective operations and maintenance by rehabilitating and repairing aging pipelines in Boston and Milton. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$7,000	-	7,000	-	-	-	-	-	7,000

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$7,000	7,000	-	Jan-17	Jan-17	-	\$-		-

Explanation of Changes

- Project Cost – None.
- Schedule – None.
- CAP Impact – None.

S.735 Section 80 Rehabilitation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve the quality of water delivered by MWRA to Wellesley and Needham by rehabilitating approximately 16,197 feet of pipe along Route 128/95. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$7,094	-	7,094	-	135	442	2,326	3,441	750

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$7,119	7,094	(25)	Mar-08	Sep-08	6	\$7,120	6,344	(776)

Explanation of Changes

- Project Cost - Updated inflation estimates based on projection of Boston construction cost index.
- Schedule - Shifted schedule by six months due to competing project priorities and staffing limits.
- CAP Impact – Schedule shift noted above, reduced expenditures within the CAP period.

S.753 Central Monitoring System

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide a modern centralized system for monitoring, coordinating, and controlling critical waterworks functions. Many existing MWRA facilities are monitored and operated using obsolete methods and equipment, which can hinder emergency response capabilities and prevent coordinated system operation. Two operations control centers are already operational, and various field facilities have been equipped with telemetry and communications equipment as part of this project. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$16,199	14,858	1,341	734	158	80	80	140	149

Project Status	96%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$16,113	16,199	86	Dec-03	Mar-04	3	\$1,039	1,192	153

Explanation of Changes

- Project Cost – Increase due to additional change order work to add Shaft W tower and new conduit for waterworks facilities phase.
- Schedule – Extended completion date for waterworks facility phase to March 2004.
- CAP Impact – Less than budgeted spending in FY03, carried forward to cap period.

S.763 Distribution Systems Facs. Mapping

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To produce a complete, up-to-date set of appropriate scale maps of all underground waterworks facilities, along with a comprehensive database inventory. Existing maps were outdated and unreliable, complicating emergency response, field repairs, and planning. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,116	1,030	1,086	-	-	434	434	218	-

Project Status	49%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,117	2,116	(1)	Dec-06	Dec-07	12	\$1,087	1,086	(1)

Explanation of Changes

- Project Cost – N/A.
- Schedule - Shifted schedule due to competing project priorities and staffing limits.
- CAP Impact – N/A.

S.764 Local Water Infrastr Rehab Ast Progr

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide financial support to MWRA waterworks communities to replace, rehabilitate, and maintain their waterworks system infrastructures. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$7,488	9,892	(2,404)	(2,404)	-	-	-	-	-

Project Status	Complete	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$7,500	7,488	(12)	Jun-04	Jun-04	-	\$(2,469)	(2,404)	65

Explanation of Changes

- Project Cost – N/A.
- Schedule – None.
- CAP Impact – N/A.

S.765 Local Water Pipeline Imp. Loan Program

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide loans to facilitate the rehabilitation or replacement of unlined water pipelines in MWRA communities. Additional project background and description of phases are available online at www.mwra.com.

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$-	45,545	(45,545)	14,506	11,761	9,761	7,761	5,761	(95,095)

Project Status	20%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$-	-	-	Aug-20	Aug-21	12	\$70,730	49,550	(21,180)

Explanation of Changes

- Project Cost – None.
- Schedule - Schedule revised to reflect anticipated longer period of distribution of funds based on pace of disbursements to date. August 2021 completion date reflects last repayment. Terms of repayment unchanged, date consistent with expected disbursements.
- CAP Impact - Reviewed and revised pace of loan disbursements and repayments based on historical activity for loan program. Program authorized at \$25 million per year, but this level not yet achieved. Net result from review is a reduction of \$21.2 million within cap period.

S.766 Waterworks Facility Asset Protection

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

New Project added that consists of the transfer of remaining phases from the Rehab of Existing Facilities project already in the CIP. Transferred subphases include meter vault manhole retrofits, design and construction of Walnut Hill Tank repairs, and repair of the Waltham Pipe/Bridge Replacement. New phases will be added as the facilities asset management program refines asset protection needs. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,818	-	2,818	181	122	1	1	433	2,080

Project Status	6%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$3,122	2,818	(304)	Mar-10	Mar-11	12	\$1,538	738	(800)

Explanation of Changes

- Project Cost -New Project added that consists of the transfer of remaining phases from the Rehab of Existing Facilities project, which have not been closed out. These subphases include Meter Vault Manhole Retrofits for \$1.2 million, Design and construction of Walnut Hill Tank for \$1.3 million and repair of the Waltham Pipe/Bridge Replacement for \$0.3 million. The replacement of the Southboro Roof was removed and repackaged as part of Walnut Water Treatment Plant CP-7 phase.
- Schedule – Completion of Walnut Hill Tank construction extended one year due to competing project priorities and staffing limits.
- CAP Impact – Spending delay to comply schedule shift noted above.

S.933 Capital Maintenance Planning/Development

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To optimize the efficiency and effectiveness of MWRA maintenance practices by developing and implementing a strategic maintenance plan for MWRA assets. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$6,366	2,173	4,193	134	747	1,343	1,375	594	-

Project Status	36%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$2,616	6,366	3,750	Jul-04	Dec-07	42	\$457	4,193	3,736

Explanation of Changes

- Project Cost -The increase reflects the addition of two new subphases for Facility Asset Management (FAMP) Phase 3 consultant resources for \$0.8 million and as-needed water/wastewater design services for \$3.0 million to support delivery of smaller capital project needs without taking resources away from current projects.
- Schedule – Change in completion date reflects addition of as-needed design services.
- CAP Impact – New work for as-needed design services and Phase 3 FAMP consultant resources to be expended within the cap period.

S.881 Equipment Purchase

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To provide critical equipment for improved maintenance and operations at MWRA facilities. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$13,895	758	13,137	4,345	6,966	1,826	-	-	-

Project Status	37%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$12,965	13,895	930	Dec-02	Jun-06	43	\$10,619	13,137	2,518

Explanation of Changes

- Project Cost - Increase reflects additional equipment purchases, including Bucket Machine, Excavator, Grove Crane, Landfill Loader, and Power Sweeper.
- Schedule –Shift reflects buying schedule for equipment purchases listed above.
- CAP Impact - As noted above, the purchase of five new equipment purchases are expected within the cap period and timing of improvements for MWRA-wide security initiatives originally planned in FY03, to be completed in FY04 and beyond.

S.930 MWRA Facility - Chelsea

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To improve MWRA operations by consolidating maintenance, operations, administrative, and equipment storage functions into a single facility. This will relieve current overcrowding and adverse traffic impacts on neighborhoods abutting existing facilities. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$10,172	8,552	1,620	1,169	451	-	-	-	-

Project Status	96%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$10,245	10,172	(73)	Jun-03	Jun-03	-	\$-	1,620	1,620

Explanation of Changes

- Project Cost – Reduced unexpended budget for completed phases.
- Schedule – None.
- CAP Impact - Timing of remaining work for MIS network improvements and remaining fitout budgeted in FY03, now carried forward to FY04.

S.925 Technical Assistance

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To ensure ready access, on an as needed basis, to professional and technical services not available or not cost-effectively provided by in-house staff. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$2,100	-	2,100	-	700	700	700	-	-

Project Status	Future	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.

Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$3,300	2,100	(1,200)	Jun-06	Jun-07	12	\$3,300	2,100	(1,200)

Explanation of Changes

- Project Cost -Reduced budget based historic spending trends and a recognized shift to a single multi disciplined as-needed design service contracts funded as part of the Capital Maintenance Planning/Development (S.933) project.
- Schedule – Shift to reflect an additional funding year for technical assistance. These contracts are budgeted on a three-year cycle in the CIP.
- CAP Impact –Revised spending levels for technical assistance contracts based on historical usage and to offset new as-needed design services added to S.933 above.

S.931 Business Systems Plan

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To develop and procure management information systems (MIS) and improvements in order to adapt to the changing business needs of planning and managing the waterworks and sewerage systems. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$26,207	17,979	8,228	1,177	2,713	3,184	1,153	-	-

Project Status	73%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$23,372	26,207	2,835	Jun-07	Jun-07	-	\$4,602	8,227	3,625

Explanation of Changes

- Project Cost -Project cost increase for Phase VI to include \$1.3 million for Microsoft licensing and Lawson Conversion and \$1.5 million to replace, instead of upgrade, the laboratory information management system (LIMS).
- Schedule – None.
- CAP Impact - Additional scope noted above and some carry forward of budgeted spending in FY03.

S.932 Environmental Remediation

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

To implement remedial programs necessary to protect the environment and for compliance with the Clean State Initiative. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$1,759	1,138	621	153	71	175	52	52	117

Project Status	74%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$1,247	1,759	512	Mar-04	Mar-04	-	\$105	503	398

Explanation of Changes

- Project Cost -Increased spending reflects expected change order for multiphase extraction system at Prison Point for oil recovery.
- Schedule – None.
- CAP Impact – Portion of project cost increase noted above and revised projected spending result in an increase within the cap period.

S.934 MWRA Facilities Management & Planning

The information presented below is a project overview. It is intended to support the review of the Proposed FY05 Capital Improvement Program (CIP). Specifically, it highlights planned expenditure forecasts, and changes to project cost, schedule, and FY04-08 CAP spending as compared to the Final FY04 CIP. Additional information by project phase is provided in the appendices.

Project Summary

This is a new project that consolidates existing MWRA projects (DI Maintenance Facilities and DI CSB Demolition) to provide a central point of review and decision making for space planning decisions. This project includes new work to rehabilitate or demolish the old Admin Building on Deer Island as the building has deteriorated (i.e. the roof leaks, windows need to be replaced) and certain structures need to be upgraded to current standards if it is to remain occupied (bathrooms, electrical, and plumbing systems). Project also includes the installation of the sandblast booth and the paint booth, purchased from the Chelsea Facility developer, in the Maintenance Building at Chelsea for a fully functional shop, and funds to construct a washdown area to sanitize tools, equipment, and parts before working on them in the shop areas at Chelsea. *Additional project background and description of phases are available online at www.mwra.com.*

Expenditure Forecast (\$ x 000) and Project Status

Total Cost	Payments thru FY03	Balance	FY04	FY05	FY06	FY07	FY08	Beyond FY08
\$4,031	-	4,031	20	650	598	587	544	1,632

Project Status	1%	Status is an approximation based on project costs and expenditures. Status for completed projects is COMPLETE, active projects show approximate percentage, and for projects not yet started the status is FUTURE. Status by phases is provided as an appendix.
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Changes to Project Cost, Schedule, and FY04-08 CAP (\$ x 000)

Project Cost			Scheduled Completion Date			Impact on FY04-08 CAP		
FY04	FY05	Change	FY04	FY05	Change	FY04	FY05	Change
\$-	4,031	4,031	-----	Jun-09	N/A	\$-	2,399	2,399

Explanation of Changes

- Project Cost -These projects reflect the MWRA's continued commitment to consolidate facilities and to optimize space. Consolidation of these projects will provide a central point for decision making. Of the \$4 million project budget, \$2.4 million is a transfer of existing phases from DI for maintenance facilities and CSB reuse and the remainder is for new work proposed to complete the paint booth and additional vehicle storage at Chelsea, and potential re-use of Old Admin Building on DI.
- Schedule – None.
- CAP Impact – Portion of work expected to completed within the cap period. This is offset by reductions elsewhere in the CIP as portions of this project were already funded in the CIP and are now transferred to this project.

APPENDIX 1

FY04-08 Cap Period Incremental Change by Project

(\$ x 1,000)

SUMMARY: CAP Components	<u>Jun-2003</u> FY04-08 CAP	<u>Dec-2003</u> FY04-08 CAP	\$ Change	EXPLANATIONS (Changes +/- \$1 million within CAP period)
TOTAL MWRA	\$ 1,134,514	\$ 1,134,193	\$ (321)	Net Change = \$0.3 million reduction. Total capital spending is within cap limit.
Projected Expenditures (see detail by Project below)	1,023,253	1,033,537	10,284	Net change within cap period = \$10.3 million increase. See project specific explanations below for changes of +/- \$1 million which represent over 85% of the change within the cap period.
Contingency	86,943	73,536	(13,407)	The contingency budget is calculated as a percentage of projected capital expenditures. Reduction reflects removal of FY04 within cap period, offset by revised calculation on updated capital expenditures.
Inflation	35,725	38,241	2,516	Revised inflation calculation based on updated projected capital expenditures at 2.5%.
Less: Chicopee Valley Aqueduct Projects	(11,407)	(11,121)	286	N/A. CVA projects excluded from CAP limit as these costs are directly recovered from the communities.

MWRA Projects	<u>Jun-2003</u> FY04-08 CAP	<u>Dec-2003</u> FY04-08 CAP	\$ Change	EXPLANATIONS (Changes +/- \$1 million within CAP period)
S.542 Walnut Hill Water Treatment Plant	66,840	81,528	14,688	Additional design and construction management services for Wachusett and Walnut Hill treatment plants (\$2.3m) to support startup and operational assistance. Additional change order work for inspection of Cosgrove Tunnel and security improvements for vents and hatches (\$3.2m). Revised estimate for CP-7 ICCF construction (\$3m). New work includes as-needed design services for potential post warranty changes (\$1.5m) and UV treatment to meet the Long Term 2 Surface Water Treatment Rule which requires that two primary disinfectants be used on unfiltered water by the year 2012. Design services (\$3.9m) to start within cap period.
S.261 Residuals	1,528	10,027	8,499	BOD approved settlement with construction contractor and residuals plant operator.
S.136 West Roxbury Tunnel	6,419	14,897	8,478	Start of tunnel design moved ahead by 12 months to Sep-2005, reflecting the deletion of the planning/EIR phase. Construction moved ahead by six months to Dec-2007 reflecting criticality to start the project sooner.

APPENDIX 1

FY04-08 Cap Period Incremental Change by Project

(\$ x 1,000)

MWRA Projects	<u>Jun-2003</u> FY04-08 CAP	<u>Dec-2003</u> FY04-08 CAP	\$ Change	EXPLANATIONS (Changes +/- \$1 million within CAP period)
S.616 Quabbin Transmission System	1,271	5,100	3,829	New work including a two phase approach to rehabilitate the Oakdale Hydropower Generator bypass Facility. The facility shows signs of deterioration, by-pass valves not properly functioning, pressure relief structure is old and corroded. Phase 1 will replace by-pass valves immediately (\$1.8m). Phase 2 design to start in FY06 with \$1.5m to be expended within the cap period. Phase 2 construction is outside the cap period.
S.145 I&P Facility Asset Protection	11,401	15,228	3,827	New work for pipeline interceptor renewal projects based on pipelines that pose the highest risk and/or consequence of failure as determined by the Interceptor Renewal Task Team. This will be a multi-year effort with scope and sequence planning to start in FY06. Other new work including Section 93A based on test pit examination and corrosion of tunnel lining.
S.933 Capital Maintenance Planning/Development	457	4,193	3,736	New Work for as-needed design services (\$3m) to support general water and wastewater needs. These services are to supplement and provide more flexible resources to meet the smaller capital needs without taking resources away from current projects. Added Phase 3 FAMP consultant resources (\$0.75m).
S.931 Business Systems Plan	4,602	8,227	3,625	Additional scope to Phase VI to include Microsoft licensing, Lawson conversion, and LIMS replacement versus upgrade.
S.704 Rehab of Other Pumping Stations	14,551	17,465	2,914	New phase to bid design services for rehab of water pump stations (\$4.4m) offset by reduction of existing rehab design contract (\$1.8m).
S.200 DI Plant Optimization	20,392	22,956	2,564	Additional as-needed design services (Phases 4-1 and 4-2) defined within cap period (\$2m). Transfer of BHP site completion (site maintenance warranty and signage) to DI for closeout of BHP.
S.881 Equipment Purchase	10,619	13,137	2,518	Five new large equipment purchases (\$1m). Examples include excavator, crane, and power-sweeper. Timing of improvements for MWRA-wide security initiatives originally planned in FY03, to be completed in FY04 and beyond.
S.934 MWRA Facilities Management & Planning	-	2,399	2,399	Consolidation of MWRA facilities space planning improvements within the CIP. \$2.6m is a transfer of existing phases from DI for maintenance facilities and CSB reuse. New work proposed includes completion of paint booth and additional vehicle storage at Chelsea, and potential re-use of Old Admin Building on DI.
S.719 Chestnut Hill Connecting Mains	11,645	13,718	2,073	Contract work for final pipe connection split to two phases (Chpt 30 and 149). Revised estimates for new phases greater than prior budget.

APPENDIX 1

FY04-08 Cap Period Incremental Change by Project

(\$ x 1,000)

MWRA Projects	<u>Jun-2003</u> FY04-08 CAP	<u>Dec-2003</u> FY04-08 CAP	\$ Change	EXPLANATIONS (Changes +/- \$1 million within CAP period)
S.104 Braintree-Weymouth Relief Facilities	70,001	71,941	1,940	Additional design and construction services for resident inspection, handbooks, and training (contracts 5313 and 5331), offset by a balancing change order for the tunnel construction (contract 5315).
S.713 Spot Pond Supply Mains - Rehab	49,159	51,061	1,902	Repackage and expanded Section 57 waterline replacement to include 14,000 feet of North Met Sewer rehabilitation which lies beneath the water main. New design services will be procured and work expected to start in Oct-2005 (\$2.3m). Construction to start in Apr-2007 (\$0.5). These increases offset by transfer of design services from original 6223 contract. See 10/15/03 BOD meeting.
S.346 Cambridge CAM002-004 Sew.Separation	4,618	6,258	1,640	Transfer of work to S.355 MWR003 Gates & Siphon above offset by work budgeted in FY03 to be completed in FY04.
S.930 MWRA Chelsea Facility	-	1,620	1,620	Timing of remaining work for MIS network improvements and remaining fitout expected to be completed in FY03, now planned for FY04.
S.355 MWR003 Gates & Siphon	-	1,371	1,371	Repackaged work from Cambridge Sewer Separation project as this work will be managed by MWRA.
S.344 Stony Brook Sewer Separation	26,442	27,725	1,283	Award of contract 03-309-005 higher than budgeted, increasing spending within the cap period.
S.765 Local Water Pipeline Imp. Loan Program	70,730	49,550	(21,180)	Reviewed and revised pace of loan disbursements and repayments based on historical activity for loan program. Program authorized at \$25m per year, but this level not yet achieved. Net result from review is a reduction of \$21.2 million within cap period.
S.206 DI Asset Protection	43,174	35,018	(8,156)	Prioritize and complete work already defined within the cap period and defer \$7.5m to beyond FY08. Other adjustments result in a net reduction of \$0.6m within the cap period.
S.339 North Dorch Bay & Reserve Channel	97,829	91,554	(6,275)	Refined pace of spending from \$32m to \$43m and from \$62m to \$45m for FY07 and FY08 respectively, based on alternative scenarios under evaluation. Adjustments result in a net decrease of \$6.3 million within the cap period.
S.723 Nor Low Service Rehab Secs. 8	6,037	15	(6,022)	Corrected cashflow error from base cap. Section 8 construction to start Jul-2008 (FY09), moved spending previously budgeted in FY08 to FY09.
S.128 I/I Local Financial Assistance	18,455	15,020	(3,435)	Reconciled, reviewed and revised pace of grant and loan disbursements and repayments based on historical activity for existing community I/I program. Added new Phase V, \$40m with \$18m grants and \$22m loans. Net result is a reduction of \$3.4 million within cap period.
S.730 Weston Aqueduct Supply Mains (WASMs)	20,446	17,245	(3,201)	Shifted start of construction of CP-3, Arlington WASM 3, by one-year to Jan-2009 to coincide with separate Shaft 7 to WASM 3 (S.702) work. This pushed \$4m outside the cap period, offset by additional design services.

APPENDIX 1

FY04-08 Cap Period Incremental Change by Project

(\$ x 1,000)

MWRA Projects	<u>Jun-2003</u> FY04-08 CAP	<u>Dec-2003</u> FY04-08 CAP	\$ Change	EXPLANATIONS (Changes +/- \$1 million within CAP period)
S.693 NHS - Revere & Malden Pipeline Impr	5,923	3,283	(2,640)	Deferred start of construction on Section 68 and 53A by one-year, from Jun-2007 to Jun-2008 to comply with cap.
S.702 New Connecting Mains - Shaft 7 to ...	48,039	45,758	(2,281)	Shifted start of construction for North Segment (CP1A) by 15 months (from Oct-2004 to Jan-2006) due to environmental reviews (\$3.7m), offset by additional design services for the reviews (\$0.4m). Revised projections for other future work resulting in a net additional \$1m reduction within the cap period.
S.733 NHS Pipeline Rehab 13-18 & 48	2,058	-	(2,058)	Delayed start of planning/EIR phase from Nov-2006 to Nov-2009 due to staffing limits and other project priorities.
S.721 Southern Spine Distribution Mains	25,911	23,985	(1,926)	Award of Section 22 South and Contract 1A less than budget, reducing spending within the cap period.
S.925 Technical Assistance	3,300	2,100	(1,200)	Revised spending levels for TA contracts based on historical usage and to offset new as-needed design services added to S.933 above.
S.543 Quabbin Water Treatment Plant	3,914	2,909	(1,005)	Shifted start of design by six months to Nov-2005 and construction by five months to Oct-2007 due to delays with pilot study equipment purchases. This deferred spending outside the cap period.

APPENDIX 2

Proposed FY05 New Project/Phase Summary

Project/Phase Title Description	\$ in Millions			
	Total Contract	Budget FY04-08	Budget FY09-13	FY14 and Beyond
Cambridge Branch Sewer Optimization	24.0	0.1	3.1	20.8
Provide relief to the Cambridge Branch Sewer, as well as contribute to CSO reductions, provide operational flexibility, and ensure redundancy of a critical siphon section. Project will 1) Design and construct an interconnection between the upstream end of Somerville-Medford Branch Sewer and North Met. Relief Sewer 2800 ft to bypass flow around the CBS and Delaurie PS. 2) Design and construct an additional siphon(s) adjacent to the 5' single barrel siphon using HDD. 3) Design and construct improvements to the Delaurie PS to increase the facilities pumping capacity to 20 MGD.				
Interceptor Renewal	114.0	3.0	70.0	41.0
Placeholder for pipeline rehabilitation projects based on pipelines that pose the highest risk and/or consequence of failure as determined by the Interceptor Renewal Task Team.				
I/I Grant/Loan Phase V	18.0	13.4	13.1	(8.5)
Phase V of the I/I Local Financial Assistance Program will add \$40 million to fund local community I/I reduction and sewer system rehabilitation projects. The funds will be distributed as 45% grants (\$18M) and 55% interest-free loans (\$22M). Funds will be available based on each communities FY04 sewer assessment.				
Walnut Hill Ultra Violet Treatment	43.5	3.9	39.6	-
Ultra Violet (UV) will be added to the Walnut Hill Water Treatment Plant. The Long Term 2 Surface Water Treatment Rule requires that two primary disinfectants be used on unfiltered water by the year 2012.				
Oakdale Valve Improvements (Phs 1 & 2)	12.1	4.1	8.1	-
Rehabilitate (Two Phase Approach) the Oakdale Hydropower Generator bypass Facility. The facility shows signs of deterioration, by-passed valves not properly functioning, pressure relief structure is old and corroded. Working condition is unsafe and water supply to Metro Boston is dependent on this facility.				
Sudbury Aqueduct	39.2	-	32.0	7.2
Restore the Aqueduct to a safe and reliable emergency supply until the Northern or Southern Tunnel loop is built. This can be done with Option 1 (rehab the entire 17.4 miles) or Option 2 (new tunnel built from Shaft NS at Norumbega to site on the Sudbury Aqueduct in Wellesley).				
Water Pump Station Rehab	4.5	4.4	0.1	-
Continuation of Rehab of Other Pump Stations program. Current design contract will end. Funding added for new design services to be procured.				

APPENDIX 2

Proposed FY05 New Project/Phase Summary

Project/Phase Title Description	\$ in Millions			
	Total Contract	Budget FY04-08	Budget FY09-13	FY14 and Beyond
Various Water Pipeline Rehab/Replacement	14.9	-	11.3	3.6
<i>Rehab of Sections 33,49,49A, and 50</i>				
Rehabilitate these mains in conjunction with the rehab of NHS Pipeline Rehab 13-18 and 48 to minimize disruption to communities, co-ordinate interconnections between the two sets of mains, and to lower overall construction costs.				
<i>Rehab of Sections 37, 38, 46 Chelsea and East Boston</i>				
Rehab of Sections 37 and 46 which will be approaching 100 years old located in low-lying ground near the harbor and Chelsea Creek. They supply a densely developed part of the service area, which has little redundancy. Section 38, in good condition, may be an issue with dredging of the Chelsea River.				
<i>Replacement of Section 25</i>				
Replace Section 25 which is a 105 year old 4,900 main that interconnects with the Southern High Service, and in emergencies with the Southern Intermediate High (Newton) The main is undersized for this purpose, and is valved off in a way that it operates as part of the Watertown distribution system.				
<i>Section 53 Extension and Shaft 9A-D Extension</i>				
Replace approximately 2,000 feet of 36-inch pipe of the Shaft 9A-D line that remains to be connected to the newly constructed Spot Pond Pipeline (Section 99). This extension will complete the piping grid around Shaft 9A to the new Section 99 and Section 53.				
Additional As-Needed Design Resources	6.5	6.5	-	-
<i>As-Needed Design (DITP)</i>	2	2.0	-	-
As-needed design services to supplement existing engineering resources for specialized and or complex engineering issues.				
<i>As-Needed Design (WHWTP)</i>	1.5	1.5	-	-
As-needed design services to support the Walnut Hill Water Treatment Plant including electrical engineering, HVAC engineering, mechanical engineering, civil engineering and a variety of geotechnical, environmental, and architectural technical assistance.				
<i>As-Needed Design (General)</i>	3	3.0	-	-
As-needed design services to meet other general water and wastewater needs. Services and approach would be similar to those already used at DITP and recommended for WHWTP.				

APPENDIX 2

Proposed FY05 New Project/Phase Summary

Project/Phase Title Description	\$ in Millions			
	Total Contract	Budget FY04-08	Budget FY09-13	FY14 and Beyond
MWRA Space and Building Needs	4.0	2.4	1.6	-
<p>Consolidation of existing MWRA projects (DI Maintenance Facilities and DI CSB Demolition) to provide a central point of review and decision making. \$2.6 million is a transfer of existing projects and \$1.4 million is for new work. New work includes: 1) Rehab or demolish the old Admin Building. The building has deteriorated (i.e. the roof leaks, windows need to be replaced), certain structures need to be upgraded to current standards if it is to remain occupied (bathrooms, electrical, and plumbing systems). 2) The paint shop in the Maintenance Building at Chelsea still requires the completion of the paint and sandblast booths for a fully functional shop. MWRA has purchased the sandblast booth and the paint booth from the developer. 3) Construct a washdown area to sanitize tools, equipment, and parts before working on them in the shop areas.</p>				
SUB-TOTAL	\$ 280.8	\$ 37.7	\$ 178.9	\$ 64.1
Other New Phases (e.g.: equipment, other pipeline)	8.1	5.7	2.5	-
TOTAL NEW PROJECT/PHASES	\$ 288.9	\$ 43.4	\$ 181.4	\$ 64.1
% of Total Contract		15%	63%	22%

APPENDIX 3

MWRA Proposed Capital Spending by Program
(\$ x 1,000)

Proposed FY05 Capital Improvement Program (December 2003)										
MWRA Major Programs	Total Contract Amount	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	FY14	Beyond FY14
Total MWRA	3,795,321	229,552	196,317	202,899	233,646	171,123	1,033,537	685,947	59,609	45,655
S.99201 Wastewater System Improvements	1,685,295	104,095	100,589	126,879	137,121	91,545	560,229	374,965	41,310	44,443
S.10 Interception & Pumping	764,542	34,653	29,720	55,468	35,091	17,142	172,074	165,433	34,015	50,528
S.25 Treatment	135,331	3,348	15,850	19,829	11,537	7,410	57,974	52,800	12,000	2,404
S.12 Residuals	67,321	10,027	-	-	-	-	10,027	-	-	675
S.13 CSO	649,224	52,956	51,244	48,659	88,070	64,132	305,061	138,824	-	-
S.14 Other	68,877	3,111	3,775	2,923	2,423	2,861	15,093	17,908	(4,705)	(9,164)
S.99301 Waterworks System Improvements	2,045,496	118,459	83,430	68,194	92,658	78,388	441,129	309,233	18,299	1,212
S.16 Drinking Water Quality Improvements	605,015	63,658	30,086	20,734	14,252	5,501	134,231	66,361	12,699	5,472
S.17 Transmission	788,892	12,521	14,287	6,121	6,046	11,102	50,077	80,523	18,098	20,755
S.18 Distribution And Pumping	622,968	29,263	27,016	31,063	64,084	55,233	206,659	144,785	7,545	65,372
S.19 Other	28,621	13,017	12,041	10,276	8,276	6,552	50,162	17,564	(20,043)	(90,387)
S.99801 Business & Operations Support	64,530	6,998	12,298	7,826	3,867	1,190	32,179	1,749	-	-
Contingency	153,631	-	15,239	17,123	23,134	18,040	73,536	71,675	8,420	-
Total MWRA with Contingency	3,948,952	229,552	211,556	220,022	256,780	189,163	1,107,073	757,622	68,029	45,655

Incremental Change from Final FY04 CIP										
MWRA Major Programs	Total Contract Amount	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	FY14	Beyond FY14
Total MWRA	330,753	(7,453)	6,144	7,712	16,337	(12,457)	10,283	276,381	59,609	5,744
S.99201 Wastewater System Improvements	171,555	4,512	(620)	11,221	9,278	(9,203)	15,188	97,871	41,310	19,496
S.10 Interception & Pumping	140,765	(1,630)	524	3,910	2,437	9,111	14,352	66,952	34,015	28,515
S.25 Treatment	65	(5,123)	(3,738)	7,739	(2,753)	(1,717)	(5,592)	(6,352)	12,000	145
S.12 Residuals	8,449	8,507	(8)	-	-	-	8,499	-	-	-
S.13 CSO	4,276	4,439	3,379	542	9,392	(16,395)	1,357	5,408	-	-
S.14 Other	18,000	(1,681)	(777)	(970)	202	(202)	(3,428)	31,863	(4,705)	(9,164)
S.99301 Waterworks System Improvements	148,413	(9,355)	216	(8,688)	4,270	(4,444)	(18,001)	176,761	18,299	(13,752)
S.16 Drinking Water Quality Improvements	53,112	(2,391)	89	5,121	8,954	2,454	14,227	40,913	12,699	(12,532)
S.17 Transmission	69,824	(3,652)	9,141	1,678	(238)	(3,143)	3,786	54,329	18,098	(2,594)
S.18 Distribution And Pumping	25,708	1,307	(3,936)	(11,071)	(279)	(272)	(14,251)	28,779	7,545	4,485
S.19 Other	(231)	(4,619)	(5,078)	(4,416)	(4,167)	(3,483)	(21,763)	52,740	(20,043)	(3,111)
S.99801 Business & Operations Support	10,785	(2,610)	6,548	5,179	2,789	1,190	13,096	1,749	-	-
Contingency	16,153	(19,383)	1,150	1,584	3,337	(95)	(13,407)	21,140	8,420	-
Total MWRA with Contingency	346,906	(26,836)	7,294	9,296	19,674	(12,552)	(3,124)	297,521	68,029	5,744

APPENDIX 4
MWRA Proposed Capital Spending by Project
(\$ x 1,000)

MWRA PROJECTS	Total Contract Amount	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	FY14	Beyond FY14
TOTAL MWRA	3,795,321	229,552	196,317	202,899	233,646	171,123	1,033,415	685,947	59,609	45,655
Contingency	153,631	-	15,239	17,123	23,134	18,040	73,536	71,675	8,420	
Total MWRA with Contingency	3,948,952	229,552	211,556	220,022	256,780	189,163	1,106,951	757,622	68,029	45,655
S.102 Quincy Pump Facilities	26,290	750	97	-	-	-	847	-	-	-
S.104 Braintree-Weymouth Relief Facilities	227,013	28,104	14,253	20,241	7,760	1,583	71,941	300	-	-
S.105 New Neponset Valley Relief Sewer	30,334	37	-	-	-	-	37	-	-	-
S.131 Upper Neponset Valley Sewer System	28,293	840	4,392	14,237	6,976	119	26,564	45	-	-
S.140 Neponset Valley Relief Sewer	12,333	-	-	-	-	-	-	1,228	304	10,800
S.106 Wellesley Ext Replacement Sewer	88,108	90	2	404	219	608	1,323	22,425	-	-
S.107 Framingham Extension Relief Sewer	48,037	110	26	1	-	-	137	-	-	-
S.127 Cummingsville Replacement Sewer	7,017	100	363	2,201	2,951	129	5,744	2	-	-
S.130 Siphon Structure Rehabilitation	6,959	2	-	20	229	229	480	5,540	-	-
S.134 Ashland Extension Sewer	1,020	-	-	-	-	-	-	150	-	870
S.135 System Master Plan Interceptors	10,915	-	-	-	-	-	-	117	-	10,798
S.132 Corrosion & Odor Control	16,707	500	900	4,714	8,047	636	14,797	223	-	-
S.136 West Roxbury Tunnel	83,072	88	8	1,463	2,044	11,294	14,897	59,278	-	-
S.137 Wastewater Central Monitoring	13,938	1,140	4,599	5,833	1,454	-	13,026	-	-	-
S.139 South System Relief Project	4,546	-	115	125	565	300	1,105	-	-	-
S.141 Wastewater Process Optimization	24,985	225	5	-	54	76	360	3,130	18,711	2,060
S.142 Wastewater Meter Sys-Equip Replace	6,555	1,618	3,568	19	35	115	5,355	1,201	-	-
S.143 Regional I/I Management Planning	397	55	178	-	-	-	233	-	-	-
S.145 I&P Facility Asset Protection	128,023	994	1,214	6,210	4,757	2,053	15,228	71,794	15,000	26,000
S.200 DI Plant Optimization	31,239	2,212	8,227	6,173	3,550	2,794	22,956	-	-	-
S.206 DI Treatment Plant Asset Protection	104,092	1,136	7,623	13,656	7,987	4,616	35,018	52,800	12,000	2,404
S.261 Residuals	67,321	10,027	-	-	-	-	10,027	-	-	675
S.339 North Dorch Bay & Reserve Channel	225,134	1,381	746	1,091	42,916	45,420	91,554	119,918	-	-
S.354 Hydraulic Relief Projects	2,351	50	-	-	-	-	50	-	-	-
S.347 East Boston Branch Sewer Relief	58,935	5,548	500	12,730	25,937	11,101	55,816	75	-	-
S.348 Fort Pt. Channel & BOS019 Conduits	20,422	1,316	2,982	10,448	5,139	88	19,973	-	-	-
S.349 Chelsea Trunk Sewer	30,676	701	220	-	-	-	921	-	-	-
S.350 Union Park Detention Treatment Fac	41,812	15,964	15,673	4,217	75	-	35,929	-	-	-
S.353 Upgrade Existing CSO Facilities	22,383	82	-	-	-	-	82	-	-	-
S.355 MWR003 Gates & Siphon	1,371	-	108	834	429	-	1,371	-	-	-
S.340 S. Dorch Bay Sew Separ (Fox Pt.)	53,837	7,298	7,832	6,317	3,633	1,913	26,993	648	-	-
S.341 S. Dorch Bay Sew Separ (Comm. Pt.)	59,793	5,755	7,468	4,657	8,716	5,255	31,851	880	-	-
S.344 Stony Brook Sewer Separation	43,649	8,623	12,020	6,612	470	-	27,725	-	-	-
S.342 Neponset River Sewer Separation	2,681	237	-	-	-	-	237	-	-	-
S.343 Constitution Beach Sewer Separation	3,769	-	-	-	-	-	-	-	-	-
S.346 Cambridge CAM002-004 Sew.Separation	37,496	4,534	1,280	222	197	25	6,258	17,303	-	-
S.351 BWSC Floatables Controls	933	-	-	-	-	-	-	-	-	-

APPENDIX 4
MWRA Proposed Capital Spending by Project
(\$ x 1,000)

MWRA PROJECTS	Total Contract Amount	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	FY14	Beyond FY14
S.352 Cambridge Floatables Controls	2,518	551	796	794	-	-	2,141	-	-	-
S.324 CSO Support	41,464	916	1,619	737	558	330	4,160	-	-	-
S.128 I/I Local Financial Assistance	68,593	3,038	3,775	2,923	2,423	2,861	9,898	17,908	(4,705)	(9,164)
S.138 Sewerage System Mapping Upgrade	284	73	-	-	-	-	73	-	-	-
S.542 Walnut Hill Water Treatment Plant	409,747	50,057	16,204	8,388	4,573	2,306	81,528	41,348	850	-
S.543 Quabbin Water Treatment Plant	14,983	571	268	177	236	1,657	2,909	2,632	-	-
S.544 Norumbega Covered Storage	107,261	12,746	3,246	808	723	13	17,536	450	-	-
S.545 Blue Hills Covered Storage	32,533	284	10,368	10,961	8,265	1,374	31,252	-	-	-
S.546 Northern Intermed. High Covered Storage	6,425	-	-	200	175	-	375	659	350	5,041
S.549 SEH Additional Storage	5,892	-	-	200	280	151	631	5,261	-	-
S.550 Low Service Storage Near Spot Pond	28,174	-	-	-	-	-	-	16,011	11,499	431
S.604 MetroWest Tunnel	677,360	10,113	4,166	992	4,690	10,427	30,388	31,187	1,721	-
S.601 Sluice Gate Rehabilitation	9,353	1,523	2,419	1,126	31	-	5,099	-	-	-
S.614 Metropolitan Tunnel Loop	2,997	-	100	225	245	525	1,095	1,902	-	-
S.615 Chicopee Valley Aqued. Redundancy	8,592	595	6,129	826	219	-	7,769	-	-	-
S.597 Winsor Dam Hydroelectric	1,570	-	-	-	-	-	-	128	1,404	-
S.616 Quabbin Transmission System	13,150	250	1,298	2,652	750	150	5,100	8,050	-	-
S.617 Sudbury / Weston Aqueduct Repairs	40,086	40	175	300	111	-	626	32,012	6,723	465
S.618 Northern High NW Trans Sect 70-71	35,784	-	-	-	-	-	-	7,244	8,250	20,290
S.677 Valve Replacement	14,269	1,417	2,082	1,251	1,501	329	6,580	2,024	-	-
S.712 Cathodic Protection Of Distr.Mains	1,651	150	220	-	-	-	370	1,140	-	-
S.678 Boston Low Serv.-Pipe & Valve Rehab	23,830	428	74	-	-	-	502	-	-	-
S.730 Weston Aqueduct Supply Mains (WASMs)	105,924	8,460	6,196	999	770	820	17,245	19,697	520	25,629
S.720 Warren Cottage Line Rehab	1,211	10	-	-	-	-	10	-	-	-
S.732 Walnut St. & Fisher Hill Pipeline Rehab.	6,675	5	10	7	1,757	2,173	3,952	2,724	-	-
S.683 Heath Hill Road Pipe Replacement	17,985	68	421	354	3,983	3,001	7,827	671	-	-
S.721 Southern Spine Distribution Mains	60,492	2,921	5,564	781	5,938	8,781	23,985	25,845	-	7,464
S.714 South. Extra High Sects 41,42 & 74	4,545	1,795	191	-	-	-	1,986	-	-	-
S.727 Southern Extra High Redundancy Loop	19,463	-	-	-	-	-	-	5,417	3,000	11,045
S.719 Chestnut Hill Connecting Mains	29,630	1,764	1,076	87	6,948	3,843	13,718	175	-	-
S.704 Rehab of Other Pumping Stations	22,136	245	1,730	6,202	5,364	3,924	17,465	996	-	-
S.722 Bear Hill Improvements Sec 29	3,370	-	-	-	-	7	7	3,364	-	-
S.689 James L. Gillis Pump Station Rehab.	34,285	382	60	75	659	-	1,176	-	-	-
S.713 Spot Pond Supply Mains - Rehab	89,662	9,302	6,960	11,224	9,460	14,115	51,061	14,513	-	-
S.723 Nor Low Service Rehab Secs. 8	11,677	-	-	-	-	15	15	11,662	-	-
S.702 New Connecting Mains - Shaft 7 to ...	68,836	1,600	2,117	9,277	21,165	11,599	45,758	20,029	-	-
S.706 NHS - Con. Mains from Sec. 91	2,765	365	-	-	-	-	365	-	-	-
S.692 NHS - Section 27 Improvements	2,330	5	-	-	-	-	5	2,202	-	-
S.693 NHS - Revere & Malden Pipeline Impr	32,565	19	6	8	2,007	1,243	3,283	5,429	-	-
S.724 Nor High Service - Pipeline Rehab	16,287	-	-	-	-	736	736	15,552	-	-

APPENDIX 4
MWRA Proposed Capital Spending by Project
(\$ x 1,000)

MWRA PROJECTS	Total Contract Amount	FY04	FY05	FY06	FY07	FY08	5-Year FY04-08	5-Year FY09-13	FY14	Beyond FY14
S.733 NHS Pipeline Rehab 13-18 & 48	26,364	-	-	-	-	-	-	7,354	3,025	15,984
S.731 Lynnfield Pipeline	4,000	-	100	350	2,200	1,200	3,850	150	-	-
S.708 Nor Extra High Serv - New Pipelines	8,234	305	6	6	6	6	329	4,341	-	-
S.725 Hydraulic Model Update	688	22	68	-	-	-	90	-	-	-
S.734 SEH Pipelines-Sections 30,40,44,39	7,000	-	-	-	-	-	-	750	1,000	5,250
S.735 Section 80 Rehabilitation	7,094	-	135	442	2,326	3,441	6,344	750	-	-
S.753 Central Monitoring System	16,199	734	158	80	80	140	1,192	149	-	-
S.763 Distribution Systems Facs. Mapping	2,116	-	-	434	434	218	1,086	-	-	-
S.764 Local Water Infrastr Rehab Ast Progr	7,488	(2,404)	-	-	-	-	(2,404)	-	-	-
S.765 Local Water Pipeline Imp. Loan Program	-	14,506	11,761	9,761	7,761	5,761	54,550	15,335	(20,043)	(90,387)
S.766 Waterworks Facility Asset Protection	2,818	181	122	1	1	433	738	2,080	-	-
S.933 Capital Maintenance Planning/Development	6,366	134	747	1,343	1,375	594	4,193	-	-	-
S.881 Equipment Purchase	13,895	4,345	6,966	1,826	-	-	13,137	-	-	-
S.930 MWRA Facility - Chelsea	10,172	1,169	451	-	-	-	1,620	-	-	-
S.925 Technical Assistance	2,100	-	700	700	700	-	2,100	-	-	-
S.931 Business Systems Plan	26,207	1,177	2,713	3,184	1,153	-	6,727	-	-	-
S.932 Environmental Remediation	1,759	153	71	175	52	52	503	117	-	-
S.934 MWRA Facilities Management & Planning	4,031	20	650	598	587	544	3,899	1,632	-	-

APPENDIX 5

The following information presented below provides an approximation of status for design and construction phases in the current proposed capital budget. Planned end dates are provided for ongoing phases. Planned start dates are provided future phases. These dates are anticipated Notice-to-Proceed dates after the bid period. All dates are subject to change.

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	Status Based on % of Budget Expended	Planned Start	Planned End
S.102 Quincy Pump Facilities	\$ 26,290	\$ 25,442	97%		
S.10024.5400 Facilities Plan/EIR	526	526	Complete		
S.10025.5402 Design/CS Rehab	110	110	Complete		
S.10026.5403 Construction-Rehab	328	328	Complete		
S.10027.5404 Design/CS/RI1	5,089	4,732	93%		Dec-04
S.10028.5405 Squantum P.S. Construction	4,502	4,117	91%		Sep-03
S.10029.5407 Quincy P.S. Construction	7,117	7,095	Complete		
S.10030.5408 Hough's Neck P.S. Construction	1,720	1,720	Complete		
S.10031.5409 Early Rehab Squantum F.M.	2,092	2,042	98%		
S.10276.6102 Squantum Force Main Rehab	2,061	2,061	Complete		
S.10277.6103 Quincy Force Main Rehab	1,489	1,489	Complete		
S.10388.6810 Const Corrosion Mitigation	1,079	1,079	Complete		
S.104 Braintree-Weymouth Relief Facilities	\$ 227,013	\$ 154,772	68%		
S.10045.5311 Facilities Planning Phase 1	331	331	Complete		
S.10046.5312 EIR Phase 1	514	514	Complete		
S.10057.5324 Final EIR/Fac.Plan	1,111	1,111	Complete		
S.10001.5333 Geotechnical - Marine	443	443	Complete		
S.10047.5313 Design 1/CS/RI	19,006	15,501	82%		Nov-05
S.10058.5331 Design 2/CS/RI	15,255	8,056	53%		Jun-08
S.10049.5315 Tunnel Construction/Rescue	83,670	79,230	95%		Jul-03
S.10050.5316 Intermediate P.S. Construction	47,209	36,006	76%		Nov-04
S.10051.5303 No. Weymouth Relief Interceptor	4,743	4,705	Complete		
S.10052.5373 HDD Siphon Construction	16,257	0	Future	Jul-03	
S.10054.5375 B-W Replacement Pump Station	18,305	0	Future	Jan-05	
S.10060.5310 Rehab Sections 123A & 124	10,597	0	Future	Apr-05	
S.10302.6368 Mill Cove Siphon Construction	2,749	2,749	Complete		
S.10056.5309 Construction - Rehab	255	255	Complete		
S.10278.6119 Design - Marine Pipeline	1,100	1,100	Complete		
S.10378.6792 IPS/RPS Communication System	300	21	7%		Jun-07
S.105 New Neponset Valley Relief Sewer	\$ 30,334	\$ 30,297	Complete		
S.10062.5380 Facilities Plan	594	594	Complete		
S.10063.5381 EIR/Supp. Fac. Plan	626	626	Complete		
S.10064.5382 Design/CS/RI	4,055	4,055	Complete		
S.10076.5377 Consultant-Canton	162	125	77%		
S.10067.5385 Construction 1	5,203	5,203	Complete		
S.10068.5390 Construction 2	2,549	2,549	Complete		
S.10069.5834 Construction 3	3,265	3,265	Complete		
S.10070.5835 Construction 4	2,960	2,960	Complete		
S.10071.5389 Construction 5	9,599	9,599	Complete		
S.131 Upper Neponset Valley Sewer System	\$ 28,293	\$ 1,684	6%		
S.10256.6031 Design/CS/RI	4,364	1,678	39%		Sep-08
S.10290.6191 Install Sewer Sections 526-529	17,458	0	Future	Feb-05	
S.10352.6629 Install Sect 530,Rehab 529-530	4,721	0	Future	May-06	
S.10311.6450 Land Acquisition	980	6	1%		Mar-06
S.140 Neponset Valley Relief Sewer	\$ 12,333	\$ -	Future		
S.10255.6030 Planning	1,095	0	Future	Jan-10	
S.10341.6578 Design/CS/RI	1,872	0	Future	Dec-12	
S.10342.6579 Construction	9,355	0	Future	Jul-16	

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	<u>Status</u> Based on % of Budget Expended	Planned Start	Planned End
S.106 Wellesley Ext Replacement Sewer	\$ 88,108	\$ 64,359	73%		
S.10080.5346 Design/EIR/CS/RI	8,107	8,107	Complete		
S.10083.5344 Consultant-Dedham	53	53	Complete		
S.10084.5349 Construction 1	15,069	15,069	Complete		
S.10086.5351 Construction 2	5,087	5,087	Complete		
S.10087.5434 Construction 3	6,927	6,927	Complete		
S.10085.5350 Construction 4	4,821	4,821	Complete		
S.10088.5431 Construction 5	5,387	5,387	Complete		
S.10089.5432 Construction 6	2,070	2,070	Complete		
S.10090.5433 Construction 7	12,544	12,454	Complete		
S.10283.6184 Construction 8	19,371	0	Future	Jul-10	
S.10353.6630 Design CS/RI 8	3,877	0	Future	Feb-07	
S.107 Framingham Extension Relief Sewer	\$ 48,037	\$ 47,900	Complete		
S.10099.5318 Fac Plan Update/EIR	1,397	1,397	Complete		
S.10101.5319 Design/CS/RI	5,889	5,833	Complete		
S.10102.5320 Install Force Main	7,292	7,256	Complete		
S.10103.5322 Install Gravity Sewer	6,147	6,147	Complete		
S.10104.5323 Pump Station Construction	7,803	7,803	Complete		
S.10106.5825 Early Sewer Rehabilitation	4,813	4,803	Complete		
S.10107.5342 Late Sewer Rehabilitation	12,667	12,665	Complete		
S.127 Cummingsville Replacement Sewer	\$ 7,017	\$ 1,271	18%		
S.10217.5826 Facilities Plan/EIR	602	602	Complete		
S.10275.6092 Design/CS/RI	1,961	668	34%		Apr-08
S.10285.6186 Cummingsville Branch Sew Const	3,468	0	Future	Jan-06	
S.10403.6916 Siphon Modifications	875	0	Future	Aug-05	
S.130 Siphon Structure Rehabilitation	\$ 6,959	\$ 940	14%		
S.10253.6017 Planning	939	938	Complete		
S.10293.6224 Design/CS/RI	1,292	0	Future	Apr-06	
S.10294.6225 Construction	4,365	0	Future	Aug-09	
S.134 Ashland Extension Sewer	\$ 1,020	\$ -	Future		
S.10286.6187 Planning	500	0	Future	Aug-11	
S.10376.6788 Design	500	0	Future	Feb-14	
S.135 System Master Plan Interceptors	\$ 10,915	\$ -	Future		
S.10287.6188 Planning	1,173	0	Future	Jan-12	
S.10303.6413 Design/CS/RI	1,622	0	Future	Dec-14	
S.10288.6189 Con-Mystic Valley Sewer Sec 153	1,151	0	Future	Apr-18	
S.10289.6190 Con-Revere Branch Sect 62	1,831	0	Future	Apr-18	
S.10291.6192 Con-Cambridge Branch 23-25	4,200	0	Future	Apr-18	
S.10292.6193 Con-Malden Branch Sec 65 & 66	923	0	Future	Apr-18	
S.132 Corrosion & Odor Control	\$ 16,707	\$ 1,688	10%		
S.10279.6137 Planning/Study	588	588	Complete		
S.10327.6553 Design/CS/RI	4,297	474	11%		Jun-08
S.10326.6552 Arthur Street Pump Station	551	0	Future	Dec-05	
S.10373.6743 Interim Corrosion Control	621	621	Complete		
S.10404.6917 FERS Force Main	1,168	0	Future	Mar-06	
S.10405.6918 FES Tunnel Rehab	8,146	0	Future	Dec-05	
S.10406.6919 Air Treatment Systems	1,057	0	Future	May-06	
S.136 West Roxbury Tunnel	\$ 83,072	\$ 8,897	11%		
S.10333.6570 Design/CS/RI	1,533	1,445	94%		Jun-03
S.10332.6569 Construction	6,657	6,657	Complete		
S.10400.6897 Tunnel Design	10,500	0	Future	Sep-05	
S.10401.6898 Tunnel Construction	63,000	0	Future	Dec-07	

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	Status Based on % of Budget Expended	Planned Start	Planned End
S.137 Wastewater Central Monitoring	\$ 13,938	\$ 912	7%		
S.10301.6232 Planning	572	572	Complete		
S.10319.6532 Design and Integration Services	5,720	340	6%		Nov-08
S.10320.6533 Construction 1 (CP1)	3,127	0	Future	Aug-04	
S.10321.6534 Construction 2 (CP2)	3,195	0	Future	Jun-05	
S.10357.6657 Construction 3 (CP3)	1,324	0	Future	Jan-06	
S.139 South System Relief Project	\$ 4,546	\$ 3,440	76%		
S.10310.6420 Construction-Archdale	211	211	Complete		
S.10318.6519 Sec 70&71 HLS Eval.	216	215	Complete		
S.10349.6611 Sec 70 & 71 HLS Construction	417	417	Complete		
S.10346.6596 Cleaning Outfall 023	1,098	1,098	Complete		
S.10386.6801 Outfall 023 Str Improvements	500	0	Future	Jul-06	
S.10402.6915 Quincy/Braintree Howard St. ...	375	0	Future	Jul-05	
S.10422.6949 Quincy/Braintree Howard St Des	150	0	Future	Jul-04	
S.141 Wastewater Process Optimization	\$ 24,985	\$ 724	3%		
S.10367.6733 Planning	954	724	76%		Aug-04
S.10413.6931 Somerville Sewer-Design	200	0	Future	Oct-06	
S.10414.6932 Somerville Sewer-Construction	801	0	Future	Mar-09	
S.10415.6933 Siphon- Planning	150	0	Future	Nov-09	
S.10416.6934 Siphon-Design	2,850	0	Future	Jan-11	
S.10417.6935 Siphon- Construction	20,030	0	Future	Aug-13	
S.142 Wastewater Meter Sys-Equip Replace	\$ 6,555	\$ -	Future		
S.10371.6739 Planning/Study	100	0	Future	Dec-07	
S.10379.6793 Equipment Purchase/Installation	5,255	0	Future	Nov-03	
S.10410.6928 Design	200	0	Future	Jun-08	
S.10411.6929 Construction	1,000	0	Future	Jan-10	
S.143 Regional I/I Management Planning	\$ 397	\$ 164	41%		
S.10372.6740 Cmom/Planning	169	164	97%		Jun-03
S.145 I&P Facility Asset Protection	\$ 128,023	\$ 1	Future		
S.1400 Interceptors	\$ 122,373	\$ 1	Future		
S.10383.6798 Rehab of Section 93A Lexington	1,561	0	Future	Jul-03	
S.10423.6987 93A Construction 2	500	0	Future	Nov-04	
S.10394.6842 Sections 80&83	1,962	0	Future	Jan-06	
S.10395.6843 Section 160	4,252	0	Future	Nov-05	
S.10418.6936 Interceptor Renewal	114,000	0	Future	Mar-06	
S.1410 Facilities	\$ 5,650	\$ -	Future		
S.10380.6795 Prision Pt Fuel /HVAC Upgrades	694	0	Future	Mar-09	
S.10381.6796 Remote Headworks Heating Sys Upgrade	1,106	0	Future	Apr-05	
S.10382.6797 Alewife Brook Pump Repl	450	0	Future	Mar-09	
S.10387.6802 Hdwks Screen Replacement	2,000	0	Future	Nov-05	
S.10391.6824 Headworks Shaft Design	500	0	Future	Jul-08	
S.10399.6886 Headworks Condition Assessment Study	600	0	Future	Jan-05	
S.10419.6937 Alewife Brook Pump Repl Design	150	0	Future	Jul-07	
S.10420.6938 Design-Prison Pt Fuel/HVAC ...	150	0	Future	Jul-07	

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	<u>Status</u> Based on % of Budget Expended	Planned Start	Planned End
S.200 DI Plant Optimization	\$ 31,239	\$ 8,283	27%		
S.19156.6235 Construction-Plumbing	110	110	Complete		
S.19170.6369 Supplementary Mod Pkg #1	488	213	44%		
S.19154.6233 As-Needed Des. Phase 1	1,122	1,130	Complete		
S.18212.6364 Ancil Mods-Des 1	1,930	1,001	52%		Nov-05
S.19189.6590 Ancil Mods Des 2-1 (REI)	591	540	91%		Jun-03
S.19190.6591 Ancil Mods - Des 3-1	1,351	500	37%		Jul-05
S.19191.6592 Ancil Mods - Des 4	588	0	Future	Oct-04	
S.19220.6721 Ancil Mods - Des 5	281	0	Future	Dec-04	
S.19183.6499 Ancil Mods-Con 1	4,300	0	Future	May-04	
S.19186.6536 Ancil Mods Constr 2-1	2,786	2,816	Complete		
S.19232.6744 Ancil Mods Constr 2-2	3,392	0	Future	May-04	
S.19187.6537 Ancil Mods-Constr 3-1	3,077	0	Future	Nov-03	
S.19188.6538 Ancil Mods-Con 4	3,348	0	Future	Sep-06	
S.19221.6722 Ancil Mods - Cons 5	1,369	0	Future	Jul-06	
S.19206.6673 Digester Storage Tank - Repair	275	550	Complete		
S.19211.6698 As Needed Des Phase 4-1	1,000	0	Future	Apr-05	
S.19212.6699 As Needed Des Phase 4-2	1,000	0	Future	Apr-05	
S.19215.6702 As-needed Design Phase 2-1	760	760	Complete		
S.19234.6753 As-needed design Phase 2-2	713	629	88%		Jan-03
S.19214.6701 As-needed Des. Phase 3-1	750	21	3%		Apr-05
S.19240.6768 Ancil Mods Des2-2 (REI/ESDC)	499	0	Future	May-04	
S.19242.6794 CEMS Modifications	297	0	Future	Dec-04	
S.19257.6874 As-needed Design Phase 3-2	750	12	2%		Mar-05
S.19286.6201 BHP Site Completion	462	0	Future		
S.206 DI Treatment Plant Asset Protection	\$ 104,092	\$ 1,871	2%		
S.1800 Equipment Replacement	\$ 70,636	\$ 926	1%		
S.19182.6478 Equip Replacement Projection	65,404	0	Future		
S.19193.6594 Equipment Condition Monitoring	2,000	0	Future	Feb-04	
S.19231.6742 Drive Chain Replacement	264	264	Complete		
S.19238.6765 CTG Modifications	500	483	97%		
S.19176.6422 Pump Packing Replacement	660	128	19%		Sep-04
S.19177.6423 Demineralizer Construction	51	51	Complete		
S.19264.6881 NMPS Motor Repairs	900	0	Future	Mar-04	
S.19265.6882 CEMS Equip. Replacement	407	0	Future	Jul-05	
S.19268.6899 Drive Chain Replacement 2	450	0	Future	Jan-08	
S.1810 Architectural	\$ 3,862	\$ 413	11%		
S.19222.6723 Eastern Seawall Design - 1	344	0	Future	May-06	
S.19223.6724 Eastern Seawall Construction - 1	1,374	0	Future	Dec-07	
S.19226.6727 Study/Concept Des-Concrete Rpr	274	0	Future	Jan-05	
S.19205.6669 Expansion Joint Repair- Constr 1	355	34	10%		Nov-03
S.19218.6705 Expansion Joint Repair- Constr 3	137	0	Future	Mar-07	
S.19217.6704 Expansion Joint Repair- Constr 2	137	0	Future	May-05	
S.19244.6812 Secondary Clarifier Access	275	275	Complete		
S.19246.6821 Personnel Dock Rehab	800	0	Future	Dec-04	

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S.1820 Utilities	\$ 25,103	\$ 407	2%		
S.19194.6598 Thermal Plant PICS Repl	184	0	Future	Sep-04	
S.19247.6822 Outfall Modif Const 1	824	0	Future	Jan-05	
S.19248.6823 Outfall Modif Const 1 REI	275	0	Future	Jan-05	
S.19239.6767 Elec Equip Upgrade Constr 2	1,815	0	Future	Jun-04	
S.19236.6763 Busduct Replacement (2+22)	196	196	Complete		
S.19245.6813 Transformer Replacement	550	38	7%		Mar-06
S.19252.6851 Pipeline Repl #2 Design	344	0	Future	Feb-06	
S.19253.6852 Pipeline Repl #2 - Construction	1,146	0	Future	Apr-07	
S.19254.6853 Pipeline Replacement Des 1	131	0	Future	Jun-05	
S.19255.6854 Pipeline Replacement Const 1	2,355	0	Future	Jun-05	
S.19256.6855 Elect Equip Upgrade Const 3	1,098	0	Future	Apr-05	
S.19258.6875 VFD Replacement Const 2	995	0	Future	Dec-05	
S.19259.6876 Heat Loop Pipe Repl Constr 1	575	0	Future	Dec-04	
S.19260.6877 VFD Replacement Cons 3	575	0	Future	Dec-04	
S.19263.6880 Cathodic Protection Evaluation	250	0	Future	May-04	
S.19266.6883 PICS Replacement Des	224	0	Future	Jul-06	
S.19267.6884 PICS Replacement Const	1,456	0	Future	Jul-07	
S.19269.6900 Switchgear Replacement 1	1,200	0	Future	Sep-04	
S.19271.6902 VFD Replacement Des 1	518	0	Future	Jul-04	
S.19272.6903 VFD Replacement Const 1	4,684	0	Future	Aug-05	
S.19278.6967 Second Deaerator Design	86	0	Future	Jan-05	
S.19279.6968 Second Deaerator ...	229	0	Future	Oct-05	
S.19280.6969 Fuel Transfer Pipe Repl Des	344	0	Future	Jul-05	
S.19281.6970 Fuel Transfer Pipe Repl ...	1,146	0	Future	Sep-06	
S.19282.6971 NMPS Motor Ctrl Ctr Des	201	0	Future	Jan-05	
S.19283.6972 NMPS Motor Ctrl Ctr Constr	573	0	Future	Mar-06	
S.19285.6974 DI Wind Power Constr	2,956	0	Future	Dec-04	
S.1830 Support	\$ 1,364	\$ 126	9%		
S.19241.6791 Document Format Conversion	398	0	Future	May-05	
S.19227.6728 Closed Circuit Cameras Design	170	0	Future	Jul-05	
S.19228.6729 Closed Circuit Cameras Const	545	0	Future	Sep-06	
S.1840 Specialties	\$ 3,127	\$ -	Future		
S.19237.6764 Sodium Hypo Tank Repair 1	863	0	Future	Apr-04	
S.19249.6848 Nutrients Lab Fume Hood Repl	360	0	Future	Aug-04	
S.19250.6849 Metals Lab Modification-Des	196	0	Future	Jan-05	
S.19251.6850 Metals Lab Modification Constr	929	0	Future	Feb-06	
S.19276.6965 Gravity Thickener Improv ...	188	0	Future	Sep-04	
S.19277.6966 Gravity Thickener Improv ...	592	0	Future	Oct-05	
S.261 Residuals	\$ 67,321	\$ 56,619	84%		
S.25941.5667 Design/RI/CS-Pelletizing 1	9,421	9,101	97%		Jul-04
S.25948.5669 Fast-Track Equip. Prepurchase	301	301	Complete		
S.26056.6010 Phase 2 Outside Construction	13,019	13,019	Complete		
S.26057.6011 Phase 3 Equip. Prepurchase	4,777	4,746	Complete		
S.26058.6012 Phase 3 Inside Construction	33,178	23,887	72%		
S.26065.6612 Fire Related Costs	1,694	1,694	Complete		
S.26059.6083 License Fee	675	0	Future	Jan-15	

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S.3520 MWRA Managed	\$ 403,085	\$ 77,396	19%		
S.339 North Dorch Bay & Reserve Channel	\$ 225,134	\$ 13,662	6%		
S.32660.6220 Design	27,774	13,662	49%		Dec-09
S.32661.6244 Construction 1	197,360	0	Future	Jul-06	
S.354 Hydraulic Relief Projects	\$ 2,351	\$ 2,301	98%		
S.32692.6250 Design/CS/RI	615	565	92%		
S.32669.6252 Construction	1,737	1,737	Complete		
S.347 East Boston Branch Sewer Relief	\$ 58,935	\$ 3,045	5%		
S.32673.6256 Design	5,317	2,196	41%		Jan-09
S.32674.6257 East Boston Branch Relief Sewer	40,690	0	Future	Nov-05	
S.32719.6840 East Boston Branch Sewer Rehab	5,485	848	16%		Feb-04
S.32720.6841 Sections 38 & 207 Replacement	7,393	0	Future	Apr-06	
S.348 Fort Pt. Channel & BOS019 Conduits	\$ 20,422	\$ 449	2%		
S.32675.6258 Design	4,678	449	10%		Mar-08
S.32676.6259 Construction 1	8177	0	Future	Mar-05	
S.32677.6260 Construction 2	7,568	0	Future	Mar-05	
S.349 Chelsea Trunk Sewer	\$ 30,676	\$ 29,756	97%		
S.32659.6198 Design/CS/RI	4,548	3,628	80%		Aug-03
S.32679.6262 Chelsea Trunk Relief	3,577	3,577	Complete		
S.32680.6263 Chelsea Branch Sewer	19,141	19,141	Complete		
S.32689.6370 Rehab/Chelsea Brnch/Revere Ext	3,125	3,125	Complete		
S.32690.6371 Modify Chelsea Screen House	284	284	Complete		
S.350 Union Park Detention Treatment Fac	\$ 41,812	\$ 5,883	14%		
S.32681.6264 Design	6,720	3,610	54%		Sep-05
S.32682.6265 Construction	38,891	2,272	6%		Sep-05
S.32718.6826 Construction - Park	500	0	Future		
S.32721.6909 BWSC Construction ...	-4,299	0	Future		
S.353 Upgrade Existing CSO Facilities	\$ 22,383	\$ 22,301	Complete		
S.32647.6123 Design	6,497	6,415	Complete		
S.32685.6268 Cottage Farm CSO Facility	4,377	4,377	Complete		
S.32686.6269 Prision Point CSO Facility	3,339	3,339	Complete		
S.32693.6496 Comm/Fox Point, Som. Marginal	8,029	8,029	Complete		
S.32687.6270 Non-Treated Floatable (Beacon)	124	124	Complete		
S.355 MWR003 Gates & Siphon	\$ 1,371	\$ -	Future		
S.32722.6952 Design	271	0	Future	Jul-04	
S.32723.6953 Construction	1,100	0	Future	Jul-05	
S.3521 Community Managed	\$ 204,676	\$ 90,640	44%		
S.340 S. Dorch Bay Sew Separ (Fox Pt.)	\$ 53,837	\$ 26,196	49%		
S.32651.6155 Design	11,210	9,267	83%		Aug-09
S.32664.6247 Construction	42,627	16,929	40%		Nov-06
S.341 S. Dorch Bay Sew Separ (Comm. Pt.)	\$ 59,793	\$ 27,062	45%		
S.32650.6154 Design	13,721	10,290	75%		Aug-09
S.32665.6248 Construction	46,072	16,772	36%		Nov-07
S.344 Stony Brook Sewer Separation	\$ 43,649	\$ 15,924	37%		
S.32667.6395 Design/CS/RI	9,216	6,737	73%		Apr-07
S.32668.6251 Construction	34,433	9,186	27%		Sep-06
S.342 Neponset River Sewer Separation	\$ 2,681	\$ 2,444	91%		
S.32652.6156 Design/CS/RI	480	470	98%		Dec-03
S.32653.6160 Construction	2,201	1,975	90%		
S.343 Constitution Beach Sewer Separation	\$ 3,769	\$ 3,769	Complete		
S.32649.6153 Design/CS/RI	673	673	Complete		
S.32666.6249 Construction	3,096	3,096	Complete		
S.346 Cambridge CAM002-004 Sew.Separation	\$ 37,496	\$ 13,935	37%		
S.32654.6161 Design/CS/RI	10,499	5,264	50%		Sep-12

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S.32672.6255 Construction	26,997	8,671	32%		Mar-12
S.351 BWSC Floatables Controls	\$ 933	\$ 933	Complete		
S.32657.6168 Design	555	555	Complete		
S.32683.6266 Construction	378	378	Complete		
S.352 Cambridge Floatables Controls	\$ 2,518	\$ 377	15%		
S.32655.6162 Design	396	377	95%		Jun-06
S.32684.6267 Construction	2,122	0	Future		
S.3519 Planning & Support	\$ 41,464	\$ 37,304	90%		
S.324 CSO Support	\$ 41,464	\$ 37,304	90%		
S.32407.5970 Tech. Assistance-Geotech	61	61	Complete		
S.32401.5791 Planning/EIR	10,769	10,769	Complete		
S.32403.5716 Master Planning	22,007	21,307	97%		Sep-04
S.32411.5767 SOP Program	1,957	1,957	Complete		
S.32691.6372 System Assessment	476	4	1%		Dec-08
S.32658.6169 Land/Easement	4,443	1,599	36%		Jul-06
S.128 I/I Local Financial Assistance	\$ 68,593	\$ 49,534	72%		
S.10232.5300 Community I/I Grants	0	5,902			
S.10233.5393 Community I/I Loans	0	17,583			
S.10234.5394 Community I/I Loan Repayment	0	-17,255			
S.10273.6084 Grants - Phase II	15,937	8,822	55%		May-05
S.10274.6085 Loans - Phase II	47,664	26,465	56%		May-05
S.10282.6170 Repayment - Phase II	-47,664	-18,130	38%		May-10
S.10315.6505 Grants-Phase III	0	10,602			
S.10316.6506 Loans-Phase III	0	13,685			
S.10317.6507 Repayment-Phase III	0	-6,492			
S.10368.6736 Grants - Phase IV	34,650	3,970	12%		May-13
S.10369.6737 Loans - Phase IV	42,350	4,859	12%		May-13
S.10370.6738 Repayment - Phase IV	-42,350	-483	1%		May-15
S.10407.6925 Grants-Phase V	18,000	0	Future	Aug-04	
S.10408.6926 Loans-Phase V	22,000	0	Future	Aug-04	
S.10409.6927 Repayments-Phase V	-22,000	0	Future	Aug-05	
S.138 Sewerage System Mapping Upgrade	\$ 284	\$ 211	74%		
S.10307.6417 Contract 1-Base Maps	67	67	Complete		
S.10308.6418 Contract 2-Existing Data	177	104	59%		Apr-04

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S.542 Walnut Hill Water Treatment Plant	\$ 409,747	\$ 286,022	70%		
S.53376.6206 Emerg Dis Res Water Mgmt Study	1,477	1,477	Complete		
S.53367.6118 Crypto. Inactivation Study	150	150	Complete		
S.53390.6365 Cosgrove Disinfection Ph II	2,169	2,169	Complete		
S.53391.6397 Cosgrove Disinfection Ph I	150	150	Complete		
S.53296.5042 EIR/Conceptual Design	5,800	5,800	Complete		
S.53301.5017 Design/CS/RI - Wachusett WTP	49,159	40,311	82%		Dec-05
S.53377.6207 WHCP1 Wachusett Cosgrove Intakes	15,372	15,008	98%		Jun-03
S.53412.5522 WHCP2 Interim Rehab. Wach. Aque.	23,400	23,395	Complete		
S.53413.6488 WHCP3 Sitework & Storage Tanks	67,411	66,870	Complete		
S.53414.6489 WHCP4 Treatment Facility	128,568	91,470	71%		Feb-05
S.53416.6491 WHCP6 Late Sitework	3,176	0	Future	Jul-04	
S.53426.6650 WHCP7 ICCF Modifications	5,000	0	Future	Jul-05	
S.53371.6134 Design Management Support	1,730	1,730	Complete		
S.53378.6208 Construction Management/RI	29,493	18,067	61%		Jun-06
S.53396.6434 Corrosion Control Norumb. Construction	271	0	Future	Jul-07	
S.53409.6431 Booster Disinfection Design	487	0	Future	Jul-06	
S.53406.6479 Cosgrove Disinf.-Fac. Underwater Imps.	217	217	Complete		
S.53410.6485 Community Chlorine Analyzers	49	49	Complete		
S.53418.6494 OCIP	5,652	4,792	85%		Dec-04
S.53419.6495 Professional Services	2,712	2,607	96%		Jun-03
S.53420.6497 Marlboro MOA	5,845	5,816	Complete		
S.53421.6520 WHWTP- MECO	310	128	41%		Dec-04
S.53425.6613 Site Security Services	1,219	783	64%		May-05
S.53427.6670 CSX Crossing	65	65	Complete		
S.53428.6671 Wachusett Algae Design CS/RI	450	0	Future	Sep-10	
S.53432.6691 Public Health Research	2,800	698	25%		Jun-07
S.53437.6773 WHCP8 Cosgrove Screens Con	3,044	0	Future	Aug-03	
S.53443.6815 AWWARF-Evaluation Ozone & UV	303	200	66%		Jan-04
S.53445.6827 Fitout/Construction	1,250	0	Future	Oct-03	
S.53448.6889 Wachusett Algae ...	1,800	0	Future	Apr-12	
S.53450.6923 WH Ultra Violet Disinfect Design	9,500	0	Future	Dec-05	
S.53451.6924 WH Ultra Violet Disinfect Cons	34,000	0	Future	Jul-09	
S.53452.6939 As needed Technical Assistance	1,500	0	Future	Dec-04	
S.53453.6951 Design CA/RI WH CP7 ICCF	1000	0	Future	Jul-04	
S.543 Quabbin Water Treatment Plant	\$ 14,983	\$ 9,443	63%		
S.53363.6043 Quabbin WTP Des/CA/RI	3,823	3,823	Complete		
S.53382.6212 Construction	5,080	5,080	Complete		
S.53439.6775 Quabbin UVWTP: Des/CA/RI	823	0	Future	Nov-05	
S.53440.6776 Quabbin UVWTP: Construction	3,839	0	Future	Oct-07	
S.53442.6804 Quabbin UVWTP:Study/Pilot	1,283	463	36%		Mar-05
S.544 Norumbega Covered Storage	\$ 107,261	\$ 89,274	83%		
S.53297.5041 Conceptual Design/EIR	2,861	2,861	Complete		
S.53364.6057 Owners Representative	5,003	3,417	68%		Apr-05
S.53383.6213 Design/Build	95,567	79,960	84%		Oct-04
S.53422.6529 Emergency Disinfection Design	221	0	Future	Jul-06	
S.53423.6530 Emergency Disinfection Construction	536	0	Future	Jan-08	
S.545 Blue Hills Covered Storage	\$ 32,533	\$ 1,281	4%		
S.68025.6139 EIR/Preliminary Design/OR	2,318	1,281	55%		Jun-07
S.53384.6214 DB Field Oversight	1,987	0	Future	Jul-04	
S.53386.6216 Design Build	28124	0	Future	Jul-04	

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S.546 Northern Intermed. High Covered Storage	\$ 6,425	\$ -	Future		
S.53388.6218 Preliminary Design/EIR	659	0	Future	Jan-12	
S.53389.6219 Final Design/CA/RI	599	0	Future	Jan-14	
S.53387.6217 Construction	4,792	0	Future	Jan-17	
S.53454.6954 Northern Int High/Int High ...	375	0	Future	Jul-05	
S.549 SEH Additional Storage	\$ 5,892	\$ -	Future		
S.53397.6452 Preliminary Plan/EIR	561	0	Future	Jul-05	
S.53398.6453 Final Design/CS/RI	842	0	Future	Jan-08	
S.53399.6454 Construction	4,489	0	Future	Jul-11	
S.550 Low Service Storage Near Spot Pond	\$ 28,174	\$ 233	1%		
S.53401.6456 Env Rev Con Des Owners Rep	2,500	0	Future	Apr-10	
S.53402.6457 Design/Build	24,811	0	Future	Apr-12	
S.53447.6868 Easement/Land Acquisition	630	0	Future	Apr-10	
S.604 MetroWest Tunnel	\$ 677,360	\$ 614,065	91%		
S.59796.5048 Construction-Sudbury Pipe Bridge	296	296	Complete		
S.59795.5044 Design/EIR - Tunnel/ESDC	37,871	36,356	96%		Sep-04
S.59798.6054 West Tunnel Segment - CP1	148,506	142,345	96%		Apr-03
S.60013.6055 Midd.Tunnel Segment - CP2	246,329	245,453	Complete		
S.60015.6059 Shaft 5A - CP3	5,872	5,872	Complete		
S.60040.6374 East Tunnel Segment-CP3A	56,054	56,085	Complete		
S.60014.6056 MHD Salt Sheds - CP5	1,314	1,314	Complete		
S.60031.6205 CP6B Hultman Int Mech/Struct Repairs	20,000	0	Future	Jul-09	
S.60030.6204 Testing & Disinfection-CP7	3,671	2,046	56%		Oct-03
S.60029.6203 Loring Road Storage Tanks CP-8	41,368	41,368	Complete		
S.59799.5284 Const. Mgmt/Resident Inspect	39,413	37,919	96%		Dec-03
S.60022.6128 Hultman Leak Repair	307	307	Complete		
S.60042.6430 Hultman Investigation and Repair	1,604	1,604	Complete		
S.60043.6492 Hultman Repair Bands 98-99	116	116	Complete		
S.59805.5139 Land Acquisition	6,458	6,015	93%		Jun-05
S.60039.6367 Weston MOA	1,042	1,018	98%		Oct-04
S.60017.6063 Local Sup Cont Des/CA/RI	859	859	Complete		
S.60024.6130 Loc. Support Cont. Constr	4,167	4,142	Complete		
S.60021.6122 OCIP	24,515	24,305	Complete		
S.60054.6777 Des/CA/RI: Hultman Interconnect CP9	1481	0	Future	Jan-11	
S.60058.6856 Hultman Rehab CP9	5,000	0	Future	Jul-12	
S.60059.6872 Interim Disinfection	1,307	263	20%		Dec-04
S.60066.6911 Design CA/RI CP6	7,500	0	Future	Jul-05	
S.60072.6950 Valve Chamber Modifications	300	0	Future	Apr-04	
S.60073.6975 CP-6A Hultman Inter ...	15,000	0	Future	Jan-07	
S.601 Sluice Gate Rehabilitation	\$ 9,353	\$ 4,255	46%		
S.59757.5255 Design/CS/RI	177	177	Complete		
S.59758.5256 Construction 1	1,529	1,529	Complete		
S.60034.6272 Design CS/RI 2	1,298	704	54%		Sep-06
S.59760.5258 Construction 2	4,494	0	Future	Sep-03	
S.59761.5259 Constr-Stop Planks	444	444	Complete		
S.60027.6158 Const-Sudbury Toe Drain Repair	1,400	1,400	Complete		
S.614 Metropolitan Tunnel Loop	\$ 2,997	\$ -	Future		
S.60050.6693 Tunnel Shaft Rehabilitation Project	2,165	0	Future	Apr-09	
S.60052.6710 Design/CA/RI Shaft Rehab	487	0	Future	Jun-07	
S.60067.6913 Field Investigations/Fac Plan	100	0	Future	Sep-04	
S.615 Chicopee Valley Aqued. Redundancy	\$ 8,592	\$ 823	10%		
S.60045.6527 Pipeline Redundancy Des/CA/RI	1,857	822	44%		Dec-06
S.60046.6528 Pipeline Redundancy Construction	5,845	0	Future	Apr-04	
S.60051.6708 Route 21 Chamber Construction	739	0	Future	Apr-04	

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S.60060.6873 Town Fire Tanker Access	100	0	Future	Apr-04	
S.597 Winsor Dam Hydroelectric	\$ 1,570	\$ 38	2%		
S.60033.6277 Detail Design	46	0	Future	Jul-11	
S.60044.6526 Construction	1,404	0	Future	May-13	
S.616 Quabbin Transmission System	\$ 13,150	\$ -	Future		
S.75491.6690 Phase 1 Oakdale Valves Const.	2,000	0	Future	Jan-05	
S.60055.6828 Facilities Inspection	1,050	0	Future	Sep-04	
S.75496.6831 Ph 1 Oakdale Valves Study/Des	500	0	Future	Feb-04	
S.60068.6940 Ph2 Oakdale Valves Fac Des	1,600	0	Future	Jul-05	
S.60069.6941 Ph2 Oakdale Valves Fac Constr	8,000	0	Future	Dec-08	
S.617 Sudbury / Weston Aqueduct Repairs	\$ 40,086	\$ 260	1%		
S.75486.6617 Haz Material Sudbury Aqueduct	300	260	87%		Sep-03
S.60056.6838 Sudbury Aqueduct Inspection	536	0	Future	Jan-05	
S.60070.6947 Sudbury Aqueduct Design	6,400	0	Future	Jul-08	
S.60071.6948 Sudbury Aqueduct Constr	32,800	0	Future	Apr-11	
S.618 Northern High NW Trans Sect 70-71	\$ 35,784	\$ -	Future		
S.60061.6893 Construction	28,519	0	Future	Mar-12	
S.60062.6894 Design CA/RI	5,046	0	Future	Mar-10	
S.60063.6895 Planning	2,194	0	Future	Mar-09	
S.677 Valve Replacement	\$ 14,269	\$ 5,666	40%		
S.67559.5126 Construction 1	718	718	Complete		
S.68012.6105 Construction 2	1,385	1,385	Complete		
S.68039.6278 Construction 3	1,338	1,338	Complete		
S.68079.6345 Construction 4	1,540	1,440	94%		Oct-03
S.68080.6346 Construction 5	1,380	0	Future	Mar-04	
S.68126.6435 Construction 6	1,879	0	Future	Oct-05	
S.68127.6436 Construction 7	1,879	0	Future	Oct-08	
S.68005.6088 Equip. Purchase	4,036	676	17%		Jun-09
S.712 Cathodic Protection Of Distr.Mains	\$ 1,651	\$ 141	9%		
S.68002.6058 Planning Phase I	108	108	Complete		
S.68128.6437 Test Station Installation 1	370	0	Future	Mar-04	
S.68129.6438 Test Station Installation 2	380	0	Future	May-08	
S.68130.6439 Test Station Installation 3	380	0	Future	May-09	
S.68131.6440 Test Station Installation 4	380	0	Future	May-10	
S.678 Boston Low Serv.-Pipe & Valve Rehab	\$ 23,830	\$ 23,328	98%		
S.67571.5122 Design/CS	1,753	1,491	85%		Nov-04
S.68000.6045 Const Clinton Rd & Boylston St	7,933	7,933	Complete		
S.67999.6044 Construction Beacon Street	12,954	12,714	Complete		
S.730 Weston Aqueduct Supply Mains (WASMs)	\$ 105,924	\$ 42,833	40%		
S.68027.6142 Design/CA/RI-PhA/W1&2	5,374	3,960	74%		Sep-04
S.67865.5147 Design/CA/RI - W4	6,160	5,421	88%		Dec-04
S.68041.6280 Newton WASM 1&2	9,219	9,219	Complete		
S.68042.6281 Boston WASM 1&2	7,487	258	3%		Jul-05
S.68166.6539 Design/CA/RI WASM3	8,398	0	Future	Jan-06	
S.68170.6543 Waltham WASM 3-CP4	14,177	0	Future	Jan-15	
S.68171.6544 Belmont WASM 3 - CP1	10,766	0	Future	Jan-13	
S.68172.6545 Arlington WASM 3 - CP3	11,149	0	Future	Jan-09	
S.68173.6546 Section 28, Arlington-CP2	3,498	0	Future	Jan-11	
S.68031.6175 Auburndale WASM 1,2&4	4,001	4,001	Complete		
S.68069.6312 Newton WASM 2&4	8,282	8,282	Complete		
S.68070.6313 Allston WASM 4 & W. Ave. Sewer	16,061	10,799	67%		Dec-04
S.68032.6176 Construction Meter 103	61	61	Complete		
S.59774.5034 Construction Newton Water Mains	669	669	Complete		

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	Status Based on % of Budget Expended	Planned Start	Planned End
S.720 Warren Cottage Line Rehab	\$ 1,211	\$ 1,202	Complete		
S.68081.6285 Construction	1,158	1,158	Complete		
S.732 Walnut St. & Fisher Hill Pipeline Rehab.	\$ 6,675	\$ -	Future		
S.68189.6586 Construction Phs. 1	3,916	0	Future	Jul-06	
S.68191.6588 Construction Phs. 2	2,711	0	Future	Jul-09	
S.683 Heath Hill Road Pipe Replacement	\$ 17,985	\$ 9,487	53%		
S.67639.5192 Design/CS/RI-Sec 52 Ph 1	170	170	Complete		
S.68047.6288 Design Sec 52 Ph 2	2,408	585	24%		Jun-09
S.67645.6042 Const-Sect 52 New	745	745	Complete		
S.67642.5194 Construction Section 52 Rehab	6,617	0	Future	Jun-06	
S.67640.5206 Design/CS/RI - Sec 58,20	1,592	1,588	Complete		
S.67643.5102 Construction Sect 58,20,19	6,373	6,362	Complete		
S.721 Southern Spine Distribution Mains	\$ 60,492	\$ 3,197	5%		
S.68083.6290 Sec 21,43,22 Design	7,776	2,786	36%		Jan-12
S.68085.6292 Section 22 South Construction	4,076	0	Future	Jul-03	
S.68086.6293 Sec 19 Design	1,415	0	Future	Jul-09	
S.68088.6295 Sec 19 Construction	6,673	0	Future	Mar-12	
S.68089.6296 Sec 20 & 58 Design	1,803	0	Future	Jan-07	
S.68091.6298 Sec 20 & 58 Construction	8,486	0	Future	Sep-09	
S.68122.6396 Adams Street Bridge	154	154	Complete		
S.68194.6602 Southern High Ext Study	284	242	85%		
S.68235.6844 Section 22 North Construction	7,918	0	Future	Feb-09	
S.68236.6845 Sections 21&43 Construction	18,593	0	Future	Aug-06	
S.68247.6885 Contract 1A Construction	2,733	0	Future	Dec-03	
S.714 South. Extra High Sects 41,42 & 74	\$ 4,545	\$ 2,559	56%		
S.68014.6107 Design/CA/RI	1,591	705	44%		Oct-04
S.68050.6300 Construction	2,412	1,808	75%		Sep-03
S.727 Southern Extra High Redundancy Loop	\$ 19,463	\$ -	Future		
S.68135.6444 Planning/Design	3,417	0	Future	Jul-08	
S.68136.6445 Construction	16045	0	Future	Dec-12	
S.719 Chestnut Hill Connecting Mains	\$ 29,630	\$ 15,738	53%		
S.68026.6141 Des/CA/RI PS Potable Connection	1,403	1,064	76%		Dec-04
S.68051.6301 Final Design CA/RI Final Pipe Con	2,000	0	Future	Jan-04	
S.68157.6503 Design/CA/RI - Emer. Pump Relocation	1,096	1,096	Complete		
S.68052.6302 Const.- Final Pipe Conn Chp 149	5,033	0	Future	Jun-06	
S.68155.6501 Const - Emer. Pump Relocation	6,502	6,502	Complete		
S.68199.6623 BECO Emergency Pump Construction	431	431	Complete		
S.68203.6651 Const.- Pump Station Potable Connection	7,371	6,295	85%		Dec-03
S.68231.6820 Demolition of Garages	72	72	Complete		
S.68267.6982 Const-Final Pipe Conn Chp 30	5,033	0	Future	Jun-06	
S.704 Rehab of Other Pumping Stations	\$ 22,136	\$ 3,675	17%		
S.67885.5153 Preliminary Design	351	351	Complete		
S.68017.6110 Design/CS/RI	2,772	2,527	91%		Jan-04
S.68072.6304 Construction II&C	639	639	Complete		
S.68102.6375 Rehab of 5 Pump Stations	13,579	0	Future	Aug-06	
S.68204.6676 Proprietary Equipment Purchases	285	158	55%		Sep-09
S.68266.6980 Design 2 CS/RI	4,500	0	Future	Jul-04	
S.722 Bear Hill Improvements Sec 29	\$ 3,370	\$ -	Future	Apr-05	
S.68092.6305 Construction	1,628	0	Future	Mar-09	
S.68252.6906 Section 29A Pipeline	1,731	0	Future	Mar-09	

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	Status Based on % of Budget Expended	Planned Start	Planned End
S.689 James L. Gillis Pump Station Rehab.	\$ 34,285	\$ 33,109	97%		
S.67701.5249 Pump	70	70	Complete		
S.67709.5074 Construction Diesel Exhaust	60	60	Complete		
S.67703.5077 Design/CS-Pump Station	2,308	2,308	Complete		
S.67707.5078 Construction-PS-Phase 1	630	630	Complete		
S.67708.5051 Const-P.S.-Ph2	12,911	12,890	Complete		
S.67998.6038 Hydraulic Transient Analysis	61	61	Complete		
S.67717.5050 Drain Line Cleaning	268	268	Complete		
S.67704.5072 Design/CS/RI-Suction Pipe	1,364	1,348	Complete		
S.67706.5073 Construction-Suction Pipe	11,265	11,265	Complete		
S.68054.6307 Construction-Tudor Barn	88	88	Complete		
S.68105.6378 Woodland Road Pavement Improvements	546	396	73%		Jun-04
S.67994.6030 Pavement Highland Ave	86	86	Complete		
S.67720.5219 Constr-Rehab Discharge	2,041	1,908	94%		Nov-03
S.67719.5144 Construction Sewer P.S.	205	203	Complete		
S.67718.5053 Environ Assess & Remedial Plan	634	383	60%		Sep-07
S.68055.6308 Remedial Action Plan	600	0	Future	Feb-07	
S.713 Spot Pond Supply Mains - Rehab	\$ 89,662	\$ 24,088	27%		
S.68038.6223 Prelim Design & Design/CA/RI	13,015	7,776	60%		Jun-09
S.68060.6317 North (Medford/Melrose)	6,599	6,597	Complete		
S.68108.6381 Middle (Medford/Somerville)	20,988	7,006	33%		Jun-06
S.68109.6382 South (Cambridge/Boston)	15,879	0	Future	Mar-05	
S.68150.6475 Early Valve Replacement Contract	2,397	2,387	Complete		
S.68209.6697 Construction 4-Trusses	797	0	Future	Mar-05	
S.68223.6782 Construction CP-5 Sec 66 & OMM30	6,616	0	Future	Apr-06	
S.68224.6783 Plan/Design Sec 66 & OMM30"	1,323	0	Future	Oct-04	
S.68226.6785 Sewer Design/CA/RI & Sect 57 Des	3,620	0	Future	Oct-05	
S.68227.6786 Riverside Ave Sewer Repair & Sect 57	17,825	0	Future	Apr-07	
S.723 Nor Low Service Rehab Secs. 8	\$ 11,677	\$ -	Future		
S.68095.6322 Sec 8 Construction	8,440	0	Future	Jul-08	
S.68262.6962 Rehab Sects 37,38 Chel/EB Con	3,200	0	Future	Oct-10	
S.702 New Connecting Mains - Shaft 7 to ...	\$ 68,836	\$ 3,050	4%		
S.68110.6383 Design/CA/RI DP1	5,310	2,289	43%		Dec-08
S.68118.6391 North Segment (CP1A) Pipe	21,187	0	Future	Jan-06	
S.68111.6384 Des/CA/RI DP2/4 Meter 120	2,943	196	7%		Jul-08
S.68174.6548 Constr CP2 C&L Sec 59&60	2,691	0	Future	Jun-06	
S.68119.6392 South Segment (CP3)	4,501	0	Future	Jun-06	
S.68120.6393 West Segment (CP4)	11,841	0	Future	Jun-08	
S.68113.6386 Design/CA/RI (DP3)	2,368	0	Future	Jun-06	
S.68121.6394 Northeast Segment (CP5)	5,186	0	Future	Jun-06	
S.68243.6864 N.Segment (CP1B) River ...	9,460	0	Future	Jan-07	
S.68255.6955 Repl of Sect 25-Design CA/RI	400	0	Future	Jul-09	
S.68256.6956 Repl of Sect 25-Construction	2,100	0	Future	Jul-11	
S.706 NHS - Con. Mains from Sec. 91	\$ 2,765	\$ 2,401	87%		
S.67930.5165 Design/CA/RI	1,088	680	63%		
S.68077.6332 Construction	1,631	1,721	Complete		
S.692 NHS - Section 27 Improvements	\$ 2,330	\$ 124	5%		
S.67769.6333 Construction Sect 27	2,205	27	1%		Mar-12

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	Status Based on % of Budget Expended	Planned Start	Planned End
S.693 NHS - Revere & Malden Pipeline Impr	\$ 32,565	\$ 23,854	73%		
S.67780.5185 Design/CS/RI-Revere/Malden	1,786	1,786	Complete		
S.67781.5186 Constr-Revere Beach	6,328	6,314	Complete		
S.67782.5176 Constr-Malden Sect 53	10,026	10,026	Complete		
S.67792.5238 Construction - Linden Square	1,849	1,849	Complete		
S.67793.5239 Construction Admin.-Linden Squar	125	125	Complete		
S.67784.5177 Const-Revere Sect 53	3,243	0	Future	Jul-06	
S.67996.6033 Des/CA/RI-Rd Restoration	77	77	Complete		
S.67997.6034 Construction Road Restoration	1,714	1,714	Complete		
S.67785.5191 Constr-Control Valves	949	949	Complete		
S.67786.5179 Const.-DI Pipeline C&L	158	158	Complete		
S.67787.5178 Constr-Win C&L	575	575	Complete		
S.67790.6335 Constr 68 & 53A	4,229	0	Future	Jun-08	
S.68258.6958 Shaft 9A-D Ext Construction	1200	0	Future	Apr-09	
S.724 Nor High Service - Pipeline Rehab	\$ 16,287	\$ -	Future		
S.68098.6336 Design/CA/RI	2,828	0	Future	May-07	
S.68100.6338 Construction	13,309	0	Future	Feb-10	
S.733 NHS Pipeline Rehab 13-18 & 48	\$ 26,364	\$ -	Future		
S.68212.6717 Planning/EIR	2,055	0	Future	Nov-09	
S.68213.6718 Design/CA/RI	2,854	0	Future	Apr-12	
S.68214.6719 Construction	13,454	0	Future	Jan-15	
S.68259.6959 Rehab of Sect 33,49,49A,Des	1,400	0	Future	Apr-09	
S.68260.6960 Rehab of Sect 33,49,49A, Const	6,600	0	Future	Jan-12	
S.731 Lynnfield Pipeline	\$ 4,000	\$ -	Future		
S.68187.6584 Construction	3,000	0	Future	Sep-06	
S.68251.6905 Design CA/RI	800	0	Future	Apr-05	
S.708 Nor Extra High Serv - New Pipelines	\$ 8,234	\$ 3,564	43%		
S.67970.5242 Design/CA/RI	787	519	66%		
S.67972.6340 Construction	3,032	3,032	Complete		
S.68162.6522 Construction-Sections 34,36,45	4,325	0	Future	Jan-09	
S.725 Hydraulic Model Update	\$ 688	\$ 598	87%		
S.68101.6342 Hydraulic Model Update	565	563	Complete		
S.734 SEH Pipelines-Sections 30,40,44,39	\$ 7,000	\$ -	Future		
S.68233.6835 Design	1,000	0	Future	Jun-12	
S.68234.6836 Construction	6,000	0	Future	Jan-14	
S.735 Section 80 Rehabilitation	\$ 7,094	\$ -	Future		
S.68248.6890 Water Supply Contingency ...	1,000	0	Future	May-06	
S.68249.6891 Section 80 Construction	5,078	0	Future	Nov-06	
S.68250.6892 Section 80 Design CS/RI	1,016	0	Future	Jan-05	
S.753 Central Monitoring System	\$ 16,199	\$ 14,858	92%		
S.75301.5026 Design	2,651	2,651	Complete		
S.75306.5171 Construction 1	209	209	Complete		
S.75303.5028 SCADA Implementation	2,201	1,605	73%		Jun-09
S.75308.5849 Operations Center Construction	1,499	1,499	Complete		
S.75488.6653 Microwave Comm System-Wide Backbone	1,694	1,694	Complete		
S.75489.6654 Study & Design Monitoring & Control	1,858	1,505	81%		Jun-04
S.75494.6816 Microwave Comm for Waterworks Facil	1,913	1,621	85%		Mar-04
S.763 Distribution Systems Facs. Mapping	\$ 2,116	\$ 1,030	49%		
S.75458.5162 Planning Design	930	930	Complete		
S.75484.6525 Records Development	1,086	0	Future	Jul-05	
S.764 Local Water Infrastr Rehab Ast Progr	\$ 7,488	\$ 9,892	Complete		
S.75477.6343 Loans	22,304	22,304	Complete		
S.75478.6344 Loan Repayment	-22,304	-19,900	89%		Jun-04
S.75479.6408 Grants	7,488	7,488	Complete		

APPENDIX 5

MWRA Project Status Overview					
Program and Phase	Proposed FY05 Budget	Actual Expended thru June 2003	Status Based on % of Budget Expended	Planned Start	Planned End
S.765 Local Water Pipeline Imp. Loan Program	\$ -	\$ 45,545			
S.75485.6608 Community Loans	250,320	49,891	20%		Aug-11
S.75493.6759 Community Repayment	-250,320	-4,346	2%		Aug-21
S.766 Waterworks Facility Asset Protection	\$ 2,818	\$ -	Future		
S.75490.6689 Meter Vault Manhole Retrofits	1,213	0	Future	Sep-07	
S.75497.6832 Design-Walnut Hill Tank	300	0	Future	Sep-07	
S.75498.6833 Construction-Walnut Hill Tank	1,000	0	Future	Oct-09	
S.75501.6910 Waltham Pipe/Bridge Repl	300	0	Future	Feb-04	
S.933 Capital Maintenance Planning/Development	\$ 6,366	\$ 2,173	34%		
S.19175.6421 Inventory & Evaluation-1&2	2,616	2,173	83%		Jul-05
S.19192.6593 Facilities Asset Mgmt Phase 3	750	0	Future	Jul-05	
S.92387.6976 As needed Design/TA	3,000	0	Future	Dec-04	
S.881 Equipment Purchase	\$ 13,895	\$ 758	6%		
S.92374.6760 Security Equip & Installation	12,000	233	2%		
S.930 MWRA Facility - Chelsea	\$ 10,172	\$ 8,552	84%		
S.9430 Distribution/Maintenance Facility	\$ 10,172	\$ 8,552	84%		
S.92320.5886 Conceptual Design	49	49	Complete		
S.92355.6511 Fitout - Office Furnish/Equip	642	626	98%		
S.92364.6714 CNY Retrofit	1,577	1,566	Complete		
S.92365.6715 MIS Network	1,506	886	59%		
S.92366.6716 Fitout - All Other	4,605	3,703	80%		
S.931 Business Systems Plan	\$ 26,207	\$ 17,979	69%		
S.92338.6014 Phase I (FY95-97)	1,146	1,146	Complete		
S.92339.6013 Hardware-Phase I	441	441	Complete		
S.92322.6015 Network-Phase I	142	142	Complete		
S.92343.6177 Phase II FY97-99	4,539	2,156	48%		Jun-07
S.92347.6362 Phase III (FY99-01)	10,908	10,908	Complete		
S.92352.6508 Phase IV / Year 2000 Imp.	3,051	3,051	Complete		
S.92353.6509 Phase V	2957	134	5%		Jun-06
S.92380.6865 Phase VI	3,022	0	Future		
S.932 Environmental Remediation	\$ 1,759	\$ 1,138	65%		
S.92370.6746 Prision Point Tank Removal - Const.	849	309	36%		
S.92371.6747 Cottage Farm Tank Replace - Const	428	428	Complete		
S.934 MWRA Facilities Management & Planning	\$ 4,031	\$ -	Future		
S.92389.6983 Design/Engineering Services	863	0	Future	Apr-04	
S.92390.6984 Facilities Construction	3,168	0	Future	Apr-05	

Massachusetts Water Resources Authority
Wastewater System Improvements
Capital Expenditure Forecast: FY2004-2014
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	Project Participant	NTP	SC	Total Contract Amount	Projected Pmts Thr. FY03	Remaining Balance 6/30/03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	Beyond FY14
Total MWRA(without contingency)				3,795,321	1,970,578	1,824,744	229,552	196,316	202,898	233,645	171,121	180,789	206,747	130,217	93,016	75,175	59,609	45,658
S.99201 Wastewater System Improvements				1,685,297	664,347	1,020,950	104,096	100,589	126,879	137,120	91,545	112,180	122,207	63,458	45,971	31,150	41,310	44,443
S.10 Interception & Pumping				764,543	342,490	422,053	34,654	29,720	55,468	35,091	17,142	35,053	40,732	45,909	25,748	17,991	34,015	50,528
S.102 Quincy Pump Facilities				26,290	25,442	848	750	97										
S.10024.5400 Facilities Plan/EIR	Whitman, Howard	Dec-87	Mar-95	526	526	-												
S.10025.5402 Design/CS Rehab	R. Kimball	Aug-88	Jul-91	110	110	-												
S.10026.5403 Construction-Rehab	Harding & Smith	Jul-89	Sep-95	328	-													
S.10033.5843 Land Acq - Squantum	TBS	Jan-95	Nov-99	40	22	18	18											
S.10027.5404 Design/CS/RI1	Fay Spofford & Thorndike	Aug-94	Dec-04	5,089	4,732	357	260	97										
S.10028.5405 Squantum P.S. Construction	Zenone, Inc.	Oct-00	Sep-03	4,502	4,117	385	385											
S.10029.5407 Quincy P.S. Construction	P. Gioioso & Sons	Nov-00	Dec-02	7,117	7,095	22	22											
S.10030.5408 Hough's Neck P.S. Construction	P. Gioioso & Sons	Jun-98	Nov-99	1,720	-													
S.10031.5409 Early Rehab Squantum F.M.	St Paul/Seaboard Surety	Mar-93	Feb-95	2,092	2,042	50	50											
S.10276.6102 Squantum Force Main Rehab	P. Callacco & Sons	Jul-98	Jul-99	2,061	2,061	-												
S.10277.6103 Quincy Force Main Rehab	P. Gioioso & Sons	Jun-98	Jul-99	1,489	1,489	-												
S.10260.6069 Legal	TBS	Jul-95	Sep-03	82	77	5	5											
S.10261.6070 Public Relations	TBS	Jul-95	Sep-03	5	-	5	5											
S.10262.6071 Hazardous Waste	TBS	Jul-95	Sep-03	5	-	5	5											
S.10032.5950 Technical Assistance	Various	Dec-87	Sep-03	44	44	-												
S.10388.6810 Const Corrosion Mitigation	R Zoppo Corp.	Sep-02	Apr-03	1,079	1,079	-												
S.104 Braintree-Weymouth Relief Facilities				227,013	154,772	72,241	28,104	14,253	20,241	7,760	1,583	300						
S.10045.5311 Facilities Planning Phase 1	Maguire	Oct-81	Dec-90	331	331	-												
S.10046.5312 EIR Phase 1	Maguire	Nov-84	Oct-90	514	514	-												
S.10057.5324 Final EIR/Fac.Plan	Metcalf & Eddy	Apr-91	Aug-93	1,111	1,111	-												
S.10044.5332 Geotechnical - Land	Flores Test	Nov-91	Mar-92	8	8	-												
S.10001.5333 Geotechnical - Marine	George & Drilling	Nov-91	Apr-92	443	443	-												
S.10047.5313 Design 1/CS/RI	Stone & Webster	Nov-94	Nov-05	19,006	15,501	3,504	2,378	1,000	126									
S.10251.6016 Sedimentation Testing	Battelle	Sep-94	Apr-96	96	96	-												
S.10058.5331 Design 2/CS/RI	Metcalf & Eddy	Apr-95	Jun-08	15,255	8,056	7,199	1,317	1,600	1,582	1,200	1,200	300						
S.10048.5314 Land Acquisition	Various	Mar-97	Apr-05	3,600	3,253	346	306	20	10	10								
S.10049.5315 Tunnel Construction/Rescue	Modern Continental	Jun-99	Jul-03	83,670	79,230	4,440	4,380	60										
S.10050.5316 Intermediate P.S. Construction	J.F. White	Dec-00	Nov-04	47,209	36,006	11,204	9,876	1,328										
S.10051.5303 No. Weymouth Relief Interceptor	J.F. White	Mar-01	Jun-02	4,743	4,705	38	38											
S.10052.5373 HDD Siphon Construction	Jay Cashman, Inc.	Jul-03	Dec-06	16,257	-	16,257	9,781	5,676	500	300								
S.10054.5375 B-W Replacement Pump Station	TBS	Jan-05	Jun-07	18,305	-	18,305	-	3,136	8,786	6,000	383							
S.10060.5310 Rehab Sections 123A & 124	TBS	Apr-05	Mar-06	10,597	-	10,597	-	1,271	9,226	100								
S.10302.6368 Mill Cove Siphon Construction	J.F. White	Aug-97	Jun-98	2,749	2,749	-												
S.10055.5308 Design - Rehab	R. Kimball	Sep-88	Dec-89	24	24	-												
S.10056.5309 Construction - Rehab	Harding & Smith	Jan-92	Dec-96	255	255	-												
S.10265.6074 Hazardous Waste	TBS	Jul-95	Jun-07	5	2	3		1	1	1								
S.10263.6072 Legal	Various	Jul-95	Jun-07	100	56	44	7	20	9	8								
S.10264.6073 Public Relations	TBS	Jul-95	Jun-07	5	-	5	2	2	1									
S.10061.5953 Technical Assistance	Various	Nov-84	Jun-07	144	144	-												
S.10278.6119 Design - Marine Pipeline	Sverdrup Parsons Brinkerhoff	Feb-97	Aug-97	1,100	1,100	-												
S.10354.6631 Community Technical Assistance	Fay Spofford & Thorndike	Jul-99	Jun-07	1,111	1,111	-												
S.10375.6766 Geotechnical Consultant	Brierley Associates	Sep-00	Mar-03	75	56	19	19											
S.10378.6792 IPS/RPS Communication System	TBS	Dec-02	Jun-07	300	21	279		139		140								

Massachusetts Water Resources Authority
Wastewater System Improvements
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(000's)

	Project Participant	NTP	SC	Total Contract Amount	Projected Pmts Thr. FY03	Remaining Balance 6/30/03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	Beyond FY14
S.105 New Neponset Valley Relief Sewer				30,334	30,297	37	37											
S.10062.5380 Facilities Plan	LEA	Apr-83	Dec-86	594	594	-												
S.10063.5381 EIR/Supp. Fac. Plan	LEA	Jan-88	Dec-91	626	626	-												
S.10064.5382 Design/CS/RI	Fay, Spofford & Thorndike	Feb-89	Jul-99	4,055	4,055	-												
S.10065.5383 Land Acquisition	Various	Dec-90	Nov-93	531	531	-												
S.10076.5377 Consultant-Canton	Canton C.C.	Sep-93	Jul-99	162	125	37	37											
S.10067.5385 Construction 1	Westcott Construction	Sep-93	Apr-96	5,203	5,203	-												
S.10068.5390 Construction 2	D&C Construction	Dec-93	Nov-94	2,549	2,549	-												
S.10069.5834 Construction 3	P. Gioioso & Sons	Apr-94	May-96	3,265	3,265	-												
S.10070.5835 Construction 4	J. D. Amico	Dec-93	Oct-95	2,960	2,960	-												
S.10071.5389 Construction 5	P. Caliaccio Corp.	Dec-94	Jul-96	9,599	9,599	-												
S.10072.5386 Study Dedham Street	Thermo Water	Nov-90	Oct-96	537	537	-												
S.10074.5379 Power Line	NE Telephone	Jul-95	Jul-99	64	64	-												
S.10073.5952 Technical Assistance	Various	Apr-88	Mar-96	189	189	-												
S.131 Upper Neponset Valley Sewer System				28,293	1,684	26,609	840	4,392	14,237	6,976	119	45						
S.10256.6031 Design/CS/RI	Fay, Spofford & Thorndike, Inc.	May-00	Sep-08	4,364	1,678	2,685	344	1,084	893	206	113	45						
S.10290.6191 Install Sewer Sections 526-529	TBS	Feb-05	Feb-07	17,458		17,458		2,444	9,358	5,656								
S.10352.6629 Install Sect 530,Rehab 529-530	TBS	May-06	Sep-07	4,721		4,721			3,610	1,111								
S.10311.6450 Land Acquisition	TBS	Jun-00	Mar-06	980	6	974	400	574										
S.10266.6075 Legal	TBS	Jun-00	Sep-07	5		5			2	1	2							
S.10267.6076 Public Relations	TBS	Jun-00	Sep-07	5		5			2	1	2							
S.10268.6077 Hazardous Waste	TBS	Jun-00	Sep-07	5		5			2	1	2							
S.10393.6830 Boston Paving		Oct-02	May-07	756		756	96	290	370									
S.140 Neponset Valley Relief Sewer				12,333	-	12,333							184	550	365	129	304	10,800
S.10255.6030 Planning	TBS	Jan-10	Jan-12	1,095		1,095							184	550	361			
S.10341.6578 Design/CS/RI	TBS	Dec-12	Jul-18	1,872		1,872										125	302	1,445
S.10342.6579 Construction	TBS	Jul-16	Jul-18	9,355		9,355												9,355
S.10343.6580 Public Participation	TBS	Jul-11	Jun-14	5		5									2	2	1	
S.10344.6581 Legal	TBS	Jul-11	Jun-14	5		5									2	2	1	
S.106 Wellesley Ext Replacement Sewer				88,108	64,359	23,750	90	2	404	219	608	605	497	10,622	8,523	2,178		
S.10091.5345 Study	SEA	Oct-81	Dec-84	324	324	-												
S.10080.5346 Design/EIR/CS/RI	SEA	Dec-84	May-99	8,107	8,107	-												
S.10081.5347 Land Acquisition	Various	Aug-88	Jul-07	3,497	3,097	400			400									
S.10082.5348 Consultant-Needham	Needham C.C.	Jun-89	Nov-98	171	171	-												
S.10083.5344 Consultant-Dedham	Dedham C.C.	Jun-89	Jul-98	53	53	-												
S.10094.5842 Consultant-Dover	Dover C.C.	Aug-91	Jul-98	5	5	-												
S.10084.5349 Construction 1	J.F. White	Jun-89	Jul-91	15,069	15,069	-												
S.10086.5351 Construction 2	Modern Construction	Aug-89	Sep-90	5,087	5,087	-												
S.10087.5434 Construction 3	P. Gioioso	Mar-90	Jul-91	6,927	6,927	-												
S.10085.5350 Construction 4	P. Gioioso	Aug-89	Sep-90	4,821	4,821	-												
S.10088.5431 Construction 5	Modern Construction	Nov-90	Apr-92	5,387	5,387	-												
S.10089.5432 Construction 6	FED Corp.	Dec-91	Jul-92	2,070	2,070	-												
S.10090.5433 Construction 7	Insituform of N.E.	Sep-93	Jan-96	12,544	12,454	90	90											
S.10283.6184 Construction 8	TBS	Jul-10	Jul-12	19,371		19,371								9,643	7,748	1,980		
S.10353.6630 Design CS/RI 8	TBS	Feb-07	Jul-13	3,877		3,877				217	606	605	497	979	775	198		
S.10259.6065 EIC	S.G. Pinney & Assoc.	Sep-95	Mar-01	369	369	-												
S.10269.6078 Legal	TBS	Feb-97	Jul-12	230	225	5		1	2	1	1							
S.10270.6079 Public Relations	TBS	Feb-97	Jul-12	5		5		1	2	1	1							
S.10093.5953 Technical Assistance	Various	Jun-89	Jul-12	193	193	-												

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S.107 Framingham Extension Relief Sewer				48,037	47,900	137	110	26	1									
S.10099.5318	Fac Plan Update/EIR	Anderson Nichols	Feb-90 Jul-91	1,397	1,397	-	-											
S.10100.5321	Land Acquisition	Various	Jun-91 Aug-02	1,827	1,827	-	-											
S.10101.5319	Design/CS/RI	Goodkind & O'Dea, Inc.	Jul-90 Sep-04	5,889	5,833	56	39	16	1									
S.10102.5320	Install Force Main	J. D'Amico Inc.	May-96 Apr-98	7,292	7,256	37	37											
S.10103.5322	Install Gravity Sewer	Zenone, Inc.	May-96 Apr-98	6,147	6,147	-	-											
S.10104.5323	Pump Station Construction	Westcott Construction	Jul-96 Apr-98	7,803	7,803	-	-											
S.10106.5825	Early Sewer Rehabilitation	Insituform of N.E.	Jun-94 Mar-95	4,813	4,803	10	10											
S.10107.5342	Late Sewer Rehabilitation	Insituform Technologies, Inc.	Oct-00 Sep-04	12,667	12,665	2	2											
S.10105.5954	Technical Assistance	Various	Feb-90 Aug-02	167	167	-	-											
S.10336.6573	Public Participation	Various	Jul-99 Jun-02	5	-	5	5											
S.10337.6574	Legal	Various	Jul-99 Jun-02	5	-	5	5											
S.10374.6754	Conservation Commission	Various	Oct-00 Sep-02	25	2	23	12	11										
S.127 Cummingsville Replacement Sewer				7,017	1,271	5,746	100	363	2,201	2,951	129	2						
S.10217.5826	Facilities Plan/EIR	Weston & Sampson	Jun-92 Jul-95	602	602	-	-											
S.10275.6092	Design/CS/RI	Fay Spofford & Thorndike	May-98 Apr-08	1,961	668	1,293	100	363	286	444	100							
S.10285.6186	Cummingsville Branch Sew Const	TBS	Jan-06 Apr-07	3,468		3,468			1,040	2,428								
S.10284.6185	Land Acquisition	TBS	Apr-00 Apr-07	102	2	100				75	25							
S.10334.6571	Public Participation	TBS	Jul-99 Apr-07	5	-	5				2	2	1						
S.10335.6572	Legal	TBS	Jul-99 Apr-07	5	-	5				2	2	1						
S.10403.6916	Siphon Modifications		Aug-05 Jan-06	875		875			875									
S.130 Siphon Structure Rehabilitation				6,959	940	6,019	2		20	229	229	485	2,903	2,152				
S.10253.6017	Planning	Anderson Nichols & Co.	Jan-96 Nov-98	939	938	2	2											
S.10293.6224	Design/CS/RI	TBS	Apr-06 Dec-11	1,292		1,292			18	225	225	185	368	271				
S.10294.6225	Construction	TBS	Aug-09 Dec-10	4,365		4,365							2,484	1,881				
S.10295.6226	Legal	TBS	Sep-05 Dec-10	5		5			1	2	2							
S.10296.6227	Public Relations	Various	Jun-97 Dec-10	5		5			1	2	2							
S.10280.6165	Land Acquisition	TBS	Jun-06 Dec-10	353	2	351						300	51					
S.134 Ashland Extension Sewer				1,020	-	1,020									150			870
S.10286.6187	Planning	TBS	Aug-11 Aug-13	500		500									150			350
S.10297.6228	Land Acquisition	TBS	Aug-11 Dec-15	5		5												5
S.10363.6684	Legal	TBS	Aug-11 Dec-15	5	-	5												5
S.10364.6685	Hazardous Waste	TBS	Aug-11 Dec-15	5	-	5												5
S.10365.6686	Public Participation	TBS	Aug-11 Dec-15	5	-	5												5
S.10376.6788	Design	TBS	Feb-14 Feb-16	500		500												500
S.135 System Master Plan Interceptors				10,915	-	10,915									117			10,798
S.10287.6188	Planning	TBS	Jan-12 Jan-14	1,173		1,173									117			1,056
S.10303.6413	Design/CS/RI	TBS	Dec-14 Apr-20	1,622		1,622												1,622
S.10288.6189	Con-Mystic Valley Sewer Sec 153	TBS	Apr-18 Apr-20	1,151		1,151												1,151
S.10289.6190	Con-Revere Branch Sect 62	TBS	Apr-18 Apr-20	1,831		1,831												1,831
S.10291.6192	Con-Cambridge Branch 23-25	TBS	Apr-18 Apr-20	4,200		4,200												4,200
S.10292.6193	Con-Malden Branch Sec 65 & 66	TBS	Apr-18 Apr-20	923		923												923
S.10338.6575	Public Participation	TBS	Dec-14 Apr-18	5	-	5												5
S.10339.6576	Land Acquisition	TBS	Dec-14 Apr-18	5	-	5												5
S.10340.6577	Legal	TBS	Dec-14 Apr-18	5	-	5												5

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S.132 Corrosion & Odor Control				16,707	1,688	15,019	500	900	4,714	8,047	636	223						
S.10279.6137 Planning/Study	Anderson Nichols & Co.	Jan-97	Dec-98	588	588	-												
S.10327.6553 Design/CS/RI	MWH Americas Inc.	Aug-02	Jun-08	4,297	474	3,823	500	900	1,000	800	400	223						
S.10326.6552 Arthur Street Pump Station	TBS	Dec-05	Jun-07	551	-	551			125	350	76							
S.10323.6549 Land Acquisition	TBS	Jun-02	Jun-06	250	3	247			150	97								
S.10324.6550 Public Participation	TBS	Dec-98	Jun-07	5	-	5			3	3								
S.10325.6551 Legal	TBS	Dec-00	Jun-07	25	2	23			10	10	3							
S.10373.6743 Interim Corrosion Control	Various	Jul-00	Dec-01	621	621	-												
S.10404.6917 FERS Force Main		Mar-06	May-07	1,168		1,168			168	1,000								
S.10405.6918 FES Tunnel Rehab		Dec-05	Dec-06	8,146		8,146			3,258	4,887								
S.10406.6919 Air Treatment Systems		May-06	May-07	1,057		1,057				900	157							
S.136 West Roxbury Tunnel				83,072	8,897	74,176	88	8	1,463	2,044	11,294	21,308	21,393	16,084	493			
S.10299.6230 Inspection	R. Zoppo Corp.	Jul-98	Sep-99	344	344	-												
S.10333.6570 Design/CS/RI	JE/Sverdrup, Inc.	Apr-00	Jun-03	1,533	1,445	88	88											
S.10332.6569 Construction	R. Zoppo Corp.	Jun-01	Jun-02	6,657	6,657	-												
S.10329.6566 Public Participation	TBS	Apr-00	Mar-10	5	-	5			5									
S.10330.6567 Legal	TBS	Apr-00	Mar-10	25	2	23			3	4	4	4	4	4				
S.10331.6568 Land Acquisition	TBS	Apr-00	Mar-10	1,000	441	559			159	100	100	100	100					
S.10366.6709 Technical Assistance	TBS	Nov-99	Mar-10	8	8	-												
S.10377.6789 Planning/EIR	TBS																	
S.10400.6897 Tunnel Design		Sep-05	Mar-11	10,500		10,500			1,300	1,940	1,940	1,940	1,940	1,440				
S.10401.6898 Tunnel Construction		Dec-07	Mar-11	63,000		63,000					9,250	19,264	19,349	14,644	493			
S.137 Wastewater Central Monitoring				13,938	912	13,026	1,140	4,599	5,833	1,454								
S.10301.6232 Planning	Montgomery Watson	Jan-98	Jul-99	572	572	-												
S.10319.6532 Design and Integration Services	Camp Dresser & McKee	Jun-02	Nov-08	5,720	340	5,380	1,140	2,030	1,750	460								
S.10320.6533 Construction 1 (CP1)	TBS	Aug-04	Nov-05	3,127	-	3,127			2,313	814								
S.10321.6534 Construction 2 (CP2)	TBS	Jun-05	Jun-06	3,195	-	3,195			256	2,939								
S.10357.6657 Construction 3 (CP3)	TBS	Jan-06	Jan-07	1,324	-	1,324			330	994								
S.10322.6535 Technical Assistance	TBS	Sep-02	Aug-08	-	-	-												
S.10358.6658 Professional Services 1(Data Integration)	TBS			-	-	-												
S.10359.6659 Professional Services (Hydraulic Model)	TBS			-	-	-												
S.10355.6655 Professional Services 3 (Transport)	TBS			-	-	-												
S.10356.6656 Design & Integration Services	TBS			-	-	-												
S.10398.6861 Construction 4				-	-	-												
S.139 South System Relief Project				4,546	3,440	1,106		115	125	565	300							
S.10309.6419 CS/RI-Archdale	Green International Assoc.	Nov-98	Aug-99	6	6	-												
S.10310.6420 Construction-Archdale	J. DiAmico	May-99	Aug-99	211	211	-												
S.10318.6519 Sec 70&71 HLS Eval.	Simpson Gumpertz Heger, Inc.	Sep-98	Oct-99	216	215	-												
S.10349.6611 Sec 70 & 71 HLS Construction	Fiore Construction Co.	Jun-99	Oct-99	417	417	-												
S.10345.6595 Design Outfall 023	In-House	Jun-99	Sep-99	1	1	-												
S.10346.6596 Cleaning Outfall 023	J.F. White Contracting Co.	Apr-00	Nov-00	1,098	1,098	-												
S.10347.6605 Land Acquisition/Easements	Various	Apr-99	Jun-07	80	5	75		75										
S.10350.6616 Milton Financial Assistance	Town of Milton	Oct-99	Jun-00	1,488	1,488	-												
S.10362.6680 Legal/Permits	Various	Jul-99	Dec-01	5	-	5				3	3							
S.10386.6801 Outfall 023 Str Impvements	TBS	Jul-06	Dec-07	500	-	500				313	188							
S.10402.6915 Quincy/Braintree Howard St. ...		Jul-05	Jun-07	375	-	375			75	200	100							
S.10422.6949 Quincy/Braintree Howard St Des		Jul-04	Jun-07	150	-	150		40	50	50	10							
S.141 Wastewater Process Optimization				24,985	724	24,261	225	5		54	76	380	641	475	950	684	18,711	2,060
S.10367.6733 Planning	Metcalfe & Eddy	Aug-01	Aug-04	954	724	230	225	5										
S.10412.6930 Somerville Sewer-Planning																		
S.10413.6931 Somerville Sewer-Design		Oct-06	Aug-09	200	-	200				54	76	60	10					
S.10414.6932 Somerville Sewer-Construction		Mar-09	Aug-09	801	-	801						320	481					
S.10415.6933 Siphon- Planning		Nov-09	Jun-10	150	-	150							150					
S.10416.6934 Siphon-Design		Jan-11	Jul-14	2,850	-	2,850								475	950	684	684	57
S.10417.6935 Siphon- Construction		Aug-13	Jul-14	20,030	-	20,030											18,027	2,003

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S.142 Wastewater Meter Sys-Equip Replace				6,555	-	6,555	1,618	3,568	19	35	115	83	442	676				
S.10371.6736 Planning/Study	TBS	Dec-07	Apr-08	100	-	100					100							
S.10379.6793 Equipment Purchase/Installation	TBS	Nov-03	Mar-08	5,255		5,255	1,618	3,568	19	35	15							
S.10410.6928 Design		Jun-08	Jan-11	200		200						83	73	45				
S.10411.6929 Construction		Jan-10	Jan-11	1,000		1,000							369	631				
S.143 Regional I/I Management Planning				397	164	233	55	178										
S.10372.6740 Cmom/Planning	Malcolm-Pirnie, Inc.	Jan-01	Jun-03	169	164	5	5											
S.10390.6819 I/I and SSO Reduction		Apr-02	Jun-05	228		228	50	178										
S.145 I&P Facility Asset Protection				128,023	1	128,022	994	1,214	6,210	4,757	2,053	11,621	14,673	15,350	15,150	15,000	15,000	26,000
S.1400 Interceptors				122,373	1	122,372	994	957	4,190	3,614	1,617	10,500	14,500	15,000	15,000	15,000	15,000	26,000
S.10383.6798 Rehab of Section 93A Lexington	American Water Svcs Underground	Jul-03	Jul-04	1,561		1,561	993	568										
S.10423.6987 93A Construction 2		Nov-04	Nov-05	500		500		324	176									
S.10392.6829 Technical Assistance		Jul-02	Nov-07	55		55		32	13	5	5							
S.10394.6842 Sections 80&83		Jan-06	Jan-07	1,962		1,962			1,307	655								
S.10395.6843 Section 160		Nov-05	Nov-07	4,252		4,252			2,188	1,703	361							
S.10396.6857 Survey		Jul-03	Feb-05	37		37			32	5								
S.10397.6858 Permits		May-03	Nov-07	6	1	5	1	1	1	1	1							
S.10418.6936 Interceptor Renewal		Mar-06	Jun-19	114,000		114,000			500	1,250	1,250	10,500	14,500	15,000	15,000	15,000	15,000	26,000
S.1410 Facilities				5,650		5,650		257	2,020	1,143	436	1,121	173	350	150			
S.10380.6795 Prision Pt Fuel /HVAC Upgrades	TBS	Mar-09	Feb-10	694		694						601	93	350	150			
S.10381.6796 Remote Headworks Heating Sys Upgrade	TBS	Apr-05	Oct-05	1,106		1,106			1,106									
S.10382.6797 Alewife Brook Pump Repl	TBS	Mar-09	Feb-10	450		450						390	60					
S.10384.6799 Remote Headworks Window Replacement	TBS																	
S.10385.6800 Remote Headworks Roof Replacement	TBS																	
S.10387.6802 Hdws Screen Replacement	TBS	Nov-05	Jul-07	2,000		2,000			571	1,143	286							
S.10389.6818 Headworks Shaft Outfall Construction		Mar-11	Aug-11	-		-												
S.10391.6824 Headworks Shaft Design		Jul-08	Aug-10	500		500								350	150			
S.10399.6886 Headworks Condition Assessment Study		Jan-05	Feb-06	600		600		257	343									
S.10419.6937 Alewife Brook Pump Repl Design		Jul-07	Feb-10	150		150					75	65	10					
S.10420.6938 Design-Prison Pt Fuel/HVAC ...		Jul-07	Feb-10	150		150					75	65	10					
S.1420 Other																		
S.10421.6942 As Needed Design																		

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S.25 Treatment				135,331	10,154	125,177	3,348	15,850	19,829	11,536	7,410	9,725	9,575	11,500	12,000	10,000	12,000	2,404
S.200 DI Plant Optimization				31,239	8,283	22,956	2,212	8,227	6,173	3,550	2,794							
S.19156.6235 Construction-Plumbing	Kennedy	Apr-96	Apr-98	110	110	-												
S.19170.6369 Supplementary Mod Pkg #1	E. J. Sciaba	Jun-99	Mar-00	488	213	275	275											
S.19154.6233 As-Needed Des. Phase 1	Metcalf & Eddy, Inc.	Jul-98	May-03	1,122	1,130	(8)	(8)											
S.18212.6364 Ancil Mods-Des 1	Metcalf & Eddy, Inc.	Jun-99	Nov-05	1,930	1,001	929	16	560	354									
S.19189.6590 Ancil Mods Des 2-1 (REI)	American Elect. Testing	Aug-01	Jun-03	591	540	51	51											
S.19190.6591 Ancil Mods - Des 3-1	Fay, Spofford & Thorndike	Feb-01	Jul-05	1,351	500	851	254	557	40									
S.19191.6592 Ancil Mods - Des 4	TBS	Oct-04	Mar-08	588	-	588		130	156	131	171							
S.19220.6721 Ancil Mods - Des 5	TBS	Dec-04	Oct-07	281	-	281		67	84	102	28							
S.19183.6499 Ancil Mods-Con 1	TBS	May-04	Nov-05	4,300	-	4,300		2,230	2,070									
S.19186.6536 Ancil Mods Constr 2-1	Chappy Corp.	Aug-01	Jun-03	2,786	2,816	(29)	(29)											
S.19232.6744 Ancil Mods Constr 2-2	TBS	May-04	May-06	3,392	-	3,392		1,427	1,848	117								
S.19187.6537 Ancil Mods-Constr 3-1	TBS	Nov-03	May-05	3,077	-	3,077	760	2,054	263									
S.19216.6703 Ancil Mods Cons 3-2				-	-	-												
S.19188.6538 Ancil Mods-Con 4	TBS	Sep-06	Mar-08	3,348	-	3,348				1,303	2,046							
S.19221.6722 Ancil Mods - Cons 5	TBS	Jul-06	Oct-07	1,369	-	1,369				820	549							
S.19206.6673 Digester Storage Tank - Repair	US Filter	Aug-97	Oct-97	275	550	(275)	(275)											
S.19211.6698 As Needed Des Phase 4-1	TBS	Apr-05	Apr-07	1,000	-	1,000		30	450	520								
S.19212.6699 As Needed Des Phase 4-2	TBS	Apr-05	Apr-07	1,000	-	1,000		30	450	520								
S.19213.6700 Plumbing/Mechanical Services	TBS			-	-	-												
S.19215.6702 As-needed Design Phase 2-1	Metcalf & Eddy, Inc.	Oct-00	Jan-03	760	760	-												
S.19234.6753 As-needed design Phase 2-2	Parsons Engineering	Oct-00	Jan-03	713	629	84	84											
S.19214.6701 As-needed Des. Phase 3-1	Metcalf & Eddy	Apr-03	Apr-05	750	21	729	403	326										
S.19219.6720 Polymer Area- Construction	TBS			-	-	-												
S.19240.6768 Ancil Mods Des2-2 (REI/ESDC)	TBS	May-04	Jun-06	499		499		219	242	38								
S.19242.6794 CEMS Modifications	TBS	Dec-04	Mar-06	297		297		79	218									
S.19257.6874 As-needed Design Phase 3-2	Fay, Spofford & Thorndike	Mar-03	Mar-05	750	12	738	430	308										
S.19286.6201 BHP Site Completion		Oct-98	Dec-04	462		462	252	210										
S.206 DI Treatment Plant Asset Protection				104,092	1,871	102,221	1,136	7,623	13,656	7,987	4,616	9,725	9,575	11,500	12,000	10,000	12,000	2,404
S.1800 Equipment Replacement				70,636	926	69,710	711	2,276	802	68	75	8,300	9,575	11,500	12,000	10,000	12,000	2,404
S.19182.6478 Equip Replacement Projection	N/A	Oct-00	Jun-14	65,404		65,404						8,000	9,500	11,500	12,000	10,000	12,000	2,404
S.19193.6594 Equipment Condition Monitoring	TBS	Feb-04	Jul-05	2,000	-	2,000	350	1,414	236									
S.19231.6742 Drive Chain Replacement	Hitachi Maxco Ltd.	Oct-01	Jul-03	264	264	-												
S.19238.6765 CTG Modifications	Pratt & Whitney	Mar-01	May-02	500	483	17	17											
S.19176.6422 Pump Packing Replacement	N/A	Sep-03	Sep-04	660	128	532	264	268										
S.19177.6423 Demineralizer Construction	J. F. White	Jul-00	Dec-00	51	51	-												
S.19264.6881 NMPS Motor Repairs	TBS	Mar-04	Sep-05	900		900	80	594	227									
S.19265.6882 CEMS Equip. Replacement	TBS	Jul-05	Jul-06	407		407			339	68								
S.19268.6899 Drive Chain Replacement/2	TBS	Jan-08	Jun-09	450		450					75	300	75					
S.19273.6904 CEMS Equip Rep Des/REI	TBS			-		-												

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							FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	Beyond FY14				
S.1810 Architectural																						
S.19161.6240 Coastal Protection	TBS	Jul-04	Jun-14	-	413	3,450	376	274	856	277	533	1,134										
S.19222.6723 Eastern Seawall Design - 1	TBS	May-06	Mar-09	344	-	344				172	46	126										
S.19224.6725 Wall,Pier,Berth-Design 2	TBS	Jul-04	Jun-14	-	-	-																
S.19223.6724 Eastern Seawall Construction - 1	TBS	Dec-07	Mar-09	1,374	-	1,374					366	1,008										
S.19225.6726 Wall,Pier,Berth-Construction 2	TBS	Jul-04	Jun-14	-	-	-																
S.18045.6196 Maintenance Facilities Design	TBS			-	-	-																
S.19162.6197 Maintenance Facilities Const	TBS			-	-	-																
S.19229.6730 CSB Design/ESDC	TBS			-	-	-																
S.19230.6731 CSB Demolition/Construction	TBS			-	-	-																
S.19226.6727 Study/Concept Des-Concrete Rpr	TBS	Jan-05	Jan-06	274	-	274		88	185													
S.19204.6668 Expansion Joint Repair-Design	Simpson, Gumpertz & Heger	Apr-99	Oct-04	167	103	64	56	8														
S.19205.6669 Expansion Joint Repair- Constr 1	Brisk Waterproofing	Aug-02	Nov-03	355	34	321	321															
S.19218.6705 Expansion Joint Repair- Constr 3	TBS	Mar-07	Nov-07	137	-	137					16	121										
S.19217.6704 Expansion Joint Repair- Constr 2	TBS	May-05	Nov-05	137	-	137				137												
S.19244.6812 Secondary Clarifier Access	All-Star	Sep-01	Jul-02	275	275	-																
S.19246.6821 Personnel Dock Rehab	TBS	Dec-04	Jun-06	800	-	800		177	534	89												
S.19274.6963 Old Admin Bldg Rehab Des		Mar-05	Apr-07	-	-	-		-	-	-												
S.19275.6964 Old Admin Bldg Rehab Constr		Apr-06	Apr-07	-	-	-		-	-	-												
S.19284.6973 NMPS & SSPS Hardening		Oct-04	Jul-05	-	-	-		-	-	-												
S.1820 Utilities							25,103	407	24,696	21	3,948	10,379	6,098	3,959	291							
S.19194.6598 Thermal Plant PICS Repl	TBS	Sep-04	Feb-05	184	-	184		184														
S.19243.6811 Outfall Modification-Inspection	Ocean Access, Inc.	Dec-01	Jul-02	174	174	-																
S.19247.6822 Outfall Modif Const 1	TBS	Jan-05	Sep-06	824	-	824		124	494	206												
S.19248.6823 Outfall Modif Const 1 REI	TBS	Jan-05	Sep-06	275	-	275		41	165	69												
S.19239.6767 Elec Equip Upgrade Constr 2	TBS	Jun-04	Dec-05	1,815	-	1,815	989	826														
S.19236.6763 Busduct Replacement (2+22)	R.W. Reid	Jan-01	Oct-01	196	196	-																
S.19245.6813 Transformer Replacement	TBS	Mar-04	Mar-06	550	38	512	21	252	239													
S.19252.6851 Pipeline Repl #2 Design	TBS	Feb-06	Apr-08	344	-	344		70	117	157												
S.19253.6852 Pipeline Repl #2 - Construction	TBS	Apr-07	Apr-08	1,146	-	1,146					1,146											
S.19254.6853 Pipeline Replacement Des 1	TBS	Jun-05	Aug-06	131	-	131			93	37												
S.19255.6854 Pipeline Replacement Const 1	TBS	Jun-05	Jun-06	2,355	-	2,355			1,961	394												
S.19256.6855 Elect Equip Upgrade Const 3	TBS	Apr-05	Oct-06	1,098	-	1,098			731	367												
S.19258.6875 VFD Replacement Const 2	TBS	Dec-05	Jan-07	995	-	995			306	690												
S.19259.6876 Heat Loop Pipe Repl Constr 1		Dec-04	Dec-05	575	-	575		188	387													
S.19260.6877 VFD Replacement Const 3		Dec-04	Dec-05	575	-	575		177	399													
S.19263.6880 Cathodic Protection Evaluation	TBS	May-04	May-05	250	-	250		242	8													
S.19266.6883 PICS Replacement Des	TBS	Jul-06	Jun-08	224	-	224					112	91	21									
S.19267.6884 PICS Replacement Const	TBS	Jul-07	Jun-08	1,456	-	1,456						1,186	270									
S.19269.6900 Switchgear Replacement 1	TBS	Sep-04	Sep-05	1,200	-	1,200																
S.19270.6901 Elect Equip Upgrade Const 4	TBS	Oct-06	Oct-07	-	-	-		690	510													
S.19271.6902 VFD Replacement Des 1	TBS	Jul-04	Sep-07	518	-	518		255	86	129	47											
S.19272.6903 VFD Replacement Const 1	TBS	Aug-05	Aug-07	4,684	-	4,684			1,561	2,341	783											
S.19278.6967 Second Deaerator Design		Jan-05	Mar-07	86	-	86		21	25	40												
S.19279.6968 Second Deaerator ...		Oct-05	Oct-06	229	-	229			19	210												
S.19280.6969 Fuel Transfer Pipe Repl Des		Jul-05	Sep-07	344	-	344			172	100	72											
S.19281.6970 Fuel Transfer Pipe Repl ...		Sep-06	Sep-07	1,146	-	1,146				668	478											
S.19282.6971 NMPS Motor Ctrl Ctr Des		Jan-05	Apr-07	201	-	201		50	59	92												
S.19283.6972 NMPS Motor Ctrl Ctr Constr		Mar-06	Mar-07	573	-	573			48	525												
S.19285.6974 DI Wind Power Constr		Dec-04	Apr-06	2,956	-	2,956		735	2,221													
S.1830 Support							1,364	126	1,238	28	57	782	322	48								
S.19162.6241 DISC Application	TBS	Jun-96	Dec-05	250	126	124	28	57	39													
S.19241.6791 Document Format Conversion	TBS	May-05	May-07	398	-	398			167	183	48											
S.19227.6728 Closed Circuit Cameras Design	TBS	Jul-05	Jun-07	170	-	170			152	19												
S.19228.6729 Closed Circuit Cameras Const	TBS	Sep-06	Jun-07	545	-	545			425	120												

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S.1840 Specialties				3,127		3,127		1,068	837	1,222								
S.19237.6764 Sodium Hypo Tank Repair 1	TBS	Apr-04	Sep-05	863		863		605	258									
S.19249.6848 Nutrients Lab Fume Hood Repl	TBS	Aug-04	May-05	360		360		320	40									
S.19250.6849 Metals Lab Modification-Des	TBS	Jan-05	Feb-07	196		196		49	65	82								
S.19251.6850 Metals Lab Modification Constr	TBS	Feb-06	Feb-07	929		929			155	775								
S.19261.6878 Lab Sample Area Mod-Des	TBS			-		-												
S.19262.6879 Lab Sample Area Mod-Const	TBS			-		-												
S.19276.6965 Gravity Thickener Improv ...		Sep-04	Oct-06	188		188		94	47	47								
S.19277.6966 Gravity Thickener Improv ...		Oct-05	Oct-06	592		592			272	320								
S.261 Residuals				67,321	56,619	10,702	10,027											675
S.25941.5667 Design/RI/CS-Pelletizing 1	Tighe & Bond	Dec-94	Jul-04	9,421	9,101	321	321											
S.25948.5669 Fast-Track Equip. Prepurchase		Aug-94	Jul-95	301	301	-												
S.26055.6009 Fast-Track Equip. Installation	Thomas O'Connor	Oct-94	Apr-96	1,450	1,450	-												
S.26056.6010 Phase 2 Outside Construction	Poole & Kent Co.	Jan-96	Aug-98	13,019	13,019	-												
S.26057.6011 Phase 3 Equip. Prepurchase	Alfa Laval Sep. Inc.	Feb-95	Jul-98	4,777	4,746	31	31											
S.26058.6012 Phase 3 Inside Construction	Poole & Kent Co.	Mar-97	Dec-01	33,178	23,887	9,291	9,291											
S.26065.6612 Fire Related Costs	Various	May-99	Oct-99	1,694	1,694	-												
S.25961.5643 Res. Research	UMass Amherst	Aug-90	Apr-97	419	419	-												
S.26059.6083 License Fee	Enviro-gro	Jan-15	Jan-17	675	675	-												675
S.25968.5831 Royalty Payment	TBS	Feb-96	Sep-97	575	575	-												
S.26066.6615 Legal Services for Sludge Processing	Palmer & Dodge LLP	Apr-99	Dec-03	1,811	1,426	385	385											
S.26067.6694 Claims	TBS	Jul-00	Aug-03	-	-	-												
S.26068.6755 Barge Purchase				-	-	-												
S.13 CSO				649,226	205,340	443,886	52,955	51,244	48,658	88,070	64,132	63,582	67,982	2,999	4,262			
S.3520 MWRA Managed				403,085	77,396	325,689	25,042	20,229	29,319	74,496	56,609	55,258	64,473	262				
S.339 North Dorch Bay & Reserve Channel				225,134	13,662	211,472	1,381	746	1,091	42,916	45,420	55,183	64,473	262				
S.32660.6220 Design	P.B.Q. & D/Metcalfe & Eddy	Aug-97	Dec-09	27,774	13,662	14,112	1,381	746	1,091	2,497	3,080	2,843	2,212	262				
S.32661.6244 Construction 1	TBS	Jul-06	Dec-09	197,360	-	197,360				40,419	42,340	52,340	62,261					
S.32662.6245 Construction 2	TBS			-	-	-												
S.32694.6625 Construction 3	TBS			-	-	-												
S.32713.6696 Construction 4	TBS			-	-	-												
S.354 Hydraulic Relief Projects				2,351	2,301	50	50											
S.32692.6250 Design/CS/RI	Dufrense Henry Engineering Corp.	Aug-97	Aug-01	615	565	50	50											
S.32669.6252 Construction	R. Zoppo Construction Co., Inc.	Jul-99	Aug-00	1,737	1,737	-												
S.347 East Boston Branch Sewer Relief				58,935	3,045	55,891	5,548	500	12,730	25,937	11,101	75						
S.32673.6256 Design	JE/Sverdrup Civil Inc.	Mar-00	Jan-09	5,317	2,196	3,121	911	500	535	600	500	75						
S.32674.6257 East Boston Branch Relief Sewer	TBS	Nov-05	Jan-08	40,690		40,690			11,678	19,816	9,196							
S.32716.6790 Boston Paving	TBS	Jul-06	Jan-07	50		50				50								
S.32719.6840 East Boston Branch Sewer Rehab	D'Allessandro Corp.	Apr-03	Feb-04	5,485	848	4,637	4,637											
S.32720.6841 Sections 38 & 207 Replacement	TBS	Apr-06	Oct-07	7,393		7,393			517	5,471	1,405							
S.348 Fort Pt. Channel & BOS019 Conduits				20,422	449	19,973	1,316	2,982	10,448	5,139	88							
S.32675.6258 Design	Fay Spofford & Thorndike	Jul-02	Mar-08	4,678	449	4,229	1,316	822	1,128	875	88							
S.32676.6259 Construction 1	TBS	Mar-05	Mar-07	8,177		8,177		985	4,086	3,106								
S.32677.6260 Construction 2	TBS	Mar-05	Sep-06	7,568		7,568		1,175	5,234	1,159								
S.349 Chelsea Trunk Sewer				30,676	29,756	920	701	220										
S.32659.6198 Design/CS/RI	Bryant Associates	Jun-97	Aug-03	4,548	3,628	920	701	220										
S.32679.6262 Chelsea Trunk Relief	P. Gioioso & Sons	Sep-99	Aug-00	3,577	3,577	-												
S.32680.6263 Chelsea Branch Sewer	Modern Continental Construction	Dec-99	Jul-01	19,141	19,141	-												
S.32689.6370 Rehab/Chelsea Brnch/Revere Ext	Instituform Technologies	Aug-01	Jun-02	3,125	3,125	-												
S.32690.6371 Modify Chelsea Screen House	R.Zoppo Corporation	Aug-00	Dec-00	284	284	-												

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S.350 Union Park Detention Treatment Fac				41,812	5,883	35,929	15,964	15,673	4,217	75								
S.32681.6264 Design	Metcalf & Eddy, Inc.	Dec-99	Sep-05	6,720	3,610	3,110	1,210	1,375	450	75								
S.32682.6265 Construction	Barletta Engineering	Mar-03	Sep-05	38,891	2,272	36,619	15,942	16,644	4,033									
S.32718.6826 Construction - Park		Apr-03	Oct-05	500		500	180											
S.32721.6909 BWSC Construction ...		Mar-03	Sep-05	(4,299)		(4,299)	(1,368)	(2,345)	(586)									
S.353 Upgrade Existing CSO Facilities				22,383	22,301	82	82											
S.32647.6123 Design	CDM Consulting	Jun-96	Oct-02	6,497	6,415	82	82											
S.32714.6734 Design 2	TBS			-	-	-												
S.32685.6268 Cottage Farm CSO Facility	Methuen Construction Co.,Inc.	Mar-98	Jan-00	4,377	4,377	-												
S.32686.6269 Prision Point CSO Facility	Harding & Smith	May-99	Feb-01	3,339	3,339	-												
S.32693.6496 Comm/Fox Point, Som. Marginal	R Zoppo Corporation	Nov-99	Aug-01	8,029	8,029	-												
S.32687.6270 Non-Treated Floatable (Beacon)	Sequoia Construction, Inc.	Mar-99	Dec-99	124	124	-												
S.32695.6626 Non-Treated Floatable (Other)	TBS			-	-	-												
S.32715.6735 Closure of Oufall MWR010	TBS			-	-	-												
S.32717.6803 Cottage Farm Programing	Alco	Dec-00	Dec-01	17	17	-												
S.355 MWR003 Gates & Siphon				1,371		1,371		108	834	429								
S.32722.6952 Design		Jul-04	Dec-06	271		271		108	108	55								
S.32723.6953 Construction		Jul-05	Dec-06	1,100		1,100			726	374								
S.3521 Community Managed				204,676	90,640	114,037	26,998	29,396	18,602	13,016	7,193	8,324	3,508	2,737	4,262			
S.340 S. Dorch Bay Sew Separ (Fox Pt.)				53,837	26,196	27,641	7,298	7,832	6,317	3,633	1,913	644	4					
S.32651.6155 Design	BWSC - Various	Jun-96	Aug-09	11,210	9,267	1,943	400	591	497	285	119	47	4					
S.32664.6247 Construction	BWSC - Various	Apr-99	Nov-06	42,627	16,929	25,698	6,898	7,241	5,820	3,348	1,794	597						
S.341 S. Dorch Bay Sew Separ (Comm. Pt.)				59,793	27,062	32,731	5,755	7,468	4,657	8,716	5,255	876	4					
S.32650.6154 Design	BWSC - Various	Jun-96	Aug-09	13,721	10,290	3,431	900	734	683	636	407	67	4					
S.32665.6248 Construction	BWSC - Various	Apr-99	Nov-07	46,072	16,772	29,300	4,855	6,734	3,974	8,080	4,848	809						
S.344 Stony Brook Sewer Separation				43,649	15,924	27,725	8,623	12,020	6,612	470								
S.32667.6395 Design/CS/RI	BWSC - Various	Jul-98	Apr-07	9,216	6,737	2,479	833	1,021	578	47								
S.32668.6251 Construction	BWSC - Various	Jul-00	Sep-06	34,433	9,186	25,247	7,790	10,999	6,034	424								
S.342 Neponset River Sewer Separation				2,681	2,444	237	237											
S.32652.6156 Design/CS/RI	BWSC - Various	Apr-96	Dec-03	480	470	10	10											
S.32653.6160 Construction	BWSC - Various	Aug-96	Oct-02	2,201	1,975	226	226											
S.343 Constitution Beach Sewer Separation				3,769	3,769	-												
S.32649.6153 Design/CS/RI	BWSC - Various	Oct-96	Dec-02	673	673	-												
S.32666.6249 Construction	BWSC - Various	May-98	Apr-02	3,096	3,096	-												
S.346 Cambridge CAM002-004 Sew.Separation				37,496	13,935	23,561	4,534	1,280	222	197	25	6,804	3,500	2,737	4,262			
S.32654.6161 Design/CS/RI	City of Cambridge - Various	Jan-97	Sep-12	10,499	5,264	5,235	2,979	152	51	25	25	787	406	330	480			
S.32672.6255 Construction	City of Cambridge - Various	Jul-98	Mar-12	26,997	8,671	18,326	1,555	1,128	171	172		6,017	3,094	2,407	3,782			
S.351 BWSC Floatables Controls				933	933	-												
S.32657.6168 Design	BWSC - Various	Dec-98	Dec-02	555	555	-												
S.32683.6266 Construction	BWSC - Various	Aug-00	Mar-02	378	378	-												
S.352 Cambridge Floatables Controls				2,518	377	2,141	551	796	794									
S.32655.6162 Design	City of Cambridge - Various	Jan-97	Jun-06	396	377	19	6	8	5									
S.32684.6267 Construction	City of Cambridge - Various	Oct-02	Jun-06	2,122		2,122	545	788	789									

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S.324 CSO Support				41,464	37,304	4,160	916	1,619	737	558	330							
S.32400.5790 Technical Assistance	CH2M-Hill	Feb-94	Dec-95	228	228	-												
S.32407.5970 Tech. Assistance-Geotech	TBS			61	61	-												
S.32401.5791 Planning/EIR	CH2M-Hill	Mar-88	Sep-90	10,769	10,769	-												
S.32403.5716 Master Planning	Metcalf & Eddy	Mar-92	Sep-04	22,007	21,307	700	667	33										
S.32645.6036 Watershed Planning	CRWA/USGA	Dec-94	Apr-01	877	877	-												
S.32409.5795 Modeling	MIT	May-92	Mar-95	300	300	-												
S.32411.5767 SOP Program	BWSC	Jan-94	May-01	1,957	1,957	-												
S.32691.6372 System Assessment		May-97	Dec-08	476	4	472	77	210	52	52	80							
S.32648.6150 Technical Review	Dr. Edward J. Cording	Jul-96	Dec-09	347	203	144	32	100	13									
S.32658.6169 Land/Easement	Harvey Cohen Trustee	Jul-96	Jul-06	4,443	1,599	2,844	140	1,277	672	505	250							
S.14 Other				68,877	49,745	19,133	3,111	3,775	2,923	2,423	2,861	3,821	3,918	3,050	3,960	3,159	(4,705)	(9,164)
S.128 I/I Local Financial Assistance				68,593	49,534	19,060	3,038	3,775	2,923	2,423	2,861	3,821	3,918	3,050	3,960	3,159	(4,705)	(9,164)
S.10273.6084 Grants - Phase II	Communities	May-93	May-05	15,937	8,822	7,115	6,636	479										
S.10274.6085 Loans - Phase II	Communities	May-93	May-05	47,664	26,465	21,199	19,761	1,437										
S.10282.6170 Repayment - Phase II	Communities	May-94	May-10	(47,664)	(18,130)	(29,534)	(22,601)	(1,863)	(1,701)	(1,508)	(1,098)	(476)	(287)					
S.10368.6736 Grants - Phase IV	Communities	Nov-99	May-13	34,650	3,970	30,680	13,868	1,613	2,250	2,250	2,250	2,250	2,250	1,350	1,710	890		
S.10369.6737 Loans - Phase IV	Communities	Nov-99	May-13	42,350	4,859	37,491	16,943	1,971	2,750	2,750	2,750	2,750	2,750	1,650	2,090	1,087		
S.10370.6738 Repayment - Phase IV	Communities	Nov-00	May-15	(42,350)	(483)	(41,867)	(7,544)	(3,862)	(3,936)	(4,189)	(3,721)	(2,943)	(2,594)	(2,750)	(2,530)	(2,398)	(2,065)	(3,334)
S.10348.6609 Public Participation	Various	Feb-99	Jun-02	6	6	-												
S.10407.6925 Grants-Phase V	Communities	Aug-04	May-13	18,000		18,000		1,800	1,800	1,800	1,800	1,800	1,800	2,250	2,250	2,700		
S.10408.6926 Loans-Phase V	Communities	Aug-04	May-13	22,000		22,000		2,200	2,200	2,200	2,200	2,200	2,200	2,750	2,750	3,300		
S.10409.6927 Repayments-Phase V	Communities	Aug-05	May-18	(22,000)		(22,000)			(440)	(880)	(1,320)	(1,760)	(2,200)	(2,200)	(2,310)	(2,420)	(2,640)	(5,830)
S.138 Sewerage System Mapping Upgrade				284	211	73	73											
S.10307.6417 Contract 1-Base Maps	James W. Sewell Co.	Mar-99	Feb-01	67	67	-												
S.10308.6418 Contract 2-Existing Data	Applied Geographics, Inc.	Jun-99	Apr-04	177	104	73	73											
S.10360.6666 Quincy Data Sharing	City of Quincy	Jan-00	Dec-02	20	20	-												
S.10361.6667 Weymouth Data Sharing	Town of Weymouth	Jan-00	Jun-01	20	20	-												

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S.2 Waterworks System Improvements				2,045,494	1,275,630	769,864	118,456	83,428	68,193	92,658	78,386	66,936	84,511	66,712	47,045	44,025	18,299	1,215
S.16 Drinking Water Quality Improvements				605,016	386,254	218,762	63,658	30,086	20,734	14,252	5,500	3,760	20,722	17,471	8,775	15,633	12,699	5,473
S.642 Walnut Hill Water Treatment Plant				409,747	286,022	123,725	50,057	16,204	8,388	4,573	2,306	1,029	20,074	16,642	2,433	1,170	850	
S.53293.5023 Study 1	CH2M-Hill	Jan-88	Feb-89	444	444	-												
S.53294.5024 Study 2	CH2M-Hill	Jul-90	Mar-94	2,368	2,368	-												
S.53375.6182 AWWARF Study	Black & Veatch	Dec-96	Sep-03	692	558	135	135											
S.53376.6206 Emerg Dis Res Water Mgmt Study	Camp, Dresser & McKee, Inc.	Nov-98	Sep-02	1,477	1,477	-												
S.53367.6118 Crypto. Inactivation Study	SNWA	Feb-97	May-00	150	150	-												
S.53390.6365 Cosgrove Disinfection Ph II	Puma Corp.	Apr-98	May-99	2,169	2,169	-												
S.53391.6397 Cosgrove Disinfection Ph I	Ionics Corp.	Jul-97	Oct-97	150	150	-												
S.53393.6406 Immediate Disinf. MECO	MECO	Jul-97	Jul-97	10	10	-												
S.53392.6401 Distribution Water Consultant	Darrel B. Smith	Jul-97	Jun-98	3	3	-												
S.53304.5157 Permit Fees	DEP	Jul-93	Dec-05	59	42	17	8	8	1									
S.53300.5997 Technical Assistance	Various	Jan-88	Jun-00	72	72	-												
S.53296.5042 EIR/Conceptual Design	CDM	Nov-93	Jul-95	5,800	5,800	-												
S.53301.5017 Design/CS/RI - Wachusett WTP	CDM	Oct-96	Dec-05	49,159	40,311	8,848	3,700	3,700	1,448									
S.53377.6207 WHCP1 Wachusett Cosgrove Intakes	J.F. White Contracting Co.	Jun-00	Jun-03	15,372	15,008	363	363											
S.53412.5522 WHCP2 Interim Rehab. Wach. Aque.	United Gunite Const.	Dec-00	Oct-02	23,400	23,395	5	5											
S.53413.6488 WHCP3 Siterwork & Storage Tanks	Barletta Heavy Division Corp.	Mar-99	Nov-02	67,411	66,870	540	540											
S.53414.6489 WHCP4 Treatment Facility	Barletta-Shea JV	Dec-00	Feb-05	128,568	91,470	37,098	34,229	2,869										
S.53416.6491 WHCP6 Late Siterwork	TBS	Jul-04	Nov-05	3,176	3,176	-		2,196	980									
S.53426.6650 WHCP7 ICCF Modifications	TBS	Jul-05	Dec-06	5,000	-	5,000		3,500	1,500									
S.53371.6134 Design Management Support	Metcalc & Eddy	Apr-97	Apr-00	1,730	1,730	-												
S.53378.6208 Construction Management/RI	ICF Kaiser Engineers of Massachusetts	Aug-98	Jun-06	29,493	18,067	11,426	6,000	5,169	257									
S.53395.6433 Corrosion Control-Norumbega	TBS	Jul-06	Dec-08															
S.53396.6434 Corrosion Control Norumb. Construction	TBS	Jul-07	Dec-08	271		271				168	103							
S.53409.6431 Booster Disinfection Design	TBS	Jul-06	Dec-10	487		487				94	112	112	112	57				
S.53394.6432 Booster Disinfection Construction	TBS	Jul-08	Dec-10															
S.53406.6479 Cosgrove Disinf.-Fac. Underwater Imps.	Buffalo Industrial Diving Corp.	Jan-98	Jun-98	217	217	-												
S.53410.6485 Community Chlorine Analyzers	Rosemont	Apr-98	Jun-98	49	49	-												
S.53418.6494 OCIP	Kemper Insurance	Mar-99	Dec-04	5,652	4,792	861	736	125										
S.53419.6495 Professional Services	Various	Sep-98	Jun-03	2,712	2,607	105	90	15										
S.53420.6497 Marlboro MOA	City of Marlboro	Sep-98	Jun-04	5,845	5,816	29	29											
S.53421.6520 WHWTP- MECO	MECO	Sep-98	Dec-04	310	128	182	75	107										
S.53425.6613 Site Security Services	Burns International Security	May-99	May-05	1,219	783	436	220	216										
S.53427.6670 CSX Crossing	CSXT	Aug-01	Dec-01	65	65	-												
S.53428.6671 Wachusett Algae Design CS/RI	TBS	Sep-10	Dec-13	450	-	450												
S.53432.6691 Public Health Research	Boston Public Health Commission	Jul-00	Jun-07	2,800	698	2,102	380	500	500	600	122			93	137	170	50	
S.53435.6756 Security Equipment		Jun-00	Jun-00	571	571	-												
S.53436.6772 WHCP8 Cosgrove Screens Des		Feb-02	Mar-04															
S.53437.6773 WHCP8 Cosgrove Screens Con	Barletta Engr. Corp.	Aug-03	Aug-04	3,044		3,044	2,944	100										
S.53438.6774 Wachusett UV Treatment Facility Study		May-02	Mar-05															
S.53441.6778 Cosgrove Tunnel Inspection				-		-												
S.53443.6815 AWWARF-Evaluation Ozone & UV		Jul-01	Jan-04	303	200	103	103											
S.53444.6817 ComGas Pipeline																		
S.53445.6827 Fitout/Construction		Oct-03	Jul-07	1,250		1,250	500	450	175	100	25							
S.53448.6889 Wachusett Algae ...		Apr-12	Dec-13	1,800		1,800										1,000	800	
S.53449.6922 WH Ultra Violet Disinfect Study																		
S.53450.6923 WH Ultra Violet Disinfect Design		Dec-05	Jun-11	9,500		9,500			678	1,629	1,629	814	2,422	2,042	286			
S.53451.6924 WH Ultra Violet Disinfect Cons		Jul-09	Jun-11	34,000		34,000							17,540	14,450	2,010			
S.53452.6939 As needed Technical Assistance		Dec-04	Dec-07	1,500		1,500		250	500	500	250							
S.53453.6951 Design CA/RI WH CP7 ICCF		Jul-04	Dec-06	1,000		1,000		500	350	150								
S.643 Quabbin Water Treatment Plant				14,983	9,443	5,540	571	268	177	236	1,657	2,162	470					
S.53363.6043 Quabbin WTP Des/CA/RI	CH2M-Hill	May-95	Aug-01	3,823	3,823	-												
S.53382.6212 Construction	RH White Construction Co., Inc.	Nov-98	Sep-00	5,080	5,080	-												
S.53381.6211 Utilities	TBS	Aug-98	Sep-09	50	13	37					37							
S.53380.6210 Permit Fees	DEP	Jan-98	Sep-09	10	6	4	1	1	1	1	1							
S.53405.6468 CVA CT Facilities	TBS																	
S.53433.6706 Ware Fire Dept. MOA	MOA -MWRA and Town of Ware	Oct-99	Jul-00	25	25	-												
S.53434.6711 W Q Analysis Equipment	TBS	Jan-01	Jun-05	50	33	17	12	5										
S.53439.6775 Quabbin UVWTP: Des/CA/RI		Nov-05	Sep-09	823		823			176	235	156	206	50					
S.53440.6776 Quabbin UVWTP: Construction		Oct-07	Sep-09	3,839		3,839					1,463	1,956	420					
S.53442.6804 Quabbin UVWTP:Study/Pilot	CH2M Hill Inc.	May-02	Mar-05	1,283	463	820	558	262										

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S.544 Norumbega Covered Storage				107,261	89,274	17,987	12,746	3,246	808	723	13	450						
S.53297.5041 Conceptual Design/EIR	CDM	Sep-92	Oct-99	2,861	2,861	-												
S.53364.6057 Owners Representative	Malcolm Pirnie Inc.	Apr-98	Apr-05	5,003	3,417	1,586	911	675										
S.53383.6213 Design/Build	JF White/Slattery Skanska, Inc.	Nov-99	Oct-04	95,567	79,960	15,607	11,729	2,478	500	450		450						
S.53372.6145 Land	Various	Mar-97	Dec-97	3,000	3,000	-												
S.53365.6115 Appraisal	Various	Nov-95	Dec-97	17	17	-												
S.53403.6466 Permits	TBS	Jun-99	Dec-04	5	1	4	3	1										
S.53424.6606 Professional Services	Eco-Tech, Inc.	Sep-98	Jun-07	51	19	32	15	8	3	6								
S.53422.6529 Emergency Disinfection Design	TBS	Jul-06	Jan-09	221	-	221	88	84	43	6								
S.53423.6530 Emergency Disinfection Construction	TBS	Jan-08	Jan-09	536	-	536			262	261	13							
S.53430.6677 Water Quality Protection Fence	TBS																	
S.53431.6678 Communications Pilot Installation	TBS																	
S.53446.6837 Emergency Disinfection Constr																		
S.545 Blue Hills Covered Storage				32,533	1,281	31,252	284	10,368	10,961	8,265	1,374							
S.68025.6139 EIR/Preliminary Design/OR	Rizzo Assoc.	May-97	Jun-07	2,318	1,281	1,036	259	259	259	225	34							
S.53384.6214 DB Field Oversight	TBS	Jul-04	Jun-07	1,987		1,987		709	677	516	86							
S.53386.6216 Design Build	TBS	Jul-04	Jun-07	28,124		28,124		9,375	10,000	7,500	1,250							
S.53385.6215 DEP/Permit Compliance	Various	Apr-02	Jun-07	104		104	25	25	25	25	4							
S.546 Northern Intermed. High Covered Storage				6,425	6,425				200	175					400	259	350	5,041
S.53388.6218 Preliminary Design/EIR	TBS	Jan-12	Dec-13	659		659									400	259	350	5,041
S.53389.6219 Final Design/CA/RI	TBS	Jan-14	Dec-19	599		599											350	249
S.53387.6217 Construction	TBS	Jan-17	Dec-19	4,792		4,792												4,792
S.53454.6954 Northern Int High/Int High ...		Jul-05	Jul-06	375		375			200	175								
S.549 SEH Additional Storage				5,892	-	5,892			200	280	151	119	119	119	3,498	1,406		
S.53397.6452 Preliminary Plan/EIR	TBS	Jul-05	Dec-07	561		561			200	280	81							
S.53398.6453 Final Design/CS/RI	TBS	Jan-08	Dec-12	842		842					70	119	119	119	298	117		
S.53399.6454 Construction	TBS	Jul-11	Dec-12	4,489		4,489									3,200	1,289		
S.550 Low Service Storage Near Spot Pond				28,174	233	27,941							59	710	2,444	12,798	11,499	431
S.53400.6455 Env Rev	MWH Americas Inc	Apr-02	Feb-03	233	233	-												
S.53401.6456 Env Rev Con Des Owners Rep	TBS	Apr-10	Sep-14	2,500		2,500							46	556	556	556	556	231
S.53402.6457 Design/Build	TBS	Apr-12	Apr-14	24,811		24,811									1,734	12,088	10,789	200
S.53447.6868 Easement/Land Acquisition		Apr-10	Apr-14	630		630							13	154	154	154	154	

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S.17 Transmission				788,891	619,441	169,450	12,521	14,286	6,121	6,046	11,102	9,892	17,725	11,435	21,718	19,751	18,098	20,756
S.604 MetroWest Tunnel				677,360	614,065	63,296	10,113	4,166	992	4,690	10,427	4,245	9,476	9,044	4,403	4,019	1,721	
S.59794.5043 Study	Anderson Nichols	Jun-84	Oct-89	415	415	-												
S.59796.5048 Construction-Sudbury Pipe Bridge	D&C Construction	Nov-91	Jun-92	296	296	-												
S.59795.5044 Design/EIR - Tunnel/ESDC	Sverdrup	Apr-92	Sep-04	37,871	36,356	1,515	1,265	250										
S.59798.6054 West Tunnel Segment - CP1	MetroWest Tunnelers	Apr-97	Apr-03	148,506	142,345	6,161	2,875	3,286										
S.60013.6055 Midd.Tunnel Segment - CP2	Shea, Traylor, Healy	Jun-96	Apr-03	246,329	245,453	875	875											
S.60015.6059 Shaft 5A - CP3	LMAC LLC	Aug-97	Aug-98	5,872	5,872	-												
S.60040.6374 East Tunnel Segment-CP3A	Shea, Traylor, Healy	Nov-98	Sep-02	56,054	56,085	(31)	(31)											
S.60014.6056 MHD Salt Sheds - CP5	Boston Building & Bridge	Sep-96	Jun-97	1,314	1,314	-												
S.60031.6205 CP6B Hultman Int Mech/Struct Repairs	TBS	Jul-09	Dec-11	20,000		20,000							8,570	7,996	3,434			
S.60030.6204 Testing & Disinfection-CP7	Barletta Heavy Division	Jan-03	Oct-03	3,671	2,046	1,625	1,625											
S.60029.6203 Loring Road Storage Tanks CP-8	O'Connell/Barletta JV	Sep-97	Nov-00	41,368	41,368	-												
S.59799.5284 Const. Mgmt/Resident Inspect	Stone & Webster	May-95	Dec-03	39,413	37,919	1,494	1,294	200										
S.59806.5141 Hultman Study	Simpson Gumpertz & Heger	Apr-95	Mar-05	2,095	1,864	231	112	119										
S.60022.6128 Hultman Leak Repair	Green Environmental	Aug-96	May-97	307	307	-												
S.60026.6140 Hultman Repair Band	Various	Aug-96	Dec-96	28	28	-												
S.60042.6430 Hultman Investigation and Repair	Barletta Heavy Division, Inc.	Jun-99	Nov-00	1,604	1,604	-												
S.60043.6492 Hultman Repair Bands 98-99	Brico Industries	Apr-99	Jun-99	116	116	-												
S.59805.5139 Land Acquisition	Various	Oct-95	Jun-05	6,458	6,015	443	443											
S.59804.5976 Technical Assistance	Various	Jun-84	Jun-98	131	131	-												
S.60012.6037 DEP Permit Fees	DEP	Oct-94	Jun-02	50	45	5	5											
S.60020.6117 Prof. Services	Various	Nov-95	Dec-03	814	697	117	85	32										
S.60023.6129 Framingham MOU	Town of Framingham	May-96	Dec-03	2,646	2,539	107	107											
S.60039.6367 Weston MOA	Town of Weston	Apr-96	Oct-04	1,042	1,018	24	24											
S.60038.6366 Southboro MOA	Town of Southboro	May-97	Jun-03	336	319	17	17											
S.60053.6762 Wayland MOA	Wayland	Jun-00	Dec-02	115	35	80	80											
S.60017.6063 Local Sup Cont Des/CA/RI	Anderson Nichols	May-96	Oct-99	859	859	-												
S.60024.6130 Loc. Support Cont. Constr	TBS	Jun-97	Dec-03	4,167	4,142	25	25											
S.60025.6131 Loc. Sup Cont. Legal/Easement	TBS	Apr-97	Jun-02	82	9	73	17	20	10	10	5	5	6					
S.60018.6067 Community Technical Assistance	MAPC	Jun-95	Apr-99	297	297	-												
S.60021.6122 OCIP	Johnson, Higgins et al	Jun-96	Jun-05	24,515	24,305	210	210											
S.60054.6777 Des/CA/RI: Hultman Interconnect CP9		Jan-11	Dec-13	1,481		1,481								185	556	519	221	
S.60058.6856 Hultman Rehab CP9		Jul-12	Dec-13	5,000		5,000										3,500	1,500	
S.60059.6872 Interim Disinfection	RH White	Jan-03	Dec-04	1,307	263	1,044	985	59										
S.60066.6911 Design CA/RI CP6		Jul-05	Dec-11	7,500		7,500			982	1,408	1,971	963	900	863	413			
S.60072.6950 Valve Chamber Modifications		Apr-04	Sep-04	300		300	100	200										
S.60073.6975 CP-6A Hultman Inter ...		Jan-07	Dec-08	15,000		15,000				3,272	8,451	3,277						
S.601 Sluice Gate Rehabilitation				9,353	4,255	5,098	1,523	2,419	1,126	31								
S.59757.5255 Design/CS/RI	SEA	Aug-88	Jun-93	177	177	-												
S.59758.5256 Construction 1	Walsh Construction	Apr-91	Jul-93	1,529	1,529	-												
S.60034.6272 Design CS/RI 2	SEA Consultants	Apr-98	Sep-06	1,298	704	595	150	198	216	31								
S.59760.5258 Construction 2	R Zoppo Corp	Sep-03	Sep-05	4,494		4,494	1,363	2,221	910									
S.59761.5259 Constr-Stop Planks	Precise Fab	Dec-88	Jun-89	444	444	-												
S.60027.6158 Const-Sudbury Toe Drain Repair	MDC	Sep-96	Jun-97	1,400	1,400	-												
S.60049.6681 Public Participation	TBS	Jul-99	Sep-05	5	-	5	5											
S.60047.6564 Legal	TBS	Jul-99	Sep-05	5	-	5	5											
INHSE.PLKS Design-Stop Planks	In-House																	
S.614 Metropolitan Tunnel Loop				2,997	-	2,997	100	225	245	525	1,350	552						
S.60035.6273 Feasibility Study	TBS	Jan-05	Dec-06	245		245			175	70								
S.60050.6693 Tunnel Shaft Rehabilitation Project	TBS	Apr-09	Dec-10	2,165	-	2,165					400	1,250	515					
S.60052.6710 Design/CA/RI Shaft Rehab	TBS	Jun-07	Jun-10	487	-	487				50	175	125	100	37				
S.60067.6913 Field Investigations/Fac Plan		Sep-04	Feb-06	100		100												
S.615 Chicopee Valley Aqued. Redundancy				8,592	823	7,768	595	6,129	826	219								
S.60048.6597 Pipeline Redundancy Planning	In-House	Sep-98	May-99															
S.60045.6527 Pipeline Redundancy Des/CA/RI	Tighe & Bond	Apr-00	Dec-06	1,857	822	1,036	150	625	186	75								
S.60046.6528 Pipeline Redundancy Construction	TBS	Apr-04	Jun-06	5,845	-	5,845	250	5,000	500	95								
S.60051.6708 Route 21 Chamber Construction	TBS	Apr-04	Jun-06	739	-	739	150	425	125	39								
S.60060.6873 Town Fire Tanker Access		Apr-04	Jun-06	100		100	15	60	15	10								
S.60065.6908 Construction Easements		Apr-03	Apr-05	50	2	49	30	19										
S.597 Winsor Dam Hydroelectric				1,570	38	1,532									82	46	1,404	
S.60032.6276 Preliminary Permit Study & Licensing	TBS	Nov-97	Sep-11	120	38	82									82			
S.60033.6277 Detail Design	TBS	Jul-11	Mar-13	46		46										46		
S.60044.6526 Construction	TBS	May-13	Nov-13	1,404	-	1,404											1,404	

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S.616 Quabbin Transmission System																		
S.75491.6690 Phase 1 Oakdale Valves Const.	TBS	Jan-05	Jun-06	13,150	-	13,150	250	1,298	2,652	750	150	2,800	5,000	250				
S.60055.6828 Facilities Inspection		Sep-04	Jun-06	2,000	-	2,000		798	1,002	200								
S.75496.6831 Ph 1 Oakdale Valves Study/Des		Feb-04	Jun-06	1,050		1,050	250	400	550	100								
S.60068.6940 Ph2 Oakdale Valves Fac Des		Jul-05	May-08	500		500		100	100	50								
S.60069.6941 Ph2 Oakdale Valves Fac Constr		Dec-08	May-10	1,600		1,600			1,000	400	150	50						
				8,000		8,000						2,750	5,000	250				
S.617 Sudbury / Weston Aqueduct Repairs																		
S.75486.6617 Haz Material Sudbury Aqueduct	Weston & Sampson	Apr-99	Sep-03	40,086	260	39,826	40	175	300	111		997	1,197	1,197	16,184	12,437	6,723	465
S.60056.6838 Sudbury Aqueduct Inspection		Jan-05	Dec-06	300	260	40	40											
S.60057.6839 Weston Aqueduct Inspection		Jul-04	Jun-05	536		536		125	300	111								
S.60070.6947 Sudbury Aqueduct Design		Jul-08	Nov-14	50		50		50										
S.60071.6948 Sudbury Aqueduct Constr		Apr-11	Nov-13	6,400		6,400						997	1,197	1,197	948	798	798	465
				32,800		32,800									15,236	11,639	5,925	
S.618 Northern High NW Trans Sect 70-71																		
S.60061.6893 Construction		Mar-12	Nov-18	35,784		35,784						500	1,500	944	1,050	3,250	8,250	20,290
S.60062.6894 Design CA/RI		Mar-10	Nov-18	28,519		28,519									275	2,500	7,500	18,244
S.60063.6895 Planning		Mar-09	Mar-10	5,046		5,046							250	500	750	750	750	2,046
S.60064.6896 Easements		Jan-12	Jun-12	2,194		2,194						500	1,250	444				
				25		25									25			
S.18 Distribution And Pumping																		
				622,966	198,611	424,356	29,261	27,016	31,063	64,084	55,231	46,302	40,850	34,990	14,794	7,847	7,545	65,373
S.677 Valve Replacement																		
S.67559.5126 Construction 1	Umbro & Sons	Nov-95	Nov-96	14,269	5,666	8,603	1,417	2,082	1,251	1,501	329	895	1,000	129				
S.68012.6105 Construction 2	Zenone, Inc.	Nov-97	Jul-99	718	718	-												
S.68039.6278 Construction 3	J. Di' Amico, Inc	Feb-00	Aug-01	1,385	1,385	-												
S.68079.6345 Construction 4	J D'Amico Inc.	May-02	Oct-03	1,338	1,338	-												
S.68080.6346 Construction 5	TBS	Mar-04	Jun-05	1,540	1,440	100	100											
S.68126.6435 Construction 6	TBS	Mar-04	Jun-05	1,380		1,380	300	1,080										
S.68127.6436 Construction 7	TBS	Oct-05	May-07	1,879		1,879			750	1,000	129							
S.68005.6088 Equip. Purchase	Various	Oct-08	May-10	1,879		1,879						750	1,000	129				
S.67560.5124 Technical Assistance	Various	Oct-95	May-09	4,036	676	3,361	1,016	1,000	500	500	200	145						
INHSE.DES1 Design/Phase 1	In-House	Oct-95	May-09	105	105	-												
S.68239.6859 Permits		Jan-02	May-09	5	-	5	1	2	1	1	-	-						
S.68240.6860 Easements		Jan-02	May-09	5	5	-												
S.712 Cathodic Protection Of Distr.Mains																		
S.68002.6058 Planning Phase I	Contract Employee	Apr-95	Dec-97	1,651	141	1,510	150	220				300	380	380	80			
S.68128.6437 Test Station Installation 1	TBS	Mar-04	Dec-04	108	108	-												
S.68129.6438 Test Station Installation 2	TBS	Mar-04	Dec-04	370		370	150	220										
S.68130.6439 Test Station Installation 3	TBS	May-08	May-09	380		380						300	80					
S.68131.6440 Test Station Installation 4	TBS	May-09	May-10	380		380							300	80				
S.68132.6441 Test Station Installation 5	TBS	May-10	May-11	380		380								300	80			
S.68216.6751 Technical Assistance		Jan-00	May-09	33	33	-												
S.678 Boston Low Serv.-Pipe & Valve Rehab																		
S.67570.5120 Study - Pipe	Black & Veatch	Sep-84	Feb-91	23,830	23,328	502	428	74										
S.67571.5122 Design/CS	Black & Veatch	Jul-92	Nov-04	297	297	-												
S.67572.5123 Ph 1 Equip Prepurchase	Various	Feb-95	Dec-95	1,753	1,491	262	188	74										
S.68000.6045 Const Clinton Rd & Boylston St	J. D'Amico, Inc.	Apr-98	Jul-99	892	892	-												
S.67999.6044 Construction Beacon Street	P. Calliaco Corp.	Jun-00	Sep-03	7,933	7,933	-												
INHSE.PITS Test Pits	In-House			12,954	12,714	240	240											
INHSE.BEAC Design/CS - Beacon St.	In-House																	
S.68217.6769 Technical Assistance		Jun-00	Aug-03	1	1	-												

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S.730 Weston Aqueduct Supply Mains (WASMs)				105,924	42,833	63,091	8,460	6,196	999	770	820	3,220	8,420	5,669	1,868	520	520	25,629	
S.68027.6142 Design/CA/RI-PhA/W1&2	CDM	Jun-97	Sep-04	5,374	3,960	1,415	1,000	415											
S.67865.5147 Design/CA/RI - W4	CDM	Mar-95	Dec-04	6,160	5,421	739	600	139											
S.68041.6280 Newton WASM 1&2	Spiniello Companies	Mar-00	Jun-02	9,219	-	-	-	-											
S.68042.6281 Boston WASM 1&2	P Calliaco	Feb-03	Jul-05	7,487	258	7,229	3,250	3,750	229										
S.68166.6539 Design/CA/RI WASM3	TBS	Jan-06	Jul-18	8,398	-	8,398	-	-	750			800	1,700	1,250	750	750	500	500	648
S.68167.6540 Design/CA/RI-Phs B/3	TBS			-	-	-	-	-											
S.68168.6541 Design/CA/RI-Phs C/3	TBS			-	-	-	-	-											
S.68169.6542 Design/CA/RI-Phs D/3	TBS			-	-	-	-	-											
S.68170.6543 Waltham WASM 3-CP4	TBS	Jan-15	Jan-17	14,177	-	14,177	-	-										14,177	
S.68171.6544 Belmont WASM 3 - CP1	TBS	Jan-13	Jan-15	10,766	-	10,766	-	-										10,766	
S.68172.6545 Arlington WASM 3 - CP3	TBS	Jan-09	Jan-11	11,149	-	11,149	-	-				1,500	6,500	3,149					
S.68173.6546 Section 28, Arlington-CP2	TBS	Jan-11	Jan-13	3,498	-	3,498	-	-					650	1,750	1,098				
S.68031.6175 Auburndale WASM 1,2&4	W. Walsh Co., Inc.	Jun-97	Nov-98	4,001	4,001	-	-	-											
S.68069.6312 Newton WASM 2&4	W. Walsh Co., Inc.	Apr-98	Mar-01	8,282	8,282	-	-	-											
S.68070.6313 Allston WASM 4 & W. Ave. Sewer	R. Zoppo Corp.	Feb-02	Dec-04	16,061	10,799	5,262	3,500	1,762											
S.68032.6176 Construction Meter 103	TBS	Oct-96	Jul-98	61	61	-	-	-											
S.68071.6314 MDC Const-Bridge Crossing	TBS			-	-	-	-	-											
S.59774.5034 Construction Newton Water Mains	Walsh Construction	Apr-95	Oct-96	669	669	-	-	-											
S.59776.5975 Technical Assistance	Various	Mar-95	Dec-96	106	106	-	-	-											
S.68030.6174 Appraisal/Easement	TBS	Mar-95	Jan-14	305	57	249	10	20	20	20	20	20	20	20	20	20	20	39	
INHSE.DES2 Design 2	In-House																		
S.68245.6870 Boston Paving		Dec-01	Sep-04	210		210	100	110											
S.720 Warren Cottage Line Rehab				1,211	1,202	10	10												
S.68081.6285 Construction	Spiniello Companies	Sep-01	Dec-02	1,158	1,158	-	-	-											
S.68082.6286 Easements	TBS	Oct-99	Jan-03	10	-	10	10	-											
S.68195.6618 Technical Assistance	In-House	Mar-99	Jan-03	43	43	-	-	-											
INHSE.DESN Design	In-House																		
S.732 Walnut St. & Fisher Hill Pipeline Rehab.				6,675	-	6,675	5	10	7	1,757	2,173	1,505	754	465					
S.68189.6586 Construction Phs. 1	TBS	Jul-06	Dec-07	3,916	-	3,916	-	-	-	1,750	2,166	1,500	750	461					
S.68191.6588 Construction Phs. 2	TBS	Jul-09	May-11	2,711	-	2,711	-	-	-										
S.68220.6779 Utility Investigations		Jan-04	Jul-08	9		9	2	4	1	1	1	1							
S.68221.6780 Easements		Oct-04	May-11	30		30	2	4	4	4	4	4	4	4					
S.68222.6781 Borings		Jan-04	Jul-08	9		9	1	2	2	2	2	2							
S.683 Heath Hill Road Pipe Replacement				17,985	9,487	8,498	68	421	354	3,983	3,001	587	84						
S.67639.5192 Design/CS/RI-Sec 52 Ph 1	Black & Veatch	May-89	Apr-92	170	170	-	-	-											
S.68047.6288 Design Sec 52 Ph 2	TBS	Sep-02	Jun-09	2,408	585	1,823	50	406	347	486	294	160	80						
S.67645.6042 Const-Sect 52 New	Albanese Brothers	Apr-96	Jun-97	745	745	-	-	-											
S.67642.5194 Construction Section 52 Rehab	TBS	Jun-06	Jun-08	6,617		6,617				3,494	2,700	423							
S.67640.5206 Design/CS/RI - Sec 58.20	Weston Sampson	Jan-91	Jan-01	1,592	1,588	4	4												
S.67643.5102 Construction Sect 58.20,19	P. Calliaco	Jun-97	Nov-99	6,373	6,362	11	11												
S.67644.5985 Technical Assistance	Various	May-89	Jun-08	19	19	-	-	-											
S.68008.6100 Legal/Easements-New	Various	Jan-95	Dec-95	17	17	-	-	-											
S.68048.6289 Legal/Easements Rehab	TBS	Mar-02	Jun-08	21	1	20	2	13	3	1	1								
S.68201.6648 Public Participation	TBS	Mar-02	Jun-08	5	-	5			1	2	1	1							
S.68202.6649 Legal	TBS	Mar-02	Jun-08	5	-	5			1	2	1	1							
S.68241.6862 Boston Paving		Dec-05	Jun-09	12		12						4	4						
S.721 Southern Spine Distribution Mains				60,492	3,197	57,294	2,921	5,564	781	5,938	8,781	7,685	6,809	7,891	3,411	49		7,464	
S.68083.6290 Sec 21.43.22 Design	Black & Veatch	Sep-00	Jan-12	7,776	2,786	4,990	657	768	781	815	543	493	441	432	39	21			
S.68084.6291 Sec 21.43.22 Easements	TBS	Mar-02	Feb-09	145		145												145	
S.68085.6292 Section 22 South Construction	J Fletcher Creamer & Son	Jul-03	Nov-04	4,076		4,076	1,120	2,956											
S.68086.6293 Sec 19 Design	TBS	Jul-09	Nov-14	1,415	-	1,415	-	-										572	
S.68087.6294 Sec 19 Easements	TBS	Mar-11	Feb-12	25		25							263	290	290				
S.68088.6295 Sec 19 Construction	TBS	Mar-12	Nov-13	6,673		6,673								14	11				
S.68089.6296 Sec 20 & 58 Design	TBS	Jan-07	May-12	1,803		1,803			85		338	337	458	459	98	28		6,673	
S.68090.6297 Sec 20 & 58 Easements	TBS	Sep-08	Aug-09	39		39					30	9							
S.68091.6298 Sec 20 & 58 Construction	TBS	Sep-09	May-11	8,486		8,486							3,271	4,320	895				
S.68122.6396 Adams Street Bridge	MBTA	Jul-98	Dec-99	154	154	-	-	-											
S.68193.6601 Southern High Public Part	Francis Mara Associates	Oct-98	May-99	15	15	-	-	-											
S.68194.6602 Southern High Ext Study	SEA Consultants	Sep-98	May-99	284	242	42	42												
S.68228.6787 Boston Paving		Jul-03	Nov-13	219		219			73		73							73	
S.68235.6844 Section 22 North Construction		Feb-09	Jan-11	7,918		7,918						1,088	2,376	2,376	2,078				
S.68236.6845 Sections 21&43 Construction		Aug-06	Dec-08	18,593		18,593			5,038	7,797	5,758								
S.68237.6846 Legal																			
S.68238.6847 Public Participation																			
S.68246.6871 MHD Neponset River Bridge		Sep-02	Sep-04	136		136		136											
S.68247.6885 Contract 1A Construction	P Calliaco Corp.	Dec-03	Nov-04	2,733		2,733	1,102	1,631											

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S.714 South Extra High Sects 41,42 & 74				4,545	2,559	1,986	1,795	191										
S.68014.6107 Design/CA/RI	SEA	Apr-97	Oct-04	1,591	705	886	750	136										
S.68049.6299 Easements	TBS	Apr-97	Jun-03	77	46	31	31											
S.68050.6300 Construction	Paolini Corp.	Dec-00	Sep-03	2,412	1,808	604	604											
S.68183.6561 Boston Paving	City of Boston	Sep-98	Oct-02	455	-	455	400	55										
S.68184.6562 Public Participation	TBS	Jul-99	Oct-02	5	-	5	5											
S.68185.6563 Legal	TBS	Jul-99	Oct-02	5	-	5	5											
S.727 Southern Extra High Redundancy Loop				19,463	-	19,463						800	800	800	800	2,217	3,000	11,045
S.68135.6444 Planning/Design	TBS	Jul-08	Jul-12	3,417	-	3,417						800	800	800	800	217		
S.68136.6445 Construction	TBS	Dec-12	Mar-16	16,045	-	16,045										2,000	3,000	11,045
S.719 Chestnut Hill Connecting Mains				29,630	15,738	13,892	1,764	1,076	87	6,948	3,843	175						
S.68026.6141 Des/CA/RI PS Potable Connection	Fay, Spofford, & Thorndike	Mar-00	Dec-04	1,403	1,064	339	275	64										
S.68051.6301 Final Design CA/RI Final Pipe Con	TBS	Jan-04	Mar-09	2,000	-	2,000	250	900			400	275	175					
S.68157.6503 Design/CA/RI - Emer. Pump Relocation	Fay, Spofford & Thorndike	May-98	May-01	1,096	1,096	-												
S.68052.6302 Const. - Final Pipe Conn Chp 149	TBS	Jun-06	Jun-08	5,033	-	5,033					3,250	1,783						
S.68155.6501 Const. - Emer. Pump Relocation	P. Gioioso & Sons, Inc.	Feb-99	Mar-01	6,502	6,502	-												
S.68053.6303 Easements	TBS	Apr-03	Dec-07	119	81	38	10	10	10	8								
S.68180.6558 Boston Paving	TBS	Jul-99	Dec-07	313	-	313	100	100	75	38								
S.68181.6559 Public Participation	TBS	Jul-99	Jun-08	5	-	5	1	1	1	1	1							
S.68182.6560 Legal	TBS	Jul-99	Jun-08	5	1	4	1	1	1	1	1							
S.68199.6623 BECO Emergency Pump Construction	TBS	Sep-99	Jun-00	431	431	-												
S.68203.6651 Const. - Pump Station Potable Connection	R. Zoppo Corp.	Apr-02	Dec-03	7,371	6,295	1,077	1,077											
S.68218.6770 Shaft 7 & Meter 120 Des/CA/RI		Dec-01	Dec-03															
S.68230.6814 Equipment pre-purchase		Apr-01	Oct-01	178	154	24	24											
S.68231.6820 Demolition of Garages		Feb-02	May-02	72	72	-												
S.68244.6869 Utilities		Jun-02	Aug-02	70	44	26	26											
S.68267.6982 Const-Final Pipe Conn Chp 30	TBS	Jun-06	Jun-08	5,033	-	5,033					3,250	1,783						
S.704 Rehab of Other Pumping Stations				22,136	3,675	18,461	245	1,730	6,202	5,364	3,924	989	7					
S.67885.5153 Preliminary Design	Fay, Spofford & Thorndike	Aug-94	Mar-96	351	351	-												
S.68017.6110 Design/CS/RI	Black & Veatch	May-97	Jan-04	2,772	2,527	245	245											
S.68072.6304 Construction II&C	Ewing Electrical Co.	Jan-00	Feb-01	639	639	-												
S.68102.6375 Rehab of 5 Pump Stations	TBS	Aug-06	Sep-09	13,579	-	13,579			4,873	4,527	3,343	836						
S.68178.6556 Public Participation	TBS	Jul-99	Sep-09	5	-	5			1	1	1	1	1					
S.68179.6557 Legal	TBS	Jul-99	Sep-09	5	-	5			1	1	1	1	1					
S.68204.6676 Proprietary Equipment Purchases	TBS	Jun-99	Sep-09	285	158	127				85	25	12	5					
S.68266.6980 Design 2 CS/RI		Jul-04	Sep-10	4,500	-	4,500		1,730	1,327	750	554	139						
S.722 Bear Hill Improvements Sec 29				3,370	-	3,370						7	2,020	1,344				
S.68092.6305 Construction	TBS	Mar-09	Nov-09	1,628	-	1,628						977	651					
S.68093.6306 Easements	TBS	Mar-08	Nov-09	11	-	11						7	4					
INHSE.DSCS Design/CS/RI	In-House																	
S.68252.6906 Section 29A Pipeline		Mar-09	Nov-09	1,731	-	1,731						1,039	692					
S.689 James L. Gillis Pump Station Rehab.				34,285	33,109	1,176	382	60	75	659								
S.67701.5249 Pump	General Electric	Aug-86	Aug-86	70	70	-												
S.67702.5076 Electrical Upgrade	Richardson	May-84	Sep-87	200	200	-												
S.67709.5074 Construction Diesel Exhaust	P.J. Kennedy	Apr-88	Dec-88	60	60	-												
S.67703.5077 Design/CS-Pump Station	Fay, Spofford & Thorndike	Feb-88	Jun-99	2,308	2,308	-												
S.67707.5078 Construction-PS-Phase 1	WES Construction	May-90	Jul-91	630	630	-												
S.67708.5051 Const-P.S.-Ph2	Barletta Engineering Corp.	May-95	Dec-98	12,911	12,890	21	21											
S.67998.6038 Hydraulic Transient Analysis	Beta Engineering	Apr-95	Sep-95	61	61	-												
S.67716.5047 Oil Control Plan	P.R. Johnson	Aug-92	Dec-92	171	171	-												
S.67717.5050 Drain Line Cleaning	H.L. Smith, Inc.	Nov-92	Jan-93	288	288	-												
S.67704.5072 Design/CS/RI-Suction Pipe	Weston Sampson	Jul-90	Apr-01	1,364	1,348	16	16											
S.67705.5071 Study-Suction Pipe	Weston Sampson	Nov-89	Nov-90	603	603	-												
S.67706.5073 Construction-Suction Pipe	Gioioso and Sons	Oct-95	Nov-97	11,265	11,265	-												
S.68054.6307 Construction-Tudor Barn	MDC	Oct-98	Dec-99	88	88	-												
S.68105.6378 Woodland Road Pavement Improvements	Various	Aug-99	Jun-04	546	396	150	150											
S.67994.6030 Pavement Highland Ave	City of Malden	Oct-94	Nov-94	86	86	-												
S.67720.5219 Constr-Rehab Discharge	P. Caliacco Corp	May-02	Nov-03	2,041	1,908	133	133											
S.67719.5144 Construction Sewer P.S.	Barletta Engineering Corp.	May-96	Dec-96	205	203	2	2											
S.67714.5983 Technical Assistance	Various	May-84	Dec-95	163	163	-												
S.67718.5053 Environ Assess & Remedial Plan	Stone & Webster	Oct-94	Sep-07	634	383	251	60	60	75	56								
S.68055.6308 Remedial Action Plan	TBS	Feb-07	Apr-07	600	-	600					600							
S.67991.6027 DEP Review Fees	DEP	Jul-94	Sep-07	10	7	3					3							
INHSE.DIES Design-Diesel Exhaust	In-House																	
INHSE.DISC Design-Rehabilitation Discharg	In-House																	
INHSE.SEWR Design-Sewer	In-House																	

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S.713 Spot Pond Supply Mains - Rehab																	
S.68038.6223 Prelim Design & Design/CA/RI	Montgomery Watson	Sep-98	Jun-09	89,662	24,088	65,574	9,302	6,960	11,224	9,460	14,115	9,706	4,657	150			
S.68059.6316 Easements/Paving CP1	TBS	May-00	Mar-02	179	143	36	36										
S.68106.6379 Easements CP2	TBS	May-02	Jun-06	128	16	112	50	60	2								
S.68107.6380 Easements CP3	TBS	Apr-04	Nov-07	68		68	5	40	10	13							
S.68151.6476 Easements CP4	TBS	Sep-06	May-09	1	1	-											
S.68060.6317 North (Medford/Melrose)	Spiniello Companies	May-00	Jan-02	6,599	6,597	2	2										
S.68108.6381 Middle (Medford/Somerville)	P. GIOISO & SONS, INC.	May-02	Jun-06	20,988	7,006	13,982	8,000	4,000	1,500	482							
S.68109.6382 South (Cambridge/Boston)	TBS	Mar-05	Nov-08	15,879		15,879		500	5,000	5,000	3,500	1,879					
S.68150.6475 Early Valve Replacement Contract	P. Calliaco Corp.	Sep-98	Jan-00	2,397	2,387	10	10										
S.68209.6697 Construction 4-Trusses	TBS	Mar-05	Jun-06	797	-	797		150	647								
S.68153.6483 Early Valve Equip. Purchase	Easton Winwater	May-98	Nov-01	161	161	-											
S.68223.6782 Construction CP-5 Sec 66 & OMM30		Apr-06	Apr-09	6,616		6,616		2,500	1,750	1,500	866						
S.68224.6783 Plan/Design Sec 66 & OMM30"		Oct-04	Dec-09	1,323		1,323		600	300	150	100	100	73				
S.68225.6784 Easements CP-5		Jan-06	Dec-08	66		66		10	15	15	11						
S.68226.6785 Sewer Design/CA/RI & Sect 57 Des		Oct-05	Dec-10	3,620		3,620			500	800	1,000	850	420	50			
S.68227.6786 Riverside Ave Sewer Repair & Sect 57		Apr-07	Apr-10	17,825		17,825			750	7,500	5,500	3,975	100				
S.723 Nor Low Service Rehab Secs. 8																	
S.68094.6321 Sec 8 Easements	TBS	Jun-07	Nov-09	37		37				15	2,518	4,504	3,440	1,200			
S.68095.6322 Sec 8 Construction	TBS	Jul-08	Nov-09	8,440		8,440				-	2,500	4,500	1,440				
INHSE.DES8 Design Section 8	In-House																
INHSE.SC57 Design Section 57	In-House																
S.68262.6962 Rehab Sects 37,38 Chel/EB Con		Oct-10	Nov-11	3,200		3,200							2,000	1,200			
S.68263.6977 Survey		Jul-07	Apr-09														
S.68264.6979 Technical Assistance		Jul-07	Apr-09														
S.702 New Connecting Mains - Shaft 7 to ...																	
S.68035.6199 Watertown MOU	Town of Watertown	Jun-94	Sep-97	167	167	-											
S.67846.5163 Routing Study	Weston & Sampson	Aug-94	Nov-96	397		397											
S.68110.6383 Design/CA/RI DP1	Weston & Sampson	Sep-98	Dec-08	5,310	2,289	3,021	1,100	1,000	375	275	200	71					
S.68118.6391 North Segment (CP1A) Pipe	TBS	Jan-06	Jan-09	21,187		21,187			3,500	9,500	4,500	3,250	437				
S.68114.6387 Easements CP1 A&B	TBS	Feb-03	Apr-04	82	-	82	-	82									
S.68111.6384 Des/CA/RI DP2/4 Meter 120	Parsons Brickerhoff Quade	Aug-02	Jul-08	2,943	196	2,746	500	1,000	550	300	250	146					
S.68174.6548 Constr CP2 C&L Sec 59&60	TBS	Jun-06	Apr-08	2,691	-	2,691			-	1,250	750	691					
S.68175.6547 Easements CP2	TBS	May-04	Dec-04	38	-	38	-	5	33								
S.68119.6392 South Segment (CP3)	TBS	Jun-06	Nov-07	4,501		4,501			2,750	1,751							
S.68115.6388 Easements CP3	TBS	Mar-05	Oct-05	57		57		15	42								
S.68112.6385 Design/CA/RI DP3	TBS																
S.68120.6393 West Segment (CP4)	TBS	Jun-08	Oct-10	11,841		11,841					5,000	3,750	3,091				
S.68116.6389 Easements CP4	TBS	Mar-07	Oct-07	66		66			15	51							
S.68113.6386 Design/CA/RI (DP3)	TBS	Jun-06	Nov-12	2,368		2,368				575	700	500	275	150	100	68	
S.68121.6394 Northeast Segment (CP5)	TBS	Jun-06	Nov-07	5,186		5,186			3,750	1,436							
S.68117.6390 Easements CP5	TBS	Mar-05	Oct-05	42		42		15	27								
S.68242.6863 Belmont & Watertown MOA		Sep-02	Apr-06	-		-											
S.68243.6864 N.Segment (CP1B) River ...		Jan-07	Oct-08	9,460		9,460		4,750	2,750	1,960							
S.68255.6955 Repl of Sect 25-Design CA/RI		Jul-09	Nov-12	400		400						150	150	75	25		
S.68256.6956 Repl of Sect 25-Construction		Jul-11	Nov-12	2,100		2,100								1,750	350		
S.706 NHS - Con. Mains from Sec. 91																	
S.67930.5165 Design/CA/RI	SEA	Jun-95	Oct-01	1,088	680	408	408										
S.68076.6331 Easements	TBS	Sep-99	Oct-01	46		46	46										
S.68077.6332 Construction	Dow Co Inc	Nov-00	Jun-02	1,631	1,721	(90)	(90)										
S.692 NHS - Section 27 Improvements																	
S.67769.6333 Construction Sect 27	TBS	Sep-10	Mar-12	2,205	27	2,179	5				5	5	1,755	437			
S.68192.6589 Easements	TBS	Apr-09	Mar-12	23	-	23					5	5	5	8			
S.68211.6712 Technical Assistance	TBS	Oct-99	Mar-12	64	60	5	5										
S.68229.6809 Surveying		Jun-01	Dec-01	37	37	-											

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							FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14			
S.693 NHS - Revere & Malden Pipeline Impr																				
S.67780.5185	Design/CS/RI-Revere/Malden	Black & Veatch	May-88	Sep-94	32,565	23,854	8,712	19	6	8	2,007	1,243	3,250	1,729	450					
S.67781.5186	Constr-Revere Beach	Gioioso & Sons	Aug-92	Oct-94	1,786	1,786	-													
S.67782.5176	Constr-Malden Sect 53	Albanese Bros.	Apr-92	Sep-94	6,328	6,314	13	13												
S.68020.6113	Landscaping Malden Section 53	City of Malden	Apr-96	Jun-96	10,026	10,026	-													
S.67792.5238	Construction - Linden Square	DPW	Apr-91	Nov-91	20	20	-													
S.67793.5239	Construction Admin.-Linden Squar	Fay, Spofford & Thomdike	Apr-91	Nov-91	1,849	1,849	-													
S.67784.5177	Constr-Revere Sect 53	TBS	Jul-06	Sep-07	125	125	-													
S.68078.6334	Easements Revere 53	TBS	Sep-02	Dec-06	3,243	3,243	-					2,000	1,243							
S.67996.6033	Des/CA/RI-Rd Restoration	Greeman Pedersen, Inc.	Nov-94	Dec-95	27	27	-	6	6	8	7									
S.67997.6034	Construction Road Restoration	Albanese Bros.	Jul-95	Jun-96	77	77	-													
S.68033.6183	Sidewalk Restoration	City of Malden	Sep-96	Oct-96	1,714	1,714	-													
S.67785.5191	Constr-Control Valves	DER	Jun-88	Aug-89	54	54	-													
S.67786.5179	Const.-DI Pipeline C&L	Spinelli	Jun-90	Sep-90	949	949	-													
S.67787.5178	Constr-Win C&L	Spinelli	Jun-90	Aug-90	158	158	-													
S.67790.6335	Constr 68 & 53A	TBS	Jun-08	Nov-09	575	575	-													
S.67791.5986	Technical Assistance	Various	Jul-06	Apr-08	4,229	4,229	-					3,250	979							
INHSE.SC53	Design-Revere Section 53	In-House			206	206	-													
INHSE.VALV	Design-Control Valves	In-House					-													
INHSE.PIPE	Design-DI Pipe Cleaning and Li	In-House					-													
INHSE.DE53	Design/CS/RI -53A & 68	In-House					-													
INHSE.WINT	Design-Winthrop Cleaning and L	In-House					-													
S.68257.6957	Shaft 9A-D Ext Design CA/RI				-	-	-													
S.68258.6958	Shaft 9A-D Ext Construction		Apr-09	Nov-10	1,200	1,200	-						750	450						
S.68265.6978	Survey		Jul-06	Apr-08			-													
S.724 Nor High Service - Pipeline Rehab																				
S.68098.6336	Design/CA/RI	TBS	May-07	Nov-11	16,287	16,287	-				736	788	2,841	7,868	4,055					
S.68099.6337	Appraisal/Easement	TBS	Jul-08	Jul-09	2,828	2,828	-				736	788	788	263	253					
S.68100.6338	Construction	TBS	Feb-10	Nov-11	151	151	-						151							
					13,309	13,309	-						1,902	7,605	3,802					
S.733 NHS Pipeline Rehab 13-18 & 48																				
S.68212.6717	Planning/EIR				26,364	-	26,364					46	1,149	1,272	1,019	3,868	3,025	15,984		
S.68213.6718	Design/CA/RI	TBS	Nov-09	Apr-11	2,055	-	2,055						966	1,089						
S.68214.6719	Construction	TBS	Apr-12	Nov-16	2,854	-	2,854								106	841	841	1,066		
S.68259.6959	Rehab of Sect 33,49,49A,Des		Jan-15	Nov-16	13,454	-	13,454											13,454		
S.68260.6960	Rehab of Sect 33,49,49A, Const		Apr-09	Nov-16	1,400	-	1,400					46	183	183	253	387	210	138		
			Jan-12	Nov-15	6,600	-	6,600							660	2,640	1,974	1,326			
S.731 Lynnfield Pipeline																				
INHSE.DELP	Design	In-House			4,000	-	4,000		100	350	2,200	1,200	150							
S.68187.6584	Construction	TBS	Sep-06	Nov-07	-	-	-													
S.68196.6619	Easem/Legal/License/Permits	TBS	Apr-05	Apr-06	3,000	-	3,000					2,000	1,000							
S.68251.6905	Design CA/RI	TBS	Apr-05	Jul-08	200	-	200		50	150										
					800	-	800		50	200	200	200	150							
S.708 Nor Extra High Serv - New Pipelines																				
S.67970.5242	Design/CA/RI	Anderson Nichols	Sep-94	Jun-01	8,234	3,564	4,671	305	6	6	6	6	1,256	1,755	1,330					
S.67971.6339	Appraisal-Easement	TBS	Sep-94	Jun-01	787	519	268	268												
S.67972.6340	Construction	D & C Construction Co., Inc.	Aug-99	Sep-01	22	-	22	22												
INHSE.SC34	Design Sec 34-36-45	In-House			3,032	3,032	-													
S.68162.6522	Construction-Sections 34,36,45	TBS	Jan-09	Nov-10	-	-	-						1,250	1,750	1,325					
S.68010.6099	Regulatory Compliance	TBS	Nov-95	Oct-00	-	-	-													
S.68208.6692	Section 83 Drop Hole Repairs	TBS	Mar-04	Nov-04	-	-	-													
S.68176.6554	Public Participation	TBS	Jul-99	Dec-00	5	-	5	5												
S.68177.6555	Legal	TBS	Jul-99	Dec-00	5	-	5	5												
S.68210.6707	Technical Assistance	TBS	Mar-04	Nov-10	54	8	46	6	6	6	6	6	6	5	5					
S.68215.6749	PLC Equipment Purchases		Dec-99	Dec-00	4	4	-													
S.725 Hydraulic Model Update																				
S.68101.6342	Hydraulic Model Update	Camp, Dresser & McKee, Inc.	Jun-99	Dec-02	688	598	90	22	68											
S.68165.6531	Model Enhancement Support Services	TBS	Jul-00	Jun-05	565	563	2	2												
					123	35	88	20	68											
S.734 SEH Pipelines-Sections 30,40,44,39																				
S.68232.6834	Planning		Jan-11	May-12	7,000	7,000	-									750	1,000	5,250		
S.68233.6835	Design		Jun-12	Dec-13	1,000	1,000	-										750	250		
S.68234.6836	Construction		Jan-14	Jan-17	6,000	6,000	-											750		
							-											5,250		
S.735 Section 80 Rehabilitation																				
S.68248.6890	Water Supply Contingency ...		May-06	Sep-08	7,094	7,094	-		135	442	2,326	3,441	750							
S.68249.6891	Section 80 Construction		Nov-06	Sep-08	1,000	1,000	-			69	414	414	103							
S.68250.6892	Section 80 Design CS/RI		Jan-05	Dec-08	5,078	5,078	-				1,740	2,753	585							
					1,016	1,016	-		135	373	172	274	62							

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S.19 Other				28,620	71,325	(42,704)	13,017	12,041	10,276	8,276	6,552	6,982	5,214	2,816	1,758	794	(20,043)	(90,387)
S.753 Central Monitoring System				16,199	14,858	1,341	734	158	80	80	140	125	24					
S.75300.5025 Study	O'Brien & Gere	Mar-84	Sep-86	190	190	-												
S.75301.5026 Design	EMA	Oct-87	Jan-92	2,651	2,651	-												
S.75304.5160 Communications Structures	ESCOA	Nov-92	May-93	161	161	-												
S.75305.5173 CS/Start Up Services	SEA	Jul-92	Aug-98	352	352	-												
S.75302.5027 Equipment Prepurchase	Various	Oct-87	Dec-93	2,162	2,162	-												
S.75306.5171 Construction 1	TBS	Nov-97	Nov-98	209	209	-												
S.75303.5028 SCADA Implementation	Various	Aug-96	Jun-09	2,201	1,605	596	62	85	80	80	140	125	24					
S.75474.6125 Microwave Equipment	Various	Mar-96	Dec-01	782	782	-												
S.75308.5849 Operations Center Construction	Mello Construction	Sep-92	Jun-94	1,499	1,499	-												
S.75309.5987 Technical Assistance	Various	Jul-92	Dec-97	386	386	-												
S.75310.5218 Utility Installation	TBS																	
S.75487.6652 Permits Monitoring & Control Comm Net	TBS	Dec-99	Dec-03	100	-	100	100											
S.75488.6653 Microwave Comm System-Wide Backbone	New England Digital Distribution, Inc.	Sep-01	Jun-02	1,694	1,694	-												
S.75489.6654 Study & Design Monitoring & Control	EMA Services Inc.	Dec-99	Jun-04	1,858	1,505	353	280	73										
INHSE_OPER Design - Operations Center	In-House																	
S.75494.6816 Microwave Comm for Waterworks Facil	NE Digital Dist Inc.	Sep-02	Mar-04	1,913	1,621	292	292											
S.75495.6825 Ludlow Communications		Sep-01	Oct-01	41	41	-												
S.763 Distribution Systems Facs. Mapping				2,116	1,030	1,086			434	434	218							
S.75458.5162 Planning Design	CDM	Feb-95	Dec-98	930	930	-												
S.75476.6152 Data Purchase	Boston Edison	Nov-95	Aug-96	100	100	-												
S.75484.6525 Records Development	TBS	Jul-05	Dec-07	1,086	-	1,086			434	434	218							
S.764 Local Water Infrastr Rehab Ast Progr				7,488	9,892	(2,404)	(2,404)											
S.75477.6343 Loans	Waterworks Communities	Aug-97	Jun-99	22,304	22,304	-												
S.75478.6344 Loan Repayment	Waterworks Communities	Aug-98	Jun-04	(22,304)	(19,900)	(2,404)	(2,404)											
S.75479.6408 Grants	Waterworks Communities	Aug-97	Jun-99	7,488	7,488	-												
S.765 Local Water Pipeline Imp. Loan Program				-	45,545	(45,545)	14,506	11,761	9,761	7,761	5,761	6,261	4,261	2,261	1,758	794	(20,043)	(90,387)
S.75485.6606 Community Loans	Waterworks Communities	Aug-00	Aug-11	250,320	49,891	200,429	20,000	18,750	18,750	18,750	18,750	21,250	21,250	21,250	21,250	20,429		
S.75493.6759 Community Repayment		Aug-01	Aug-21	(250,320)	(4,346)	(245,974)	(5,494)	(6,989)	(6,989)	(10,989)	(12,989)	(14,989)	(16,989)	(18,989)	(19,492)	(19,635)	(20,043)	(90,387)
S.766 Waterworks Facility Asset Protection				2,818	-	2,818	181	122	1	1	433	596	929	555				
S.75490.6689 Meter Vault Manhole Retrofits	TBS	Sep-07	Jun-10	1,213	-	1,213					383	496	300	34				
S.75497.6832 Design-Walnut Hill Tank		Sep-07	Oct-09	300		300					50	100	104	46				
S.75498.6833 Construction-Walnut Hill Tank		Oct-09	Mar-11	1,000		1,000							525	475				
S.75500.6888 Lab Southboro Replace Roof		Feb-07	Feb-09															
S.75501.6910 Waltham Pipe/Bridge Repl		Feb-04	Aug-04	300		300	180	120										
S.75502.6920 Permits/Legal Fees				5		5	1	2	1	1								
S.75503.6921 Technical Assistance																		
S.75504.6943 As Needed Design																		

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S.3 Business & Operations Support				64,531	30,601	33,930	6,999	12,298	7,826	3,867	1,190	1,673	29	47				
S.933 Capital Maintenance Planning/Development				6,366	2,173	4,193	134	747	1,343	1,375	594							
S.19175.6421 Inventory & Evaluation-1&2	New Dimensions	Apr-00	Jul-05	2,616	2,173	443	134	247	62									
S.19192.6593 Facilities Asset Mgmt Phase 3	TBS	Jul-05	Jul-07	750	-	750			281	375	94							
S.92387.6976 As needed Design/TA		Dec-04	Dec-07	3,000		3,000		500	1,000	500								
S.881 Equipment Purchase				13,895	758	13,137	4,345	6,966	1,826									
S.92367.6732 TV Inspection Truck	TBS	Jul-00	Mar-01	175	175	-												
S.92374.6760 Security Equip & Installation		Jan-01	Dec-02	12,000	233	11,767	3,675	6,516	1,576									
S.92379.6808 ICP-MS Lab Testing Equip		Jan-02	Mar-02	150		150	150											
S.92381.6866 Back Hoe		Apr-03	Jun-04	130	130	-												
S.92382.6867 Vactor Truck		Apr-03	Jun-03	220	220	-												
S.92383.6907 Water Service Truck		Apr-04	Jun-04	120		120	120											
S.92384.6944 Bucket Machine		Jul-04	Sep-04	200		200		200										
S.92385.6945 Excavator		Apr-06	Jun-06	250		250			250									
S.92386.6946 Grove Crane		Jul-04	Sep-04	250		250		250										
S.92388.6981 Land Fill Loader		Apr-04	Jun-04	280		280	280											
S.92392.6986 PowerSweeper/Catch Basin		Apr-04	Jun-04	120		120	120											
S.930 MWRA Facility - Chelsea				10,172	8,552	1,620	1,169	451										
S.92321.5052 Planning	Various	Jan-95	Jun-97	30	30	-												
S.92320.5886 Conceptual Design	Archetype	Sep-97	Dec-98	49	49	-												
S.92360.6603 Negotiating Support	Meredith & Grew	Jul-98	Dec-98	-	-	-												
S.92354.6510 Design Review	STV Inc.	Sep-99	Feb-02	339	330	9	9											
S.92355.6511 Fitout - Office Furnish/Equip	TBS	Feb-01	Dec-01	642	626	16	16											
S.92356.6512 Inform./Telecom. Consultant	AverStar	Aug-00	Jun-01	382	382	-												
S.92357.6513 Existing Facility "Button Up"	RM Technologies Inc	Dec-01	Jun-02	380	373	7	7											
S.92358.6514 Moving Expense	TBS	Dec-01	Jan-02	378	355	24	24											
S.92362.6624 Legal	Ropes & Gray	Mar-99	Dec-99	20	14	6	6											
S.92363.6713 Moving Expenses CNY	TBS	Mar-01	Jun-01	237	237	-												
S.92364.6714 CNY Retrofit	TBS	Jul-00	Jun-01	1,577	1,566	11	11											
S.92365.6715 MIS Network	TBS	Mar-01	Jun-03	1,506	886	620	620											
S.92366.6716 Fitout - All Other	TBS	Feb-01	Jan-02	4,605	3,703	902	451	451										
S.92375.6757 Communication Tower	TBS	Jul-01	Dec-01	25		25	25											
S.92373.6758 Technical Assistance	Various	Jul-00	Jan-02	-	-	-												
S.925 Technical Assistance				2,100	2,100	700	700	700										
S.10000.SAEN Sanitary Engineering	Various			75		75		25	25	25								
S.20000.ELAC Electrical/HVAC	Various			75		75		25	25	25								
S.30000.MECH Mechanical	Various			75		75		25	25	25								
S.40000.STRL Structural	Various			75		75		25	25	25								
S.50000.MATT Material Testing	Various			75		75		25	25	25								
S.70000.GEOT Geotechnical	Various			75		75		25	25	25								
S.80000.SURV Surveying	Various			75		75		25	25	25								
S.90000.HAZM Hazardous Material	Various			900		900		300	300	300								
S.11000.ASBO Asbestos/Odor Control	Various			75		75		25	25	25								
S.22000.ARCH Architectural	Various			75		75		25	25	25								
S.33000.INST Instrument Control	Various			75		75		25	25	25								
S.44000.WETP Wetland/Permitting	Various			75		75		25	25	25								
S.55000.CIVE Civil Engineer	Various			75		75		25	25	25								
S.77000.LAND Land Appraisal	Various			75		75		25	25	25								
S.88000.ENRG Energy	Various			75		75		25	25	25								
S.99000.SOIL Soil Boring Contractor	Various			75		75		25	25	25								
S.22200.SSUE Sub-surface Utility Engineering	Various			75		75		25	25	25								
S.23000.LASC Landscaping	Various			-		-												
S.931 Business Systems Plan				26,207	17,979	8,228	1,177	2,713	3,184	1,153								
S.92338.6014 Phase I (FY95-97)	Various	Jul-94	Mar-03	1,146	1,146	-												
S.92339.6013 Hardware-Phase I	Various	Jul-94	Dec-96	441	441	-												
S.92322.6015 Network-Phase I	Various	Jul-94	Dec-96	142	142	-												
S.92343.6177 Phase II FY97-99	Various	Jul-96	Jun-07	4,539	2,156	2,383	227		1,078	1,078								
S.92347.6362 Phase III (FY99-01)	Various	Dec-97	Jun-03	10,908	10,908	-												
S.92352.6508 Phase IV / Year 2000 Imp.	Various	Jul-98	Jan-00	3,051	3,051	-												
S.92353.6509 Phase V	Various	Jul-01	Jun-06	2,957	134	2,823	338	904	1,581									
S.92380.6865 Phase VI	Various	Jan-03	Jun-07	3,022		3,022	613	1,809	525	75								

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S.932 Environmental Remediation				1,759	1,138	621	153	71	175	52	52	41	29	47				
S.92368.6741 FRSA Hazardous Materials	TBS			-	-	-												
S.92369.6745 Tech Asst./ Env. Remediation	Various	Feb-99	Jun-02	362	360	2	2											
S.92370.6746 Prison Point Tank Removal - Const.	Zenone, Inc.	Feb-99	Aug-99	849	309	540	72	71	175	52	52	41	29	47				
S.92371.6747 Cottage Farm Tank Replace - Const.	D&C Construction Inc.	Jun-02	Dec-02	428	428	-												
S.92372.6748 Chelsea Creek Tank Removal	TBS	May-02	Nov-02	-	-	-												
S.92376.6805 Oakdale Power Station	TBS	Sep-03	Mar-04	113	33	79	79											
S.92377.6806 Cosgrove Power Station	TBS			8	8	-												
S.92378.6807 Design/CS/Cosgrove P.S.	TBS	Nov-00	Jun-03	-	-	-												
S.934 MWRA Facilities Management & Planning				4,031		4,031	20	650	598	587	544	1,632						
S.92389.6983 Design/Engineering Services		Apr-04	Jun-08	863		863	20	375	153	166	131	18						
S.92390.6984 Facilities Construction		Apr-05	Jun-09	3,168		3,168	-	275	445	421	413	1,614						
S.92391.6985 Facilities Fitout																		

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CONTINGENCY FUND FORECAST FY2005 - 2014
(\$000)**

	Total Contingency Budget FY05-14	Q1 FY2005	Q2 FY2005	Q3 FY2005	Q4 FY2005	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014
Wastewater System Improvements															
FY2005	6,784	1,412	1,441	1,677	2,255	6,784									
FY2006	10,618						10,618								
FY2007	14,354							14,354							
FY2008	10,691								10,691						
FY2009	13,544									13,544					
FY2010	15,543										15,543				
FY2011	6,499											6,499			
FY2012	3,799												3,799		
FY2013	2,799													2,799	
FY2014	4,602														4,602
Total Wastewater System Improvements	\$89,233	\$1,412	\$1,441	\$1,677	\$2,255	\$6,784	\$10,618	\$14,354	\$10,691	\$13,544	\$15,543	\$6,499	\$3,799	\$2,799	\$4,602
Waterworks System Improvements															
FY2005	7,296	2,427	1,937	1,539	1,392	7,296									
FY2006	5,793						5,793								
FY2007	8,463							8,463							
FY2008	7,230								7,230						
FY2009	6,047									6,047					
FY2010	8,022										8,022				
FY2011	6,427											6,427			
FY2012	4,511												4,511		
FY2013	4,308													4,308	
FY2014	3,819														3,819
Total Waterworks System Improvements	\$61,914	\$2,427	\$1,937	\$1,539	\$1,392	\$7,296	\$5,793	\$8,463	\$7,230	\$6,047	\$8,022	\$6,427	\$4,511	\$4,308	\$3,819
Business & Operations Support	\$2,483	\$305	\$265	\$253	\$337	\$1,160	\$713	\$317	\$119	\$167	\$3	\$5	\$0	\$0	\$0
Total MWRA	\$153,631	\$4,144	\$3,643	\$3,469	\$3,983	\$15,239	\$17,123	\$23,134	\$18,040	\$19,758	\$23,568	\$12,931	\$8,311	\$7,107	\$8,420