



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

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ADMINISTRATION, FINANCE & AUDIT COMMITTEE MEETING

Chair: J. Barrera
Vice-Chair: H. Vitale
Committee Members:
J. Carroll
K. Cotter
J. Foti
A. Pappastergion
B. Swett
J. Walsh

to be held on

Wednesday, June 25, 2014

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: 10:00 a.m.

AGENDA

A. Information

1. Delegated Authority Report – May 2014
2. FY14 Financial Update and Summary as of May 2014
3. FY14 Water Assessment Adjustments

B. Approvals

1. Final FY15 Capital Improvement Program
2. Final FY15 Current Expense Budget
3. Final FY15 Water and Sewer Assessments

C. Contract Awards

1. Bond Consulting Engineering Services: CDM Smith Inc., Contract F231

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Administration, Finance and Audit Committee

June 4, 2014

A meeting of the Administration, Finance and Audit Committee was held on June 4, 2014 at the Authority headquarters in Charlestown. Vice-Chairman Vitale presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Cotter, Flanagan, Pappastergion and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Rachel Madden, Paul Whelan, and Bonnie Hale. The meeting was called to order at 11:35 a.m.

Approvals

***MWRA FY15 Insurance Program Renewal**

The Committee recommended approval of the FY15 insurance program renewal (ref. agenda item A.1).

Contract Awards

***Janitorial Services at MWRA's Western Facilities: S.J. Services, Inc., WRA-3848Q**

The Committee recommended approval of the contract award (ref. agenda item B.1).

The meeting adjourned at 11:40 a.m.

* Approved as recommended at June 4, 2014 Board of Directors meeting.

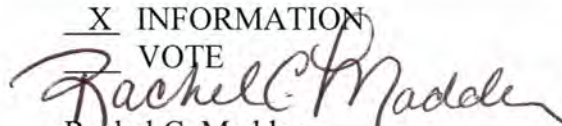
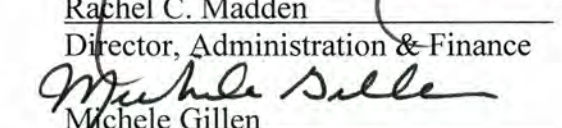
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2014
SUBJECT: Delegated Authority Report – May 2014



COMMITTEE: Administration, Finance & Audit

Barbie Aylward, Administrator A & F
Joanne Gover, Admin. Systems Coordinator
Preparer/Title

 X INFORMATION
VOTE

Rachel C. Madden
Director, Administration & Finance

Michele Gillen
Deputy Director, Administration &
Finance

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period May 1 through May 31, 2014 .

This report is broken down into three sections:

- Awards of Construction, non-professional and professional services contracts and change orders and amendments in excess of \$25,000, including credit change orders and amendments in excess of \$25,000;
- Awards of purchase orders in excess of \$25,000; and
- Amendments to the Position Control Register, if applicable.

BACKGROUND:

The Board of Directors' Management Policies and Procedures, as amended by the Board's vote on October 14, 2009, delegate authority to the Executive Director to approve the following:

Construction Contract Awards:

Up to \$1 million if the award is to the lowest bidder; or up to \$500,000 if the award is to other than the lowest bidder.

Change Orders:

Up to 25% of the original contract amount or \$250,000, whichever is less, where the change increases the contract amount, and for a term not exceeding an aggregate of six months; and for any amount and for any term, where the change decreases the contract amount. The delegations for cost increases and time can be restored by Board vote.

Professional Service Contract Awards:

Up to \$100,000 and one year with a firm; or up to \$50,000 and one year with an individual.

Non-Professional Service Contract Awards:

Up to \$250,000 if a competitive procurement process has been conducted, or up to \$100,000 if a procurement process other than a competitive process has been conducted.

Purchase or Lease of Equipment, Materials or Supplies:

Up to \$1 million if the award is to the lowest bidder; or up to \$500,000 if the award is to other than the lowest bidder.

Amendments:

Up to 25% of the original contract amount or \$250,000, whichever is less, and for a term not exceeding an aggregate of six months.

Amendments to the Position Control Register:

Amendments which result only in a change in cost center.

BUDGET/FISCAL IMPACT:

Recommendations for delegated authority approval include information on the budget/fiscal impact related to the action. For items funded through the capital budget, dollars are measured against the approved capital budget. If the dollars are in excess of the amount authorized in the budget, the amount will be covered within the five-year CIP spending cap. For items funded through the Current Expense Budget, variances are reported monthly and year-end projections are prepared at least twice per year. Staff review all variances and projections so that appropriate measures may be taken to ensure that overall spending is within the MWRA budget.

CONSTRUCTION/PROFESSIONAL SERVICES DELEGATED AUTHORITY ITEMS MAY 1 - 31, 2014

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	05/01/14	ELEVATOR MAINTENANCE AND REPAIR SERVICE AT VARIOUS AUTHORITY FACILITIES DECREASE ESTIMATED QUANTITIES FOR NON-EMERGENCY AND EMERGENCY REPAIR SERVICES, REPLACEMENT PARTS AND MARK-UP.	OP-158	2	UNITED ELEVATOR CO., INC.	(\$123,682.02)
C-2.	05/06/14	HVAC SYSTEMS MAINTENANCE AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR PREVENTIVE MAINTENANCE AND REPAIR SERVICES FOR ENTIRE HVAC SYSTEM LOCATED AT THE JOHN J. CARROLL WATER TREATMENT PLANT AND 31 OTHER LOCATIONS FOR A TERM OF 730 CALENDAR DAYS.	OP-244	AWARD	ENE SYSTEMS, INC.	\$248,048.00
C-3.	05/09/14	SECURITY IMPROVEMENTS AT VARIOUS FACILITIES ADDITIONAL DESIGN SERVICES NEEDED FOR ENHANCEMENT OF CAMERA TECHNOLOGY AND COMMUNICATION METHOD AND ADDITIONAL CAMERA LOCATIONS; EXTEND CONTRACT TERM BY SIX MONTHS FROM FEBRUARY 20, 2015 TO AUGUST 20, 2015.	6760U	1	EDA2, INC.	\$28,000.00
C-4.	05/09/14	HULTMAN AQUEDUCT INTERCONNECTIONS PERFORM ADDITIONAL CYCLING AND DYE TESTING; CHLORINATE 11,000 FEET OF WASH WATER MAIN PER DEP GUIDELINES; FURNISH AND INSTALL TWO RAILINGS AND TWO GRATINGS AT THE BIFURCATION; FURNISH AND INSTALL ADDITIONAL EMERGENCY LIGHTING AT THE BIFURCATION AND VALVE CHAMBER 5 A2; FURNISH AND INSTALL TWO FROST PLATES AT THE METER CHAMBERS AT OAK STREET IN WESTON AND NEAR VALVE CHAMBER-E3 IN SOUTHBOROUGH; FURNISH AND INSTALL FIRE EXTINGUISHERS AT EACH ACCESS/EGRESS INSIDE VALVE CHAMBERS L2, N2, N3, 5A2, BIFURCATION AND BRANCHLINE; FURNISH AND INSTALL A CONCRETE LANDING PAD AT EACH ENTRANCE TO VALVE CHAMBER 5A2; FURNISH AND INSTALL TWO MESH SCREENS ON THE FOUR-INCH DRAIN PIPING OUTLET AT VALVE CHAMBER N2 AND N3; FURNISH AND INSTALL HAZARD WARNING TAPE ABOVE TWO LADDERS AT VALVE CHAMBER 5A2.	6975	30	BARLETTA HEAVY DIVISION, INC.	\$66,915.00
C-5.	05/09/14	WESTON RESERVOIR GARAGE ROOF REPLACEMENT AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR DEMOLITION, DISPOSAL AND REPLACEMENT OF CLAY TILE ROOF, UNDERLAYMENT AND WOODEN SUPPORT STRUCTURE ON WESTON RESERVOIR GARAGE IN WESTON FOR A TERM OF 150 CALENDAR DAYS.	OP-245	AWARD	MEADOWS CONSTRUCTION COMPANY, LLC	\$98,000.00
C-6.	05/09/14	HYDRAULIC EQUIPMENT SERVICE AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR ANNUAL MAINTENANCE AND INSPECTION, NON-EMERGENCY AND EMERGENCY REPAIR SERVICES FOR HYDRAULIC SYSTEM WITHIN MWRA'S SERVICE AREA FOR A TERM OF 730 CALENDAR DAYS.	OP-240	AWARD	R. ZOPPO CORP.	\$314,018.00
C-7.	05/12/14	KEY PROJECT WORK CREW SERVICES AT DEER ISLAND AND NUT ISLAND AWARD OF CONTRACT TO A NON-PROFIT, DEPARTMENT OF CHILDREN AND FAMILIES APPROVED, ORGANIZATION TO PERFORM ADDITIONAL LANDSCAPING AND PUBLIC ACCESS AREA CLEANING SERVICES AT DEER ISLAND AND NUT ISLAND FOR A TERM OF SEVEN MONTHS.	S531	AWARD	ROCA, INC.	\$50,000.00
C8.	05/29/14	PHASE 5 SEWER MANHOLE REHABILITATION AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR INTERNAL REHABILITATION OF 55 SEWER MANHOLES AT VARIOUS LOCATIONS FOR A TERM OF 120 CALENDAR DAYS.	OP-239	AWARD	GREEN MOUNTAIN PIPELINE SERVICES	\$198,850.00

PURCHASING DELEGATED AUTHORITY ITEMS - May 1 - 31, 2014

NO.		TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	5/1/14	SUPPLY AND INSTALLATION OF SCAFFOLDING SERVICES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR SCAFFOLDING SERVICES AT THE DEER ISLAND TREATMENT PLANT. THERE ARE 18 LARGE ACTUATORS ON DEER ISLAND. ALL EXISTING ACTUATORS WERE INSTALLED UNDER THE BOSTON HARBOR PROJECT AND ARE NOW 20 YEARS OLD. ACTUATOR GEARS WEAR AT CERTAIN CONTROL POINTS DUE TO CONSTANT "REACHING" AND "SITTING" OVER TIME. STAFF RECOMMENDED THAT ALL 18 ACTUATORS BE REPLACED. BID WRA-3812Q IS FOR STAGING SERVICES SO THAT MWRA STAFF CAN SAFELY INSTALL ALL 18 NEW ACTUATORS, WHICH ARE SEATED ABOVE ELECTRICAL, WATER, AND WASTEWATER CONDUIT. TO ENSURE A SAFE PLATFORM IS ERCTED TO REACH THE ACTUATORS, STAFF RECOMMENDED THAT MWRA CONTRACT WITH A PROFESSIONAL STAGING COMPANY.	WRA-3812Q		SAFEWAY SERVICES, LLC	\$43,464.45
P-2.	5/1/14	QUALITY ASSURANCE DIVERS AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR QUALITY ASSURANCE DIVERS NEEDED FOR MWRA'S INVASIVE AQUATIC PLANT CONTROL CONTRACT AT STILLWATER BASIN IN THE WACHUSETT RESERVOIR. ON APRIL 16, 2014, THE BOARD APPROVED THE AWARD OF A CONTRACT UNDER BID WRA-3800 WITH AE COMMERCIAL DIVING SERVICES TO REMOVE INVASIVE AQUATIC PLANTS FROM STILLWATER BASIN. CURRENTLY, PLANT GROWTH COVERAGE IN THE BASIN IS FROM RE-GROWTH AFTER LAST SEASON'S EFFORTS. AE COMMERCIAL DIVING SERVICES WILL REMOVE THESE PLANTS UTILIZING WHAT IS KNOWN AS DIVER ASSISTED SUCTION HARVESTING OR DASH. TO ENSURE THAT ALL OF THE WORK REQUIRED UNDER THE DASH CONTRACT IS COMPLETED IN ACCORDANCE WITH THE SPECIFICATIONS, STAFF RECOMMENDED THAT MWRA SEPARATELY CONTRACT FOR DIVING SERVICES TO PERFORM A QUALITY CONTROL FUNCTION OVERSEEING THAT WORK. THE RECOMMENDED CONTRACT WILL HAVE A DIVER VISUALLY INSPECT THE WORK ZONES OF THE DASH CONTRACTOR WEEKLY TO ASSESS REMOVAL EFFORTS. THE DIVER WILL ASSESS THE DASH CONTRACTOR'S EFFECTIVENESS OF REMOVAL OF PLANTS AND ROOTS, AND DOCUMENT ANY PLANT MATTER REMAINING IN PREVIOUSLY WORKED ZONES.	WRA-3801		APEX COMPANIES, LLC	\$53,500.00
P-3.	5/6/14	REMOVAL OF HAZARDOUS WASTE AND OIL/WATER SEPARATOR MAINTENANCE AWARD OF A TWO-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR HAZARDOUS WASTE REMOVAL AND OIL/WATER SEPARATOR MAINTENANCE SERVICES AT THE DEER ISLAND TREATMENT PLANT. THE DEER ISLAND TREATMENT PLANT REQUIRES REMOVAL AND DISPOSAL SERVICES FOR HAZARDOUS WASTE GENERATED FROM SEVERAL SOURCES, INCLUDING THE LABORATORY, THE ON-SITE THERMAL/POWER PLANT, AND ROUTINE MAINTENANCE OPERATIONS. IN ADDITION, STATE REGULATIONS REQUIRE THAT ALL OIL/WATER SEPARATORS BE SERVICED AND ANY WASTE OIL COLLECTED AT THE FACILITY BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE PERMITS. QUARTERLY SERVICE IS REQUIRED FOR DEER ISLAND'S 13 IN-GROUND OIL/WATER SEPARATORS, WHICH RESULTS IN THE NEED TO DISPOSE OF OIL, OIL-CONTAMINATED WATER, AND/OR SOLIDS REMOVED FROM THE BOTTOM OF THESE TANKS.	WRA-3799		TRADEBE ENVIRONMENTAL SERVICES, LLC	\$83,191.50
P-4.	5/9/14	SIX 12-INCH ECCENTRIC PLUG VALVES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR SIX 12-INCH ECCENTRIC PLUG VALVES FOR THE DIGESTER GAS SYSTEM AT THE DEER ISLAND TREATMENT PLANT. DI-GAS IS STORED IN TWO STORAGE TANKS LOCATED NEXT TO THE GAS HANDLING FACILITY. GAS FLOWS FROM THE STORAGE TANKS THROUGH GAS DRIERS, FLAME ARRESTERS, THERMAL SAFETY DEVICES, AND GAS COMPRESSORS BEFORE REACHING THE THERMAL/POWER PLANT. THE DI-GAS SYSTEM INCLUDES SIX ECCENTRIC PLUG VALVES THAT PROVIDE ISOLATION OF THE FLAME ARRESTERS AND THERMAL SAFETY DEVICES ENABLING STAFF TO INSPECT AND PERFORM PREVENTIVE AND CORRECTIVE MAINTENANCE. THESE VALVES ARE THE ORIGINAL EQUIPMENT INSTALLED UNDER THE BOSTON HARBOR PROJECT AND THEY NO LONGER PROVIDE LEAK-FREE ISOLATION OF THE FLAME ARRESTERS AND THERMAL SAFETY DEVICES. STAFF RECOMMENDED THAT ALL SIX VALVES BE REPLACED WITH NEW VALVES CONSTRUCTED OF 316 STAINLESS STEEL.	WRA-3825		THE WISE COMPANY, INC.	\$87,654.00
P-5.	5/9/14	SUPPLY AND DELIVERY OF GRAVEL BORROW AWARD OF A ONE-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE SUPPLY AND DELIVERY OF GRAVEL BORROW TO BE USED AS COVER MATERIAL FOR THE CLINTON WASTEWATER TREATMENT PLANT'S LANDFILL. CLINTON'S SLUDGE LANDFILL IS DESIGNED TO ACCEPT ANAEROBICALLY DIGESTED SLUDGE, GRIT, AND SCREENINGS. THE SLUDGE, GRIT, AND SCREENINGS ARE MIXED WITH FILL AND PLACED IN THE LANDFILL. COVER MATERIAL (CLEAN FILL) IS THEN APPLIED AND COMPACTED OVER THE SLUDGE MIXTURE IN A SIX INCH LAYER TO FORM INDIVIDUAL LAYERS OF BULKED SLUDGE AND CLEAN COVER MATERIAL. THE CLINTON PLANT USES APPROXIMATELY 11,000 CUBIC YARDS OF FILL, ALSO REFERRED TO AS "GRAVEL BORROW", PER YEAR TO MEET ITS LANDFILL PERMIT REQUIREMENTS. MWRA USES A MASS DOT HIGHWAY DIVISION SPECIFICATION FOR ITS GRAVEL BORROW PURCHASES TO ENSURE PROPER DRAINAGE.	WRA-3827		PLANET EARTH MATERIALS	\$164,450.00
P-6.	5/9/14	SYMANTEC eDISCOVERY SOFTWARE LICENSES & SUPPORT APPROVAL OF A PURCHASE ORDER FOR SYMANTEC ENTERPRISE VAULT FILE SYSTEM ARCHIVING AND CLEARWELL IDENTIFICATION AND COLLECTION eDISCOVERY SOLUTION SOFTWARE LICENSES AND SUPPORT. THE MIS FIVE-YEAR STRATEGIC PLAN, UNDER THE IT INFRASTRUCTURE PROGRAM CONTAINS FUNDS TO IMPLEMENT THE ARCHIVING AND eDISCOVERY SOLUTION FOR THE AUTHORITY. THE SOFTWARE WILL PROVIDE THE MWRA WITH RIGOROUS AND EFFICIENT ELECTRONIC ARCHIVING, PURGE AND DISCOVERY PROCESSES TO COMPLY WITH THE RECORDS RETENTION REQUIREMENTS OF THE COMMONWEALTH OF MASSACHUSETTS, MEET THE REQUIREMENTS ASSOCIATED WITH PUBLIC RECORDS REQUESTS AND LITIGATION DOCUMENT/e-DISCOVERY PRODUCTION AND IMPROVE THE ACCESSIBILITY OF DOCUMENTS THROUGHOUT THE AUTHORITY. THE PURCHASE OF BOTH SOFTWARE MODULES AND COMPONENTS WILL ENABLE THE MWRA TO EFFICIENTLY MANAGE STORAGE BY LINKING TECHNOLOGY, POLICIES AND PROCESSES ACROSS IT, LEGAL, AND ORGANIZATIONAL NEEDS.	ITS42		SHI INTERNATIONAL, INC.	\$204,208.67
P-7.	5/9/14	FIRE EYE HARDWARE, SUPPORT AND IMPLEMENTATION SERVICES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR FIRE EYE HARDWARE, SUPPORT AND IMPLEMENTATION SERVICES. THE MIS FIVE YEAR STRATEGIC PLAN, UNDER THE IT INFORMATION SECURITY PROGRAM CONTAINS FUNDS TO IMPLEMENT A COMPREHENSIVE SECURITY PROGRAM AT THE MWRA. THE FIRE EYE SOLUTION WILL PROVIDE THE AUTHORITY PROTECTION AGAINST ADVANCED THREATS AND MALWARE TO THE MWRA NETWORKS. THIS PROTECTION WILL COVER BOTH EMAIL-BASED AND WEB-BASED METHODS OF INTRUSION. FIRE EYE IS A GLOBAL NETWORK SECURITY COMPANY THAT PROVIDES AUTOMATED THREAT FORENSICS AND DYNAMIC MALWARE PROTECTION AGAINST ADVANCED CYBER THREATS.	WRA-3834-Q ITC47		SHI INTERNATIONAL, INC.	\$551,378.02

PURCHASING DELEGATED AUTHORITY ITEMS - May 1 - 31, 2014

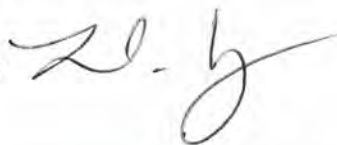
NO.		TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-8.	5/12/14	PC PARTS AND SUPPLY SERVICES AWARD OF A THREE YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR PC PARTS AND SUPPLY SERVICES. THE CURRENT PC PARTS AND SUPPLY CONTRACT EXPIRES JUNE 30, 2014. TO ENSURE CONSISTENCY, A LIST OF 156 STANDARD BID ITEMS WAS DEVELOPED FOR VENDORS TO SUBMIT FIXED PRICING ALONG WITH A MARK-UP PERCENTAGE FROM THE MANUFACTURER'S COST TO BE USED FOR "MARKET BASKET" (I.E. NON-SPECIFIED) GOODS. UNDER THE AWARD CRITERIA, THE VENDOR IS REQUIRED TO MAINTAIN PRICING DURING THE TERM OF THE CONTRACT. THE APPROACH USED IS SIMILAR TO THE MWRA-WIDE OFFICE SUPPLIES CONTRACT.	WRA-3823		COMPUTER HUT OF NEW ENGLAND	\$90,000.00
P-9.	5/12/14	LANDESK ENTERPRISE MANAGEMENT SUITE MAINTENANCE, TECHNICAL SUPPORT AND TRAINING AWARD OF A THREE YEAR PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR LANDESK ENTERPRISE MANAGEMENT SUITE , MAINTENANCE, TECHNICAL SUPPORT AND TRAINING. MWRA CURRENTLY UTILIZES THE LANDESK ENTERPRISE SOFTWARE SUITE FOR PC SOFTWARE INVENTORY, REMOTE SOFTWARE DISTRIBUTION AND DIAGNOSTICS. THE LANDESK PRODUCT IS ESSENTIAL FOR AUTOMATING THE MONTHLY PUSHES OF SECURITY PATCHES TO PC'S. CONTRACT IS FOR THE PERIOD OF MAY 21, 2014 THROUGH MAY 20, 2017.	WRA-3822Q ITS42		SHI INTERNATIONAL, INC.	\$154,524.00
P-10.	5/14/14	1,200 LINEAR FEET OF PVDF PIPING AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 1,200 LINEAR FEET OF PVDF PIPE FOR THE RESIDUALS ODOR CONTROL WET SCRUBBER SYSTEM AT THE DEER ISLAND TREATMENT PLANT. THE DEER ISLAND TREATMENT PLANT OPERATES WET SCRUBBERS TO REMOVE ODOROUS COMPOUNDS FROM PROCESS AIR. THE ODOR CONTROL FACILITIES THAT HOUSE ACTIVE WET SCRUBBERS ARE THE EAST/WEST ODOR CONTROL AND RESIDUALS FACILITIES. THIS PURCHASE OF 1,200 LINEAR FEET OF ONE-INCH PVDF PIPING REPRESENTS MATERIAL NEEDED FOR RESIDUALS ODOR CONTROL WEST SCRUBBERS 4 AND 5. THIS PURCHASE IS FOR MATERIAL ONLY. MWRA STAFF PERFORM ALL TASKS RELATED TO THE INSTALLATION OF PVDF PIPING.	WRA-3837		UNITED PLASTIC FABRICATING, INC.	\$49,500.00
P-11	5/22/14	INSTALLATION OF A DISTRIBUTED ANTENNA SYSTEM APPROVAL OF AMENDMENT 2 TO PURCHASE ORDER CONTRACT WRA-3489Q FOR THE INSTALLATION OF A DISTRIBUTED ANTENNA SYSTEM (DAS) WITH IN-BUILDING CELLULAR, INCREASING THE CONTRACT AMOUNT FROM \$542,330.45 TO \$612,287.45, WITH A SIX-MONTH EXTENSION IN CONTRACT TERM THROUGH NOVEMBER 30, 2014. IN JANUARY 2012, THE MWRA REQUESTED THE SERVICES OF A CONSULTANT TO PROVIDE ENGINEERING SERVICES TO CONDUCT A SURVEY OF NINE DESIGNATED MWRA FACILITIES AND PREPARE AND SUBMIT A TECHNICAL REPORT THAT INCLUDED RECOMMENDATIONS FOR ENHANCEMENT OF THE WIRELESS COVERAGE AS WELL AS DETAILED DESIGNS AND ESTIMATED COSTS TO PROCURE AND INSTALL UNDER TECHNICAL ASSISTANCE CONTRACT #7244. AMENDMENT 2 WILL PROVIDE FOR THE EXTENSION OF DAS INFRASTRUCTURE AND RF SOURCE TO SIX DITP LOCATIONS AS RECOMMENDED IN THE SITE ASSESSMENT.	WRA-3489	2	IN-BUILDING CELLULAR	\$69,957.00
P-12	5/22/14	ANNUAL MAINTENANCE AND SUPPORT FOR PROCESS INFORMATION APPROVAL OF A ONE YEAR SOLE SOURCE PURCHASE ORDER FOR THE MAINTENANCE AND SUPPORT OF PROCESS INFORMATION SOFTWARE. PROCESS INFORMATION (PI) SOFTWARE WAS SELECTED THROUGH A COMPETITIVE BID PROCESS IN 1992 AS PART OF THE DEER ISLAND PROCESS CONTROL SYSTEM. THE PI SOFTWARE PRODUCT CONTAINS TWO APPLICATIONS. THE FIRST APPLICATION, CALLED PI, IS THE MWRA STANDARD FOR SCADA AND PROCESS CONTROL DATA MANAGEMENT. THE SECOND APPLICATION, CALLED PROCESS BOOK, IS THE TOOL USED FOR GRAPHIC DISPLAY OF TREND AND REALTIME DATA. OSI SOFT, LLC IS THE SOLE SOURCE VENDOR FOR SOFTWARE LICENSES AND SUPPORT OF PI SYSTEMS.			OSI SOFT, LLC	\$70,522.50
P-13	5/22/14	ORACLE LICENSES ANNUAL MAINTENANCE AND SUPPORT APPROVAL OF A ONE YEAR PURCHASE ORDER CONTRACT FOR ORACLE ANNUAL MAINTENANCE AND PROCESSOR LICENSES SUPPORT. THE ORACLE DATABASE MANAGEMENT SYSTEM (DBMS) WAS ORIGINALLY PURCHASED AS PART OF THE SYSTEMS INTEGRATOR PROJECT, A COMPETITIVE BID AWARD THAT WAS APPROVED BY THE BOARD OF DIRECTORS IN MARCH 1989. SINCE THEN, ORACLE DBMS HAS BECOME THE STANDARD FOR ALL ENTERPRISE APPLICATIONS AT THE AUTHORITY. THE NUMBER OF SYSTEMS UTILIZING ORACLE'S DBMS HAS GROWN SIGNIFICANTLY SINCE THE ORIGINAL PURCHASE AND NEEDS TO BE MAINTAINED IN ORDER TO BE COMPLIANT WITH THE LICENSE AGREEMENT. THIS AGREEMENT COVERS THE PERIOD OF JULY 1, 2014 THROUGH JUNE 30, 2015.	ITS19		ORACLE CORPORATION	\$158,589.15
P-14	5/22/14	THREE-YEAR LEASE OF TWENTY-FOUR MULTI-FUNCTIONAL COPIERS APPROVAL OF A PURCHASE ORDER FOR A THREE YEAR LEASE OF TWENTY-FOUR MULTI-FUNCTION DEVICES TO TOSHIBA BUSINESS SOLUTIONS (USA), INC. TWENTY-FOUR MULTI-FUNCTION DEVICE LEASES ARE DUE TO EXPIRE OVER STAGGERED DATES BETWEEN JULY AND DECEMBER 31, 2014. THIS NEW LEASING AGREEMENT CONSOLIDATES WHAT PREVIOUSLY WERE MULTIPLE CONTRACTS (PER LEASE EXPIRATION DATES), STREAMLINES THE PROCESS AND ENABLES MWRA TO BE ELIGIBLE FOR INCENTIVE DISCOUNTS FROM THE NEW VENDOR. THE TWENTY-FOUR DEVICES WILL BE DELIVERED IN PHASES AS THE EXISTING LEASE AGREEMENTS EXPIRE.	WRA-3831Q OFF32		TOSHIBA BUSINESS SOLUTIONS (USA) INC.	\$214,147.44
P-15	5/22/14	450 WORKSTATIONS & MONITORS, 35 LAPTOPS, INSTALLATION, IMAGING AND DEPLOYMENT AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER UNDER STATE BLANKET CONTRACT ITC47 FOR 450 WORKSTATIONS & MONITORS, 35 LAPTOPS, INSTALLATION, IMAGING AND DEPLOYMENT. THIS PURCHASE WILL COMPLETE THE PC REPLACEMENT OF UNITS THAT ARE 5+ YEARS OLD AND ARE WINDOWS XP, WHICH IS NO LONGER SUPPORTED BY MICROSOFT. THE EXISTING XP MODELS ARE OLDER, SLOWER, AND PRONE TO DOWN TIME AND REPAIRS. THE REQUESTED MODELS WILL BE CONFIGURED WITH THE WINDOWS 7 OPERATING SYSTEM, WHICH PROVIDES A MORE SECURE ENVIRONMENT. THE NEW MACHINES ARE MORE RELIABLE, PROVIDE FASTER PROCESSING, AND WILL REDUCE THE OUT OF WARRANTY INVENTORY. THE REQUESTED WORKSTATIONS ARE ENERGY EFFICIENT, ENABLING MIS'S MOVE TO A GREENER IT COMPUTING ENVIRONMENT AS STATED IN THE MIS BUSINESS SYSTEMS PLAN STRATEGY #25.	WRA-3850Q ITC47		P & J SYSTEMS, INC.	\$655,346.50
P-16	5/22/14	SUPPLY AND DELIVERY OF ULTRA-LOW SULFUR, #2 DIESEL FUEL AWARD OF A PURCHASE ORDER FOR THE SUPPLY AND DELIVERY OF 294,000 GALLONS OF ULTRA-LOW-SULFUR, #2 DIESEL FUEL FOR THE DEER ISLAND THERMAL/POWER PLANT.	ENE32		GLOBAL MONTELLO GROUP	\$911,545.60

PURCHASING DELEGATED AUTHORITY ITEMS - May 1 - 31, 2014

NO.		TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-17	5/29/14	<p>WICKET GATE LINKS</p> <p>AWARD OF A SOLE SOURCE PURCHASE ORDER TO MANUFACTURE 20 WICKET LINKS FOR THE OAKDALE POWER STATION'S HYDRO TURBINE. THE OAKDALE POWER STATION'S TURBINE GENERATES ELECTRICITY WHEN WATER IS TRANSFERRED FROM QUABBIN RESERVOIR TO WACHUSETT RESERVOIR. DURING A RECENT SHUT DOWN OF THE TURBINE STAFF DISCOVERED CRACKS IN THE IRON LINKAGE THAT TRANSMITS GOVERNOR ACTUATION TO THE WICKET GATES THAT CONTROL FLOW TO THE TURBINE. ALTHOUGH THERE ARE 16 LINKS THAT MAKE UP THE WICKET GATE CONTROL FOR OAKDALE'S TURBINE, STAFF RECOMMENDED THAT MWRA PURCHASE A TOTAL OF 20 LINKS, TO PROVIDE FOUR SPARES FOR IMMEDIATE FUTURE REPLACEMENT IF OTHER LINKS FAIL.</p>			VOITH HYDRO, INC.	\$29,985.00
P-18	5/29/14	<p>RENEWAL OF ARC INFO SOFTWARE MAINTENANCE</p> <p>AWARD OF A PURCHASE ORDER CONTRACT FOR MAINTENANCE, TECHNICAL ASSISTANCE AND SUPPORT OF THE ARC GEOGRAPHIC INFORMATION SYSTEM IN AN AMOUNT NOT TO EXCEED \$39,650.00. THE MWRA USES ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI) GEOGRAPHIC INFORMATION SYSTEM (GIS) SOFTWARE, (COMMONWEALTH'S STANDARD) FOR THE GEOSPATIAL NEEDS OF THE OPERATIONS DIVISION. THE ANNUAL MAINTENANCE COVERS PATCHES AND HELPLINE SUPPORT FOR DESKTOP AND WEB SERVER CORE PACKAGES AS WELL AS ADDITIONAL PRODUCTIVITY EXTENSION SUCH AS: SPATIAL ANALYST, NETWORK ANALYST, 3D ANALYST. IN ORDER TO RENEW THE AGREEMENT, STAFF ACCESSED THE COMMONWEALTH OF MASSACHUSETTS STATE BLANKET AGREEMENT ITS48. CONTRACT IS FOR PERIOD OF JULY 1, 2014 THROUGH JUNE 30, 2015.</p>	ITS48		ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE	\$39,650.00
P-19	5/29/14	<p>GARTNER SUBSCRIPTION RENEWAL</p> <p>APPROVAL OF A PURCHASE ORDER FOR GARTNER IT EXECUTIVE SUBSCRIPTION. GARTNER, INC. IS THE WORLD'S LEADING INFORMATION TECHNOLOGY RESEARCH AND ADVISORY COMPANY HEADQUARTERED IN STAMFORD, CONNECTICUT. THROUGH GARTNER RESEARCH, GARTNER EXECUTIVE PROGRAMS, GARTNER CONSULTING AND GARTNER EVENTS, GARTNER WILL WORK WITH THE MWRA TO RESEARCH, ANALYZE AND INTERPRET THE BUSINESS OF IT, INCLUDING OBJECTIVE INSIGHT INTO ANY AREA OF IT. THIS TYPE OF SUBSCRIPTION PROVIDES ACCESS TO DOCUMENTED RESEARCH AND ON DEMAND EXPERTISE ACROSS A WIDE SPECTRUM OF TECHNOLOGY TOPICS AS NEEDED. PURCHASE ORDER IS FOR THE PERIOD OF JULY 1, 2014 THROUGH JUNE 30, 2015.</p>	ITS38		GARTNER, INC.	\$68,175.00


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2014
SUBJECT: FY14 Financial Update and Summary

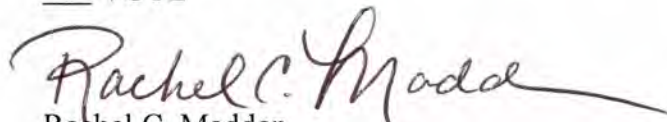


COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


Kathy Soni, Budget Director
David Whelan, Budget Manager
Preparer/Title




Rachel C. Madden
Director, Administration and Finance

RECOMMENDATION:

For information only. This staff summary provides the financial update and variance highlights through May 2014, comparing actual spending to the FY14 Budget and a preliminary year-end projection for the Current Expense Budget.

DISCUSSION:

Total year-to-date expenses are lower than budget by \$5.9 million or 1.0% due to lower direct expenses of \$4.3 million, lower debt service expense of \$854,000 due to the receipt of Debt Service Assistance (DSA) from the Commonwealth of Massachusetts which will be used in FY15 to lower community assessments per the Advisory Board's recommendation, lower indirect expenses of \$742,000, and higher total non-rate revenues of \$5.2 million or 0.9% for a net variance of \$11.1 million.

In line with the Authority's long standing multi-year rate strategy, in May \$3.0 million was transferred to the Defeasance Account; \$1.8 million as a result of the delayed State Revolving Fund (SRF) borrowing scheduled for FY14 and \$1.2 million for the continued low interest variable rate environment which brings the Defeasance Account balance to \$13.6 million. Without the transfer of the \$13.6 million in debt service related savings to the Defeasance Account, the total year-to-date budgetary variance through May would have been \$24.7 million.

Overall, the year-end favorable variance is projected to be approximately \$29.6 million, of which \$19.8 million is debt related, specifically \$16.2 million for lower than budgeted variable rate and \$3.6 million for lower than expected State Revolving Fund and new money borrowings.

Beyond debt service savings, staff projects year-end underspending of \$3.7 million for direct expenses, \$664,000 for indirect expenses, the effect of \$854,000 for the receipt of DSA, and greater than budgeted non-rate revenues of \$4.6 million for a total of \$9.8 million.

Year-to-date as of May, total expenses were lower than budget by \$5.9 million or 1.0% and total Revenues were higher than budget by \$5.2 million or 0.9%.

The expense variances by major categories are represented in the table below:

	FY14 Budget (May)	FY14 Actual (May)	\$ Variance	% Variance
Direct Expenses	\$193.3	\$189.0	-\$4.3	-2.2%
Indirect Expenses	\$44.2	\$43.4	-\$0.7	-1.7%
Debt Service	\$363.5	\$362.7	-\$0.9	-0.2%
Total	\$601.0	\$595.1	-\$5.9	-1.0%

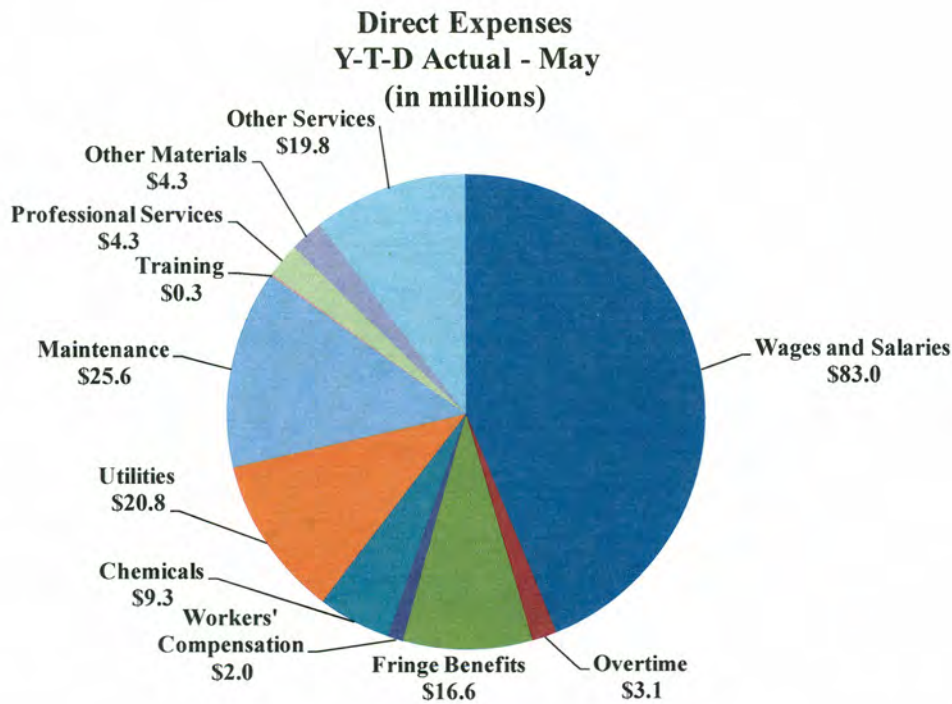
Besides debt service, the largest variances year-to-date are driven by:

- Direct Expenses being lower than budget by \$4.3 million for Wages and Salaries, Professional Services, Utilities, Chemicals, and Other Services;
- Indirect Expenses being lower than budget by \$742,000 mainly for lower Watershed Payment in Lieu of Taxes (PILOT) expenses and lower Insurance expenses, mostly for claims; and
- Revenues exceeding budget by \$5.2 million due to Non-Rate Revenue of \$4.8 million mainly due to \$3.1 million for proceeds of the water main recovery lawsuit, \$427,000 for the sale of unbudgeted emergency water for the Town of Hudson, \$233,000 for the receipt of a Homeland Security grant for the Carroll Plant security gate, as well as a variety of other items and higher investment income of \$399,000.

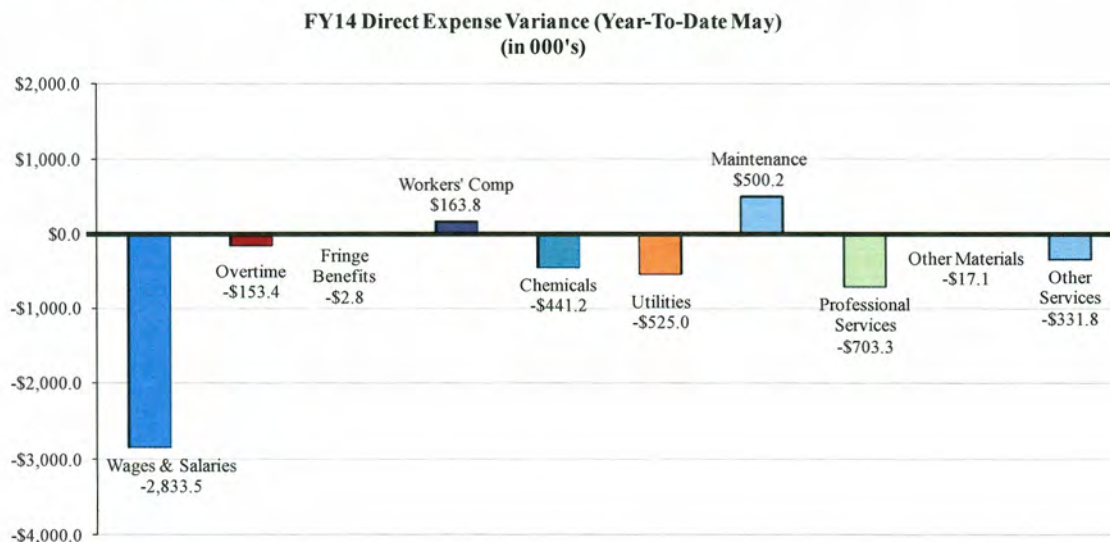
Please refer to Attachment 1 for a more detailed comparison by line item.

Direct Expenses

Direct expenses total \$189.0 million, \$4.3 million or 2.2% lower than budget.



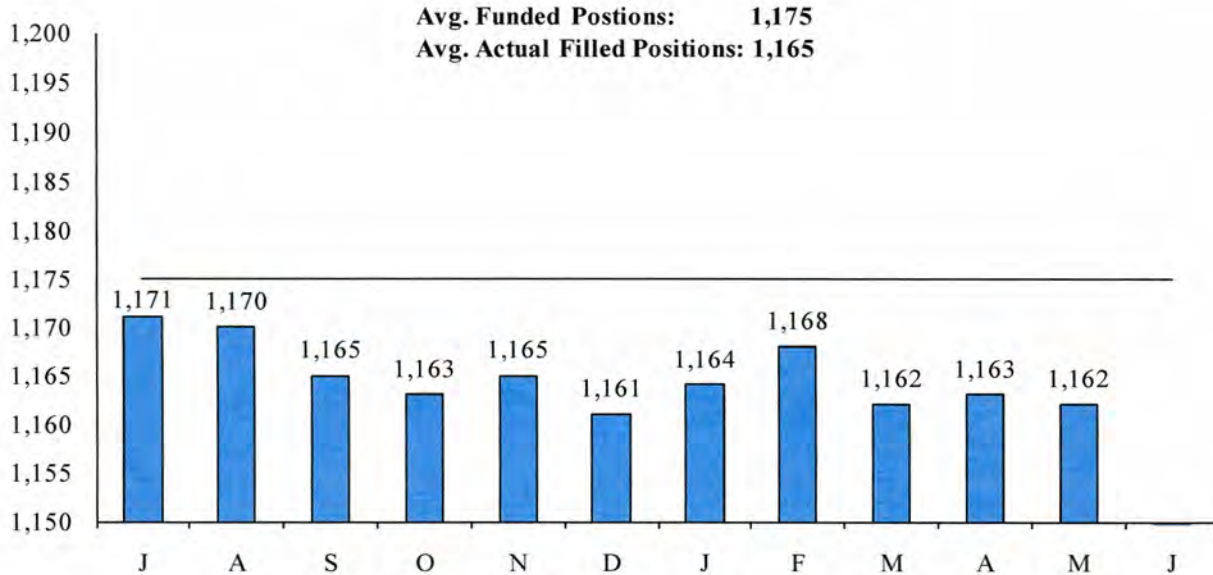
The underspending on direct expenses is related to Wages and Salaries, Professional Services, Utilities, Chemicals, Other Services, and Overtime offset by overspending for Maintenance and Workers' Compensation.



Wages and Salaries

Wages and Salaries are underspent by \$2.8 million or 3.3% mainly as a result of lower than budget filled positions, the salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates, and higher than budget leave time use. The average actual filled positions were 10 positions lower than the 1,175 positions funded in the budget. Additionally, MWRA currently has 2 temporary employees.

FY14 MWRA Headcount Trend



Professional Services

Professional Services are underspent by \$703,000 or 14.0% year-to-date mainly due to lower Engineering of \$352,000 due to less than planned use of as-needed engineering support and the timing of Water Leak Detection survey work, lower Other of \$198,000 for professional support associated with the MIS Maximo upgrade, and lower Lab and Testing of \$111,000 mainly due to less than budget report preparation and as-needed services for the Harbor Monitoring program.

Utilities

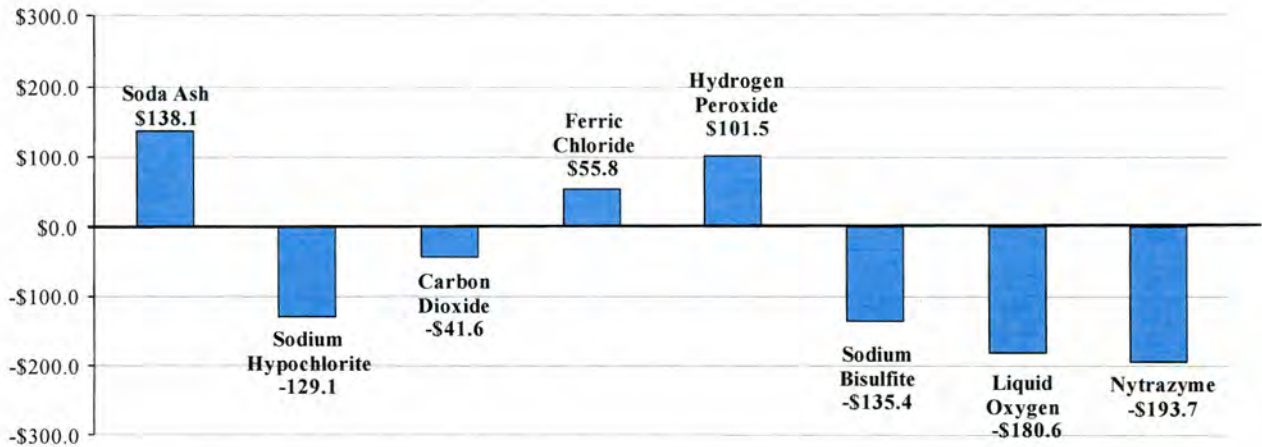
Utilities are underspent by \$525,000 or 2.5% primarily due to lower Diesel Fuel of \$1.3 million mainly due to lower quantity and pricing and Deer Island, lower Water of \$123,000, and Natural Gas use of \$72,000. Offset by higher Electricity of \$877,000 mainly due to winter congestion pricing.

Chemicals

Chemicals are underspent by \$441,000 or 4.5% year-to-date mainly due to lower than budget need for Nitrazyme of \$194,000 due to Town of Framingham system modifications, Liquid Oxygen of \$181,000 due to lower pricing and volume, Sodium Bisulfite of \$135,000, and Sodium Hypochlorite of \$129,000 due to timing. Underspending is offset by overspending for

Soda Ash of \$138,000 due to better mixing, Hydrogen Peroxide of \$102,000 for increased need for pretreatment of hydrogen sulfide gas, and Ferric Chloride of \$56,000 for struvite control.

FY14 Chemical Expense Variances (Year-To-Date May)
(in 000's)



Other Services

Other Services are underspent by \$332,000 or 1.7% year-to-date. The majority of the variance is due to lower than budget sludge quantities. Sludge quantities year-to-date are approximately 5% lower, 98.3 tons average per day versus 103.2 tons budgeted. This underspending is offset by higher than budget spending for space/lease rentals, police details, and membership/dues.

Overtime

Overtime is underspent by \$153,000 or 4.7% and is mainly due to lower than projected emergency wet weather events.

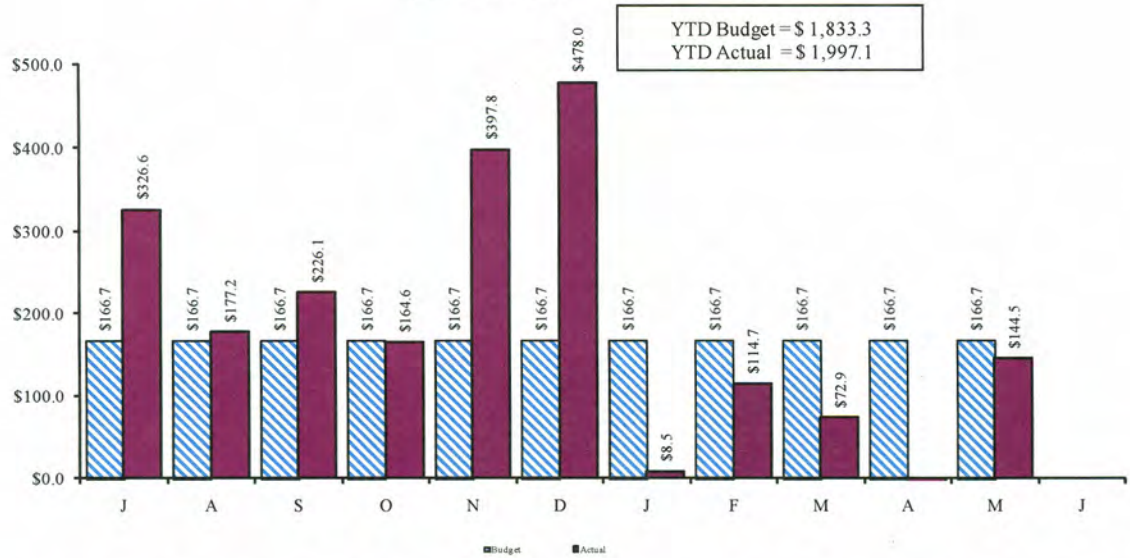
Maintenance

Maintenance is overspent by \$500,000 or 2.0% year-to-date. Material purchases are greater than budgeted by \$1.3 million and services are underspent by \$774,000. Some of the variance is timing related.

Workers' Compensation

Workers' Compensation expenses are higher than budget by \$164,000 or 8.9%. To date, actual medical expenses are \$123,000 higher than budget. During May, actual spending including the reserves was less than budget by \$22,000.

FY14 Workers' Compensation Spending (Year-To-Date May)
(in thousands)

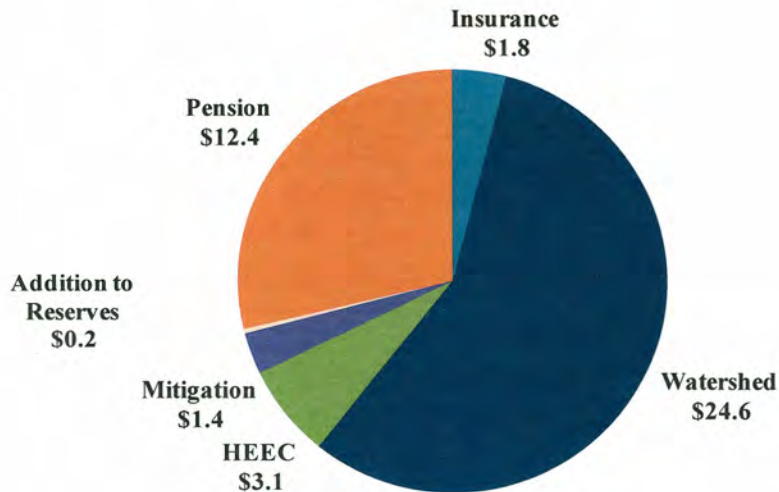


# of Open Claims-Lost Time	76	69	67	63	60	62	67	68	72	69	67	
# of Open Claims-Medical Only	25	27	22	27	24	28	23	30	26	22	18	

Indirect Expenses

Indirect expenses total \$43.4 million, \$742,000 or 1.7% lower than budget.

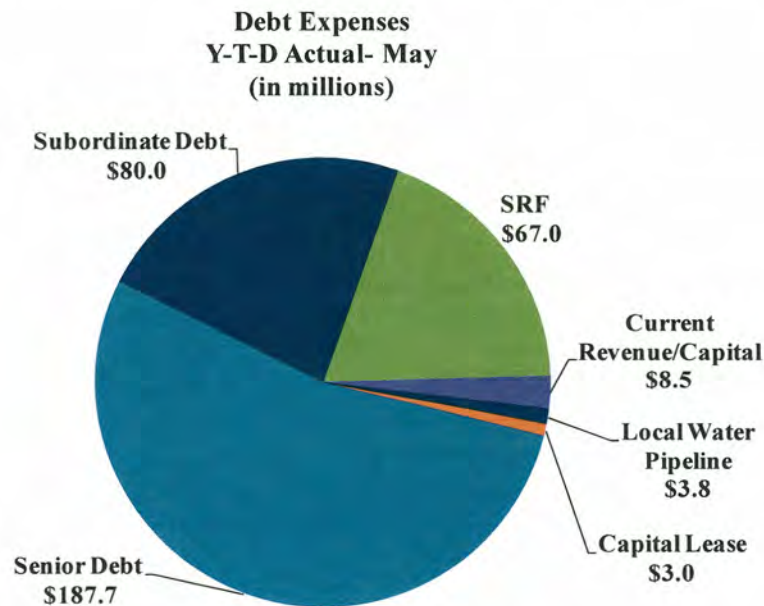
Indirect Expenses
Y-T-D Actual - May
(in millions)



The majority of the year-to-date underspending on Indirect Expenses is for Watershed Reimbursement expenses of \$514,000 mainly for lower Payment in Lieu of Taxes (PILOT) expense and lower insurance expenses of \$172,000, mostly related to claims.

Debt Service Expenses

Debt Service expenses include the principal and interest payment for fixed debt, the variable subordinate debt, and the State Revolving Fund (SRF) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, and the Chelsea facility lease payment.

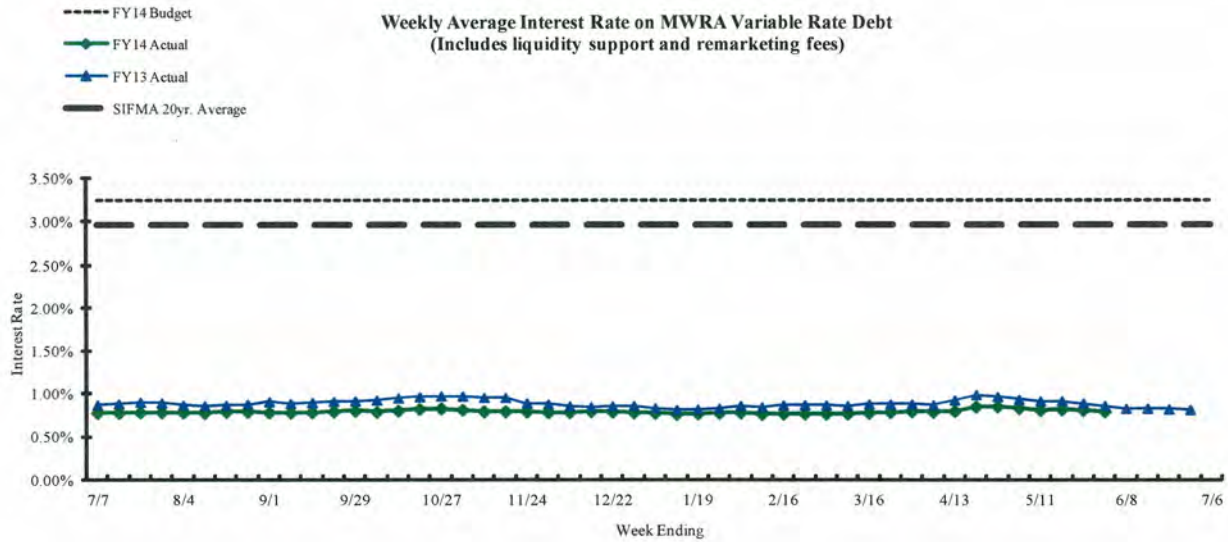


Debt Service expenses through May total \$362.7 million, \$854,000 below the budgeted level after the transfer of \$13.6 million of a favorable year-to-date variance to the Defeasance Account.

The variance of \$854,000 is due to the receipt of Debt Service Assistance from the Commonwealth of Massachusetts which will be used as a direct offset to debt service in FY15 to lower community assessments per the Advisory Board's recommendation.

It should be noted that of the \$3.0 million transferred into the Defeasance Account during May, \$1.8 million was attributable to the delayed State Revolving Fund (SRF) borrowing originally planned for FY14 and the remaining \$1.2 million was due to the continued low interest variable rate environment.

The graph below reflects the variable rate trend by month over the past year in comparison with FY13 Actuals and the FY14 Budget for the same period.



Revenue

Year-to-date revenue for FY14 totals \$612.6 million which is \$5.2 million or 0.9% higher than budget due to higher non-rate revenue of \$4.8 million and higher Investment Income of \$399,000.

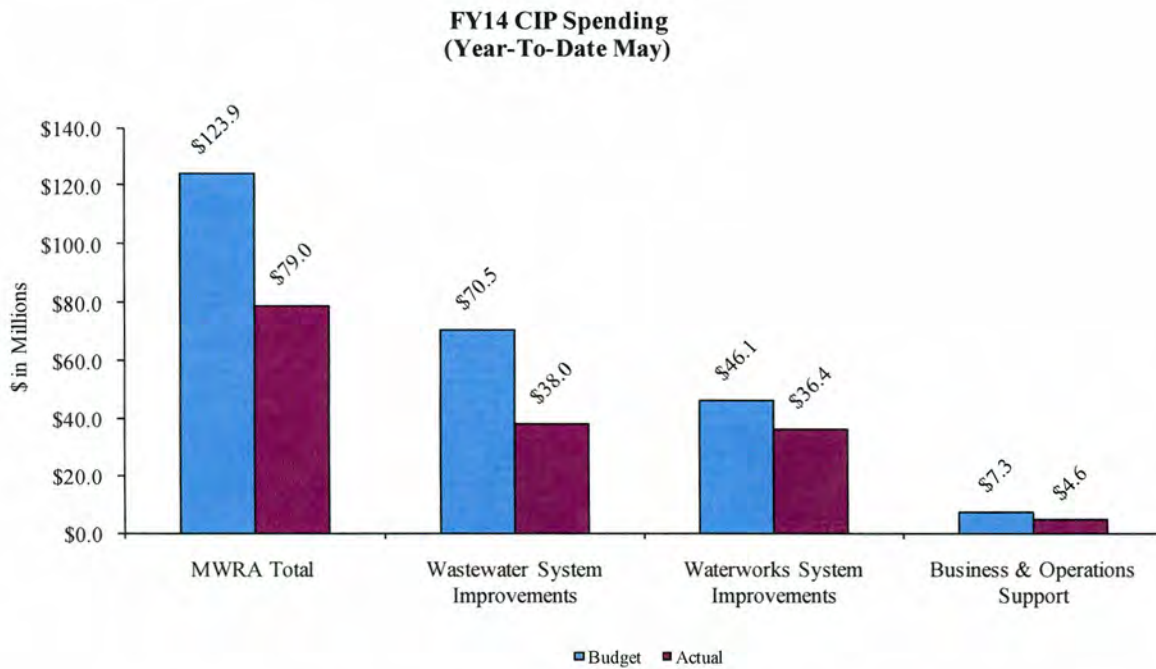
The higher non-rate Revenue of \$4.8 million is mainly due to \$3.1 million in payments for the negotiated “no admissions” settlement agreement for the dismissal of all disputed claims of all parties to the 2010 water main break cost recovery lawsuit, \$427,000 for the sale of unbudgeted emergency water for the Town of Hudson, \$318,000 for higher energy revenue due to timing or receipt and higher Demand Response and Renewable Portfolio Standard (RPS) sales, \$247,000 for the sale of surplus equipment, \$233,000 for the receipt of a Homeland Security grant for the Carroll Plant security gate, \$50,000 for the timing of Fore River Railroad Corporation reimbursement, a variety of other items totaling \$402,000, and higher investment income of \$399,000.

FY14 Capital Improvement Program

Spending year-to-date in FY14 totals \$79.0 million, \$45.0 million or 36.3% lower than budget. After accounting for programs which are not directly under MWRA's control, most notably the Inflow and Infiltration (I/I) program, the Local Water Pipeline program, and the community managed Combined Sewer Overflow (CSOs) projects, the underspending is \$34.6 million or 37.1%.

Underspending was reported in all programs: Wastewater of \$32.5 million, Waterworks of \$9.7 million, and Business and Operations Support of \$2.8 million.

Spending By Program:



\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	9.5	5.8	-3.7	-38.8%
Treatment	30.4	13.5	-17.0	-55.8%
Residuals	0.3	0.5	0.2	50.0%
CSO	31.1	14.2	-17.0	-54.5%
Other	-0.9	4.0	4.9	-557.5%
Total Wastewater System Improvements	\$70.5	\$38.0	-\$32.5	-46.1%
Waterworks System Improvements				
Drinking Water Quality Improvements	30.2	26.2	-4.0	-13.2%
Transmission	6.1	4.1	-2.0	-32.4%
Distribution & Pumping	8.9	4.6	-4.3	-48.1%
Other	0.9	1.5	0.6	61.4%
Total Waterworks System Improvements	\$46.1	\$36.4	-\$9.7	-21.0%
Business & Operations Support	\$7.3	\$4.6	-\$2.8	-37.6%
Total MWRA	\$123.9	\$79.0	-\$45.0	-36.3%

The main reasons for underspending were:

1. **Treatment** of \$17.0 million – mainly for lower spending on North Main Pump Station (NMPS) VFD Replacement Construction of \$6.2 million, Scum Skimmer Replacement of \$2.0 million, NMPS Butterfly Valve Replacement of \$2.0 million, Electrical Equipment Upgrade Construction of \$1.3 million, Centrifuge Backdrive Replacement of \$1.1 million, Clinton Digester Rehabilitation of \$819,000, HVAC Equipment Replacement Design of \$761,000, Power System Improvements of \$700,000, Fire Alarm System Replacement Design of \$583,000, Thermal Boiler Controls of \$500,000, and other smaller projects. Offset by overspending for Digester Modules 1 and 2 of \$807,000 and Expansion Joint Repair Construction 2 of \$342,000.
2. **Combined Sewer Overflow (CSOs)** of \$17.0 million – primarily due timing of anticipated expenditures for the Cambridge Sewer Separation payment of \$13.9 million which is lower than originally estimated, Reserved Channel of \$1.3 million due to timing of expenditures, \$1.1 million South Dorchester Bay Sewer Separation – Commercial Point as Inflow/Infiltration work is now scheduled for FY15 vs. FY14, and North Dorchester Bay of \$590,000 mainly due to reduced scope for outfall design and resident inspection work.
3. **Water Distribution and Pumping** of \$4.3 million – for lower spending on Weston Aqueduct Supply Mains of \$3.0 million for lower than budgeted award for WASM 3 Design and for work anticipated in FY14 but completed in FY13 for Watertown Section Rehabilitation, Valve Replacement of \$375,000 due to timing of equipment purchases, Southern Spine Distribution Mains of \$289,000 due to the completion of Section 21, 43, & 22 Design Project under budget, Northern Intermediate High of \$287,000 primarily for lower than anticipated design services for Section 89 & 29 Redundancy, and Lynnfield Pipeline of \$149,000 due to timing.
4. **Drinking Water Quality Improvements** of \$4.0 million – mainly for lower than budget spending for the Spot Pond Covered Storage Tank of \$3.0 million mainly for site issues and delay in equipment delivery and Carroll Water Treatment Plant of \$1.9 million mainly due to delays for modifications to existing maintenance facilities. Offset by net overspending on the Carroll Ultraviolet project of \$776,000 and emergency work on the CVA Shea Avenue Leak Repair of \$508,000.
5. **Wastewater Interception and Pumping** of \$3.7 million – primarily due to Nut Island Headworks Electric and Gas Conveyance construction project of \$1.3 million due to award being less than budget, Prison Point and Cottage Farm Engine, Pumps, and Gear boxes of \$990,000 due to timing of work, Rehabilitation of Sections 186 & 4 of \$590,000 and Prison Point Piping Rehabilitation of \$276,000 and DeLauri Pump Station Upgrades of \$188,000 due to schedule shifts.
6. **Water Transmission** of \$2.0 million – mainly for lower than budgeted spending for Watershed Land of \$960,000 due to timing, Hultman Rehabilitation of \$622,000 due to

lower final contract costs, and Dam Projects of \$299,000 due to less than anticipated final Design/Construction Administration/Resident Inspection work.

The underspending was offset by overspending for the Community Financial Assistance Programs:

1. **Wastewater Other** of \$4.9 million – primarily due to Inflow and Infiltration (I/I) community requests for grants and loans being greater than budget.
2. **Waterworks Other** of \$0.6 million – primarily due to Local Water Pipeline Assistance Program community requests for loans being greater than budget.

Construction Fund Balance

The construction fund balance was at \$55 million as of May 2014. Commercial Paper availability was at \$206 million to fund construction projects.

Attachment 1 – Variance Summary May 2014

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

Attachment 4 – FY14 Projection versus FY14 Approved Budget

ATTACHMENT 1

	May 2014 Year-to-Date					
	Period 11 YTD Budget	Period 11 YTD Actual	Period 11 YTD Variance	%	FY14 Approved	% Expended
EXPENSES						
WAGES AND SALARIES	\$ 85,802,442	\$ 82,968,949	\$ (2,833,493)	-3.3%	\$ 94,874,284	87.5%
OVERTIME	3,296,461	3,143,077	(153,384)	-4.7%	3,580,025	87.8%
FRINGE BENEFITS	16,574,016	16,571,234	(2,782)	0.0%	18,063,825	91.7%
WORKERS' COMPENSATION	1,833,333	1,997,089	163,756	8.9%	2,000,000	99.9%
CHEMICALS	9,736,531	9,295,294	(441,237)	-4.5%	10,671,225	87.1%
ENERGY AND UTILITIES	21,322,558	20,797,530	(525,028)	-2.5%	22,760,588	91.4%
MAINTENANCE	25,081,070	25,581,225	500,155	2.0%	27,761,580	92.1%
TRAINING AND MEETINGS	244,771	272,202	27,431	11.2%	330,917	82.3%
PROFESSIONAL SERVICES	5,021,424	4,318,162	(703,262)	-14.0%	6,083,402	71.0%
OTHER MATERIALS	4,342,549	4,325,485	(17,064)	-0.4%	5,969,470	72.5%
OTHER SERVICES	20,084,072	19,752,229	(331,843)	-1.7%	22,278,700	88.7%
TOTAL DIRECT EXPENSES	\$ 193,339,227	\$ 189,022,476	\$ (4,316,749)	-2.2%	\$ 214,374,016	88.2%
INSURANCE	\$ 1,932,571	\$ 1,760,454	\$ (172,117)	-8.9%	\$ 2,093,618	84.1%
WATERSHED/PILOT	25,121,384	24,607,097	(514,287)	-2.0%	27,214,833	90.4%
BEC _o PAYMENT	3,069,050	3,060,010	(9,040)	-0.3%	3,346,854	91.4%
MITIGATION	1,446,274	1,383,786	(62,488)	-4.3%	1,566,797	88.3%
ADDITIONS TO RESERVES	156,281	156,281	-	0.0%	169,304	92.3%
RETIREMENT FUND	12,431,515	12,447,338	15,823	0.1%	12,431,515	100.1%
TOTAL INDIRECT EXPENSES	\$ 44,157,075	\$ 43,414,966	\$ (742,108)	-1.7%	\$ 46,822,921	92.7%
STATE REVOLVING FUND	\$ 68,755,862	\$ 66,955,925	\$ (1,799,937)	-2.6%	\$ 75,960,616	88.1%
SENIOR DEBT	187,696,587	187,696,587	-	0.0%	204,471,302	91.8%
CORD FUND	-	-	-	---	132,238	0.0%
DEBT SERVICE ASSISTANCE	-	(853,660)	(853,660)	---	-	0.0%
CURRENT REVENUE/CAPITAL	8,492,308	8,492,308	-	0.0%	9,200,000	92.3%
SUBORDINATE MWRA DEBT	91,815,125	91,815,125	-	0.0%	100,117,241	91.7%
LOCAL WATER PIPELINE CP	3,810,287	3,810,287	-	0.0%	4,127,810	92.3%
CAPITAL LEASE	2,969,594	2,969,594	-	0.0%	3,217,060	92.3%
VARIABLE DEBT	-	(11,774,496)	(11,774,496)	---	-	0.0%
DEFEASANCE ACCOUNT	-	13,574,433	13,574,433	---	-	0.0%
TOTAL DEBT SERVICE	\$ 363,539,762	\$ 362,686,102	\$ (853,660)	-0.2%	\$ 397,226,267	91.3%
TOTAL EXPENSES	\$ 601,036,064	\$ 595,123,544	\$ (5,912,518)	-1.0%	\$ 658,423,204	90.4%
REVENUE & INCOME						
RATE REVENUE	\$ 580,357,846	\$ 580,357,846	\$ -	0.0%	\$ 628,721,000	92.3%
OTHER USER CHARGES	7,504,174	7,412,611	(91,563)	-1.2%	8,127,379	91.2%
OTHER REVENUE	5,546,866	10,415,829	4,868,963	87.8%	6,444,291	161.6%
RATE STABILIZATION	3,230,769	3,230,769	-	0.0%	3,500,000	92.3%
INVESTMENT INCOME	10,741,779	11,140,622	398,843	3.7%	11,630,534	95.8%
TOTAL REVENUE & INCOME	\$ 607,381,434	\$ 612,557,677	\$ 5,176,243	0.9%	\$ 658,423,204	93.0%

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY14 Budget YTD May	FY14 Actuals YTD May	FY14 YTD Actual vs. FY14 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	85,802,442	82,968,949	(2,833,493)	-3.3%	Underspending is due to lower headcount, the salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates, and higher than budgeted use of accrued leave time. At the end of May, the average filled positions year-to-date were 10 positions less than the 1,175 funded positions.
Overtime	3,296,461	3,143,077	(153,384)	-4.7%	Lower than projected emergency wet weather events.
Fringe Benefits	16,574,016	16,571,234	(2,782)	0.0%	Primarily at budgeted levels.
Worker's Compensation	1,833,333	1,997,089	163,756	8.9%	Overspending primarily due to medical expenses being \$123k higher than budget. In May, actual spending including the reserves are lower than budgeted by \$22k.
Chemicals	9,736,531	9,295,294	(441,237)	-4.5%	Underspending for Nitrazyme of \$194k due to lower than budgeted need due to Town of Framingham system improvements, Liquid Oxygen of \$181k due to lower pricing and volume, Sodium Bisulfite of \$135k and Sodium Hypochlorite of \$129k due to timing, offset by overspending for Soda Ash of \$138k due to higher dosing, Hydrogen Peroxide of \$102k for increased need for pretreatment of hydrogen sulfide gas, and Ferric Chloride of \$56k for struvite control.
Utilities	21,322,558	20,797,530	(525,028)	-2.5%	Underspending due to lower Diesel Fuel of \$1.3 million mainly due to timing of purchases and lower pricing at Deer Island and lower Water and Natural Gas use of \$123k and \$72k respectively. Offset by higher Electricity of \$877k mainly due to winter congestion pricing.
Maintenance	25,081,070	25,581,225	500,155	2.0%	Material purchases are greater than budget by \$1.3 million and services are underspent by \$774k. Operations projects being at budgeted levels by year-end.
Training & Meetings	244,771	272,202	27,431	11.2%	

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY14 Budget YTD May	FY14 Actuals YTD May	FY14 YTD Actual vs. FY14 Budget		Explanations
			\$	%	
Professional Services	5,021,424	4,318,162	(703,262)	-14.0%	Underspending of \$703k mainly due to lower Engineering of \$352k due to less than planned use of as-needed engineering support and the timing of Water Leak Detection survey work of \$50k, lower Other of \$198k for professional support associated with the MIS Maximo upgrade, and lower Lab & Testing of \$111k mainly due to less than budgeted report preparation and as-needed services for the Harbor Monitoring program.
Other Materials	4,342,549	4,325,485	(17,064)	-0.4%	Lower spending for Equipment/Furniture of \$315k and Computer Hardware of \$99k, offset by higher spending for Postage of \$161k due to earlier mailing of the CCR report, Vehicle Purchases of \$113k, and Health/Safety of \$62k.
Other Services	20,084,072	19,752,229	(331,843)	-1.7%	The majority of the underspending is due to lower than budgeted sludge quantities of \$517k and Grit and Screenings of \$60k offset by higher than budgeted spending for space/lease rentals of \$150k, Police Details of \$69k, and Membership Dues of \$62k. Year-to-date sludge quantities are 5% lower, 95.9 tpd versus a budget of 101.9 tpd.
Total Direct Expenses	193,339,227	189,022,476	(4,316,749)	-2.2%	
Indirect Expenses					
Insurance	1,932,571	1,761,454	(171,117)	-8.9%	Lower spending for Claims of \$150k and Premiums of \$22k.
Watershed/PILOT	25,121,384	24,607,097	(514,287)	-2.0%	Lower PILOT (Payment in Lieu of Taxes) expense of \$269k as land valuations were lower than expected and Watershed Reimbursement of \$246k for lower operating expenses.
HEEC Payment	3,069,050	3,060,010	(9,040)	-0.3%	
Mitigation	1,446,274	1,383,786	(62,488)	-4.3%	Lower Mitigation for Quincy of \$43k and Winthrop of \$19k.
Addition to Reserves	156,281	156,281	-	0.0%	
Pension Expense	12,431,515	12,447,338	15,823	0.1%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	44,157,075	43,415,966	(741,109)	-1.7%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY14 Budget YTD May	FY14 Actuals YTD May	FY14 YTD Actual vs. FY14 Budget		Explanations
			\$	%	
Debt Service					
Debt Service	363,539,763	363,539,763	-	0.0%	Debt Service expenses are \$854k below budget level after the transfer of \$13.6 million of a favorable year-to-date variance to the Defeasance Account which is comprised of \$11.8 million for low variable rate interest and \$1.8 million is due to delayed SRF borrowing.
Debt Service Assistance	-	(853,660)	(853,660)		The variance of \$854k is due to the receipt of unbudgeted Debt Service Assistance from the Commonwealth of Massachusetts which will be used in FY15 to lower community assessments.
Total Debt Service Expenses	363,539,763	362,686,103	(853,660)	-0.2%	
Total Expenses					
Total Expenses	601,036,065	595,124,545	(5,911,518)	-1.0%	
Revenue & Income					
Rate Revenue	580,357,846	580,357,846	-	0.0%	
Other User Charges	7,504,174	7,412,610	(91,564)	-1.2%	
Other Revenue	5,546,866	10,415,829	4,868,963	87.8%	The higher non-rate Revenue of \$4.8 million is mainly due to \$3.1 million in payments for dismissal of all disputed claims of all parties to the 2010 water main break cost recovery, \$427k for the sale of unbudgeted emergency water for the Town of Hudson, \$318k for higher energy revenue due to timing of and higher Demand Response and Renewable Portfolio Standard (RPS) sales, \$247k for the sale of surplus equipment, \$233k for the receipt of a Homeland Security grant for the Carroll Plant security gate, \$50k for the timing of Fore River Railroad Corporation reimbursement, and a variety of other smaller items totaling \$402k.
Rate Stabilization	3,230,769	3,230,769	-	0.0%	
Investment Income	10,741,779	11,140,622	398,843	3.7%	
Total Revenue	607,381,434	612,557,676	5,176,242	0.9%	
Net Revenue in Excess of Expenses	6,345,369	17,433,131	11,087,760		

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY14 Budget YTD May	FY14 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
Interception & Pumping (I&P)	\$9,546	\$5,839	(\$3,707)	-38.8%	Underspending mainly due to lower than budgeted award for Nut Island Electrical & Grit/Screens Conveyance - Construction contract of \$1.3M, timing of work for Prison Point/Cottage Farm Engine Pump & Gearbox Rebuilds of \$990,000, and schedule changes for Rehabilitation of Sections 186 and 4 - Construction of \$590,000, Prison Point Piping Rehab of \$276,000 and North System Hydraulic Study of \$203,000.
Treatment	\$30,435	\$13,457	(\$16,978)	-55.8%	Underspending on North Main Pump Station (NMPS) VFD Replacement Construction of \$6.2M and Centrifuge Backdrive Replacement of \$1.1M due to timing of equipment delivery, Scum Skimmer Replacement of \$2.0M due to timing of equipment delivery and review and approval by MWRA staff, NMPS & Winthrop Terminal Facility Butterfly Valve Replacements of \$2.0M, Clinton Digester Rehabilitation of \$819,000, HVAC Equipment Replacement - Design/ESDC of \$760,000, Power System Improvements - Construction of \$700,000, Fire Alarm System Replacement - Design of \$583,000, Thermal Power Plant Boiler Controls Replacement of \$500,000, Digester Sludge Pump Replacement - Construction of \$392,000, Cryogenic Chillers Replacement of \$375,000 and Sodium Hypochlorite Pipe Replacement - Design of \$300,000 due to schedule shifts, and Electrical Equipment Upgrades - Construction 4 of \$1.3M due to timing. Offset by overspending on Digester Modules 1 and 2 Pipe Replacement of \$807,000 and Expansion Joint Repair Construction 2 of \$342,000 due to work scheduled for FY13 performed in FY14.
Residuals	\$333	\$499	\$166	50.0%	

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY14 Budget YTD May	FY14 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
CSO	\$31,111	\$14,155	(\$16,956)	-54.5%	Underspending on Cambridge Sewer Separation of \$13.9M primarily due to timing of payments for contracts 8B and 9, Reserved Channel Sewer Separation of \$1.3M due to timing of expenditures, South Dorchester Sewer Separation (Commercial Point) of \$1.1M due to schedule change for inflow removal work, and North Dorchester Bay Outfall of \$491,000 due to reduced scope resulting in less than anticipated design services.
Other Wastewater	(\$885)	\$4,047	\$4,932	-	Overspending on Infiltration and Inflow (I/I) due to community requests for grants and loans being greater than budgeted.
Total Wastewater	\$70,540	\$37,997	(\$32,543)	-46.1%	
Drinking Water Quality Improvements	\$30,190	\$26,209	(\$3,981)	-13.2%	Underspending for Spot Pond Storage Facility of \$3.0M mainly for site issues and timing of equipment delivery, and Carroll Water Treatment Plant of \$1.4M mainly for Existing Facility Modifications, CP7 - Design due to schedule shift.
Transmission	\$6,083	\$4,115	(\$1,968)	-32.4%	Underspending for Watershed Land of \$960,000 due to the timing of land acquisitions, Hultman Aqueduct Rehabilitation of \$622,000 mainly due to updated costs and timing of final work, and Dam Projects of \$299,000 due to less than anticipated design services.
Distribution & Pumping	\$8,910	\$4,624	(\$4,286)	-48.1%	Underspending on Weston Aqueduct Supply Mains of \$3.0M mainly due to the award being lower than budget for WASM3 Design/Construction Administration/Resident Inspection of \$2.1M and work anticipated in FY14 but completed in FY13 for Watertown Section Rehabilitation of \$621,000. Also, underspending on Valve Replacement of \$375,000 due to timing of equipment purchases, Southern Spine Distribution Mains \$289,000 due to the completion of Sections 21, 43 & 22 Design below budget, Northern Intermediate High Redundancy & Storage of \$287,000 mainly due to less than anticipated design services, and Lynnfield Pipeline of \$149,000 due to timing.
Other Waterworks	\$901	\$1,454	\$553	61.4%	Overspending on Local Water Pipeline Assistance Program due to community requests for loans being greater than budgeted by \$1.0M.

ATTACHMENT 3
Capital Improvement Program Variance Explanations

	FY14 Budget YTD May	FY14 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
Total Waterworks	\$46,084	\$36,402	(\$9,682)	-21.0%	
Business & Operations Support	\$7,314	\$4,562	(\$2,752)	-37.6%	Underspending on Centralized Equipment Purchase of \$1.1M due to timing of security equipment and vehicle purchases, Alternative Energy Initiatives of \$1.1M mainly due to the Deer Island Wind Turbine repairs being funded via warranty and lower than projected as-needed technical assistance for energy initiatives, Capital Maintenance Planning & Development of \$856,000 due to lower than projected use of as-needed technical assistance. Offset by overspending of MIS-related projects of \$326,000 due to progress of IT Strategic Plan implementation.
Total MWRA	\$123,938	\$78,961	(\$44,977)	-36.3%	

ATTACHMENT 4

FY14 Projection vs FY14 Approved Budget

TOTAL MWRA	FY14 Approved Budget	FY14 Projection	Change FY14 Projection vs FY14 Approved Budget	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 94,874,284	\$ 91,964,696	\$ (2,909,588)	-3.1%
OVERTIME	3,580,025	3,427,072	(152,953)	-4.3%
FRINGE BENEFITS	18,063,825	18,072,137	8,312	0.0%
WORKERS' COMPENSATION	2,000,000	2,400,358	400,358	20.0%
CHEMICALS	10,671,225	10,527,640	(143,585)	-1.3%
ENERGY AND UTILITIES	22,760,588	22,507,652	(252,936)	-1.1%
MAINTENANCE	27,761,580	28,290,162	528,582	1.9%
TRAINING AND MEETINGS	330,917	314,190	(16,727)	-5.1%
PROFESSIONAL SERVICES	6,083,402	5,458,377	(625,025)	-10.3%
OTHER MATERIALS	5,969,470	5,834,079	(135,391)	-2.3%
OTHER SERVICES	22,278,700	21,838,437	(440,263)	-2.0%
TOTAL DIRECT EXPENSES	\$ 214,374,017	\$ 210,634,800	\$ (3,739,215)	-1.8%
INSURANCE	\$ 2,093,618	\$ 2,000,101	\$ (93,517)	-4.5%
WATERSHED/PILOT	27,214,833	26,636,833	(578,000)	-2.1%
HEEC PAYMENT	3,346,854	3,379,550	32,696	1.0%
MITIGATION	1,566,797	1,525,477	(41,320)	-2.6%
ADDITIONS TO RESERVES	169,304	169,304	-	0.0%
RETIREMENT FUND	7,455,103	7,470,926	15,823	0.2%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	4,976,411	4,976,411	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 46,822,920	\$ 46,158,603	\$ (664,317)	-1.4%
STATE REVOLVING FUND	\$ 75,960,617	\$ 73,548,811	\$ (2,411,805)	-3.2%
SENIOR DEBT	204,471,302	203,337,968	(1,133,333)	-0.6%
DEBT SERVICE ASSISTANCE	-	(853,660)	(853,660)	
CURRENT REVENUE/CAPITAL	9,200,000	9,200,000	-	0.0%
SUBORDINATE MWRA DEBT	100,117,241	100,117,241	-	0.0%
LOCAL WATER PIPELINE CP	4,127,811	341,921	(3,785,890)	-91.7%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
VARIABLE DEBT	-	(12,441,396)	(12,441,396)	
CORE FUND DEPOSIT	132,238	132,238	-	0.0%
DEFEASANCE ACCOUNT	-	19,772,424	19,772,424	
BOND REDEMPTION	-	-	-	
TOTAL DEBT SERVICE	\$ 397,226,267	\$ 396,372,607	\$ (853,660)	-0.2%
TOTAL EXPENSES	\$ 658,423,205	\$ 653,166,010	\$ (5,257,192)	-0.8%
REVENUE & INCOME				
RATE REVENUE	\$ 628,721,002	\$ 628,721,002	\$ -	0.0%
OTHER USER CHARGES	8,127,379	8,127,379	-	0.0%
OTHER REVENUE	6,444,291	10,640,291	4,196,000	65.1%
RATE STABILIZATION	3,500,000	3,500,000	-	0.0%
INVESTMENT INCOME	11,630,534	12,030,534	400,000	3.4%
TOTAL REVENUE & INCOME	\$ 658,423,205	\$ 663,019,204	\$ 4,596,000	0.7%
VARIANCE		\$ (9,853,194)	\$ 9,853,194	


STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2014
SUBJECT: FY2014 Water Assessment Adjustments



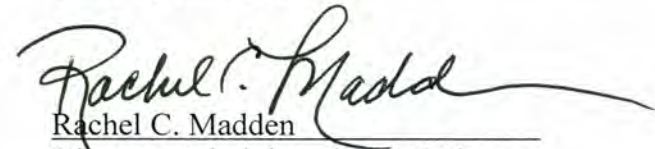
COMMITTEE: Administration, Finance & Audit

X INFORMATION
 VOTE


Michael J. Hornbrook
Chief Operating Officer

Stephen Estes-Smargiassi, 
Director, Planning and Sustainability
Kathy Soni, Budget Director
Leo Norton, Asst. Mgr. Rates, Revenue & Finance
Preparer/Title




Rachel C. Madden
Director, Administration and Finance

RECOMMENDATION:

For information only. This staff summary provides information on changes to CY2012 water meter data used to calculate FY2014 community water assessments. The assessment adjustments resulting from these changes are included in the FY2015 assessments being presented at today's Board of Directors' meeting.

DISCUSSION:

MWRA annually determines preliminary water and sewer assessments in February and final assessments in June. As part of MWRA's Rate Basis Review and Comment Process, approved by the Board of Directors in 1996, water and sewer customers can challenge rate basis data through the current fiscal year. MWRA staff also conducts supplementary quality assurance reviews of meter data during this time period which could result in changes to the rate basis data.

Town of Framingham Water Use

MWRA staff have decreased CY2012 metered water use by approximately 34.359 million gallons for the Town of Framingham. This adjustment is required due to an electrical issue with one component of the metering and communication equipment used by MWRA to measure, record and transmit community water use data.

In March 2013, the Town of Framingham requested that MWRA review water meter data as they believed that there was a discrepancy between the data generated by its parallel metering equipment and the MWRA's in the four town pump stations which feed the town from MWRA's transmission system. Several reviews of MWRA's metering equipment and routine meter

calibration inspections during 2013 and 2014 did not reveal any error in MWRA's metering equipment. However, in April 2014 staff determined that an error was being generated by the TELOG unit which converts the electrical signal from the metering equipment to a flow value and transmits it to MWRA's central computers. With the assistance of the TELOG manufacturer, staff determined that a switch within the unit, which allows the unit to alternate between amperage or voltage signals, was oxidized causing increased electrical resistance, and an incorrect conversion between an accurate electrical signal and a flow measurement, resulting in higher flow calculation.

Immediately upon discovering this issue, staff developed a simple fix and long-term maintenance program which would prevent the re-occurrence of this error. A regular program of cleaning the switch of oxidation, and checking that the TELOG unit is properly reporting flow has now been added to MWRA's long standing maintenance program. Also, every one of the 168 potentially affected meters was checked during April and May 2014.

Based on the measured inaccuracy of each individual TELOG unit which experienced any significant oxidation, staff have adjusted (reduced flow data) for three of Framingham's four meters for calendar year 2012 flow data requiring the prior year adjustment.

As a result, Framingham's FY2014 water assessment will be reduced by \$103,391. The Town of Framingham has been notified of this adjustment.

In addition to the CY2012 water adjustment for Framingham, the inspection of MWRA water meters has also resulted in minor decreases of CY2013 water use for Chelsea, Framingham, Malden, Newton and Waltham. Since CY2013 water use is used to calculate FY2015 water assessments, these adjustments are incorporated in the FY2015 assessments staff summary.

Attachment 1 summarizes the FY2014 water assessment adjustment and the impact for each community.

BUDGET/FISCAL IMPACT:

Based on MWRA's zero based assessment methodology, water assessments for all other water communities will increase and these adjustments will be applied to each community's FY2015 water assessment. There will be no impact on the FY2015 rate revenue requirement as the net changes equal zero.

ATTACHMENTS:

1. Water Utility: Prior Fiscal Year Assessment Adjustments

Massachusetts Water Resources Authority
 Wholesale Water & Sewer Assessments
 Water Utility: Prior Fiscal Year Assessment Adjustments

Budget Status: Draft Final
 CEB Model No.: Pending

Run Date: 12-Jun-14
 Print Date: 12-Jun-14
 Print Time: 3:37 PM

Budget Fiscal Year: 2015
 Current Fiscal Year: 2014
 Prior Fiscal Year: 2013
 Prior Calendar Year: 2013

MWRA WATER CUSTOMER	Calendar Year 2012		Fiscal Year 2014		REVISED CY	2012	REVISED FY	2014	Fiscal Year	Comments
	Preliminary Water Use (MG adjusted for rates allocation)	Share of Water Use	Billable Water Assessment	Share of System Assessment	Water Use (MG adjusted for rates allocation)	Share of Water Use	Billable Water Assessment	Share of System Assessment	2014 Assessment Adjustment	
ARLINGTON	1,455.106	2.24%	\$4,553,819	2.24%	1,455.106	2.24%	\$4,556,223	2.24%	\$2,404	
BELMONT	804.284	1.24%	2,516,559	1.24%	804.284	1.24%	2,517,887	1.24%	1,328	
BOSTON (BWSC)	23,548.216	36.21%	73,408,095	36.12%	23,548.216	36.23%	73,446,998	36.14%	38,903	
BROOKLINE	1,887.627	2.90%	5,906,771	2.91%	1,887.627	2.90%	5,909,889	2.91%	3,118	
CANTON	451.513	0.69%	1,414,000	0.70%	451.513	0.69%	1,414,746	0.70%	746	
CHELSEA	1,126.375	1.73%	3,524,702	1.73%	1,126.375	1.73%	3,526,562	1.74%	1,860	
DEDHAM-WESTOOD W.D.	39.893	0.06%	124,703	0.06%	39.893	0.06%	124,769	0.06%	66	
EVERETT	1,433.730	2.20%	4,486,488	2.21%	1,433.730	2.21%	4,488,856	2.21%	2,368	
FRAMINGHAM	2,443.378	3.76%	7,645,878	3.76%	2,409.019	3.71%	7,542,487	3.71%	-103,391	CY12 water use reduced 34.359 mg. Inaccurate meter registration (oxidized telog switch).
LEOMINSTER	0.000	0.00%	0	0.00%	0.000	0.00%	0	0.00%	0	
LEXINGTON	1,775.312	2.73%	5,555,065	2.73%	1,775.312	2.73%	5,557,997	2.74%	2,932	
LYNN (LWSC)	77.523	0.12%	242,626	0.12%	77.523	0.12%	242,754	0.12%	128	
LYNNFIELD W.D.	149.450	0.23%	467,594	0.23%	149.450	0.23%	467,841	0.23%	247	
MALDEN	2,001.784	3.08%	6,264,071	3.08%	2,001.784	3.08%	6,267,378	3.08%	3,307	
MARBLEHEAD	636.159	0.98%	1,990,555	0.98%	636.159	0.98%	1,991,606	0.98%	1,051	
MARLBOROUGH	1,017.890	1.57%	3,184,761	1.57%	1,017.890	1.57%	3,186,442	1.57%	1,681	
MEDFORD	1,763.997	2.71%	5,520,265	2.72%	1,763.997	2.71%	5,523,179	2.72%	2,914	
MELROSE	805.079	1.24%	2,519,249	1.24%	805.079	1.24%	2,520,579	1.24%	1,330	
MILTON	905.816	1.39%	2,834,490	1.39%	905.816	1.39%	2,835,986	1.40%	1,496	
NAHANT	111.603	0.17%	349,194	0.17%	111.603	0.17%	349,378	0.17%	184	
NEEDHAM	406.295	0.62%	1,271,018	0.63%	406.295	0.63%	1,271,689	0.63%	671	
NEWTON	3,302.216	5.08%	10,333,024	5.08%	3,302.216	5.08%	10,338,479	5.09%	5,455	
NORTHBOROUGH	326.645	0.50%	1,022,003	0.50%	326.645	0.50%	1,022,542	0.50%	539	
NORWOOD	1,001.131	1.54%	3,133,277	1.54%	1,001.131	1.54%	3,134,931	1.54%	1,654	
PEABODY	249.043	0.38%	779,127	0.38%	249.043	0.38%	779,539	0.38%	412	
QUINCY	3,242.686	4.99%	10,147,276	4.99%	3,242.686	4.99%	10,152,632	5.00%	5,356	
READING	592.532	0.91%	1,854,203	0.91%	592.532	0.91%	1,855,182	0.91%	979	
REVERE	1,391.064	2.14%	4,353,201	2.14%	1,391.064	2.14%	4,355,499	2.14%	2,298	
SAUGUS	946.888	1.46%	2,963,455	1.46%	946.888	1.46%	2,965,019	1.46%	1,564	
SOMERVILLE	2,058.053	3.16%	6,440,071	3.17%	2,058.053	3.17%	6,443,471	3.17%	3,400	
SOUTHBOROUGH	222.169	0.34%	695,113	0.34%	222.169	0.34%	695,480	0.34%	367	
STONEHAM	1,042.456	1.60%	3,262,031	1.61%	1,042.456	1.60%	3,263,753	1.61%	1,722	
STOUGHTON	242.374	0.37%	758,402	0.37%	242.374	0.37%	758,803	0.37%	401	
SWAMPSCOTT	569.375	0.88%	1,781,628	0.88%	569.375	0.88%	1,782,569	0.88%	941	
WAKEFIELD	512.802	0.79%	1,604,779	0.79%	512.802	0.79%	1,605,626	0.79%	847	
WALTHAM	2,495.441	3.84%	7,809,194	3.84%	2,495.441	3.84%	7,813,317	3.84%	4,123	
WATERTOWN	941.215	1.45%	2,945,405	1.45%	941.215	1.45%	2,946,960	1.45%	1,555	
WELLESLEY	455.216	0.70%	1,423,735	0.70%	455.216	0.70%	1,424,487	0.70%	752	
WESTON	606.887	0.93%	1,898,881	0.93%	606.887	0.93%	1,899,883	0.93%	1,002	
WILMINGTON	39.920	0.06%	125,176	0.06%	39.920	0.06%	125,242	0.06%	66	
WINCHESTER	360.479	0.55%	1,127,860	0.56%	360.479	0.55%	1,128,455	0.56%	595	
WINTHROP	456.878	0.70%	1,429,691	0.70%	456.878	0.70%	1,430,446	0.70%	755	
WOBURN	1,134.658	1.74%	3,549,339	1.75%	1,134.658	1.75%	3,551,213	1.75%	1,874	
Total	65,031.158	100.00%	\$203,216,774	100.00%	64,996.799	100.00%	203,216,774	100.00%	\$0	


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2014
SUBJECT: FY15 Final Capital Improvement Program



COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


Kathy Soni, Budget Director
David Whelan, Budget Manager
Preparer/Title


Rachel C. Madden
Director, Administration and Finance

The FY15 Capital Improvement Program projects \$137.6 million in spending for FY15, of which \$82.6 million supports Wastewater System Improvements, \$45.2 million supports Waterworks System Improvements, and \$9.8 million is for Business and Operations Support.

Some of the larger projects with spending in FY15 include Deer Island Asset Protection, Spot Pond Storage Facility, and Cambridge Sewer Separation.

It is important to note that based on the Advisory Board recommendation, two additional Inflow and Infiltration (I/I) Phases totaling \$160 million were added to the FY15 Final Budget. At \$80 million per phase, the new I/I phases are each double the traditional \$40.0 million per phase amount.

As recommended by the Advisory Board, the community managed financial assistance programs (both I/I and Local Water Pipeline) are excluded from the Cap calculation for the first time, preserving CIP spending capacity for all other projects.

FY15 is the second year of the FY14-18 Base-Line Cap which was set at \$791.7 million. Based on the FY15 Final Budget, the Cap for FY14-18 stands at \$765.1 million which is \$26.5 million or 3.4% lower than the Base-Line Cap. This lower Cap amount is the result of lower projected spending and the exclusion of the community assistance programs.

The FY15 Final CIP reaffirms that MWRA will be reducing its total bonded indebtedness over the Cap period by paying off more principal on debt than annual CIP spending.

RECOMMENDATION:

1. To approve the FY15 Capital Improvement Program (CIP), with \$145.1 million spending level, including contingency.
2. To approve the Responses to the Advisory Board's Comments and Recommendation on

MWRA's Fiscal Year 2015 Proposed Capital Improvement Program (Attachment D).

DISCUSSION:

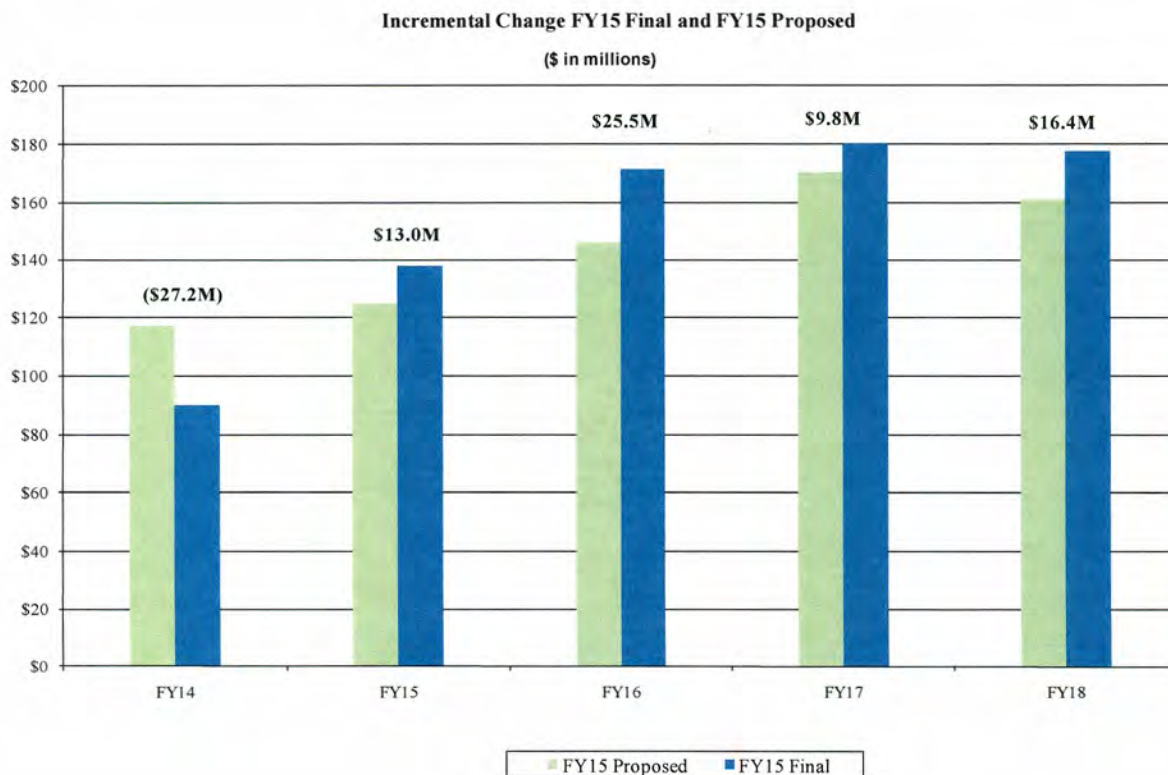
The FY15 Final Capital Improvement Program represents an update to the FY15 Proposed program presented to the Board in December 2013.

The spending projections put forth today are the result of prioritizing the projects driven by the Master Plan, establishing realistic estimates based on the latest information, striking a balance between maintenance and infrastructure improvements, and taking some risks while ensuring there is adequate support for the core operations and to meet all regulatory operating permit requirements.

In comparison with the FY15 Proposed CIP, the FY15 Final CIP increased at the overall program level by \$136.3 million, with a net \$37.4 million increase in the FY14-18 Cap period. The majority of the \$37.4 million increase during the FY14-18 Cap period was due to the following:

- Inflow and Infiltration (I/I) sub-phases 9 & 10 added \$50 million;
- Updated cost estimates and scope changes of \$8.7 million; and
- Revised schedules and cash flows.

The table below shows the incremental change by fiscal year between the FY15 Final and FY15 Proposed CIP.



The FY15 Final CIP reaffirms MWRA’s commitment to the Community Financial Assistance Programs, both for the Local Water Pipeline Assistance and the Inflow and Infiltration (I/I).

Furthermore, the structure of the I/I program was significantly enhanced at the recommendation of the Advisory Board based on requests from the communities. The table below compares the key elements of the prior and new program starting with Phases 9 & 10.

I/I phase 9 & 10	Prior	New
Amount per phase	\$40M	\$80M
Grant/Loan Split	45%/55%	75%/25%
Payback Period (loans only)	5 years	10 years

In addition to the above changes, the following safe-guards have been proposed for effective management:

- Communities will be required to provide three-year projected spending plan;
- Applications for draw downs over \$2 million are subject to 90 day advance notification;
- Phase 10 funds are automatically approved for local authorization when MWRA has distributed 50% of a communities Phase 9 allocation.

A separate staff summary will be presented to the Board today which describes the I/I program guidelines in more detail.

Spending Cap

The Base-Line Cap

The FY14 Final CIP established the FY14-18 Base-Line Cap at \$791.7 million. This is the third five-year Cap established by the Authority since FY04 and is significantly lower than the prior two five-year Cap periods which exceeded \$1.1 billion each. The following is a breakdown of the Cap components:

FY14-18 Base-Line Cap		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$142.5	\$147.6	\$149.3	\$141.8	\$136.8	\$718.0
Contingency	7.6	9.5	10.1	9.8	9.3	46.1	
Inflation on Unawarded Construction	0.8	4.2	8.4	11.1	13.5	37.9	
Less: Chicopee Valley Aqueduct Projects	(5.0)	(2.2)	(1.4)	(1.3)	(0.4)	(10.3)	
FY14-18 Base-Line Cap	\$145.8	\$159.1	\$166.4	\$161.3	\$159.1	\$791.7	

FY14-18 Cap Spending

The FY15 Final CIP budget anticipates capital expenditures in the FY14-18 timeframe to total \$756.3 million. Including contingency of \$40.1 million and inflation of \$27.5 million offset by

\$51.3 million in Community Loan Program Support and Chicopee Valley Aqueduct adjustments of \$7.5 million, the FY15 Final FY14-18 Cap totals \$765.1 million which is \$26.5 million or 3.4% less than the FY14 Final FY14-18 Base-Line Cap.

FY15 Final Cap FY14-18 Comparison

FY15 Draft Final	FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$89.8	\$137.6	\$171.4	\$180.1	\$177.4
Contingency	0.0	7.5	10.0	11.4	11.2	40.1
Inflation on Unawarded Construction	0.0	0.7	4.4	9.5	12.8	27.5
Less: I/I Program	0.0	(11.2)	(13.4)	(15.5)	(14.7)	(54.8)
Less: Water Loan Program	0.0	1.3	1.4	1.7	(0.9)	3.5
Less: Chicopee Valley Aqueduct Projects	(6.2)	(0.7)	(0.2)	(0.2)	(0.2)	(7.5)
FY15 Draft Final FY14-18 Spending	\$83.5	\$135.3	\$173.6	\$187.0	\$185.7	\$765.1

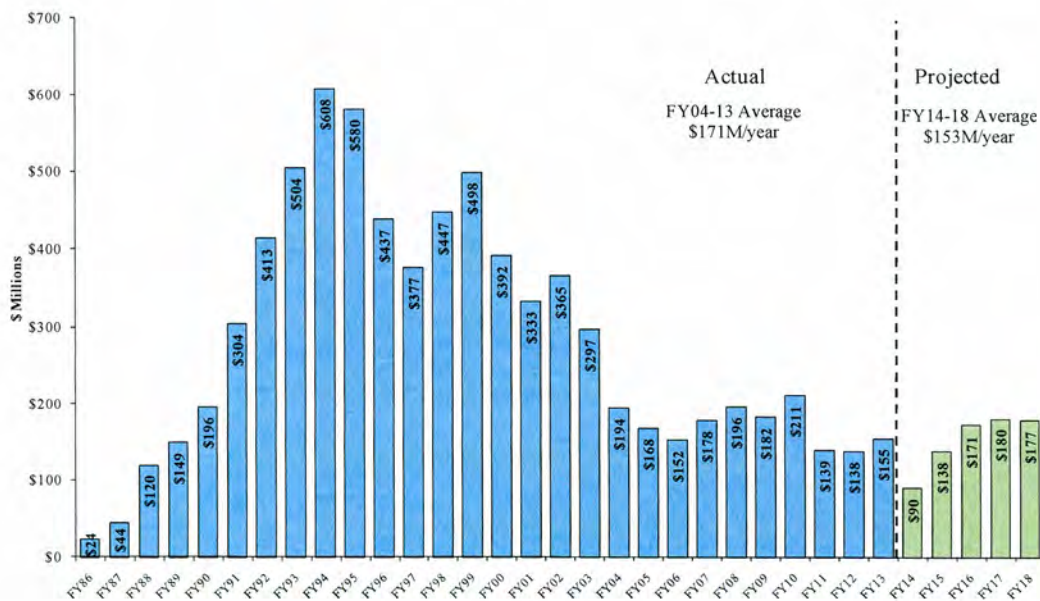
FY15 Draft Final vs FY14-18 Base-Line Cap	FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	(\$52.7)	(\$10.0)	\$22.0	\$38.3	\$40.6
Contingency	(7.6)	(2.0)	(0.1)	1.6	2.0	(6.0)
Inflation on Unawarded Construction	(0.8)	(3.4)	(4.0)	(1.6)	(0.6)	(10.4)
Less: I/I Program	0.0	(11.2)	(13.4)	(15.5)	(14.7)	(54.8)
Less: Water Loan Program	0.0	1.3	1.4	1.7	(0.9)	3.5
Less: Chicopee Valley Aqueduct Projects	(1.2)	1.5	1.3	1.1	0.2	2.9
FY14-18 Cap (\$ Change)	(\$62.3)	(\$23.8)	\$7.3	\$25.7	\$26.6	(\$26.5)
FY14-18 Cap (% Change)	-42.7%	-15.0%	4.4%	15.9%	16.7%	-3.4%

It is important to note that the community managed financial assistance programs are for the first time excluded from the Cap calculation at the recommendation of the Authority’s Advisory Board.

This Cap complies with both the annual and overall Cap requirements.

Historical Spending

The chart below captures the historical CIP spending through FY13 and projected spending to FY18 based on the FY15 Final CIP.



As referenced previously, the five-year cap concept was introduced in the FY04 budget development cycle and covered the FY04-08 period. The first cap level was established at \$1.134 billion.

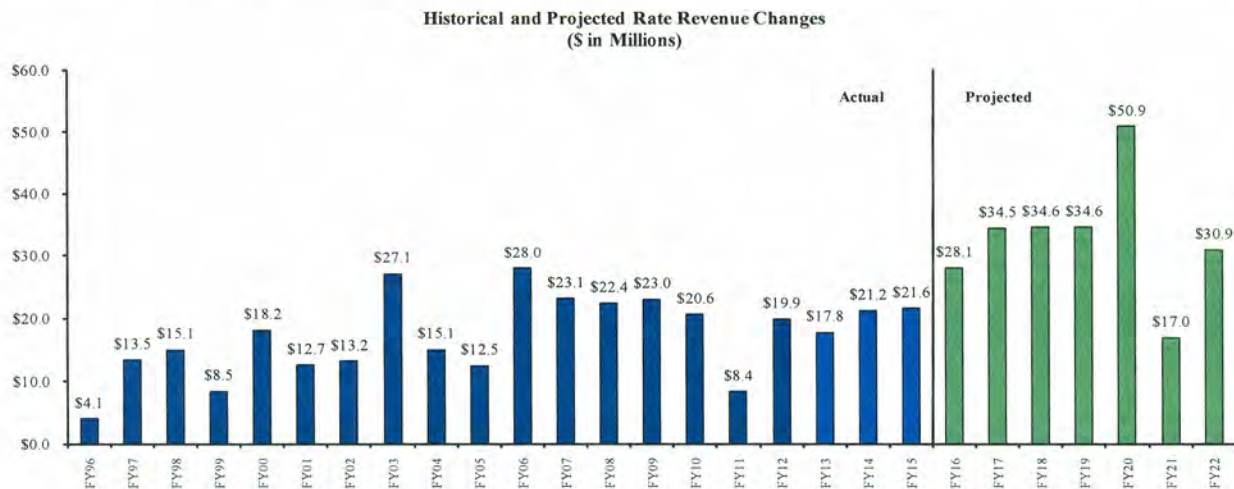
The average spending for FY04-13 timeframe was \$171 million per year and based on the FY15 Final CIP, we are currently projecting that average spending during the current FY14-18 Cap will be \$153 million.

MWRA Capital Improvement Spending versus Debt Service

As of June 30th, MWRA’s total debt will be \$5.8 billion which results in significant increases in debt service obligations in the upcoming years. The Authority’s debt service as a percent of total expenses has increased from 36% in 1990 to nearly 61% in the FY15 Final Current Expense Budget.

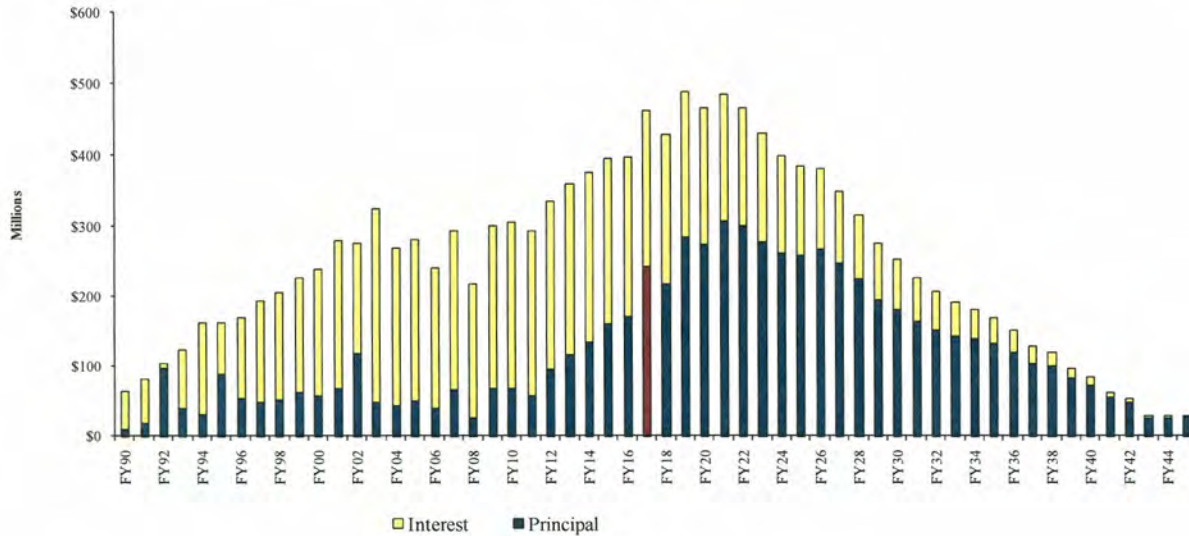
Through FY22, the Rate Revenue Requirement increases an average of \$32.9 million per year, mostly driven by Debt Service related expenses.

The graph below shows the projected Rate Revenue Requirement changes updated with the FY15 CIP spending and debt service projections.



For the first time, MWRA will be reducing its total bonded indebtedness during this Cap period as the Authority will be paying more principal than annual CIP spending. In addition, it is worthy of note that MWRA reaches another milestone during this Cap period and will begin paying more principal than interest on its debt during the FY14-18 timeframe.

MWRA Principal and Interest Payment History and Projections



Future of the Capital Program - Shift from Mandated Projects

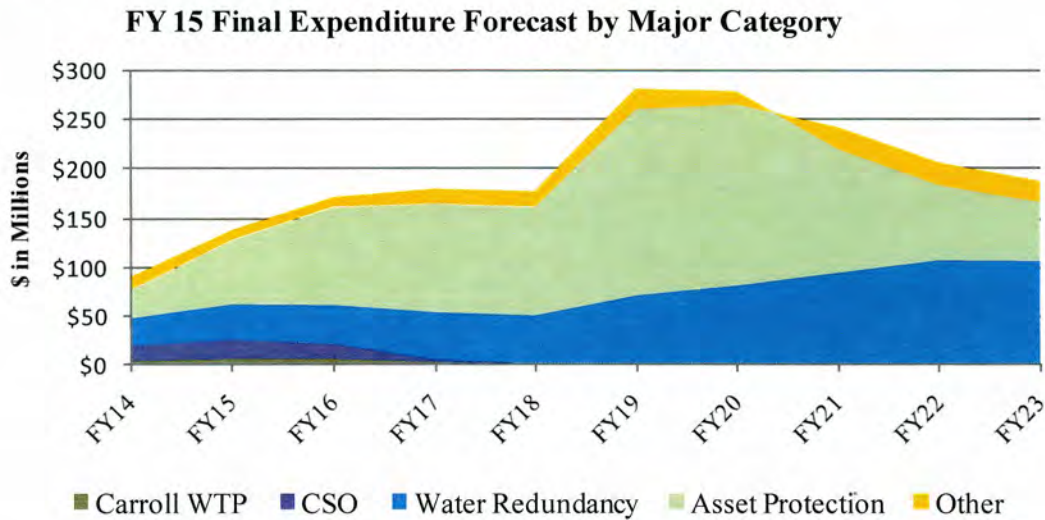
Since 1985, nearly 80% of the Authority’s spending has been on court mandated and regulatory required projects. Based on the FY15 Final CIP, mandated or regulatory related projects account for ~ 30% of spending - the majority of which will support Asset Protection, Water System Redundancy, Pipeline Replacement and Rehabilitation, and continued support for Community Assistance programs.

The table below captures the changing nature of the program in the future:

	Total Contract	FY09-13	FY14-18	FY19-23	Beyond 23
Asset Protection	\$ 2,145.5	\$ 252.0	\$ 416.7	\$ 699.0	\$ 146.2
Carroll WTP	\$ 433.7	\$ 39.4	\$ 20.6	\$ 1.9	\$ -
Water Redundancy	\$ 1,865.7	\$ 138.4	\$ 203.2	\$ 460.1	\$ 205.1
CSO	\$ 867.8	\$ 316.5	\$ 53.5	\$ 1.3	\$ -
Other	\$ 539.5	\$ 80.1	\$ 62.3	\$ (31.2)	\$ (74.6)
Total	\$5,852.2	\$ 826.4	\$ 756.3	\$1,131.1	\$ 276.7
Asset Protection	36.7%	30.5%	55.1%	61.8%	52.8%
Carroll WTP	7.4%	4.8%	2.7%	0.2%	0.0%
Water Redundancy	31.9%	16.7%	26.9%	40.7%	74.1%
CSO	14.8%	38.3%	7.1%	0.1%	0.0%
Other	9.2%	9.7%	8.2%	-2.8%	-27.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

As presented above, Asset Protection and Water Redundancy initiatives accounted for 30.5% and 16.7% of FY09-13 spending, respectively. Asset Protection and Water System Redundancy spending is projected to rise from past levels and currently accounts for 55.1% and 26.9% of FY14-18 capital expenditures respectively, a total of nearly \$619.9 million of the \$756.3 million, or 82% projected to be spent over the 5-year period.

The graph below displays the projected trend of expenditures by major category for the FY14-23 time period.



FY15 Final CIP Expenditures

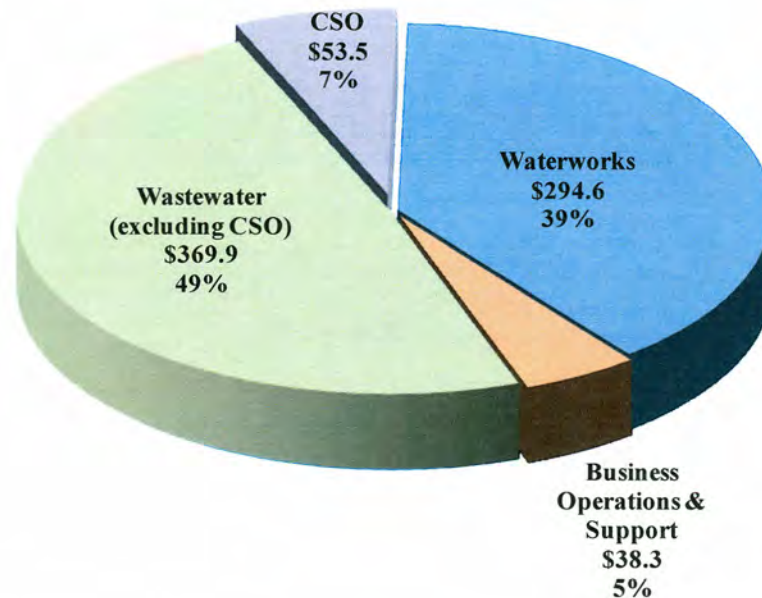
The FY15 Final CIP contains future spending estimated at \$2.2 billion. The FY15 Final CIP (without contingency) includes planned expenditures of \$137.6 million for FY15 and total projected expenditures of \$756.3 million for the FY14-18 timeframe.

The table below represents the projected spending by the major project categories:

	Total Contract Amount	Payments Thru FY13	Projected Spending	FY14	FY15	FY16	FY17	FY18	Total FY14-18
Wastewater System Improvements	\$2,885.8	\$1,736.0	\$1,149.8	\$42.2	\$82.6	\$105.4	\$99.3	\$93.8	\$423.4
Interception & Pumping	873.2	520.5	352.6	6.8	12.2	23.8	31.2	35.0	109.0
Treatment	709.4	184.7	524.7	15.1	39.4	51.3	47.1	38.6	191.5
Residuals	167.9	64.5	103.4	0.4	-	1.5	3.8	4.8	10.4
CSO	892.4	837.7	54.7	15.6	19.9	15.5	1.8	0.8	53.5
Other Wastewater	242.9	128.5	114.4	4.2	11.2	13.4	15.5	14.7	59.0
Waterworks System Improvements	\$2,843.7	\$1,874.7	\$969.0	\$41.4	\$45.2	\$57.2	\$73.0	\$77.9	\$294.6
Drinking Water Quality Improvements	659.9	595.2	64.7	28.9	23.0	6.8	3.3	0.8	62.8
Transmission	1,201.7	755.0	446.7	5.3	13.2	23.8	29.3	26.4	98.0
Distribution & Pumping	932.6	372.7	559.9	6.2	9.8	23.5	36.8	44.8	121.1
Other Waterworks	49.5	151.7	(102.2)	1.0	(0.8)	3.1	3.6	5.9	12.8
Business & Operations Support	122.7	77.4	45.2	6.2	9.8	8.8	7.8	5.7	\$38.3
Total MWRA	\$5,852.2	\$3,688.1	\$2,164.1	\$89.8	\$137.6	\$171.4	\$180.1	\$177.4	\$756.3

The graph below illustrates a breakdown of the major program spending (in millions) for the FY14-18 timeframe.

Please refer to Attachment B for a more detailed project listing and projected cash flows.



Contingency

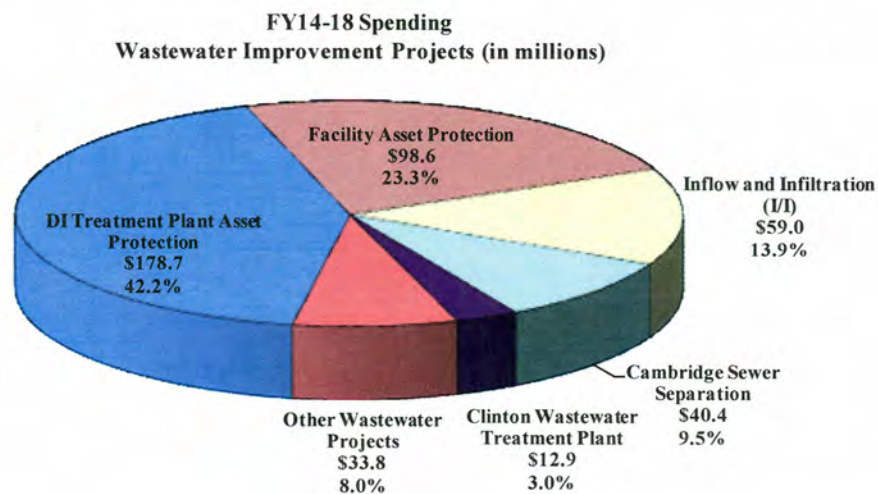
Contingency for each fiscal year is incorporated into the CIP to fund the uncertainties inherent to construction. The contingency budget is calculated as a percentage of budgeted expenditure outlays. Specifically, contingency is 7% for non-tunnel projects and 15% for tunnel projects. The contingency budget is \$7.5 million for FY15 and \$40.1 million for the FY14-18 timeframe.

Top 10 Projects – FY14-18 Cap Period

It is important to emphasize that the majority of spending within the Wastewater and Water Capital programs is concentrated in several larger projects with significant spending in the FY14-18 timeframe. These projects are either currently under construction or soon to be awarded. The top five projects for the Wastewater program total \$389.6 million for the FY14-18 period and represent 92.0% of the \$423.4 million total program.

Wastewater Improvement Projects	Total Contract Amount	FY14-18 Spending	% of Program
DI Treatment Plant Asset Protection	\$655.6	\$178.7	42.2%
Facility Asset Protection	\$306.8	\$98.6	23.3%
Inflow and Infiltration (I/I)	\$242.6	\$59.0	13.9%
Cambridge Sewer Separation	\$90.8	\$40.4	9.5%
Clinton Wastewater Treatment Plant	\$19.2	\$12.9	3.0%
Top 5 Wastewater Improvement Projects	\$1,315.0	\$389.6	92.0%
Other Wasterwater Projects	\$1,570.9	\$33.8	8.0%
Total Wastewater Program Spending	\$2,885.8	\$423.4	100.0%

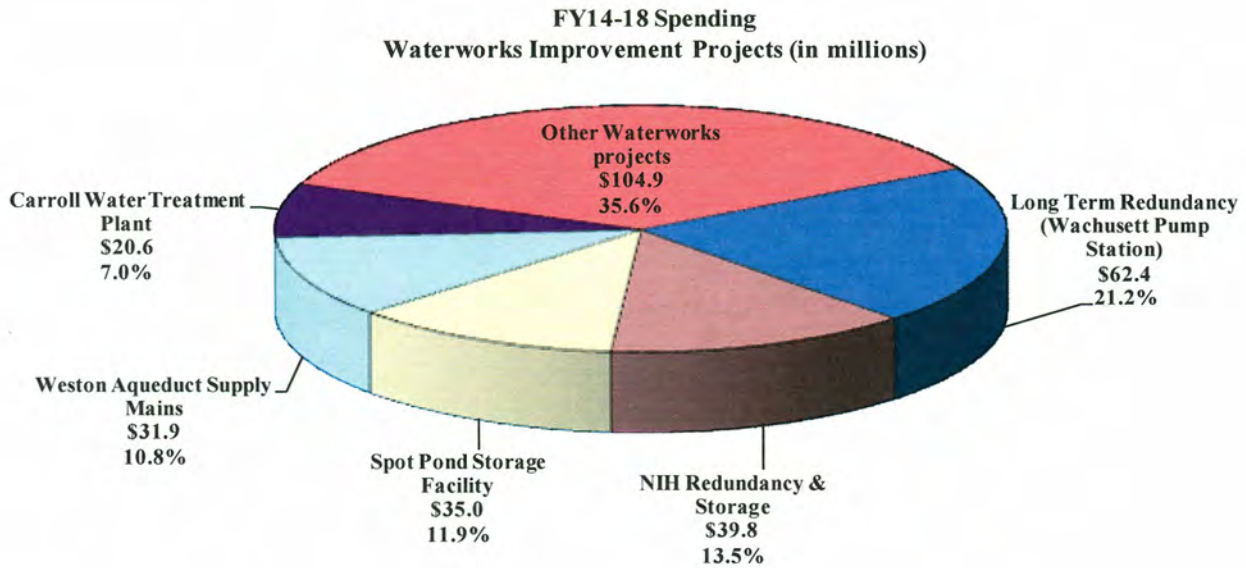
The breakdown of the \$423.4 million program by the major projects is illustrated below:



Similarly, the top five projects for the Waterworks program total \$189.8 million for FY14-18 and represent 64.4% of the \$294.6 million total program.

Waterworks Improvement Projects	Total Contract Amount	FY14-18 Spending	% of Program
Long-Term Redundancy (Wachusett Pump Station)	\$390.6	\$62.4	21.2%
NIH Redundancy & Storage	\$88.7	\$39.8	13.5%
Spot Pond Storage Facility	\$59.6	\$35.0	11.9%
Weston Aqueduct Supply Mains	\$276.5	\$31.9	10.8%
Carroll Water Treatment Plant	\$433.7	\$20.6	7.0%
Top 5 Waterworks Improvement Projects	\$1,249.1	\$189.8	64.4%
Other Waterworks projects	\$1,594.6	\$104.9	35.6%
Total Waterworks Program Spending	\$2,843.7	\$294.6	100.0%

The breakdown of the \$294.6 million program by the major projects is illustrated below:



Major Planned Contract Awards for Fiscal Year 2015:

In Fiscal Year 2015, 33 contracts totaling \$128.6 million are projected to be awarded. The largest ten projected contract awards are listed below and account for 80% of expected awards:

Project	Subphase	FY15 Budget Amount
Long Term Redundancy	Wachusett Aqueduct Pump Station Construction	\$ 50.6
Weston Aqueduct Supply Mains	Sect 36/W11/S 9-All Valve	10.5
Facility Asset Protection	Alewife Brook Pump Station Rehabilitation Construction	10.4
Carroll Water Treatment Plant	Existing Facilities Modications - CP7	6.3
DI Treatment Plant Asset Protection	Gravity Thickener Rehabilitation	5.8
DI Treatment Plant Asset Protection	Digester Sludge Pump Replacement Phase 2	4.7
Carroll Water Treatment Plant	Carroll Water Treatment Plant Storage Tank Roof Drainage	4.2
DI Treatment Plant Asset Protection	Winthrop Terminal Facility Variable Frequency Drive	4.1
Facility Asset Protection	Chelsea Screenhouse Upgrades	3.3
DI Treatment Plant Asset Protection	Fuel System Modifications	3.0
FY15 Top Ten Awards		\$ 102.9

Future Risks and Opportunities

There are still potential projects or required spending increases which are not yet funded as part of the FY15 Final CIP which are highlighted below:

- Cross Harbor Cable
- Co-Digestion
- System Expansion
- Efficiency Improvements
- Shaft 7 Tunnel Junction
- Sudbury Aqueduct

CIP Review and Adoption Process

In December, the MWRA transmitted the FY15 Proposed Capital Improvement Program to the Advisory Board for its review and comment. The Advisory Board issued their Integrated Comments and Recommendations in May. Please refer to Attachment D for the Authority's responses to the Advisory Boards Comments and Recommendations.

ATTACHMENT A
New Capital Projects Added to the FY15 CIP

Program	Project	Subphase	Total Contract Amount	FY14-18	FY19-23	Total Expenditures
Treatment	DITP Asset Protection	DI Gas Distribution System Modifications Design	\$2,000,000	\$1,083,333	\$916,667	\$2,000,000
	DITP Asset Protection	DI Gas Distribution System Modifications Construction	\$8,000,000	\$666,667	\$7,333,333	\$8,000,000
	DITP Asset Protection	Combined Heat and Power Facility Design	\$4,000,000	\$2,000,000	\$2,000,000	\$4,000,000
	DITP Asset Protection	Combined Heat and Power Facility Construction	\$21,000,000	\$0	\$21,000,000	\$21,000,000
	DITP Asset Protection	Co-Digestion Design/ESDC/REI - Pilot	\$750,000	\$600,000	\$150,000	\$750,000
	DITP Asset Protection	Co-Digestion Construction - Pilot	\$2,500,000	\$1,667,000	\$833,000	\$2,500,000
Interception & Pumping	Facility Asset Protection	Prison Point Rehabilitation Construction	\$5,463,120	\$1,966,722	\$3,496,398	\$5,463,120
	Facility Asset Protection	Cottage Farm Construction 1 (PCB Abatement)	\$2,101,200	\$2,101,200	\$0	\$2,101,200
	Facility Asset Protection	Cottage Farm Construction 2	\$7,354,200	\$2,647,512	\$4,706,688	\$7,354,200
Transmission	Sudbury/Weston Aqueduct Repairs	Rosemary Brook Building Repairs	\$1,527,450	\$1,527,450	\$0	\$1,527,450
	Sudbury/Weston Aqueduct Repairs	Farm Pond Buildings & Waban Arches Evaluation	\$101,493	\$101,493	\$0	\$101,493

ATTACHMENT A
New Capital Projects Added to the FY15 CIP

Program	Project	Subphase	Total Contract Amount	FY14-18	FY19-23	Total Expenditures
Business & Operations Support	Alternative Energy Initiatives	Shaft E Hydro In-Conduit Design/ESDC	\$120,000	\$120,000	\$0	\$120,000
	Alternative Energy Initiatives	Shaft E Hydro In-Conduit Construction	\$580,000	\$580,000	\$0	\$580,000
SUMMARY:						
Total Wastewater Projects			\$53,168,520	\$12,732,434	\$40,436,086	\$53,168,520
Total Waterworks Projects			\$1,628,943	\$1,628,943	\$0	\$1,628,943
Total Business & Operations Support Projects			\$700,000	\$700,000	\$0	\$700,000
Total Projects			\$55,497,463	\$15,061,377	\$40,436,086	\$55,497,463

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
Total MWRA	5,852,184,626	3,688,124,865	2,164,059,761	89,765,732	137,600,315	171,388,670	180,103,299	177,421,356	756,279,372	1,131,089,958	276,690,431
Wastewater	2,885,827,597	1,736,000,644	1,149,826,953	42,210,371	82,639,383	105,360,846	99,340,561	93,839,167	423,390,327	620,567,089	105,869,534
Interception & Pumping	873,172,101	520,540,063	352,632,038	6,805,721	12,223,772	23,750,110	31,236,640	34,953,537	108,969,781	213,926,377	29,735,882
102 Quincy Pump Facilities	25,907,202	25,907,202	-								
104 Braintree-Weymouth Relief Facilities	232,453,359	227,703,932	4,749,427	(573)				309,146	308,573	4,440,854	
105 New Neponset Valley Relief Sewer	30,300,303	30,300,303	-								
106 Wellesley Extension Replacement Sewer	64,358,543	64,358,543	-								
107 Framingham Extension Relief Sewer	47,855,986	47,855,986	-								
127 Cummingsville Replacement Sewer	8,998,768	8,998,768	-								
130 Siphon Structure Rehabilitation	6,519,979	939,770	5,580,209							5,580,209	
131 Upper Neponset Valley Sewer System	54,174,078	54,174,078	-								
132 Corrosion & Odor Control	16,345,847	3,001,406	13,344,441			360,000	480,000	160,000	1,000,000	12,344,442	
136 West Roxbury Tunnel	11,313,573	10,313,573	1,000,000							1,000,000	
137 Wastewater Central Monitoring	20,482,036	19,782,201	699,835	(165)			140,001	186,667	326,503	373,332	
139 South System Relief Project	4,939,244	3,439,244	1,500,000							1,500,000	
141 Wastewater Process Optimization	10,359,951	1,205,179	9,154,772	98,869	197,737		218,883	875,532	1,391,021	5,793,803	1,969,948
142 Wastewater Meter System - Equip. Replace.	26,437,912	5,137,912	21,300,000		75,000	225,000	3,000,000	4,000,000	7,300,000	3,000,000	11,000,000
143 Regional I/I Management Planning	168,987	168,987	-								
145 Facility Asset Protection	306,806,333	17,252,979	289,553,354	6,707,590	11,951,035	23,165,110	27,397,756	29,422,192	98,643,683	174,143,737	16,765,934
146 D.I. Cross Harbor Tunnel	5,000,000	-	5,000,000							5,000,000	

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
147 Randolph Trunk Sewer Relief	750,000	-	750,000							750,000	
Treatment	709,420,104	184,722,770	524,697,333	15,131,738	39,354,182	51,286,042	47,135,070	38,628,221	191,535,253	282,291,760	50,870,318
182 DI Primary and Secondary Treatment	(957,878)	(957,878)	-								
200 DI Plant Optimization	33,426,679	33,426,679	-								
206 DI Treatment Plant Asset Protection	655,557,962	147,500,575	508,057,387	14,944,972	36,863,245	47,916,846	42,383,435	36,554,703	178,663,201	278,523,865	50,870,318
210 Clinton Wastewater Treatment Plant	19,165,667	2,525,720	16,639,947	186,765	2,490,937	3,369,196	4,751,635	2,073,518	12,872,051	3,767,895	
211 Laboratory Services	2,227,674	2,227,674	-								
Residuals	167,920,224	64,535,816	103,384,409	384,409		1,500,000	3,750,000	4,750,000	10,384,409	58,916,667	34,083,333
261 Residuals	63,810,848	63,810,848	-								
271 Residuals Asset Protection	104,109,377	724,968	103,384,409	384,409		1,500,000	3,750,000	4,750,000	10,384,409	58,916,667	34,083,333
CSO	892,449,306	837,706,314	54,742,992	15,641,349	19,849,696	15,468,518	1,760,900	760,863	53,481,326	1,261,665	
CSO MWRA Managed	432,923,225	429,878,466	3,044,759	748,921	1,784,576	508,648	2,613		3,044,758		
339 North Dorchester Bay	221,606,137	221,620,594	(14,457)	(14,458)					(14,458)		
347 East Boston Branch Sewer Relief	85,638,310	85,645,995	(7,685)	(7,685)					(7,685)		
348 BOS019 Storage Conduit	14,287,581	14,287,581	-								
349 Chelsea Trunk Sewer	29,779,319	29,779,319	-								
350 Union Park Detention Treatment Facility	49,583,406	49,583,406	-								
353 Upgrade Existing CSO Facilities	22,385,200	22,385,200	-								
354 Hydraulic Relief Projects	2,294,549	2,294,549	-								
355 MWR003 Gate & Siphon	3,715,646	648,745	3,066,901	771,064	1,784,576	508,648	2,613		3,066,901		

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
357 Charles River CSO Controls	3,633,077	3,633,077	-								
CSO Community Managed	409,261,592	358,463,436	50,798,156	16,056,879	18,047,120	14,941,870	1,752,287		50,798,156		
340 Dorch. Bay Sewer Separation (Fox Point)	54,625,833	54,152,295	473,538	473,538					473,538		
341 Dorch Bay Sewer Sep. (Commercial Pt.)	64,173,625	61,147,150	3,026,475	(824,582)	249,000	1,849,770	1,752,287		3,026,475		
342 Neponset River Sewer Separation	2,549,086	2,444,394	104,692	104,692					104,692		
343 Constitution Beach Sewer Separation	3,731,315	3,768,888	(37,573)	(37,573)					(37,573)		
344 Stony Brook Sewer Separation	44,246,639	44,198,384	48,255	48,255					48,255		
346 Cambridge Sewer Separation	90,847,137	50,484,204	40,362,933	12,969,598	14,927,000	12,466,335			40,362,933		
351 BWSC Floatables Controls	945,936	932,979	12,957	12,957					12,957		
352 Cambridge Floatables Control	1,126,708	1,086,925	39,783	39,783					39,783		
356 Fort Point Channel Sewer Separation	11,917,090	12,006,708	(89,618)	(89,617)					(89,617)		
358 Morrissey Boulevard Drain	32,339,111	32,346,787	(7,676)	(158,525)		150,849			(7,676)		
359 Reserved Channel Sewer Separation	68,902,222	60,039,901	8,862,321	4,321,405	4,066,000	474,916			8,862,321		
360 Brookline Sewer Separation	24,802,483	25,997,364	(1,194,880)		(1,194,880)				(1,194,880)		
361 Bulfinch Triangle Sewer Separation	9,054,405	9,857,456	(803,051)	(803,052)					(803,052)		
CSO Planning & Support	50,264,489	49,364,412	900,077	(1,164,451)	18,000	18,000	6,000	760,863	(361,588)	1,261,665	
Other Wastewater	242,865,861	128,495,680	114,370,181	4,247,154	11,211,733	13,356,175	15,457,951	14,746,546	59,019,558	64,170,620	(8,819,999)
128 I/I Local Financial Assistance	242,584,985	128,214,804	114,370,181	4,247,154	11,211,733	13,356,175	15,457,951	14,746,546	59,019,558	64,170,620	(8,819,999)
138 Sewerage System Mapping Upgrades	280,876	280,876	-								

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
Waterworks	2,843,684,257	1,874,682,379	969,001,878	41,406,666	45,168,322	57,220,529	72,956,092	77,871,618	294,623,228	503,557,758	170,820,897
Drinking Water Quality Improvements	659,860,721	595,207,527	64,653,194	28,881,296	23,004,912	6,758,953	3,332,388	783,647	62,761,196	1,892,000	
542 Carroll Water Treatment Plant	433,711,709	411,208,515	22,503,194	4,198,306	6,294,015	6,389,072	3,302,397	427,404	20,611,194	1,892,000	
543 Quabbin Water Treatment Plant	19,304,604	12,768,242	6,536,362	5,816,538	616,712	103,113			6,536,363		
544 Norumbega Covered Storage	106,674,146	106,674,146	-								
545 Blue Hills Covered Storage	40,546,671	39,962,823	583,848	143,891	53,723		29,991	356,243	583,848		
550 Spot Pond Storage Facility	59,623,592	24,593,801	35,029,790	18,722,561	16,040,462	266,768			35,029,791		
Transmission	1,201,724,132	755,038,156	446,685,976	5,344,307	13,164,070	23,848,036	29,290,800	26,399,395	98,046,607	236,780,432	111,858,935
597 Winsor Station Pipeline	27,433,503	1,395,591	26,037,912	389,962	568,857	1,593,834	7,073,950	7,555,508	17,182,111	8,855,801	
601 Sluice Gate Rehabilitation	9,158,411	9,158,411	-								
604 MetroWest Tunnel	708,489,952	695,398,508	13,091,444	1,211,957	383,469	1,038,000	1,013,000	1,335,000	4,981,426	8,110,019	
615 Chicopee Valley Aqueduct Redundancy	8,666,292	8,666,292	-								
616 Quabbin Transmission System	13,591,994	7,202,464	6,389,530	289,530		300,000	650,000	1,000,000	2,239,530	4,150,000	
617 Sudbury/Weston Aqueduct Repairs	5,968,491	659,948	5,308,542			1,471,708	1,480,935	257,899	3,210,542	2,098,000	
620 Wachusett Reservoir Spillway Improvements	9,287,460	9,287,460	-								
621 Watershed Land	24,000,000	17,342,400	6,657,600	1,040,000	1,500,000	1,500,000	1,500,000	1,117,600	6,657,600		
623 Dam Projects	4,540,300	3,085,182	1,455,118	257,187	247,719	43,070	432,143	432,144	1,412,263	42,855	
625 Long Term Redundancy	390,587,728	2,841,899	387,745,829	2,155,672	10,464,025	17,901,424	17,140,772	14,701,244	62,363,137	213,523,757	111,858,935

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
Distribution And Pumping	932,592,302	372,703,577	559,888,725	6,215,836	9,767,692	23,540,137	36,778,119	44,761,812	121,063,595	306,096,409	132,728,726
618 Northern High NW Transmission Section 70	1,000,000	-	1,000,000			750,000	250,000		1,000,000		
677 Valve Replacement	22,540,300	12,016,378	10,523,922	162,553	650,192	681,851	776,826	1,139,461	3,410,883	7,113,040	
678 Boston Low Service-Pipe & Valve Rehabilitation	23,690,864	23,690,863	-								
683 Heath Hill Road Pipe Replacement	19,358,036	19,358,036	-								
689 James L. Gillis Pump Station	33,419,006	33,419,007	-								
692 Northern High Service - Section 27 Improve.	1,071,382	123,646	947,736	820	1,180	4,000	12,000	159,506	177,506	770,230	
693 NHS - Revere & Malden Pipeline Improve.	48,987,955	26,832,740	22,155,215		175,000	789,333	3,609,333	8,239,868	12,813,534	9,341,682	
702 New Connecting Mains - Shaft 7 to WASM 3	33,901,772	10,960,807	22,940,965			500,000	1,516,000	4,089,000	6,105,000	16,835,965	
704 Rehabilitation of Other Pump Stations	55,057,852	30,057,852	25,000,000							18,750,000	6,250,000
706 NHS - Connecting Mains from Section 91	2,360,194	2,360,194	-								
708 Northern Extra High Service - New Pipelines	7,776,433	3,632,119	4,144,314	5,300	17,701	134,000	131,000	918,114	1,206,115	2,938,200	
712 Cathodic Protection Of Distribution Mains	1,635,971	140,913	1,495,058			249,177	249,177		498,353	747,530	249,177
713 Spot Pond Supply Mains Rehabilitation	66,469,835	60,982,000	5,487,835	122,753	230,000	1,030,000	1,077,783	800,000	3,260,536	2,227,299	
714 Southern Extra High Sections 41 & 42	3,657,243	3,657,243	-								
719 Chestnut Hill Connecting Mains	31,731,335	17,486,675	14,244,660				345,000	460,000	805,000	8,031,454	5,408,206
720 Warren Cottage Line Rehabilitation	1,204,822	1,204,821	-								
721 South Spine Distribution Mains	74,073,052	36,691,648	37,381,404	14,772				375,000	389,772	4,000,371	32,991,261
722 NIH Redundancy & Storage	88,723,293	5,974,364	82,748,929	2,701,474	2,513,000	6,183,776	12,488,000	15,935,000	39,821,250	42,927,680	
723 Northern Low Service Rehabilitation - Section 8	22,963,857	2,320,986	20,642,871		4,000	14,000	214,000	522,088	754,088	15,768,783	
725 Hydraulic Model Update	598,358	598,358	-								

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
727 SEH Redundancy & Storage	97,773,753	6,756,970	91,016,783	308,168	1,826,833	1,822,000	5,721,000	8,452,000	18,130,001	19,731,154	53,155,628
730 Weston Aqueduct Supply Mains	276,474,923	66,043,294	210,431,629	2,803,022	4,349,786	11,382,000	10,257,000	3,146,775	31,938,583	143,818,591	34,674,454
731 Lynnfield Pipeline	5,774,496	5,677,522	96,975	96,975					96,975		
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717,140	2,717,140	-								
735 Section 80 Rehabilitation	9,630,430	-	9,630,430				131,000	525,000	656,000	8,974,430	
Other Waterworks	49,507,102	151,733,119	(102,226,017)	965,227	(768,352)	3,073,404	3,554,786	5,926,764	12,751,829	(41,211,082)	(73,766,764)
753 Central Monitoring System	19,592,423	15,803,729	3,788,694		360,123	1,628,572	1,628,570	171,429	3,788,694		
763 Distribution Systems Facilities Mapping	1,798,919	1,036,368	762,551			228,765	305,020	228,766	762,551		
764 Local Water Infrastructure Rehabilitation	7,487,762	7,487,762	-								
765 Local Water System Assistance Program	-	126,859,241	(126,859,241)	965,227	(1,308,475)	(1,380,934)	(1,721,988)	865,569	(2,580,600)	(49,646,877)	(74,631,764)
766 Waterworks Facility Asset Protection	20,627,998	546,018	20,081,979		180,000	2,597,000	3,343,184	4,661,000	10,781,184	8,435,795	865,000
Business & Operations Support	122,672,772	77,441,842	45,230,930	6,148,695	9,792,610	8,807,295	7,806,646	5,710,571	38,265,817	6,965,111	
881 Equipment Purchase	20,490,931	12,107,328	8,383,602	1,640,875	3,119,664	913,064	988,000	798,000	7,459,603	924,000	
925 Technical Assistance	1,125,000	-	1,125,000		375,000	375,000	375,000		1,125,000		
930 MWRA Facility - Chelsea	9,813,633	9,813,633	-								
931 Business Systems Plan	24,534,959	24,451,230	83,729	83,729					83,729		
932 Environmental Remediation	1,478,602	1,478,802	(200)	(200)					(200)		
933 Capital Maintenance Planning & Develop.	13,970,759	10,124,225	3,846,535	1,268,581	1,470,258	1,107,695			3,846,534		
934 MWRA Facilities Management	2,150,535	370,533	1,780,002							1,780,002	
935 Alternative Energy Initiatives	26,521,763	17,196,804	9,324,958	274,009	653,333	1,452,018	1,379,236	1,948,000	5,706,596	3,618,360	
940 Application Improvement Program	10,050,000	73,125	9,976,875	195,924	2,079,108	2,707,836	3,000,533	1,811,308	9,794,708	182,166	

**ATTACHMENT B
FY15 FINAL EXPENDITURE FORECAST AT PROJECT LEVEL**

Program/Project/Subphase	Total Contract Amount	Payments through FY13	Remaining Balance	FY14	FY15	FY16	FY17	FY18	FY14 - FY18	FY19-FY23	Beyond FY23
942 Information Security Program (ISP)	1,342,950	535,190	807,760	371,174	203,253	200,000	33,333		807,760		
944 Information Technology Management Prog.	922,640	-	922,640	150,783	259,185	249,460	210,572	52,641	922,641		
946 IT Infrastructure Program	10,271,000	1,290,971	8,980,029	2,163,821	1,632,809	1,802,222	1,819,972	1,100,622	8,519,446	460,583	

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Total MWRA	5,628,539	717,958	1,072,185	149,016
Wastewater	2,685,135	368,930	500,147	74,374
Interception & Pumping	846,541	118,371	180,439	26,816
102 Quincy Pump Facilities	25,907	-	-	-
104 Braintree-Weymouth Relief Facilities	233,869	1,364	4,441	-
105 New Neponset Valley Relief Sewer	30,300	-	-	-
106 Wellesley Extension Replacement Sewer	64,359	-	-	-
107 Framingham Extension Relief Sewer	47,856	-	-	-
127 Cummingsville Replacement Sewer	8,999	-	-	-
130 Siphon Structure Rehabilitation	5,603	4,581	82	-
131 Upper Neponset Valley Sewer	54,174	-	-	-
132 Corrosion & Odor Control	16,260	1,000	12,259	-
134 Ashland Extension Sewer	-	-	-	-
135 System Master Plan Interceptors	-	-	-	-
136 West Roxbury Tunnel	11,314	-	1,000	-
137 Wastewater Central Monitoring	20,482	700	-	-
139 South System Relief Project	4,939	-	1,500	-
140 Neponset Valley Relief Sewer	-	-	-	-
141 Wastewater Process Optimization	10,328	2,542	5,845	698
142 Wastewater Meter System-Equipment	26,438	5,531	7,692	8,077
143 Regional I/I Management Planning	169	-	-	-
145 Facility Asset Protection	279,794	102,653	141,870	18,042
146 D.I. Cross Harbor Tunnel Inspection	5,000	-	5,000	-
147 Randolph Trunk Sewer Relief	750	-	750	-
Treatment	659,597	199,138	225,271	46,757
182 DI Primary and Secondary	-	-	-	-
200 DI Plant Optimization	33,456	-	-	-
206 DI Treatment Plant Asset Protection	606,848	188,385	221,677	46,757
210 Clinton Wastewater Treat Plant	17,059	10,753	3,594	-
211 Laboratory Services	2,235	-	-	-
Residuals	168,020	1,549	98,237	3,672
261 Residuals	63,811	-	-	-
271 Residuals Asset Protection	104,209	1,549	98,237	3,672

FY15 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
5,852,185	756,279	1,131,090	276,690
2,885,828	423,390	620,567	105,870
873,171	108,971	213,927	29,735
25,907	-	-	-
232,453	309	4,441	-
30,300	-	-	-
64,359	-	-	-
47,856	-	-	-
8,999	-	-	-
6,520	-	5,580	-
54,174	-	-	-
16,346	1,000	12,344	-
-	-	-	-
-	-	-	-
11,314	-	1,000	-
20,482	327	373	-
4,939	-	1,500	-
-	-	-	-
10,360	1,391	5,794	1,970
26,438	7,300	3,000	11,000
169	-	-	-
306,806	98,644	174,144	16,766
5,000	-	5,000	-
750	-	750	-
709,421	191,535	282,292	50,871
(958)	-	-	-
33,427	-	-	-
655,558	178,663	278,524	50,871
19,166	12,872	3,768	-
2,228	-	-	-
167,920	10,384	58,917	34,083
63,811	-	-	-
104,109	10,384	58,917	34,083

Change from FY14 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
223,644	38,322	58,907	127,674
200,691	54,461	120,421	31,496
26,631	(9,400)	33,487	2,919
-	-	-	-
(1,416)	(1,055)	-	-
-	-	-	-
-	-	-	-
-	-	-	-
917	(4,581)	5,498	-
-	-	-	-
86	-	85	-
-	-	-	-
-	-	-	-
-	-	-	-
32	(1,151)	(51)	1,272
-	1,769	(4,692)	2,923
-	-	-	-
27,012	(4,009)	32,274	(1,276)
-	-	-	-
-	-	-	-
49,824	(7,603)	57,021	4,114
(958)	-	-	-
(29)	-	-	-
48,710	(9,722)	56,847	4,114
2,107	2,119	174	-
(7)	-	-	-
(100)	8,836	(39,320)	30,411
-	-	-	-
(100)	8,835	(39,320)	30,411

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
CSO	888,111	48,066	1,271	63
340 Dorchester Bay Sewer Separation (Fox Point)	54,169	16	-	-
341 Dorchester Bay Sewer Separation (Commercial Point)	64,776	3,628	-	-
342 Neponset River Sewer Separation	2,444	-	-	-
343 Constitution Beach Sewer Separation	3,769	-	-	-
344 Stony Brook Sewer Separation	44,333	-	-	-
346 Cambridge Sewer Separation	85,834	35,349	-	-
351 BWSC Floatables Controls	933	-	-	-
352 Cambridge Floatables Control	1,087	-	-	-
356 Fort Point Channel Sewer Separation	12,007	-	-	-
358 Morrissey Boulevard Drain	32,815	468	-	-
359 Reserved Channel Sewer Separation	64,809	4,769	-	-
360 Brookline Sewer Separation	25,977	(20)	-	-
361 Bulfinch Triangle Sewer Separation	9,944	86	-	-
339 North Dorchester Bay	223,060	807	250	63
347 East Boston Branch Sewer Relief	85,874	-	-	-
348 BOS019 Storage Conduit	14,288	-	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-
350 Union Park Detention Treatment Facility	49,583	-	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-
355 MWR003 Gate & Siphon	4,005	3,278	-	-
357 Charles River CSO Controls	3,633	-	-	-
324 CSO Support	50,315	(315)	1,021	-
Other Wastewater	122,866	1,806	(5,072)	(2,934)
128 I/I Local Financial Assistance	122,585	1,806	(5,072)	(2,934)
138 Sewerage System Mapping Upgrade	281	-	-	-
Total Waterworks	2,820,956	307,134	568,048	74,642
Drinking Water Quality	657,172	57,311	79	-
542 Carroll Water Treatment Plant	433,253	21,026	79	-
543 Quabbin Water Treatment Plant	17,393	5,035	-	-
544 Norumbega Covered Storage	106,674	-	-	-
545 Blue Hills Covered Storage	40,704	600	-	-
550 Spot Pond Storage Facility	59,149	30,650	-	-

Total Budget Amount	FY15 Final		
	FY14-18	FY19-23	Beyond 23
892,447	53,481	1,262	-
54,626	474	-	-
64,174	3,026	-	-
2,549	105	-	-
3,731	(38)	-	-
44,247	48	-	-
90,847	40,363	-	-
946	13	-	-
1,127	40	-	-
11,917	(90)	-	-
32,339	(8)	-	-
68,902	8,862	-	-
24,802	(1,195)	-	-
9,054	(803)	-	-
221,606	(14)	-	-
85,638	(8)	-	-
14,288	-	-	-
29,779	-	-	-
49,583	-	-	-
22,385	-	-	-
2,295	-	-	-
3,716	3,067	-	-
3,633	-	-	-
50,264	(362)	1,262	-
242,866	59,020	64,171	(8,820)
242,585	59,020	64,171	(8,820)
281	-	-	-
2,843,684	294,623	503,558	170,821
659,862	62,761	1,892	-
433,712	20,611	1,892	-
19,305	6,536	-	-
106,674	-	-	-
40,547	584	-	-
59,624	35,030	-	-

Total Budget Amount	Change from FY14 Final		
	FY14-18	FY19-23	Beyond 23
4,336	5,415	(10)	(63)
457	458	-	-
(602)	(602)	-	-
105	105	-	-
(38)	(38)	-	-
(86)	48	-	-
5,013	5,014	-	-
13	13	-	-
40	40	-	-
(90)	(90)	-	-
(476)	(476)	-	-
4,093	4,093	-	-
(1,175)	(1,175)	-	-
(890)	(889)	-	-
(1,454)	(821)	(250)	(63)
(236)	(8)	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
(289)	(211)	-	-
-	-	-	-
(51)	(47)	241	-
120,000	57,215	69,243	(5,886)
120,000	57,214	69,243	(5,886)
-	-	-	-
22,728	(12,511)	(64,490)	96,180
2,690	5,450	1,813	-
459	(415)	1,813	-
1,912	1,501	-	-
-	-	-	-
(157)	(16)	-	-
475	4,380	-	-

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Transmission	1,185,972	80,007	231,353	118,737
597 Winsor Station Pipeline	27,256	5,007	20,778	-
601 Sluice Gate Rehabilitation	9,158	-	-	-
604 MetroWest Tunnel	708,786	7,697	5,660	-
615 Chicopee Valley Aqueduct Redundancy	8,666	-	-	-
616 Quabbin Transmission System	13,516	3,261	3,130	-
617 Sudbury/Weston Aqueduct Repairs	4,327	3,667	-	-
620 Wachusett Reservoir Spillway Improvement	9,287	-	-	-
621 Watershed Land	24,000	6,000	-	-
622 Cosgrove/Wachusett Redundancy	-	-	-	-
623 Dam Projects	5,540	2,328	43	-
625 Long Term Redundancy	375,435	52,047	201,742	118,737
Distribution & Pumping	931,433	153,475	296,471	108,726
618 Northern High NW Tran Sections 70 & 71	1,000	1,000	-	-
677 Valve Replacement	22,311	3,131	7,163	-
678 Boston Low Service-Pipe & Valve Rehabilitation	23,691	-	-	-
683 Heath Hill Road Pipe Replacement	19,358	-	-	-
689 James L. Gillis Pump Station Rehabilitation	33,419	-	-	-
692 NHS - Section 27 Improvements	1,043	178	742	-
693 NHS - Revere & Malden Pipeline Improvement	48,622	12,604	9,185	-
702 New Connect Mains-Shaft 7 to WASM 3	33,351	10,824	11,559	-
704 Rehabilitation of Other Pump Stations	55,058	-	15,073	9,927
706 NHS-Connecting Mains from Section 91	2,360	-	-	-
708 Northern Extra High Service New Pipelines	7,653	1,198	2,815	-
712 Cathodic Protection Of Distribution Mains	1,591	725	725	-
713 Spot Pond Supply Mains Rehabilitation	66,243	2,975	2,288	-
714 Southern Extra High Sections 41 & 42	3,657	-	-	-
719 Chestnut Hill Connecting Mains	31,301	837	7,701	5,277
720 Warren Cottage Line Rehabilitation	1,205	-	-	-
721 South Spine Distribution Mains	73,568	1,158	12,137	23,333
722 NIH Redundancy & Storage	84,956	42,079	36,748	-
723 Northern Low Service Rehabilitation Section 8	22,440	754	19,365	-
724 Northern High Service - Pipeline Rehabilitation	-	-	-	-
725 Hydraulic Model Update	598	-	-	-
727 Southern Extra High Redundancy & Storage	93,460	26,521	8,566	51,550
730 Weston Aqueduct Supply Mains	286,418	48,742	153,700	18,640
731 Lynnfield Pipeline	6,073	113	-	-

FY15 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
1,201,724	98,047	236,780	111,859
27,434	17,182	8,856	-
9,158	-	-	-
708,490	4,981	8,110	-
8,666	-	-	-
13,592	2,240	4,150	-
5,968	3,211	2,098	-
9,287	-	-	-
24,000	6,658	-	-
-	-	-	-
4,540	1,412	43	-
390,588	62,363	213,524	111,859
932,592	121,064	306,097	132,730
1,000	1,000	-	-
22,540	3,411	7,113	-
23,691	-	-	-
19,358	-	-	-
33,419	-	-	-
1,071	178	770	-
48,988	12,814	9,342	-
33,902	6,105	16,836	-
55,058	-	18,750	6,250
2,360	-	-	-
7,776	1,206	2,938	-
1,636	498	748	249
66,470	3,261	2,227	-
3,657	-	-	-
31,731	805	8,031	5,408
1,205	-	-	-
74,073	390	4,000	32,992
88,723	39,821	42,928	-
22,964	754	19,889	-
-	-	-	-
598	-	-	-
97,774	18,130	19,731	53,156
276,475	31,939	143,819	34,675
5,774	97	-	-

Change from FY14 Final			
Total Budget Amount	FY14-18	FY19-23	Beyond 23
15,752	18,040	5,427	(6,878)
-178	12,175	(11,922)	-
-	-	-	-
(296)	(2,716)	2,450	-
-	-	-	-
76	(1,021)	1,020	-
1,641	(456)	2,098	-
-	-	-	-
-	658	-	-
-	-	-	-
(1,000)	(916)	-	-
15,153	10,316	11,782	(6,878)
1,159	(32,411)	9,626	24,003
-	-	-	-
229	280	(50)	-
-	-	-	-
-	-	-	-
-	-	-	-
28	-	28	-
366	210	157	-
551	(4,719)	5,277	-
-	-	3,677	(3,677)
-	-	-	-
123	8	123	-
45	(227)	23	249
227	286	(61)	-
-	-	-	-
430	(32)	330	131
-	-	-	-
505	(768)	(8,137)	9,659
3,767	(2,258)	6,180	-
524	-	524	-
-	-	-	-
-	-	-	-
4,314	(8,391)	11,165	1,606
(9,943)	(16,803)	(9,881)	16,035
(299)	(16)	-	-

ATTACHMENT C
Comparison of the FY15 Final CIP and the FY14 Final CIP

Program and Project	FY14 Final			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717	-	-	-
733 NHS Pipeline Rehabilitation 13-18 & 48	-	-	-	-
734 Southern Extra High Pipelines-Sections 30, 39,40, & 44	-	-	-	-
735 Section 80 Rehabilitation	9,340	636	8,704	-
Other	46,380	16,341	40,145	(152,822)
753 Central Monitoring System	16,992	1,129	-	-
763 Distribution Systems Facilities Mapping	1,799	763	-	-
764 Local Water Infrastructure Rehabilitation Assistance Program	7,488	-	-	-
765 Local Water Pipeline Improvement Loan Program	-	2,927	32,969	(153,687)
766 Waterworks Facility Asset Protection	20,101	11,522	7,176	865
Business & Operations Support	122,448	41,895	3,990	-
881 Equipment Purchase	18,483	7,019	-	-
925 Technical Assistance	1,200	1,200	-	-
930 MWRA Facility - Chelsea	9,814	-	-	-
931 Business Systems Plan	24,475	12	-	-
932 Environmental Remediation	1,479	-	-	-
933 Capital Maintenance Planning	15,701	5,646	-	-
934 MWRA Facilities Management	2,151	1,780	-	-
935 Alternative Energy Initiatives	28,230	6,965	3,652	-
940 Applicat Improv Program	9,150	8,986	159	-
942 Info Security Program ISP	1,293	792	-	-
944 Info Tech Mgmt Program	1,493	1,493	-	-
946 IT Infrastructure Program	8,980	8,002	179	-

Total Budget Amount	FY15 Final		
	FY14-18	FY19-23	Beyond 23
2,717	-	-	-
-	-	-	-
-	-	-	-
9,630	656	8,974	-
49,507	12,751	(41,211)	(73,767)
19,592	3,789	-	-
1,799	763	-	-
7,488	-	-	-
-	(2,581)	(49,647)	(74,632)
20,628	10,781	8,436	865
122,673	38,266	6,965	-
20,491	7,460	924	-
1,125	1,125	-	-
9,814	-	-	-
24,535	84	-	-
1,479	-	-	-
13,971	3,847	-	-
2,151	-	1,780	-
26,522	5,707	3,618	-
10,050	9,795	182	-
1,343	808	-	-
923	923	-	-
10,271	8,519	461	-

Total Budget Amount	Change from FY14 Final		
	FY14-18	FY19-23	Beyond 23
-	-	-	-
-	-	-	-
-	-	-	-
290	20	270	-
3,127	(3,590)	(81,356)	79,056
2,600	2,660	-	-
-	-	-	-
-	-	-	-
-	(5,508)	(82,616)	79,055
527	(741)	1,260	-
225	(3,629)	2,975	-
2,008	441	924	-
(75)	(75)	-	-
-	-	-	-
60	72	-	-
-	-	-	-
(1,730)	(1,799)	-	-
-	(1,780)	1,780	-
(1,708)	(1,258)	(34)	-
900	809	23	-
50	16	-	-
(570)	(570)	-	-
1,291	517	282	-

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>1. The Advisory Board recommends that the Authority review and update the Business Plan and present a document for the next five-year period, FY2015-FY2019, no later than September 2014.</p>	<p>The Authority will strive to update the Business plan for the FY15-19 timeframe to be presented to the Board in December 2014.</p>
<p>2. The Advisory Board recommends that Phase 9 and Phase 10 of the I/I Local Financial Assistance Program be increased to \$80 million per phase to be distributed to eligible communities.</p>	<p>Agree. The expansion of this program and the more favorable terms is a major positive development for the communities. Having more funds available will enhance the communities ability to make needed local improvements to their sewer system.</p>
<p>3. The Advisory Board recommends that an automatic "trigger," the exact mechanism of which is to be determined by the Authority, be incorporated into the I/I Program to make Phase 10 funds available to communities.</p>	<p>Based on discussions with the AB it was determined that some safety features will be built into the structure of the new program starting with Phase 9. These will include that the Communities will provide a three year spending projection starting in March of 2015 for the FY16 cycle, and every budget year following FY16, and a 90 day advance notice for any distribution exceeding \$2 million. Also, it was decided, that in order to ensure that the Phase 10 funds included in the capital program will be available to the Communities a "trigger" point for the eligibility was agreed upon: when MWRA has distributed 50% of the Phase 9 funds allocation for a community, their Phase 10 distribution automatically becomes approved for local authorization. Phase 10 funds will be available at the beginning of the fiscal year after the Phase 10 trigger has been met.</p>
<p>4. The Advisory Board recommends that the award for construction of the Hatchery Pipeline project be placed on hold until the Commonwealth confirms its method of reimbursing the Authority for the electricity savings it will receive as an ancillary benefit to this project.</p>	<p>MWRA is continuing the design effort, while at the same time seeking additional grants for the construction phase of the project. Last year, MWRA indicated it had received one grant from the Massachusetts Clean Energy Center for 50% of the hydropower facility's cost, and had applied for a second grant from the Executive Office of Energy and Environmental Affairs Leading By Example program to cover the other 50% of the hydropower facility's project cost. MWRA subsequently received the second grant. Both grants have milestones associated with them. Failure to move ahead with this project on a timely basis could result in loss of grant funding.</p>
<p>5. The Advisory Board recommends that the community assistance programs be exempt from the capital spending cap calculation.</p>	<p>Agree.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>The Advisory Board recommends that the Authority identify "standalone" projects in both the wastewater and water capital programs and bring them to a level of design to allow them to proceed with short notice. The Advisory Board further recommends that this "pool" of projects be substituted to continue work on the capital program when other capital spending "slips" due to unforeseen circumstances.</p> <p>6.</p>	<p>The Authority will consider this recommendation going forward. The Authority budgets capital projects based on priority and once the design phase for a project is completed, the project is bid for construction as soon as possible. If a project were to be designed and then shelved it could not necessarily be bid quickly once needed. There are items in a design contract such as: electrical/plumbing codes, building codes, environmental requirements and permitting, to name a few, that frequently change. If a project were to be designed and then shelved, once needed, would have to be revised to account for any changes. Doing so, would potentially be time- consuming and may result in higher costs, especially if the contract with the original design engineering firm has expired. In that case it would be necessary to re-bid the contract, which would not guarantee that the original design firm would receive the award. This situation would further complicate the process, because the newly selected firm would essentially be re-designing the project. However, the Authority will evaluate and identify projects where it would be beneficial and feasible to implement this recommendation.</p>
<p>7. The Advisory Board challenges the Authority to the long-term goal of reducing wholesale assessment increases from FY16-20 to less than 4.0%.</p>	<p>The Authority will strive to achieve assessment increases less than 4% annually. So far, based on the current projection the average increase for the FY16-20 period is 5%.</p>
<p>8. The Advisory Board recommends that the Authority reduces the rate revenue requirement for the FY15 Current Expense Budget by \$853,660, resulting in a 3.43% wholesale rate increase.</p>	<p>Agree.</p>
<p>9. The Advisory Board recommends that any additional reductions the Authority makes beyond \$853,660 are accounted for via a reduction in the use of rate stabilization funds for FY15.</p>	<p>Agree. Due to additional savings identified during the Draft Final process the Authority was able to reduce the use of reserves by \$2.4 million in FY15, thus increasing the available reserve funds to be used in future years.</p>
<p>10. The Advisory Board recommends that the Authority use the \$4,645,464 dedicated for water quality improvements relating to the Town of Clinton as part of the "current revenue for the capital program" line item to fund this project as expenditures occur in future years.</p>	<p>Partially agree. When these funds were originally set aside, there were a few watershed protection/water quality initiatives identified for their application. MWRA can use this \$4.7M for the Clinton project specifically (like current revenue for capital and lower its borrowing), but it cannot use these funds in lieu of the Current Revenue for Capital budgeted for FY15 and beyond. The Current Revenue for Capital line item is budgeted (at increasing levels annually) to ensure MWRA is able to meet its coverage requirement per the Bond Resolution. Since this \$4.7M was already recognized for year-end coverage purposes in the year that it was set aside (FY11), it cannot be re-applied for coverage purposes in the future.</p>
<p>11. The Advisory Board recommends that the Long-Term Rates Management Committee be reconvened with updated membership according to the original makeup present on the committee, and that meetings begin in September 2014.</p>	<p>Agree. Staff recommend that this forum be used to develop a recommendation to the Board of Directors for the application of the cash reserves (Community Obligation and Revenue Enhancement (CORE) and Renewal and Replacement Reserve (RRR) funds) to be released upon adoption of the revisions to the Bond Indenture.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>12. The Advisory Board recommends that the Authority adjusts its attrition/vacancy rate assumptions upward by the average value of three positions, for a reduction of \$300,000 (including associated fringe benefits).</p>	<p>The Authority reduced the Proposed FY15 CEB Regular Pay line item by \$274,000 to reflect the financial impact of hiring delays. The associated fringe benefits, coupled with lower health insurance premium rates, resulted in an additional reduction of \$240,000.</p>
<p>13. The Advisory Board reaffirms its support of the current approach toward the combined pension/OPEB liability, and further recommends that 100% funding of the retirement fund be used as the specific "trigger" to begin the process of establishing an irrevocable trust for its OPEB liability.</p>	<p>Agree to establish an OPEB irrevocable trust and to begin funding this OPEB trust upon reaching full funding of the retirement fund. However, staff recommend that the process for establishing the trust be commenced in advance of reaching full funding of the pension fund as important decisions regarding the administration of the OPEB trust need to be made and the development of the legal documentation will take some time to complete. Thus, the process to establish the trust should commence in advance but no funding need be directed to such a trust until reaching full funding of the retirement fund as currently planned.</p>
<p>14. The Advisory Board recommends that in the event the amount budgeted for the retirement fund deposit would exceed the amount needed for full funding, that any excess funds be placed in a dedicated reserve account that is exempt from any Operating Reserve requirement until an irrevocable trust is established.</p>	<p>Staff agrees that amounts budgeted in excess of the amount needed for full pension funding should be directed to OPEB funding and placed in a dedicated reserve account which is not subject to Operating Reserve requirement, until an irrevocable trust is established.</p>
<p>15. The Advisory Board recommends that the Authority create a working committee, including representatives from the Advisory Board, to discuss the schedule, structure, and management of funding the Authority's OPEB liability and make a recommendation to the MWRA Board of Directors.</p>	<p>Agree.</p>
<p>16. The Advisory Board recommends that the Authority reduce its assumption for average quantity from 104 tons per day to 103 tons per day, thereby reducing sludge pelletization by \$99,000.</p>	<p>Agree with the recommendation of reducing the average sludge quantity from 104 tons per day to 103 tons per day.</p>
<p>17. The Advisory Board recommends reducing budgeted amounts for chemical use by \$650,000 to reflect no increased costs associated with regulatory changes to the National Pollutant Discharge Elimination System (NPDES) permit at the Deer Island Wastewater Treatment Plant.</p>	<p>MWRA partially agrees with this recommendation. The Operations Division agrees to amend the Proposed FY15 CEB to reflect a three month delay in the start-up of the new NPDES Permit at the Deer Island Wastewater Treatment Plant. The revised budget will reflect start-up in April 2015 instead of January 2015, thus resulting in a reduction of \$330,000 for less chemical use for enterococcus treatment at DITP.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>18. The Advisory Board recommends that the Authority contribute no more than 40% to the costs for the Mystic River modeling - no more than \$150,000 per year, with an overall spending cap of \$350,000 contingent upon demonstrated commitment from DEP, EPA, local entities, and the Mystic River Watershed Association to fund the remaining 60%.</p>	<p>MWRA is working cooperatively with the Mystic River Watershed Association (MyRWA), EPA, DEP, USGS and other potential partners to establish a higher level of baseline information on the Mystic River with the intent of making more informed long-term decisions about water quality. This benefits MWRA relative to understanding the benefits associated with the Authority's Long Term CSO Control Plan and with MWRA's more focused efforts such as the North System Study and projects such as assisting MyRWA with ongoing efforts to reduce nuisance vegetation in the River. Scope development for the project is not yet complete. MWRA is working with MyRWA and the other parties to develop a scope, schedule and funding mix that will be the most beneficial. MWRA has been adamant in all discussions that cost sharing between interested parties is critical to MWRA's involvement and to the success of the project. In addition to making use of watershed association funds, MyRWA has made progress in preparing grant applications and obtaining financial commitments from both public and private entities. Additional grant applications are currently outstanding and others will be developed over time as opportunities arise. MWRA will continue to work with MyRWA and other parties to ensure the broadest possible financial participation. MWRA does concur with the Advisory Board's concept of proportionate funding shared by multiple stakeholders. If the cost and scope of the project increases and MyRWA is successful in raising additional funding for costs from other interested parties, MWRA staff would make a recommendation for a proportional increase in the total contribution above the \$350,000. If that were to occur, MWRA staff would seek specific Board approval.</p>
<p>19. The Advisory Board recommends that the Authority update assumptions for the schedule for an undated Local Limits Study during FY15 and reduce budgeted amounts by at least \$125,000 to reflect a start date in the spring of 2015.</p>	<p>The Operations Division agrees to reduce the Proposed FY15 CEB for the Local Limits Study by \$125,000, leaving a remaining budget of \$125,000 for three months of work in FY15 to coincide with the start-up of the new NPDES Permit for DITP.</p>
<p>20. The Advisory Board recommends that the Authority review its assumptions for conducting of a Deer Island beach erosion study during FY15 and reduce amounts budgeted by \$50,000.</p>	<p>Agree.</p>
<p>21. The Advisory Board recommends that the planned purchase of a piece of Laboratory equipment for \$150,000 be classified as a capital expense.</p>	<p>MWRA does not agree to shift the funds for this item to the CIP. This is a relatively small amount which the Central Laboratory carries historically as a placeholder in the CEB which may include funding for one or a number of instruments. Actual purchases are based on the latest emerging needs and staff evaluates all purchases before any commitment is made as to the funding.</p>
<p>22. The Advisory Board recommends that other items that meet the capitalization policy should be revisited.</p>	<p>MWRA's staff evaluates each project on it's own merit and determines if they meet the capitalization criteria.</p>

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments


Advisory Board Recommendations/Comments	MWRA Responses
23. The Advisory Board recommends that the co-digestion pilot program should not be resumed until an updated estimate on the costs required to resume the pilot program are detailed and the Commonwealth provides the Authority with its plans for substantial financial support for the increased costs associated with the pilot program.	Staff currently considering alternative options, such as barging and updates the Board monthly on the progress. The pursuit of additional funding is part of the considerations. Also, staff is continuing to assess and refine the capital and operating costs associated with the pilot program.
24. The Advisory Board recommends that the Authority clearly identify and share with member communities what steps it can take to directly control the diversion of additional organic food waste into the wastewater stream.	Staff will review its sewer use regulations, education, and outreach programs and other practices of POTW's nationwide to determine if additional steps must be taken and will work closely with the Advisory Board on the issue.
25. The Advisory Board is recommending that the sunset provision on its proposed entrance fee payment schedule be extended one full year to June 30, 2015.	MWRA staff do not object to this recommendation. In 2012, the MWRA Advisory Board adopted recommendations to revise the terms of entrance fee payment for water system expansion to allow new water served communities to pay the entrance fee over 25 years, with no interest assessed, and to allow payment to start in the fourth year. In discussions with prospective communities, allowing payment of the entrance fee over 25 years appeared to be well received. MWRA staff urge that MWRA and the MWRA Advisory Board continue to keep open the possibility of payment of the entrance fee over 25 years with no interest. As experience has indicated, the process to become an MWRA water community may take a while, as communities weigh options very carefully, various Town meeting or City Council votes may be required, and there are regulatory processes that must be completed prior to application to MWRA. MWRA staff believe that if the Community is taking concrete steps to join MWRA, such as a Town Meeting vote, or submission of MEPA documentation indicating MWRA is the preferred option, these actions should be considered actions that satisfy the sunset provision's deadline.
26. The Advisory Board recommends that the payback period for Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be extended to ten years.	Agree.
27. The Advisory Board recommends that Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be reconfigured to allow for a grant/loan ratio of 75% grants and 25% interest-free loans.	Agree. Although, doubling of the traditional amounts per phase and changing the grant/loan ratio, specifically the grants from 45% to 75% will result in higher borrowing cost for the Authority, the higher cost will be repaid by the communities through assessments over time.
28. Formally, the Advisory Board recommends that in FY15 and all future years, any Debt Service Assistance received from the Commonwealth be utilized in the fiscal year immediately following its receipt in the form of a direct reduction to the rate revenue requirement.	Agree. If in the future years the Commonwealth were to appropriate funds at expected levels for Debt Service Assistance, this recommendation might be revisited.

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>29. The Advisory Board recommends that the Authority begin immediately to address molybdenum limits found in its biosolids with the goal of ensuring its processed pellets can be placed in-state throughout the entire year, using any of the methods discussed and present a specific and detailed plan to do so to the MWRA Board of Directors by October 2014.</p>	<p>Staff concur with the Advisory Board's goal of placing more pellets in the Commonwealth of Massachusetts. MWRA staff are continuing to evaluate options, including revisions to the DEP regulatory limits, to ensure its pellets can be placed in-state throughout the year and agree to return to the Board with recommendations.</p>



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: FY15 Final Current Expense Budget

COMMITTEE Administration, Finance & Audit

 INFORMATION

 X VOTE


Kathy Soni, Budget Director
David Whelan, Budget Manager
Preparer/Title 


Rachel C. Madden
Director, Administration & Finance

The FY15 Proposed Current Expense Budget (CEB) submitted to the Advisory Board at the February 2014 Board meeting proposed a 3.6% combined assessment increase.

In the Draft Final CEB presented to the Board at the June 4th budget hearings, the Rate Revenue Requirement was reduced by \$853,660 recognizing the receipt of the FY14 Debt Service Assistance which was applied as a direct offset to the FY15 debt service line item. This reduction resulted in a lower combined assessment increase of 3.43%.

Besides the reduction of the Rate Revenue Requirement which resulted in lower than projected preliminary assessments, the Authority identified \$2.4 million in additional savings by decreasing direct expenses and recognizing the larger than originally planned defeasance in FY14. In agreement with the Advisory Board, the \$2.4 million savings were used to lower the use of reserves in FY15 and preserve these important funds for use in future more troublesome years.

For a line item comparison between the FY15 Proposed CEB to the FY15 Final CEB, please refer to Attachment A.

RECOMMENDATION:

1. To adopt the FY15 Final Current Expense Budget (CEB) set forth in Attachment A and Attachment B with current revenue and expenses of \$674.5 million.
2. To adopt the FY15 Final Operating Budget (Trustee's Budget) set forth in Attachment D.

DISCUSSION:

This staff summary presents the FY15 Final CEB. On June 4th, the Board of Directors held a hearing on the FY15 Draft Final CEB. Discussions and materials provided at the hearing outlined changes to the budget since the transmittal of the FY15 Proposed CEB in February 2014. The additional changes made to the FY15 Draft Final CEB are highlighted above. Attachment A details the changes between the FY15 Proposed and FY15 Final CEB.

Summary

The FY15 Final CEB recommends a combined increase in rates and charges of 3.4%. Capital Financing costs remain the largest component of the CEB, accounting for 60.8% of total expenses, and are projected to grow significantly in future years.

Total expenses of \$674.5 million include \$409.8 million or 60.8% for Capital Financing costs and \$264.7 million or 39.2% for operating expenses, of which \$217.1 million is for Direct Expenses and \$47.5 million is for Indirect Expenses. Total expenses increased \$16.1 million or 2.4% from the FY14 Approved Budget mainly due to a higher debt service requirement of \$13.0 million, higher Direct Expenses of \$2.8 million mainly due to inclusion of Cost of Living Adjustments (COLA) for staff and increased utility pricing mainly for electricity, and higher Indirect Expenses of \$689,000 for higher Retirement Fund contributions and higher Operating Reserve requirements.

Non-rate Revenue for FY15 totals \$24.2 million, a decrease of \$5.5 million or 18.6% from the FY14 Approved Budget. The FY15 Final Non-Rate Revenue budget includes \$9.7 million in investment income, \$8.3 million in other user charges, and \$6.2 million in other revenue. No Rate Stabilization funding is planned for use. As compared with the FY14 Approved Budget, the decrease in revenue is primarily driven by lower use of Rate Stabilization funds of \$3.5 million and lower Investment Income of \$1.9 million.

The Rate Revenue Requirement for the FY15 Final Budget is \$650.3 million, an increase of \$21.6 million or 3.4% from the FY14 Approved Budget.

Table 1 on the following page provides a comparison of the FY15 Final and FY14 Approved Budget by major categories. Additional detail by line item and by Division is provided in Attachments B and C.

Table 1

**MWRA Current Expense Budget
FY15 Final versus FY14 Budget**

(\$ in Millions)	FY14 Budget	FY15 Final	\$ Change	% Change
Directs	\$ 214.4	\$ 217.1	\$ 2.8	1.3%
Indirects	46.8	47.5	0.7	1.5%
Sub-Total Operating Expenses	\$ 261.2	\$ 264.7	\$ 3.5	1.3%
Capital Financing (before Offsets)	397.2	417.4	20.2	5.1%
Offsets: Bond Redemption ¹	-	(6.7)	(6.7)	
Variable Debt Savings	-	-	-	
Debt Service Assistance	-	(0.9)	(0.9)	0.0%
Sub-Total Capital Financing	\$ 397.2	\$ 409.8	\$ 12.6	3.2%
Total Expenses	\$ 658.4	\$ 674.5	\$ 16.1	2.4%
Investment Income	\$ 11.6	\$ 9.7	\$ (1.9)	-16.3%
Non-Rate Revenue	14.6	14.4	(0.1)	-0.9%
Rate Stabilization ¹	3.5	-	(3.5)	
Sub-Total Non-Rate Revenue	\$ 29.7	\$ 24.2	\$ (5.5)	-18.6%
Rate Revenue	628.7	650.3	21.6	3.4%
Total Revenue & Income	\$ 658.4	\$ 674.5	\$ 16.1	2.4%
FY15 Rate Revenue Increase		3.4%		
Combined Use of Reserves	\$ 3.5	\$ 6.7		

¹ MWRA has two reserve funds (Bond Redemption and Rate Stabilization) which can be used at the discretion of the Authority to manage the rate revenue requirement. Use of the Bond Redemption reduces total expenses and Rate Stabilization increases total revenue. Under the terms of the General Bond Resolution the annual use of Rate Stabilization funds cannot exceed 10% of the year's senior debt service. Bond Redemption funds can be used only to retire or prepay outstanding debt. There is no annual limit on the amount of Bond Redemption funds used in a year, however the use is tied to the bonds' maturity dates and it is utility specific.

EXPENSES:

Direct Expenses

FY15 Direct Expenses total \$217.1 million, an increase of \$2.8 million or 1.3% from the FY14 Budget.

- **Wages and Salaries** – The final budget includes \$96.6 million for wages and salaries as compared to \$94.9 million in the FY14 Budget, an increase of \$1.7 million or 1.8% largely due to anticipated Cost of Living Adjustments (COLAs) offset by lower temporary employee funding. Of the \$96.6 million, \$94.7 million is for regular pay. The final budget assumes a headcount of 1,175 funded positions which is level funded with the FY14 Budget. As always, new hires and backfills of vacant positions will be managed at the senior management level and addressed on a case-by-case basis.
- **Overtime** – The final budget includes \$3.6 million for overtime, essentially level funded with the FY14 Budget. The FY15 Budget assumes overtime will be limited to coverage, emergencies, and critical maintenance projects.
- **Fringe Benefits** – The final budget includes \$18.3 million for fringe benefits, an increase of \$236,000 or 1.3% from the FY14 Budget mainly due to higher Health Insurance costs.
- **Workers' Compensation** – The final budget includes \$2.2 million for workers' compensation, an increase of \$200,000 or 10% from the FY14 Budget.
- **Chemicals** – The final budget includes \$10.2 million for chemicals, a decrease of \$452,000 or 4.2% from the FY14 Budget. The majority of the decrease in the budget is for new fluoride regulations, changed operating assumptions for liquid oxygen and nitrazyme, and lower chemical costs offset by the inclusion of three months of projected chemical usage for enterococcus compliance.
- **Utilities** – The final budget includes \$23.5 million for utilities, an increase of \$712,000 or 3.1% from the FY14 Budget. The budget assumes funding of \$17.0 million for electricity, \$3.7 million for diesel fuel, \$2.1 million for water and \$516,000 for natural gas. The FY15 Final energy and utilities budget reflects the most recent pricing outlook based on energy futures and the latest bids for contracts and updated assumptions for self-generation at Deer Island, green energy initiatives, along with efficiency improvements in Field Operations.
- **Maintenance** – The final budget includes \$28.0 million for maintenance, an increase of \$211,000 or 0.8% from the FY14 Budget and is in line with the FY14 projection.

- **Training and Meetings** – The final budget includes \$361,000 for training and meetings, an increase of \$30,000 or 9.1% from the FY14 Budget mainly due to increased needs for specialized training.
- **Professional Services** – The final budget includes \$6.0 million for professional services, a decrease of \$126,000 or 2.1% from the FY14 Budget. The budget reflects funding for Security of \$1.7 million, regulatory monitoring of \$1.5 million, and Other professional services funding of \$1.4 million to support items such as the Authority-wide MIS initiatives, Treasury outside consulting support services, and energy audits.
- **Other Materials** – The final budget includes \$6.0 million for other materials and is primarily level funded with the FY14 Budget. The budget includes funding of \$1.7 million for vehicle purchases, \$1.1 million for vehicle expenses mostly for gasoline purchases, \$803,000 for lab and testing supplies, \$499,000 for computer hardware needs, and \$459,000 for equipment and furniture.
- **Other Services** – The final budget includes \$22.5 million for other services, an increase of \$260,000 or 1.2% from the FY14 Budget. The budget includes funding of \$13.9 million for sludge pelletization, \$3.5 million for Space/Lease Rentals and related expenses for the CNY and Chelsea facilities, and \$1.4 million for voice and data costs. The largest increase, or \$195,000, is related to contractual increases for the Charlestown Navy Yard and Chelsea facility leases and the corresponding property taxes.

Indirect Expenses

Indirect Expenses for FY15 are \$47.5 million, an increase of \$689,000 or 1.5% more than the FY14 Budget. Below are the highlights of major changes:

- The FY15 Final Budget includes \$27.5 million for the Department of Conservation and Recreation (DCR) Office of Watershed Management, an increase of \$252,000 or 0.9% over the FY14 Budget. The budget is comprised of \$13.8 million for reimbursement of operating expenses net of revenues, \$8.1 million for Payment in Lieu of Taxes (PILOT), and \$5.6 million for debt service expenses on prior land purchases financed by the Commonwealth. The largest increase is for operating expenses of \$352,000 mainly for contractual increases offset by a decrease for PILOT payments of \$100,000.
- The FY15 Final Budget includes \$12.6 million for the Pension Fund, an increase of \$198,000 or 1.6% over the FY14 contribution. Of the \$12.6 million contribution, \$7.8 million represents the minimum required contribution for FY15 based on the most recent actuarial evaluation of January 1, 2013 and \$4.8 million represents the redirection of Other Post Employment Benefit (OPEB) funding included in the FY15 Proposed Budget to the Pension Fund.

- The FY15 Final Budget includes \$3.2 million for the Harbor Energy Electric Company (HEEC), a decrease of \$149,000 or 4.4% from the FY14 Budget, primarily for lower capacity charges offset by increases for special maintenance projects. The majority of funding is for the contractual repayment of the capital investment of the Deer Island electric cable and substation which provides electric power to the treatment plant.
- The FY15 Final Budget includes \$2.1 million for Insurance, and is primarily level funded from the FY14 Budget. The FY15 Final Budget was based on actual average spending for the past five years, FY09-13. It should be noted that at the June 4th meeting the Board of Directors approved the MWRA FY15 Insurance program with a not to exceed estimate of \$300,000 for the excess liability coverage line item. Since the June 4th Board meeting, staff obtained the actual amount for the excess liability coverage which was \$277,000.
- The Authority has complied with the GASB 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions (OPEB)*, by disclosing this liability in the year-end Financial Statements. As part of the multi-year strategy to address its unfunded liabilities for OPEB and pension holistically, the Board approved a strategy to aggressively pay down our pension liability and upon reaching full funding, move to address the OPEB obligation. This strategy was employed in FY08, FY09, FY10, FY12, FY13 and FY14 Budgets. It was temporarily suspended in FY11 to achieve a 1.5% rate increase. The \$4.8 million included for OPEB in the FY15 Final Budget, consistent with the planning estimates, has been redirected as an optional payment to the Pension Fund.
- Funding for the Operating Reserve for FY15 is \$314,000 higher than the FY14 Budget. The Operating Reserve balance is in compliance with MWRA General Bond Resolution which requires a balance of one-sixth of annual operating expenses. Based on the FY15 Final CEB, the required balance is \$39.5 million versus the \$39.0 million required in FY14.

Capital Financing

As a result of the Authority's Capital Improvement Program, debt service as a percentage of total expenses (before offsets) has increased steadily from 36% in 1990 to 61% in the FY15 Final Current Expense Budget. Much of this debt service is for completed projects, primarily the Boston Harbor Project and the Integrated Water Supply Improvement Program. The MWRA's capital spending, from its inception, has been dominated by projects mandated by court order or regulatory requirements, which historically accounted for 80% of capital spending. Going forward, and as the Combined Sewer Overflow (CSO) project winds down, greater emphasis and spending will be focused on asset protection and water redundancy initiatives.

The Authority has actively managed its debt structure to take advantage of favorable interest rates. Tools used by the MWRA to lower borrowing costs and manage rates include current and advanced refunding of outstanding debt, maximizing the use of the subsidized State Revolving

Fund (SRF) debt, issuance of variable rate debt, swap agreements, and the use of surplus revenues to defease debt. The MWRA also uses Tax Exempt Commercial Paper to minimize the financing cost of construction in process.

As presented in the FY14 Final CIP staff summary and reaffirmed in the FY15 process, the Authority has established the lowest five-year spending cap for FY14-18 period since 1990 which results in lower borrowing requirements in future years. The FY15 Final CIP confirms that MWRA will be reducing its total bonded indebtedness over the Cap period by paying off more principal than annual CIP spending. Also during this five-year cap period, MWRA will finally begin paying more principal than interest on its debt.

The FY15 Final capital financing costs total \$409.8 million and remain the largest portion of the MWRA's budget, accounting for 61% of total expenses. Debt Service Assistance (DSA) of \$853,660 which was received in FY14 has been included as a direct offset in the FY15 Final Budget.

The FY15 Final Budget includes a targeted defeasance of \$30.0 million which will reduce debt service by approximately \$1.3 million in FY15, \$1.3 million in FY16, \$25.0 million in FY17, and \$3.7 million in FY18.

The FY15 Proposed Budget assumes a 3.25% interest rate for variable rate debt which is the same level as in FY14. The Authority's variable rate debt assumption is comprised of three separate elements: the interest rate for the daily and weekly series; liquidity fees for the Standby Bond Purchase Agreement, Letter of Credit, and Direct Purchase providers; and remarketing fees. While MWRA continues to experience unusually low interest rates, they are not reflective of historical averages and there is no guarantee that rates will stay low.

The FY15 Final capital financing costs increased by \$20.2 million before offsets or 5.1% compared to the FY14 Budget. After adjusting for use of \$6.7 million in Bond Redemption funding and \$853,660 for the Debt Service Assistance received in FY14 which is being applied as a direct offset to the Rate Revenue Requirement in FY15, the increase in the MWRA's debt service is \$12.6 million or 3.2%.

The major components of the Capital Finance Budget include:

- \$220.8 million in principal and interest payments on MWRA's senior fixed rate bonds. This amount includes \$6.5 million to support issuances of \$100 million in September 2014 and \$1.8 million to support issuances of \$100 million of new money in May 2015. Also includes a reduction of \$1.3 million for the effect of the planned FY14 defeasance;
- \$99.7 million in principal and interest payments on subordinate bonds;
- \$78.5 million in principal and interest payments on SRF loans. This amount includes \$5.9 million to support issuances of \$43.1 million in Fall 2014 and \$42.5 million in 2015;

- \$10.2 million to fund ongoing capital projects with current revenue and to meet coverage requirements;
- \$4.1 million to fund the interest expense related to the Local Water Pipeline Assistance Program;
- \$3.2 million for the Chelsea Lease; and,
- \$876,507 for FY15 additional CORE deposit. The CORE Fund requirement is 10% of the Senior Debt Service after offsets for the fiscal year per the Bond Resolution.

Revenue

FY15 non-rate revenue totals \$24.2 million, a decrease of \$5.5 million or 18.6% from the FY14 Budget. The FY15 Final non-rate revenue budget includes:

- \$9.7 million in Investment Income, a decrease of \$1.9 million or 16.3% from the FY14 Budget due to lower average fund balances. The FY15 Final short-term interest rate assumption is .20%, which is level funded with the FY14 Budget.
- \$8.3 million in Other User Charges, including \$4.7 million for Chicopee Valley Aqueduct (CVA) communities, \$1.6 million for Deer Island water usage, \$642,000 for entrance fees from member communities, and \$500,000 for the Commonwealth's partial reimbursement for Clinton Wastewater Treatment Plant expenses. Other User Charges are \$132,000 or 1.6% more than the FY14 Budget which is mainly due to changes in wholesale water rate increases and for Lancaster community assessment increase.
- \$6.2 million in Other Revenue, including \$2.4 million from the sale of the Authority's Renewable Portfolio Credits and revenue from the demand response program, \$2.1 million in permit fees and penalties, and \$656,000 in energy revenue from wind, hydroelectric, and solar production. Other Revenue decreased \$264,000 or 4.1% from the FY14 Budget mainly due to decreased pricing for Renewable Portfolio Credit certificates, lower monitoring fees, and lower revenue from renewable energy sources such as wind and solar.
- No use of Rate Stabilization funds is planned in FY15 which results in a \$3.5 million decrease versus FY14.

The Rate Revenue Requirement for FY15 is \$650.3 million, an increase \$21.6 million or 3.4% over the FY14 Budget. The Rate Revenue Requirement is the difference between total expenses of \$674.5 million less non-rate revenue of \$24.2 million.

Planning Estimates and Future Rate Increases

MWRA's planning estimates are projections based on a series of assumptions about future spending (operating and capital), interest rates, inflation, and other factors. MWRA uses the

planning estimates to model and project what future rate increases might be based upon these assumptions, as well as to test the impact of changes to assumptions on future rate increases. The planning estimates are not predictions of what rate increases will be but rather they provide the context and framework for guiding MWRA financial policy and management decision making that ultimately determine the level of actual rate increases on an annual basis.

Historically, the planning estimates were based on conservative financial assumptions. Conservative projections of future rate increases benefit the MWRA by providing assurance to the rating agencies that MWRA anticipates to raise revenues sufficient to pay for its operations and outstanding debt obligations now and over the long-term. Additionally, conservative forecasts of rate revenue increases enable member communities to adequately plan and budget for future payments to MWRA. These conservative assumptions are revised annually and adjusted to reflect more current conditions in the upcoming budget cycles.

Table 2 below presents the combined estimated future rate increases and household charges based on the FY14 Final Budget. The planning estimates shown below assume use of Rate Stabilization and Bond Redemption reserves through FY2023 to manage the rate increases but do not assume receipt of Debt Service Assistance (DSA) from the Commonwealth. For planning purposes, the yearly use of combined reserves is currently limited to a maximum of \$12 million. MWRA anticipates the release of additional reserves starting in FY16 as a result of Bond Indenture changes to mitigate rate increases in future years. The release of the Debt Service Reserve is reflected in these projections but not the \$45 million unrestricted cash reserves specifically the CORE (Community Obligation and Revenue Enhancement) and the RRR (Renewal and Replacement Reserve) funds that will be also released.

Table 2

Rates & Budget Projections										
FY15 Final CEB	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Total Rate Revenue (\$000)	\$ 650,316	\$ 678,411	\$ 712,885	\$ 747,497	\$ 782,127	\$ 832,987	\$ 849,948	\$ 880,898	\$ 851,717	\$ 838,042
Rate Revenue Change from Prior Year (\$000)	\$ 21,595	\$ 28,095	\$ 34,474	\$ 34,612	\$ 34,630	\$ 50,860	\$ 16,961	\$ 30,950	\$ (29,181)	\$ (13,675)
Rate Revenue Increase	3.4%	4.3%	5.1%	4.9%	4.6%	6.5%	2.0%	3.6%	-3.3%	-1.6%
Use of Reserves (\$000)	\$ 6,746	\$ 12,000	\$ 12,000	\$ 12,000	\$ -	\$ 12,000	\$ 2,620	\$ 12,000	\$ -	\$ -

Estimated Household Bill

Based on annual water usage of 61,000 gallons	\$ 1,010	\$ 1,014	\$ 1,065	\$ 1,133	\$ 1,184	\$ 1,227	\$ 1,295	\$ 1,352	\$ 1,412	\$ 1,448
Based on annual water usage of 90,000 gallons	\$ 1,490	\$ 1,567	\$ 1,646	\$ 1,732	\$ 1,813	\$ 1,910	\$ 1,989	\$ 2,082	\$ 2,132	\$ 2,183

CEB Review and Adoption Process

In February, the MWRA transmitted the FY15 Proposed CEB to the Advisory Board for its review and comment. In June, the Advisory Board submitted their *Integrated Comments and Recommendations*. Responses to the Advisory Board’s review and comments are attached as Attachment F.

Attachments

- Attachment A - FY15 Final Budget vs. FY15 Proposed Budget
- Attachment B - FY15 Final Budget vs. FY14 Approved Budget
- Attachment C - FY15 Final Direct Expense Budget by Division
- Attachment D - FY15 Final Operating Budget (Trustee's Budget)
- Attachment E - FY15 Final Budget vs. FY14 Projection
- Attachment F - MWRA Responses to Advisory Board's FY15 Integrated CIP and CEB Comments and Recommendation

ATTACHMENT A

FY15 Final vs FY15 Proposed Budget

TOTAL MWRA	FY14 Approved Budget	FY15 Proposed	FY15 Final	Change FY15 Final vs FY15 Proposed Budget	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 94,874,284	\$ 96,784,070	\$ 96,554,749	\$ (229,321)	-0.2%
OVERTIME	3,580,025	3,620,600	3,620,600	-	0.0%
FRINGE BENEFITS	18,063,825	18,539,351	18,299,405	(239,946)	-1.3%
WORKERS' COMPENSATION	2,000,000	2,200,000	2,200,000	-	0.0%
CHEMICALS	10,671,225	10,667,110	10,219,580	(447,530)	-4.2%
ENERGY AND UTILITIES	22,760,588	23,350,688	23,472,354	121,666	0.5%
MAINTENANCE	27,761,580	28,036,396	27,972,607	(63,789)	-0.2%
TRAINING AND MEETINGS	330,917	361,019	361,019	-	0.0%
PROFESSIONAL SERVICES	6,083,402	6,143,938	5,957,201	(186,737)	-3.0%
OTHER MATERIALS	5,969,470	5,886,229	5,952,729	66,500	1.1%
OTHER SERVICES	22,278,699	22,631,589	22,538,498	(93,091)	-0.4%
TOTAL DIRECT EXPENSES	\$ 214,374,017	\$ 218,220,990	\$ 217,148,742	\$ (1,072,247)	-0.5%
INSURANCE	\$ 2,093,618	\$ 2,128,155	\$ 2,128,155	\$ -	0.0%
WATERSHED/PILOT	27,214,833	27,541,836	27,466,790	(75,046)	-0.3%
HEEC PAYMENT	3,346,854	3,198,174	3,198,174	-	0.0%
MITIGATION	1,566,797	1,605,967	1,605,967	-	0.0%
ADDITIONS TO RESERVES *	169,304	661,661	482,953	(178,709)	-27.0%
RETIREMENT FUND	7,455,103	7,808,155	7,808,155	-	0.0%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	4,976,411	4,821,320	4,821,320	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 46,822,920	\$ 47,765,268	\$ 47,511,514	\$ (253,755)	-0.5%
STATE REVOLVING FUND	\$ 75,960,617	\$ 78,460,635	\$ 78,460,635	\$ -	0.0%
SENIOR DEBT	204,471,302	221,336,626	220,835,626	(501,000)	-0.2%
DEBT SERVICE ASSISTANCE	-	-	(853,660)	(853,660)	
CURRENT REVENUE/CAPITAL	9,200,000	10,200,000	10,200,000	-	0.0%
SUBORDINATE MWRA DEBT	100,117,241	99,686,105	99,686,105	-	0.0%
LOCAL WATER PIPELINE CP	4,127,811	4,148,453	4,148,453	-	0.0%
CAPITAL LEASE	3,217,060	3,217,060	3,217,060	-	0.0%
VARIABLE DEBT	-	-	-	-	
CORE FUND DEPOSIT	132,238	1,556,532	876,507	(680,025)	-43.7%
DEFEASANCE ACCOUNT	-	-	-	-	
BOND REDEMPTION	-	(1,300,000)	(6,745,598)	(5,445,598)	
TOTAL DEBT SERVICE	\$ 397,226,267	\$ 417,305,411	\$ 409,825,128	\$ (7,480,282)	-1.8%
TOTAL EXPENSES	\$ 658,423,205	\$ 683,291,669	\$ 674,485,384	\$ (8,806,287)	-1.3%
REVENUE & INCOME					
RATE REVENUE	\$ 628,721,002	\$ 651,169,443	\$ 650,315,782	\$ (853,660)	-0.13%
OTHER USER CHARGES	8,127,379	8,254,404	8,259,693	5,289	0.1%
OTHER REVENUE	6,444,291	6,196,586	6,180,451	(16,135)	-0.3%
RATE STABILIZATION	3,500,000	7,861,672		(7,861,672)	-100.0%
INVESTMENT INCOME	11,630,534	9,809,564	9,729,458	(80,106)	-0.8%
TOTAL REVENUE & INCOME	\$ 658,423,205	\$ 683,291,669	\$ 674,485,384	\$ (8,806,287)	-1.3%

* Reserves estimated based on OPEB being deposited into the Pension fund

ATTACHMENT B

FY15 Final vs FY14 Approved Budget

TOTAL MWRA	FY13 Actual	FY14 Approved Budget	FY15 Final	Change FY15 Final vs FY14 Approved Budget	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 90,658,806	\$ 94,874,284	\$ 96,554,749	\$ 1,680,465	1.8%
OVERTIME	3,542,871	3,580,025	3,620,600	40,575	1.1%
FRINGE BENEFITS	17,536,480	18,063,825	18,299,405	235,580	1.3%
WORKERS' COMPENSATION	2,114,701	2,000,000	2,200,000	200,000	10.0%
CHEMICALS	10,139,257	10,671,225	10,219,580	(451,645)	-4.2%
ENERGY AND UTILITIES	23,057,581	22,760,588	23,472,354	711,766	3.1%
MAINTENANCE	26,956,073	27,761,580	27,972,607	211,027	0.8%
TRAINING AND MEETINGS	320,596	330,917	361,019	30,102	9.1%
PROFESSIONAL SERVICES	5,002,664	6,083,402	5,957,201	(126,201)	-2.1%
OTHER MATERIALS	6,955,029	5,969,470	5,952,729	(16,741)	-0.3%
OTHER SERVICES	22,323,327	22,278,699	22,538,498	259,799	1.2%
TOTAL DIRECT EXPENSES	\$ 208,607,384	\$ 214,374,017	\$ 217,148,742	\$ 2,774,727	1.3%
INSURANCE	\$ 2,220,704	\$ 2,093,618	\$ 2,128,155	\$ 34,537	1.6%
WATERSHED/PILOT	26,004,694	27,214,833	27,466,790	251,957	0.9%
HEEC PAYMENT	3,492,064	3,346,854	3,198,174	(148,680)	-4.4%
MITIGATION	1,517,791	1,566,797	1,605,967	39,170	2.5%
ADDITIONS TO RESERVES *	1,398,329	169,304	482,953	313,649	185.3%
RETIREMENT FUND	10,490,247	7,455,103	7,808,155	353,052	4.7%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT		4,976,411	4,821,320	(155,091)	-3.1%
TOTAL INDIRECT EXPENSES	\$ 45,123,829	\$ 46,822,920	\$ 47,511,514	\$ 688,594	1.5%
STATE REVOLVING FUND	\$ 71,491,292	\$ 75,960,617	\$ 78,460,635	\$ 2,500,018	3.3%
SENIOR DEBT	209,826,104	204,471,302	220,835,626	16,364,324	8.0%
DEBT SERVICE ASSISTANCE (last year)	-	-	(853,660)	(853,660)	N/A
CURRENT REVENUE/CAPITAL	8,200,000	9,200,000	10,200,000	1,000,000	10.9%
SUBORDINATE MWRA DEBT	100,371,993	100,117,241	99,686,105	(431,136)	-0.4%
LOCAL WATER PIPELINE CP	335,271	4,127,811	4,148,453	20,642	0.5%
CAPITAL LEASE	3,217,060	3,217,060	3,217,060	-	0.0%
VARIABLE DEBT	(13,197,283)	-	-	-	
CORE FUND DEPOSIT	-	132,238	876,507	744,269	562.8%
DEFEASANCE ACCOUNT	-	-	-	-	
BOND REDEMPTION	-	-	(6,745,598)	(6,745,598)	
TOTAL DEBT SERVICE	\$ 380,244,437	\$ 397,226,267	\$ 409,825,128	\$ 12,598,860	3.2%
TOTAL EXPENSES	\$ 633,975,650	\$ 658,423,205	\$ 674,485,384	\$ 16,062,178	2.4%
REVENUE & INCOME					
RATE REVENUE	\$ 607,512,000	\$ 628,721,002	\$ 650,315,782	\$ 21,594,780	3.43%
OTHER USER CHARGES	7,707,031	8,127,379	8,259,693	132,314	1.6%
OTHER REVENUE	8,173,785	6,444,291	6,180,451	(263,840)	-4.1%
RATE STABILIZATION	-	3,500,000	-	(3,500,000)	-100.0%
INVESTMENT INCOME	13,590,492	11,630,534	9,729,458	(1,901,076)	-16.3%
TOTAL REVENUE & INCOME	\$ 636,983,311	\$ 658,423,205	\$ 674,485,384	\$ 16,062,178	2.4%

* Reserves estimated based on OPEB being deposited into the Pension fund

ATTACHMENT C

FY15 Final Direct Expense Budget by Division

Division	FY14 Approved Budget	FY15 Final	Change FY15 Final vs FY14 Approved Budget	
			\$	%
Executive	\$1,178,117	\$1,228,622	\$50,505	4.3%
Emergency Preparedness	2,850,289	2,681,758	-\$168,531	-5.9%
Administration and Finance	45,330,613	46,246,157	\$915,544	2.0%
Law	1,703,729	1,732,252	\$28,523	1.7%
Affirmative Action	579,143	578,751	-\$392	-0.1%
Internal Audit	681,501	701,437	\$19,936	2.9%
Public Affairs	1,208,114	1,125,052	-\$83,062	-6.9%
Operations/Planning	160,842,510	162,854,713	\$2,012,203	1.3%
Total Authority	\$214,374,017	\$217,148,742	\$2,774,727	1.3%

ATTACHMENT D

**Massachusetts Water Resources Authority
Fiscal Year 2015 Operating Budget for Filing with the Trustee
Pursuant to Section 712 of General Bond Resolution Adopted January 24, 1990**

(\$000s)

Projected Monthly Deposits:

Fund	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Operating	\$18,209	\$22,761	\$18,209	\$18,209	\$22,761	\$18,209	\$18,209	\$22,761	\$18,209	\$18,209	\$22,761	\$18,209	\$236,711
Debt Service & Coverage	31,525	39,406	31,525	31,525	39,406	31,525	31,525	39,406	31,525	31,525	39,406	31,525	409,825
Debt Service Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
CORE	---	---	---	---	---	---	---	---	---	---	---	---	0
Commonwealth Obligations	---	---	3,439	---	---	3,439	---	---	11,539	---	---	9,048	27,467
Operating Reserve	37	46	37	37	46	37	37	46	37	37	46	37	483
Insurance Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
Renewal & Replacement Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
Rate Stabilization Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	\$49,771	\$62,213	\$53,210	\$49,771	\$62,213	\$53,210	\$49,771	\$62,213	\$61,310	\$49,771	\$62,213	\$58,819	\$674,485

ATTACHMENT E

FY15 Final vs FY14 Projection

TOTAL MWRA	FY14 Projection	FY15 Final	Change FY15 Final vs FY14 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 91,964,696	\$ 96,554,749	\$ 4,590,053	5.0%
OVERTIME	3,427,072	3,620,600	193,528	5.6%
FRINGE BENEFITS	18,072,137	18,299,405	227,268	1.3%
WORKERS' COMPENSATION	2,400,358	2,200,000	(200,358)	-8.3%
CHEMICALS	10,527,640	10,219,580	(308,060)	-2.9%
ENERGY AND UTILITIES	22,507,652	23,472,354	964,702	4.3%
MAINTENANCE	28,290,162	27,972,607	(317,555)	-1.1%
TRAINING AND MEETINGS	314,190	361,019	46,829	14.9%
PROFESSIONAL SERVICES	5,458,377	5,957,201	498,824	9.1%
OTHER MATERIALS	5,834,079	5,952,729	118,650	2.0%
OTHER SERVICES	21,838,437	22,538,498	700,061	3.2%
TOTAL DIRECT EXPENSES	\$ 210,634,800	\$ 217,148,742	\$ 6,513,943	3.0%
INSURANCE	\$ 2,000,101	\$ 2,128,155	\$ 128,054	6.4%
WATERSHED/PILOT	26,636,833	27,466,790	829,957	3.1%
HEEC PAYMENT	3,379,550	3,198,174	(181,376)	-5.4%
MITIGATION	1,525,477	1,605,967	80,490	5.3%
ADDITIONS TO RESERVES	169,304	482,953	313,649	185.3%
RETIREMENT FUND	7,470,926	7,808,155	337,229	4.5%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	4,976,411	4,821,320	(155,091)	-3.1%
TOTAL INDIRECT EXPENSES	\$ 46,158,603	\$ 47,511,514	\$ 1,352,913	2.9%
STATE REVOLVING FUND	\$ 73,548,811	\$ 78,460,635	\$ 4,911,825	6.7%
SENIOR DEBT	203,337,968	220,835,626	17,497,659	8.6%
DEBT SERVICE ASSISTANCE	(853,660)	(853,660)	-	
CURRENT REVENUE/CAPITAL	9,200,000	10,200,000	1,000,000	10.9%
SUBORDINATE MWRA DEBT	100,117,241	99,686,105	(431,136)	-0.4%
LOCAL WATER PIPELINE CP	341,921	4,148,453	3,806,532	1113.3%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
VARIABLE DEBT	(12,441,396)	-	12,441,396	-100.0%
CORE FUND DEPOSIT	132,238	876,507	744,269	562.8%
DEFEASANCE ACCOUNT	19,772,424	-	(19,772,424)	-100.0%
BOND REDEMPTION	-	(6,745,598)	(6,745,598)	N/A
TOTAL DEBT SERVICE	\$ 396,372,607	\$ 409,825,128	\$ 13,452,523	3.4%
TOTAL EXPENSES	\$ 653,166,010	\$ 674,485,384	\$ 21,319,379	3.3%
REVENUE & INCOME				
RATE REVENUE	\$ 628,721,002	\$ 650,315,782	\$ 21,594,780	3.4%
OTHER USER CHARGES	8,127,379	8,259,693	132,314	1.6%
OTHER REVENUE	10,640,291	6,180,451	(4,459,840)	-41.9%
RATE STABILIZATION	3,500,000	-	(3,500,000)	-100.0%
INVESTMENT INCOME	12,030,534	9,729,458	(2,301,076)	-19.1%
TOTAL REVENUE & INCOME	\$ 663,019,204	\$ 674,485,384	\$ 11,466,178	1.7%
VARIANCE	\$ 9,853,194	\$ -	\$ (9,853,194)	

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>1. The Advisory Board recommends that the Authority review and update the Business Plan and present a document for the next five-year period, FY2015-FY2019, no later than September 2014.</p>	<p>The Authority will strive to update the Business plan for the FY15-19 timeframe to be presented to the Board in December 2014.</p>
<p>2. The Advisory Board recommends that Phase 9 and Phase 10 of the I/I Local Financial Assistance Program be increased to \$80 million per phase to be distributed to eligible communities.</p>	<p>Agree. The expansion of this program and the more favorable terms is a major positive development for the communities. Having more funds available will enhance the communities ability to make needed local improvements to their sewer system.</p>
<p>3. The Advisory Board recommends that an automatic "trigger," the exact mechanism of which is to be determined by the Authority, be incorporated into the I/I Program to make Phase 10 funds available to communities.</p>	<p>Based on discussions with the AB it was determined that some safety features will be built into the structure of the new program starting with Phase 9. These will include that the Communities will provide a three year spending projection starting in March of 2015 for the FY16 cycle, and every budget year following FY16, and a 90 day advance notice for any distribution exceeding \$2 million. Also, it was decided, that in order to ensure that the Phase 10 funds included in the capital program will be available to the Communities a "trigger" point for the eligibility was agreed upon: when MWRA has distributed 50% of the Phase 9 funds allocation for a community, their Phase 10 distribution automatically becomes approved for local authorization. Phase 10 funds will be available at the beginning of the fiscal year after the Phase 10 trigger has been met.</p>
<p>4. The Advisory Board recommends that the award for construction of the Hatchery Pipeline project be placed on hold until the Commonwealth confirms its method of reimbursing the Authority for the electricity savings it will receive as an ancillary benefit to this project.</p>	<p>MWRA is continuing the design effort, while at the same time seeking additional grants for the construction phase of the project. Last year, MWRA indicated it had received one grant from the Massachusetts Clean Energy Center for 50% of the hydropower facility's cost, and had applied for a second grant from the Executive Office of Energy and Environmental Affairs Leading By Example program to cover the other 50% of the hydropower facility's project cost. MWRA subsequently received the second grant. Both grants have milestones associated with them. Failure to move ahead with this project on a timely basis could result in loss of grant funding.</p>
<p>5. The Advisory Board recommends that the community assistance programs be exempt from the capital spending cap calculation.</p>	<p>Agree.</p>

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>6. The Advisory Board recommends that the Authority identify "standalone" projects in both the wastewater and water capital programs and bring them to a level of design to allow them to proceed with short notice. The Advisory Board further recommends that this "pool" of projects be substituted to continue work on the capital program when other capital spending "slips" due to unforeseen circumstances.</p>	<p>The Authority will consider this recommendation going forward. The Authority budgets capital projects based on priority and once the design phase for a project is completed, the project is bid for construction as soon as possible. If a project were to be designed and then shelved it could not necessarily be bid quickly once needed. There are items in a design contract such as: electrical/plumbing codes, building codes, environmental requirements and permitting, to name a few, that frequently change. If a project were to be designed and then shelved, once needed, would have to be revised to account for any changes. Doing so, would potentially be time-consuming and may result in higher costs, especially if the contract with the original design engineering firm has expired. In that case it would be necessary to re-bid the contract, which would not guarantee that the original design firm would receive the award. This situation would further complicate the process, because the newly selected firm would essentially be re-designing the project. However, the Authority will evaluate and identify projects where it would be beneficial and feasible to implement this recommendation.</p>
<p>7. The Advisory Board challenges the Authority to the long-term goal of reducing wholesale assessment increases from FY16-20 to less than 4.0%.</p>	<p>The Authority will strive to achieve assessment increases less than 4% annually. So far, based on the current projection the average increase for the FY16-20 period is 5%.</p>
<p>8. The Advisory Board recommends that the Authority reduces the rate revenue requirement for the FY15 Current Expense Budget by \$853,660, resulting in a 3.43% wholesale rate increase.</p>	<p>Agree.</p>
<p>9. The Advisory Board recommends that any additional reductions the Authority makes beyond \$853,660 are accounted for via a reduction in the use of rate stabilization funds for FY15.</p>	<p>Agree. Due to additional savings identified during the Draft Final process the Authority was able to reduce the use of reserves by \$2.4 million in FY15, thus increasing the available reserve funds to be used in future years.</p>
<p>10. The Advisory Board recommends that the Authority use the \$4,645,464 dedicated for water quality improvements relating to the Town of Clinton as part of the "current revenue for the capital program" line item to fund this project as expenditures occur in future years.</p>	<p>Partially agree. When these funds were originally set aside, there were a few watershed protection/water quality initiatives identified for their application. MWRA can use this \$4.7M for the Clinton project specifically (like current revenue for capital and lower its borrowing), but it cannot use these funds in lieu of the Current Revenue for Capital budgeted for FY15 and beyond. The Current Revenue for Capital line item is budgeted (at increasing levels annually) to ensure MWRA is able to meet its coverage requirement per the Bond Resolution. Since this \$4.7M was already recognized for year-end coverage purposes in the year that it was set aside (FY11), it cannot be re-applied for coverage purposes in the future.</p>
<p>11. The Advisory Board recommends that the Long-Term Rates Management Committee be reconvened with updated membership according to the original makeup present on the committee, and that meetings begin in September 2014.</p>	<p>Agree. Staff recommend that this forum be used to develop a recommendation to the Board of Directors for the application of the cash reserves (Community Obligation and Revenue Enhancement (CORE) and Renewal and Replacement Reserve (RRR) funds) to be released upon adoption of the revisions to the Bond Indenture.</p>

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
12. The Advisory Board recommends that the Authority adjust its attrition/vacancy rate assumptions upward by the average value of three positions, for a reduction of \$300,000 (including associated fringe benefits).	The Authority reduced the Proposed FY15 CEB Regular Pay line item by \$274,000 to reflect the financial impact of hiring delays. The associated fringe benefits, coupled with lower health insurance premium rates, resulted in an additional reduction of \$240,000.
13. The Advisory Board reaffirms its support of the current approach toward the combined pension/OPEB liability, and further recommends that 100% funding of the retirement fund be used as the specific "trigger" to begin the process of establishing an irrevocable trust for its OPEB liability.	Agree to establish an OPEB irrevocable trust and to begin funding this OPEB trust upon reaching full funding of the retirement fund. However, staff recommend that the process for establishing the trust be commenced in advance of reaching full funding of the pension fund as important decisions regarding the administration of the OPEB trust need to be made and the development of the legal documentation will take some time to complete. Thus, the process to establish the trust should commence in advance but no funding need be directed to such a trust until reaching full funding of the retirement fund as currently planned.
14. The Advisory Board recommends that in the event the amount budgeted for the retirement fund deposit would exceed the amount needed for full funding, that any excess funds be placed in a dedicated reserve account that is exempt from any Operating Reserve requirement until an irrevocable trust is established.	Staff agrees that amounts budgeted in excess of the amount needed for full pension funding should be directed to OPEB funding and placed in a dedicated reserve account which is not subject to Operating Reserve requirement, until an irrevocable trust is established.
15. The Advisory Board recommends that the Authority create a working committee, including representatives from the Advisory Board, to discuss the schedule, structure, and management of funding the Authority's OPEB liability and make a recommendation to the MWRA Board of Directors.	Agree.
16. The Advisory Board recommends that the Authority reduce its assumption for average quantity from 104 tons per day to 103 tons per day, thereby reducing sludge pelletization by \$99,000.	Agree with the recommendation of reducing the average sludge quantity from 104 tons per day to 103 tons per day.
17. The Advisory Board recommends reducing budgeted amounts for chemical use by \$650,000 to reflect no increased costs associated with regulatory changes to the National Pollutant Discharge Elimination System (NPDES) permit at the Deer Island Wastewater Treatment Plant.	MWRA partially agrees with this recommendation. The Operations Division agrees to amend the Proposed FY15 CEB to reflect a three month delay in the start-up of the new NPDES Permit at the Deer Island Wastewater Treatment Plant. The revised budget will reflect start-up in April 2015 instead of January 2015, thus resulting in a reduction of \$330,000 for less chemical use for enterococcus treatment at DITP.

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>18. The Advisory Board recommends that the Authority contribute no more than 40% to the costs for the Mystic River modeling - no more than \$150,000 per year, with an overall spending cap of \$350,000 contingent upon demonstrated commitment from DEP, EPA, local entities, and the Mystic River Watershed Association to fund the remaining 60%.</p>	<p>MWRA is working cooperatively with the Mystic River Watershed Association (MyRWA), EPA, DEP, USGS and other potential partners to establish a higher level of baseline information on the Mystic River with the intent of making more informed long-term decisions about water quality. This benefits MWRA relative to understanding the benefits associated with the Authority's Long Term CSO Control Plan and with MWRA's more focused efforts such as the North System Study and projects such as assisting MyRWA with ongoing efforts to reduce nuisance vegetation in the River. Scope development for the project is not yet complete. MWRA is working with MyRWA and the other parties to develop a scope, schedule and funding mix that will be the most beneficial. MWRA has been adamant in all discussions that cost sharing between interested parties is critical to MWRA's involvement and to the success of the project. In addition to making use of watershed association funds, MyRWA has made progress in preparing grant applications and obtaining financial commitments from both public and private entities. Additional grant applications are currently outstanding and others will be developed over time as opportunities arise. MWRA will continue to work with MyRWA and other parties to ensure the broadest possible financial participation. MWRA does concur with the Advisory Board's concept of proportionate funding shared by multiple stakeholders. If the cost and scope of the project increases and MyRWA is successful in raising additional funding for costs from other interested parties, MWRA staff would make a recommendation for a proportional increase in the total contribution above the \$350,000. If that were to occur, MWRA staff would seek specific Board approval.</p>
<p>19. The Advisory Board recommends that the Authority update assumptions for the schedule for an undated Local Limits Study during FY15 and reduce budgeted amounts by at least \$125,000 to reflect a start date in the spring of 2015.</p>	<p>The Operations Division agrees to reduce the Proposed FY15 CEB for the Local Limits Study by \$125,000, leaving a remaining budget of \$125,000 for three months of work in FY15 to coincide with the start-up of the new NPDES Permit for DITP.</p>
<p>20. The Advisory Board recommends that the Authority review its assumptions for conducting of a Deer Island beach erosion study during FY15 and reduce amounts budgeted by \$50,000.</p>	<p>Agree.</p>
<p>21. The Advisory Board recommends that the planned purchase of a piece of Laboratory equipment for \$150,000 be classified as a capital expense.</p>	<p>MWRA does not agree to shift the funds for this item to the CIP. This is a relatively small amount which the Central Laboratory carries historically as a placeholder in the CEB which may include funding for one or a number of instruments. Actual purchases are based on the latest emerging needs and staff evaluates all purchases before any commitment is made as to the funding.</p>
<p>22. The Advisory Board recommends that other items that meet the capitalization policy should be revisited.</p>	<p>MWRA's staff evaluates each project on it's own merit and determines if they meet the capitalization criteria.</p>

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>23. The Advisory Board recommends that the co-digestion pilot program should not be resumed until an updated estimate on the costs required to resume the pilot program are detailed and the Commonwealth provides the Authority with its plans for substantial financial support for the increased costs associated with the pilot program.</p>	<p>Staff currently considering alternative options, such as barging and updates the Board monthly on the progress. The pursuit of additional funding is part of the considerations. Also, staff is continuing to assess and refine the capital and operating costs associated with the pilot program.</p>
<p>24. The Advisory Board recommends that the Authority clearly identify and share with member communities what steps it can take to directly control the diversion of additional organic food waste into the wastewater stream.</p>	<p>Staff will review its sewer use regulations, education, and outreach programs and other practices of POTW's nationwide to determine if additional steps must be taken and will work closely with the Advisory Board on the issue.</p>
<p>25. The Advisory Board is recommending that the sunset provision on its proposed entrance fee payment schedule be extended one full year to June 30, 2015.</p>	<p>MWRA staff do not object to this recommendation. In 2012, the MWRA Advisory Board adopted recommendations to revise the terms of entrance fee payment for water system expansion to allow new water served communities to pay the entrance fee over 25 years, with no interest assessed, and to allow payment to start in the fourth year. In discussions with prospective communities, allowing payment of the entrance fee over 25 years appeared to be well received. MWRA staff urge that MWRA and the MWRA Advisory Board continue to keep open the possibility of payment of the entrance fee over 25 years with no interest. As experience has indicated, the process to become an MWRA water community may take a while, as communities weigh options very carefully, various Town meeting or City Council votes may be required, and there are regulatory processes that must be completed prior to application to MWRA. MWRA staff believe that if the Community is taking concrete steps to join MWRA, such as a Town Meeting vote, or submission of MEPA documentation indicating MWRA is the preferred option, these actions should be considered actions that satisfy the sunset provision's deadline.</p>
<p>26. The Advisory Board recommends that the payback period for Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be extended to ten years.</p>	<p>Agree.</p>
<p>27. The Advisory Board recommends that Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be reconfigured to allow for a grant/loan ratio of 75% grants and 25% interest-free loans.</p>	<p>Agree. Although, doubling of the traditional amounts per phase and changing the grant/loan ratio, specifically the grants from 45% to 75% will result in higher borrowing cost for the Authority, the higher cost will be repaid by the communities through assessments over time.</p>
<p>28. Formally, the Advisory Board recommends that in FY15 and all future years, any Debt Service Assistance received from the Commonwealth be utilized in the fiscal year immediately following its receipt in the form of a direct reduction to the rate revenue requirement.</p>	<p>Agree. If in the future years the Commonwealth were to appropriate funds at expected levels for Debt Service Assistance, this recommendation might be revisited.</p>

MWRA's Responses to the Advisory Board's FY2015 Integrated CIP and CEB Recommendations and Comments

Advisory Board Recommendations/Comments	MWRA Responses
<p>29. The Advisory Board recommends that the Authority begin immediately to address molybdenum limits found in its biosolids with the goal of ensuring its processed pellets can be placed in-state throughout the entire year, using any of the methods discussed and present a specific and detailed plan to do so to the MWRA Board of Directors by October 2014.</p>	<p>Staff concur with the Advisory Board's goal of placing more pellets in the Commonwealth of Massachusetts. MWRA staff are continuing to evaluate options, including revisions to the DEP regulatory limits, to ensure its pellets can be placed in-state throughout the year and agree to return to the Board with recommendations.</p>

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2015
SUBJECT: Final FY15 Water and Sewer Assessments

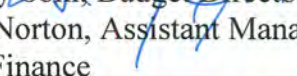


COMMITTEE: Administration, Finance & Audit

INFORMATION

VOTE


Kathy Soni, Budget Director


Leo Norton, Assistant Manager, Rates, Revenue
and Finance

Preparer/Title


Rachel C. Madden

Director, Administration, Finance

The FY15 Proposed Current Expense Budget (CEB) included a Rate Revenue Requirement of \$651,169,442, a 3.6% increase over FY14.

In the Draft Final CEB presented to the Board at the June 4th budget hearings, the Rate Revenue Requirement was reduced by \$853,660, recognizing the receipt of the FY14 Debt Service Assistance which is being applied as a direct offset to the FY15 Debt. This reduction results in a Rate Revenue Requirement of \$650,315,782, an increase of 3.43% over FY14.

The Rate Revenue Requirement is allocated to MWRA communities based on their respective shares of CY13 MWRA water use, the average of CY11-CY13 wastewater flows and corresponding strength of flows, and population data.

RECOMMENDATION:

To adopt the following effective July 1, 2014:

- 1) Water system assessments of \$210,233,607 and sewer system assessments of \$440,082,175 for Fiscal Year 2015.
- 2) FY15 sewer assessments of \$500,000 for the Town of Clinton and \$230,801 for the Lancaster Sewer District.
- 3) FY15 charge to the City of Worcester of \$132,717 which represents approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant.
- 4) FY15 water assessments of \$3,294,586 for the City of Chicopee, \$677,949 for South Hadley Fire District #1, and \$687,080 for the Town of Wilbraham.
- 5) A wholesale water rate of \$3,239.66 per million gallons.
- 6) A retail sewer rate of \$6,556.46 per million gallons.

DISCUSSION:

The Final FY15 Current Expense Budget includes a Rate Revenue Requirement of \$650,315,782, an increase of 3.43% over the FY14 requirement.

	FY15 Final	FY14 Approved	\$ Change from FY14	% Change from FY14
Water	\$210,233,607	\$203,216,774	\$ 7,016,833	3.45%
Sewer	440,082,175	425,504,226	\$14,577,949	3.43%
Total	\$650,315,782	\$628,721,000	\$21,594,782	3.43%

Attachment 1 summarizes FY15 wholesale water and sewer charges for each MWRA community.

The estimated impact of the FY15 assessment increase on the MWRA portion of the average household bill for water and sewer service in a fully served MWRA community that uses close to the system average of 61,000 gallons of water per year is \$14.

Water Assessments

MWRA calculates water assessments for customer communities by apportioning the water rate revenue requirement according to each community's share of total water use for the most recent calendar year. FY15 assessments are based on each community's share of CY13 water use of 64.894 billion gallons, a 0.21% decrease compared to CY12 water use of 65.031 billion gallons. Changes in FY15 water assessments for customer communities compared to FY14 assessments will vary considerably, depending on each community's use of water and how that use factors into their share of the water system in CY13 compared to CY12. This is particularly true for communities that receive only part of their water from MWRA.

Preliminary FY15 assessments were calculated based on preliminary CY13 water use as of February 2013. Since February, staff has made the following adjustments to CY13 water use:

- Chelsea: -3.3 million gallons
- Framingham: -42.7 million gallons
- Malden: -18.3 million gallons
- Medford: -20.8 million gallons
- Newton: -30.1 million gallons
- Waltham: -4.4 million gallons

With the exception of Medford, these adjustments were required due to oxidization discovered by MWRA staff in a small number of MWRA TELOG data logger switches following an inquiry by the Town of Framingham. The data logger's convert the electrical signal from water meters to a flow value and transmits it to MWRA's central computers. Oxidization in the switches was resulting in meter over registration. Staff have since expanded meter maintenance procedures to address this issue. A separate staff summary is being presented at today's Board of Directors' meeting discussing this in more detail.

Medford's CY13 water use was adjusted due to a leak in their water system caused by a pressure spike in MWRA's system. This resulted in a leakage over 24 days until the leak could be located and repaired. Malden and Chelsea also experienced water main leaks from this pressure spike. However, these leaks were isolated by the communities resulting in no measurable impact to monthly water use.

Based on the FY15 water rate of \$3,239.66 per million gallons, the assessment reductions are approximately: Chelsea: \$10k, Framingham: \$138k, Malden: \$59k, Medford: \$68k, Newton: \$97K, Waltham: \$14k.

The graph below illustrates the water Rate Revenue Requirement for the past 5 years. The changes from FY14 to FY15 are primarily the result of increased debt service related to the rehabilitation and capital improvements of the water system.

MWRA Water Rate Revenue Requirement

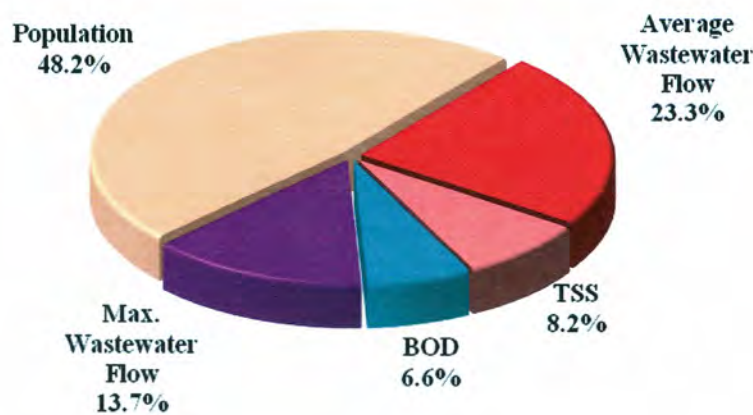


Sewer Assessments

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

On average, approximately 52% of a community's FY15 sewer assessment is based on each community's share of wastewater flow and strength of flow (total suspended solids-TSS and biochemical oxygen demand-BOD), and approximately 48% is based on population as illustrated in the graph below.

Allocation of Total MWRA Sewer Utility Assessment



Both the preliminary and final FY15 assessment for population were calculated using the most recent (July 2012) community population estimates from the U.S. Census Bureau, as well as the percentage of total population receiving municipal sewer service reported by each MWRA community.

Preliminary FY15 assessments were calculated using the average of CY11, CY12 and CY13 wastewater flows and strength of flows as of February 2013. Since February, staff has revised CY13 flows for several communities resulting in very minor assessment impacts that in most cases are \$500 or less.

The graph below illustrates the sewer Rate Revenue Requirement for the past 5 years. The change from FY13 to FY15 is primarily the result of increased debt service related to the rehabilitation and capital improvements of the sewer system.

MWRA Sewer Rate Revenue Requirement



Clinton Sewer Service Area Assessments

FY15 operating and maintenance (O&M) and capital expenses attributable to the Clinton Wastewater Treatment Plant are \$2,587,060, an increase of 5.4% over FY14 expenses. This includes a 15.5% increase in capital expenses related primarily to the digester cleaning/rehabilitation project.

In accordance with MWRA’s Clinton Sewer Service Area rate methodology adopted in 1991, the City of Worcester is charged approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant. FY15 direct operating expenses for the plant total \$1,677,632, resulting in a preliminary FY15 charge of \$132,717 for the City of Worcester. Worcester has been paying this annual charge to MWRA or its predecessors since 1914.

The Town of Clinton and the Lancaster Sewer District are allocated proportional shares of the remaining expenses based on annual metered wastewater flow to the Clinton Plant. Based on FY15 expenses and CY13 wastewater flows, FY15 charges are \$230,801 for the Lancaster Sewer District and \$2,223,542 for the Town of Clinton. However, pursuant to Chapter 307, Section 8 of the Acts of 1987, Clinton is only liable for the first \$500,000 of its share of O&M and capital costs.

Attachment 2 details the expenses and corresponding charges for the Clinton Sewer Service Area.

CVA Water Assessments

Based on the FY15 CIP and CEB for the Chicopee Valley Aqueduct (CVA) water system, the FY15 system assessment is \$4,659,615, an increase of 0.3% from FY14 assessments.

MWRA's CVA water assessment methodology allocates CVA assessments to the three communities served by the CVA system based on their share of prior calendar year water use. Based on CY13 water use, FY15 assessments are as follows:

- **Town of Chicopee:** \$3,294,586 (+1.3%)
- **South Hadley Fire District #1:** \$ 677,949 (- 1.0%)
- **Town of Wilbraham:** \$ 687,080 (- 3.1%)

As with the metropolitan water system, changes in FY15 water assessments for each CVA community compared to FY14 assessments vary depending on their water use and how that use factors into their share of the CVA water system in CY13 compared to CY12.

Attachment 3 details the expenses and corresponding assessments for the CVA Water Service Area.

Wholesale Water Rate

MWRA's wholesale water rate per million gallons is applied to customers purchasing MWRA water on a pay-as-you-go basis (including customers with emergency agreements). Examples include the Department of Conservation and Recreation, the Department of Youth Services, and the Walter E. Fernald State School. The wholesale water rate for FY15 is \$3,239.66 per million gallons. The FY15 CEB includes revenue of \$154,649 from these customers.

Retail Sewer Rate

MWRA provides sewer service to Regis College in Weston and the New England Center for Children in Southborough. In accordance with MWRA Policy #OP.11, Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area, both entities are charged a modified per million gallon "retail" rate that captures both sanitary and non-sanitary flows. Based on FY15 sewer assessments, the FY15 retail sewer rate is \$6,556.46 per million gallons. The FY15 CEB includes revenue of \$71,358 from these customers

ATTACHMENTS:

1. Final FY15 Water and Sewer Assessments
2. Clinton Wastewater Treatment Plant: FY15 Sewer User Charge Determination
3. Chicopee Valley Aqueduct System Assessment: Fiscal Year 2015

MWRA Fully Served Water and Sewer Customers	Final FY14 Water Assessment	Final FY15 Water Assessment	Percent Change from FY14	Final FY14 Sewer Assessment	Final FY15 Sewer Assessment	Percent Change from FY14	Final FY14 Combined Assessment	Final FY15 Combined Assessment	Dollar Change from FY14	Percent Change from FY14
ARLINGTON	\$4,553,819	\$4,555,760	0.0%	\$7,661,286	\$7,726,704	0.9%	\$12,215,105	\$12,282,464	\$67,359	0.6%
BELMONT	2,516,559	2,582,348	2.6%	4,652,803	4,664,723	0.3%	7,169,362	7,247,071	77,709	1.1%
BOSTON (BWSC)	73,408,095	75,628,730	3.0%	122,165,554	128,143,674	4.9%	195,573,649	203,772,404	8,198,755	4.2%
BROOKLINE	5,906,771	6,529,438	10.5%	12,675,295	12,542,458	-1.0%	18,582,066	19,071,896	489,830	2.6%
CHELSEA	3,524,702	3,782,023	7.3%	6,833,214	7,256,657	6.2%	10,357,916	11,038,680	680,764	6.6%
EVERETT	4,486,488	4,611,174	2.8%	7,612,435	7,816,187	2.7%	12,098,923	12,427,361	328,438	2.7%
FRAMINGHAM	7,645,878	7,583,720	-0.8%	10,691,353	11,278,349	5.5%	18,337,231	18,862,069	524,838	2.9%
LEXINGTON	5,555,065	6,035,866	8.7%	7,014,300	7,177,414	2.3%	12,569,365	13,213,280	643,915	5.1%
MALDEN	6,264,071	6,273,748	0.2%	11,761,795	12,260,112	4.2%	18,025,866	18,533,860	507,994	2.8%
MEDFORD	5,520,265	5,979,858	8.3%	10,943,641	11,075,116	1.2%	16,463,906	17,054,974	591,068	3.6%
MELROSE	2,519,249	2,650,477	5.2%	5,648,906	5,945,198	5.2%	8,168,155	8,595,675	427,520	5.2%
MILTON	2,834,490	2,854,051	0.7%	4,999,997	5,025,212	0.5%	7,834,487	7,879,263	44,776	0.6%
NEWTON	10,333,024	10,437,524	1.0%	20,152,363	20,176,404	0.1%	30,485,387	30,613,928	128,541	0.4%
NORWOOD	3,133,277	3,277,568	4.6%	6,147,982	6,492,751	5.6%	9,281,259	9,770,319	489,060	5.3%
QUINCY	10,147,276	10,605,214	4.5%	18,635,986	19,001,720	2.0%	28,783,262	29,606,934	823,672	2.9%
READING	1,854,203	1,931,410	4.2%	4,499,328	4,642,124	3.2%	6,353,531	6,573,534	220,003	3.5%
REVERE	4,353,201	4,484,031	3.0%	9,920,985	10,193,891	2.8%	14,274,186	14,677,922	403,736	2.8%
SOMERVILLE	6,440,071	6,896,106	7.1%	14,595,600	14,845,808	1.7%	21,035,671	21,741,914	706,243	3.4%
STONEHAM	3,262,031	3,490,972	7.0%	4,452,189	4,477,065	0.6%	7,714,220	7,968,037	253,817	3.3%
WALTHAM	7,809,194	8,061,502	3.2%	12,759,248	12,953,820	1.5%	20,568,442	21,015,322	446,880	2.2%
WATERTOWN	2,945,405	3,096,347	5.1%	5,654,142	5,774,673	2.1%	8,599,577	8,871,020	271,443	3.2%
WINTHROP	1,429,691	1,454,285	1.7%	3,161,934	3,221,355	1.9%	4,591,625	4,675,640	84,015	1.8%
TOTAL	\$176,442,825	\$182,802,152	3.6%	\$312,640,366	\$322,691,415	3.2%	\$489,083,191	\$505,493,567	\$16,410,376	3.4%

MWRA Sewer and Partial Water Customers	Final FY14 Water Assessment	Final FY15 Water Assessment	Percent Change from FY14	Final FY14 Sewer Assessment	Final FY15 Sewer Assessment	Percent Change from FY14	Final FY14 Combined Assessment	Final FY15 Combined Assessment	Dollar Change from FY14	Percent Change from FY14
CANTON	\$1,414,000	\$991,292	-29.9%	\$3,460,713	\$3,547,316	2.5%	\$4,874,713	\$4,538,608	(\$336,105)	-6.9%
NEEDHAM	1,271,018	1,193,697	-6.1%	5,423,810	5,466,144	0.8%	6,694,828	6,659,841	(\$34,987)	-0.5%
STOUGHTON	758,402	931,975	22.9%	4,364,713	4,391,426	0.6%	5,123,115	5,323,401	200,286	3.9%
WAKEFIELD	1,604,779	1,611,741	0.4%	5,549,601	5,594,367	0.8%	7,154,380	7,206,108	51,728	0.7%
WELLESLEY	1,423,735	1,379,407	-3.1%	5,246,821	5,333,992	1.7%	6,670,556	6,713,399	42,843	0.6%
WILMINGTON	125,176	363,646	190.5%	2,408,266	2,353,306	-2.3%	2,533,442	2,716,952	183,510	7.2%
WINCHESTER	1,127,860	1,253,400	11.1%	3,718,082	3,867,732	4.0%	4,845,942	5,121,132	275,190	5.7%
WOBURN	3,549,339	3,032,534	-14.6%	9,134,120	9,535,730	4.4%	12,683,459	12,568,264	(\$115,195)	-0.9%
TOTAL	\$11,274,309	\$10,757,692	-4.6%	\$39,306,126	\$40,090,013	2.0%	\$50,580,435	\$50,847,705	\$267,270	0.5%

MWRA Sewer-only Customers	Final FY14 Water Assessment	Final FY15 Water Assessment	Percent Change from FY14	Final FY14 Sewer Assessment	Final FY15 Sewer Assessment	Percent Change from FY14	Final FY14 Combined Assessment	Final FY15 Combined Assessment	Dollar Change from FY14	Percent Change from FY14
ASHLAND				\$2,175,735	\$2,310,206	6.2%	\$2,175,735	\$2,310,206	\$134,471	6.2%
BEDFORD				2,968,529	3,085,246	3.9%	2,968,529	3,085,246	116,717	3.9%
BRAINTREE				7,759,278	8,363,839	7.8%	7,759,278	8,363,839	604,561	7.8%
BURLINGTON				4,846,498	4,943,181	2.0%	4,846,498	4,943,181	96,683	2.0%
CAMBRIDGE				21,224,419	22,157,757	4.4%	21,224,419	22,157,757	933,338	4.4%
DEDHAM				4,924,268	5,024,472	2.0%	4,924,268	5,024,472	100,204	2.0%
HINGHAM SEWER DISTRICT				1,562,020	1,651,545	5.7%	1,562,020	1,651,545	89,525	5.7%
HOLBROOK				1,495,280	1,594,287	6.6%	1,495,280	1,594,287	99,007	6.6%
NATICK				4,903,457	5,330,710	8.7%	4,903,457	5,330,710	427,253	8.7%
RANDOLPH				5,561,761	5,931,064	6.6%	5,561,761	5,931,064	369,303	6.6%
WALPOLE				3,373,364	3,509,806	4.0%	3,373,364	3,509,806	136,442	4.0%
WESTWOOD				2,362,136	2,426,073	2.7%	2,362,136	2,426,073	63,937	2.7%
WEYMOUTH				10,400,989	10,972,561	5.5%	10,400,989	10,972,561	571,572	5.5%
TOTAL				\$73,557,734	\$77,300,747	5.1%	\$73,557,734	\$77,300,747	\$3,743,013	5.1%

MWRA Water-only Customers	Final FY14 Water Assessment	Final FY15 Water Assessment	Percent Change from FY14	Final FY14 Sewer Assessment	Final FY15 Sewer Assessment	Percent Change from FY14	Final FY14 Combined Assessment	Final FY15 Combined Assessment	Dollar Change from FY14	Percent Change from FY14
LYNNFIELD WATER DISTRICT	\$467,594	\$490,333	4.9%				\$467,594	\$490,333	\$22,739	4.9%
MARBLEHEAD	1,990,555	2,101,639	5.6%				1,990,555	2,101,639	111,084	5.6%
NAHANT	349,194	382,274	9.5%				349,194	382,274	33,080	9.5%
SAUGUS	2,963,455	3,202,440	8.1%				2,963,455	3,202,440	238,985	8.1%
SOUTHBOROUGH	695,113	765,656	10.1%				695,113	765,656	70,543	10.1%
SWAMPSCOTT	1,781,628	1,782,932	0.1%				1,781,628	1,782,932	1,304	0.1%
WESTON	1,898,881	1,993,015	5.0%				1,898,881	1,993,015	94,134	5.0%
TOTAL	\$10,146,420	\$10,718,289	5.6%				\$10,146,420	\$10,718,289	\$571,869	5.6%

MWRA Partial Water-only Customers	Final FY14 Water Assessment	Final FY15 Water Assessment	Percent Change from FY14	Final FY14 Sewer Assessment	Final FY15 Sewer Assessment	Percent Change from FY14	Final FY14 Combined Assessment	Final FY15 Combined Assessment	Dollar Change from FY14	Percent Change from FY14
DEDHAM-WESTWOOD WATER DISTRICT	\$124,703	\$49,042	-60.7%				\$124,703	\$49,042	(\$75,661)	-60.7%
LYNN (LWSC)	242,626	209,723	-13.6%				242,626	209,723	(\$32,903)	-13.6%
MARLBOROUGH	3,184,761	3,433,407	7.8%				3,184,761	3,433,407	248,646	7.8%
NORTHBOROUGH	1,022,003	1,044,206	2.2%				1,022,003	1,044,206	22,203	2.2%
PEABODY	779,127	1,219,096	56.5%				779,127	1,219,096	439,969	56.5%
TOTAL	\$5,353,220	\$5,955,474	11.3%				\$5,353,220	\$5,955,474	\$602,254	11.3%
SYSTEMS TOTAL	\$203,216,774	\$210,233,607	3.5%	\$425,504,226	\$440,082,175	3.4%	\$628,721,000	\$650,315,782	\$21,594,782	3.4%

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

BUDGETED EXPENSES: Draft Final FY2015	
Clinton Direct Operating Expenses:	\$1,677,632
MWRA Support Allocation:	366,610
Subtotal O&M Expenses:	\$2,044,242
Total Debt Service Expenses:	\$542,817
Total Clinton Service Area Expenses	\$2,587,060
Less Revenue (City of Worcester Payment)	-132,717
Clinton WWTP Rate Revenue Requirement:	\$2,454,342

WASTEWATER FLOW and FLOW SHARES:	CY2013		
	Town of Clinton Flow	Lancaster Sewer District Flow	Total Wastewater Flow
Average Daily Flow (MGD)	2.261	0.235	2.496
Average Flow (MG/YR)	825.319	85.667	910.986
Proportional Share of Flow	90.60%	9.40%	100.0%

Sewer User Charge Determination

TOWN OF CLINTON	
O&M Expenses	\$2,044,242
Less Revenue (City of Worcester Payment)	-132,717
O&M Expenses to be Recovered	\$1,911,525
Clinton's Share of Flow	90.60%
Clinton's Share of O&M Costs	\$1,731,770

LANCASTER SEWER DISTRICT	
O&M Expenses	\$2,044,242
Less Revenue (City of Worcester Payment)	-132,717
O&M Expenses to be Recovered	\$1,911,525
Lancaster's Share of Flow	9.40%
Lancaster's Share of O&M Costs	\$179,756

Total Clinton O&M Charge	\$1,731,770
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Total Lancaster Sewer District O&M Charge	\$179,756
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Debt Service Costs to be Recovered	\$542,817
Clinton's Share of Wastewater Flow	90.60%

Debt Service Costs to be Recovered	\$542,817
Lancaster's Share of Wastewater Flow	9.40%

Total Clinton Debt Service Charge	\$491,772
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Total Lancaster Sewer District Debt Service Charge	\$51,045
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Total Clinton O&M and Debt Service Charge	\$2,223,542
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Total Lancaster O&M and Debt Service Charge	\$230,801
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Less MWRA Water Ratepayer Subsidy -1,723,542

Billable Charge to the Town of Clinton as per CH. 307, Section 8 The Acts of 1987	\$500,000
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Billable Charge to Lancaster Sewer District	\$230,801
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Billable Sewer User Charges and Payment Schedule

Sewer Customer	Billable Charges
Town of Clinton	\$500,000
Lancaster Sewer District	\$230,801
Total Sewer Charges	\$730,801

Payment 1 on or before Sept 15, 2014	Payment 2 on or before Nov 15, 2014	Payment 3 on or before Feb 15, 2015	Payment 4 on or before May 15, 2015
\$125,000	\$125,000	\$125,000	\$125,000
\$57,700	\$57,700	\$57,700	\$57,700
\$182,700	\$182,700	\$182,700	\$182,700

Massachusetts Water Resources Authority
Chicopee Valley Aqueduct Water System Assessment
Fiscal Year 2015

CVA Operating Budget	FY14	FY15	Change from Prior Year	
			Dollars	Percent
CVA Cost Center Expenses	\$777,161	\$726,566	-\$50,596	-6.5%
Allocated Waterworks Expenses	120,524	115,941	-4,583	-3.8%
Allocated Watershed/PILOT	491,560	460,660	-30,900	-6.3%
Allocated Watershed Land Acquisition	21,430	19,962	-1,467	-6.8%
Allocated MWRA Indirect Expenses	481,088	463,605	-17,483	-3.6%
SUBTOTAL OPERATING BUDGET	\$1,891,763	\$1,786,735	-\$105,028	-5.6%

CVA Capital Budget	FY14	FY15	Change from Prior Year	
			Dollars	Percent
Capital Expenses	\$2,808,782	\$3,035,572	\$226,789	8.1%
TOTAL CVA BUDGET	\$4,700,545	\$4,822,306	\$121,761	2.6%

BASE COMMUNITY ASSESSMENT	FY14 ¹	FY15 ²	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,290,822	\$3,409,702	\$118,881	3.6%
South Hadley Fire District #1	692,697	702,629	9,932	1.4%
Wilbraham	717,027	709,975	-7,052	-1.0%
CVA BASE SYSTEM ASSESSMENT	\$4,700,545	\$4,822,306	\$121,761	2.6%

PRIOR PERIOD ADJUSTMENTS	FY12 ³	FY13 ⁴	Change from Prior Year	
			Dollars	Percent
Chicopee	-\$37,336	-\$115,117	-\$77,780	208.3%
South Hadley Fire District #1	-8,086	-24,680	-16,594	205.2%
Wilbraham	-7,829	-22,895	-15,066	192.5%
TOTAL ADJUSTMENTS	-\$53,251	-\$162,691	-\$109,440	205.5%

ADJUSTED ASSESSMENT	FY14	FY15	Change from Prior Year	
			Dollars	Percent
Chicopee	\$3,253,485	\$3,294,586	\$41,100	1.3%
South Hadley Fire District #1	684,611	677,949	-6,662	-1.0%
Wilbraham	709,198	687,080	-22,118	-3.1%
ADJUSTED ASSESSMENT	\$4,647,295	\$4,659,615	\$12,321	0.3%


¹ Based on CY2012 water use and before prior period adjustments to account for budget to actual expenses for FY12.

² Based on CY2013 water use and before prior period adjustments to account for budget to actual expenses for FY13.

³ Prior period adjustment to account for budget to actual expenses for FY12. To be applied to FY14 assessments.

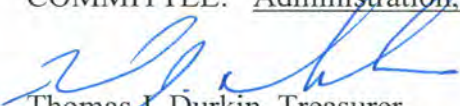

⁴ Prior period adjustment to account for budget to actual expenses for FY13. To be applied to FY15 assessments.

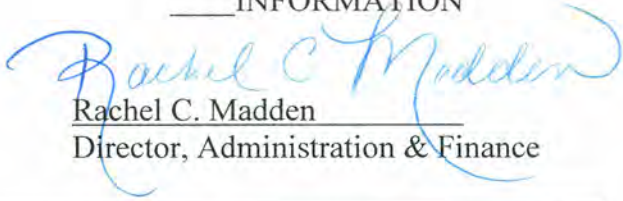
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: Revenue Bond Consulting Engineer Services
CDM Smith, Inc.
Contract F231

COMMITTEE: Administration, Finance & Audit

VOTE
 INFORMATION


Thomas J. Durkin, Treasurer
Matthew R. Horan, Deputy Treasurer 
Preparer/Title


Rachel C. Madden
Director, Administration & Finance

RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to select CDM Smith, Inc. to provide revenue bond consulting engineer services in connection with the issuance of revenue bonds and to authorize the Executive Director, on behalf of the Authority, to execute said contract with CDM Smith, Inc. in an amount not to exceed \$264,898 for a term of 36 months from the Notice to Proceed.

DISCUSSION:

Since 1993, MWRA's General Bond Resolution requires that every three years an independent engineering firm shall develop an Engineering and Financial Status Report. As part of the report, the Consulting Engineer must inspect all of MWRA's operating facilities to determine that they have been properly maintained during the last three years. The Consulting Engineer evaluates MWRA's Capital Improvement Program, Current Expense Budget and financing plans to determine if expenditure levels are sufficient to maintain and improve the system, as well as meet the requirements of the Safe Drinking Water Act and Clean Water Act. The Consulting Engineer also develops projections of MWRA wholesale and estimated retail rates for the next five years. This assessment includes a determination of the reasonableness and affordability of the projected rates and a comparison of those rates to other major metropolitan water and sewer utilities. The Consulting Engineer also establishes the Renewal and Replacement Reserve Fund requirement as part of the triennial Engineering and Financial Status Report. In order to remain in compliance with the General Bond Resolution, a final report is due to MWRA's Bond Trustee within 120 days of the close of the fiscal year, which means this current report will be due on October 28, 2014.

In addition to the full triennial Engineering and Financial Status Report, the Consulting Engineer provides a letter report, which is included in the Official Statement for each bond issuance. The letter report provides potential investors with updated five-year financial projections, and notes any significant operational changes which may impact the decision to purchase MWRA's bonds. After

the bonds have been sold, the General Bond Resolution requires that the Consulting Engineer provide a certificate that after the issuance of the new bonds, MWRA will be able to meet its senior and subordinate lien coverage requirement in the current and following fiscal years.

PROCUREMENT PROCESS:

The procurement process to select a Consulting Engineer utilized a one step Request for Qualification Statements and Proposals (RFQ/P), which was issued on April 23, 2014. In an effort to encourage competition, staff worked with MWRA's financial advisor and disclosure counsel to develop a list of firms that provide Consulting Engineer services to other revenue bond issuers around the country to augment MWRA's standard advertising procedures. A copy of the advertisement for this work was sent to 10 firms, of which six firms requested a copy of the RFQ/P. In addition to developing a direct mailing list to increase competition and level the playing field, the RFQ/P included an allowance to fund the costs for a new firm to familiarize itself with MWRA.

Only one proposal was received on May 21, 2014 from CDM Smith, Inc. (CDM) and it included another firm on the plan holders list, Green International, as a subconsultant. Other firms identified on the plan holder's list indicated that either the particular services sought were not the main strength of their firm, or that they were bidding on other of projects and made a business decision not propose on this work.

The Selection Committee evaluated and ranked the proposal based on the criteria contained in the RFQ/P (Cost, Qualifications and Key Personnel, Experience and Past Performance, Technical Approach, Capacity/Organization, and Management Approach). The Selection Committee indicated that it believed that the CDM proposal demonstrated excellent experience and included personnel who were qualified to perform this work. CDM proposed lower hourly rates for several members of the team as compared to the last contract signed in 2009. One individual's hourly rate increased significantly over the prior contract; however that individual assumed new responsibilities and his rate is lower than the similar rate in the last contract. As a result of the changes, CDM's average hourly rate decreased by approximately \$8 from \$178 to \$170 per hour. CDM has proposed an annual escalation of 3% on the hourly rates, which is lower than the 4% approved as part of the last contract.

The proposed three year not-to-exceed amount, after removal of the allowance for project familiarization, is \$264,898 and includes one triennial Engineering and Financial Status Report, six letter reports and six coverage calculations. In addition to the reports, the cost proposal also included \$10,000 to conduct a review of rates, revenue and expenses, if necessary to comply with certain sections of MWRA's General Bond Resolution. CDM's estimated cost to complete the triennial Engineering and Financial Status Report is approximately \$13,000 less than the report completed in 2011.

The Selection Committee recommends that CDM be awarded this contract. CDM's staff possesses the required skills and the firm has sufficient capacity to meet MWRA's requirements under this contract.

BUDGET/FISCAL IMPACT:

Costs associated with revenue bond consulting engineer services are included as part of the cost of issuance and are funded from the proceeds of bond transactions.

MBE/WBE PARTICIPATION:

No minimum MBE/WBE participation requirements were included in the RFQ/P due to the specialized nature of the work and the lack of subcontracting opportunities.



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

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TTY: (617) 788-4971

WASTEWATER POLICY & OVERSIGHT COMMITTEE MEETING

Chair: J. Walsh
Vice-Chair: P. Flanagan
Committee Members:
J. Carroll
J. Foti
A. Pappastergion
B. Swett
H. Vitale

to be held on

Wednesday, June 25, 2014

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: Immediately following AF&A Comm.

AGENDA

A. Information

1. Update on Co-Digestion Pilot Program (materials to follow)

B. Approvals

1. Approval of One New Member of the Wastewater Advisory Committee
2. I/I Local Financial Assistance Program Guidelines Revisions

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Wastewater Policy and Oversight Committee

June 4, 2014

A meeting of the Wastewater Policy and Oversight Committee was held on June 4, 2014 at the Authority headquarters in Charlestown. Chairman Walsh presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Cotter, Flanagan, Pappastergion and Vitale. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Wendy Leo, and Bonnie Hale. The meeting was called to order at 11:40 a.m.

Approvals

*Wastewater Advisory Committee Contract

The Committee recommended approval of the one-year contract with the Wastewater Advisory Committee (ref. agenda item A.1).

The meeting adjourned at 11:45 a.m.

* Approved as recommended at June 4, 2014 Board of Directors meeting.

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 25, 2014
SUBJECT: Comprehensive Review of Co-Digestion

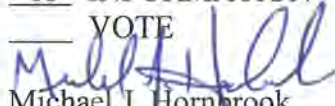


COMMITTEE: Wastewater Policy & Oversight

David F. Duest, Deer Island WWTP
Lise Marx, Sr. Program Mgr. Planning
Preparer/Title



INFORMATION
 VOTE


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

For information only. This staff summary provides a comprehensive review of MWRA's proposed co-digestion efforts at the Deer Island Treatment Plant. It describes: the current state of the industry nation-wide concerning co-digestion; Massachusetts landfill regulations banning certain organic food wastes from Massachusetts landfills; MWRA's planning, research and proposed pilot co-digestion program and MWRA's potential long-term co-digestion plan and its associated costs, benefits and impacts.

BACKGROUND:

Deer Island Power Use and Current Methane Generation

The Deer Island Treatment Plant (DITP) treats approximately 350 Million Gallons per Day (MGD) of wastewater from 43 communities. Wastewater treatment is energy intensive and the Deer Island Facility requires approximately 150 million kilowatt hours of electricity on an annual basis. This is equivalent to an annual electric bill of \$14.4 million or the energy demand of 14,000 homes. MWRA has aggressively developed ways to decrease these costs in environmentally beneficial ways. The mix of technologies to do this at Deer Island include conservation, hydroelectricity, wind turbines, solar installations and the use of methane captured in the sludge digestion process.

Methane is captured as the sludge is digested in the egg-shaped digesters at the Plant. The methane is used in Deer Island's on-site thermal power plant ("OSTPP") to create steam that supplies hot water and heat for the facility. The steam is also run through a steam turbine generator that produces electricity. This provides greater than 98% of the plant's heating needs and offsets approximately 18% of its electricity needs. Without digester gas, approximately five million gallons of fuel oil would be required annually. In total, digester gas accounts for about 62% of the plant's total energy demand and saves MWRA ratepayers approximately \$15-\$18 million in annual fuel costs.



As MWRA began to evaluate the current condition of its residual processing facilities (2010 Report) and analyzed long-term options for residuals processing, a search of wastewater industry practices showed more utilities looking at optimizing existing digester capacity by entering into agreements to take additional non-wastewater derived organic food waste material into the wastewater anaerobic digestion process. This process, known as “co-digestion,” can increase methane production. This is part of a nation-wide evolution of public wastewater treatment facilities looking at waste streams as being

valuable resources (energy, heat recovery, nutrient recovery, gray water use) for reuse rather than as waste to be treated and disposed.

MWRA’s Residuals Processing Facilities Technologies Assessment, awarded in 2012 and prepared by CDM Smith, was tasked to develop viable alternatives to optimize energy efficiency, increase gas production and reduce sludge volume while extending the useful life of the existing equipment at both Deer Island and at the Fore River Pelletizing Plant and obtaining the benefit of useful new or emerging technologies. Co-digestion was identified as a potential technology providing opportunities for additional energy generation.

National Experience

Nationally, approximately eight percent of wastewater utilities around the country use anaerobic digesters, as does MWRA, in their secondary treatment process. Of these approximately 1,200 wastewater treatment plants, 15 percent or 180 treatment facilities receive outside wastes and feed it directly into their anaerobic digesters. Most of these treatment plants currently receive septage or fats, oil and grease as additives to their digestion operation, while a handful have started taking in separate organic food waste. An increasing number of utilities have investigated or piloted the use of organic wastes to increase biogas production. According to the information gathered by CDM Smith, Metro Vancouver, Orange County Sanitation District, Dallas Water Utilities, Los Angeles County Sanitation District, San Francisco Public Utilities Commission and the New York City Department of Environmental Protection at Newtown Creek are all running or have run pilot studies to further investigate co-digestion.

Three well-know examples of co-digestion facilities include the 40 mgd Des Moines, Iowa Water Reclamation Facility, the 15 mgd Gloversville-Johnstown Joint Wastewater Treatment Facility in New York and the 55 mgd East Bay Municipal Utility District in California. The Des Moines WWTP receives fats, oils and grease, biodiesel and ethanol manufacturing by-products

and food and animal processing wastes. Des Moines constructed a new waste receiving facility and storage tanks to accommodate the large volume of waste and also had to upgrade digesters and gas storage. Some of the biogas generated by co-digestion fuels an internal combustion Combined Heat and Power (CHP) system that provides digester heating and some of the plant electrical demand. Excess biogas is sold at a discount to a nearby manufacturing facility. The Gloversville-Johnstown imports industrial organic waste from local food processing facilities. This includes up to 25 MG per year of high strength cheese and yogurt whey waste piped in from an nearby industrial park. New waste receiving tanks were added to allow for on-site storage of whey waste to allow the digesters to be evenly fed, avoiding process upsets. East Bay Municipal Utility District (EBMUD) has the most extensive experience and is actively receiving post-consumer food waste, fats, oils and grease and other organic material from the San Francisco area. EBMUD has enhanced their operations to the point of being a net zero energy user.

It appears that other states will begin significant new diversion initiatives within the next 3-5 years. These include:

- California 75% diversion goal by 2020
- Washington 80% diversion goal by 2025; 90% by 2035

In New England, Rhode Island is considering legislation requiring restaurants, hotels and schools to divert organic food waste from landfills to compost facilities or food digesters. In Massachusetts, the Great Lawrence Sanitary District, with a secondary wastewater treatment facility located in North Andover, recently voted to move forward and evaluate next steps in a plan to implement its recommended “Organics to Energy Study” by commencing a co-digestion pilot program. Stop & Shop has also recently announced it is moving forward with design evaluation for an organic food digester at its Freetown food distribution facility. In addition to the DITP, there are five other (includes MWRA’s Clinton plant) publically-owned wastewater treatment facilities in MA currently using anaerobic digestion.

Massachusetts Regulatory Framework

Simultaneously with MWRA planning efforts, the Commonwealth of Massachusetts developed regulations to ban the disposal of commercial and institutional food wastes (Source-Separated Organics) from landfills and this ban takes effect in October of 2014. At present, food materials and organics make up approximately 25 percent of the waste stream sent to landfills in Massachusetts. As a pre-requisite to the ban, MassDEP had to modify their solid waste & wastewater treatment regulations to 1) deregulate organic material from a waste material to a reuseable resource and 2) allow wastewater treatment plants to take advantage of that new recyclable resource. Those regulations were changed in November 2012.

This ban is designed to further reduce the state’s waste stream to landfills and does:

- Not include residential food waste and waste from small business; and
- Includes commercial and industrial sources that generate 1 wet ton per week (equivalent to four 55 gallon drums/week).

Volume of Organic Food Wastes

The landfill ban requires any entity that disposes of at least one wet ton of organic material per week to beneficially reuse the material by sending it to alternatives such as food banks, animal feed operations, anaerobic digestion facilities for conversion into a source of renewable energy or to composting operations. This regulation is part of a broader goal to reduce the waste stream in the Commonwealth by 30 percent by 2020 and 80 percent by 2050. MassDEP estimates that there is approximately 950,000 wet tons per year of such organics in the waste stream and the goal is to divert an additional 350,000 wet tons per year away from landfills by 2020.

The 2012 CDM Smith report, used a MassDEP published survey of data compiled by EPA Region 1 that identified the major sectors expected to generate the 950,000 wet tons as follows:

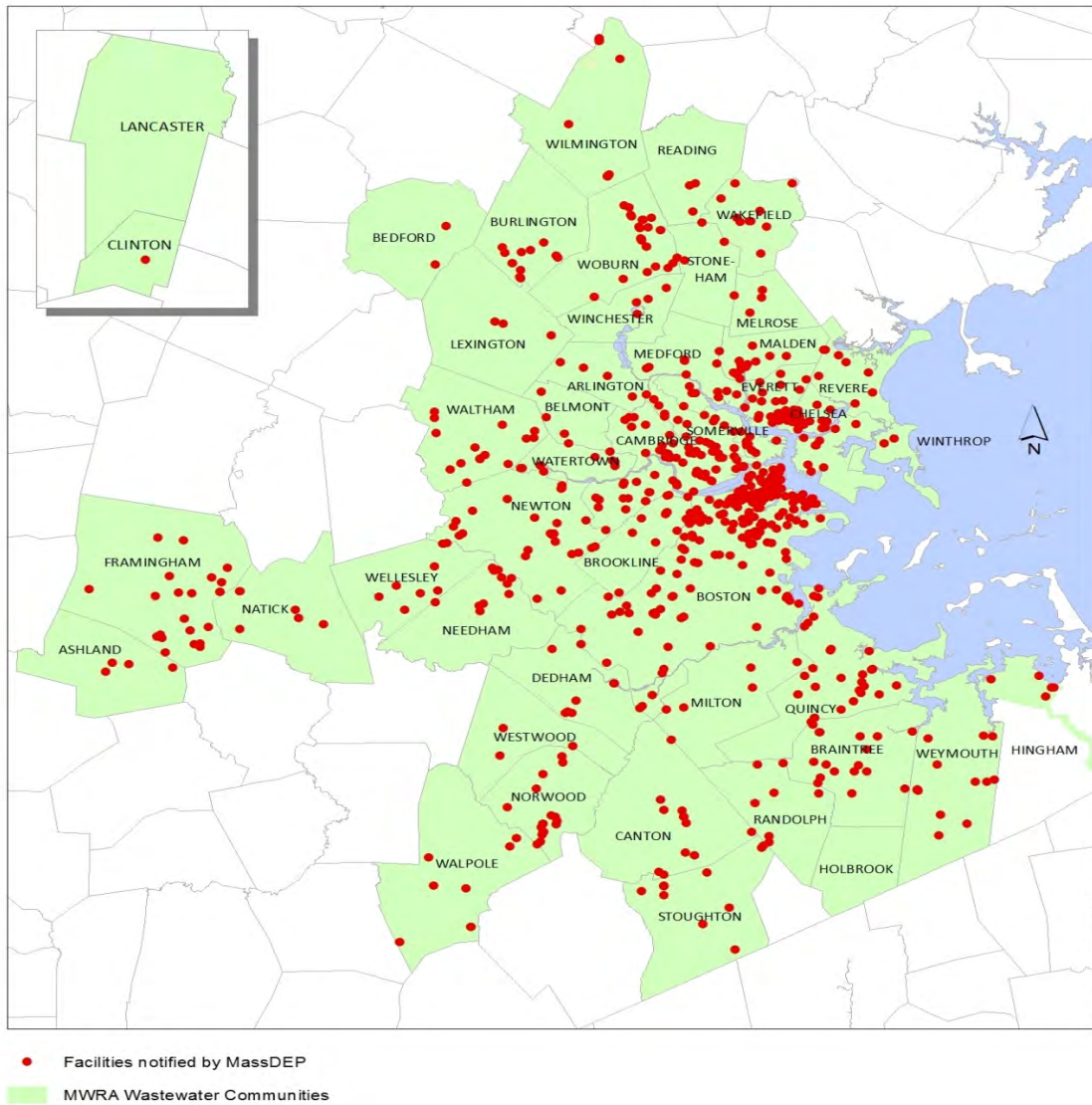
Generator Sector	Estimated Tons/Year	Percent
Food and Beverage - Manufacturers and Processes	550,000	58
Restaurants	165,000	17
Supermarkets and Grocery Stores	105,000	11
All Other Sectors	130,000	14
Total	950,000	100

A letter has been sent by MassDEP to approximately 2,070 businesses state-wide notifying them of the requirement in an effort to capture those businesses that may generate sufficient waste to be subject to the ban. The letter directs businesses to more information so that they can determine if they are subject to the ban and what options may be available to them. However, MassDEP has estimated that the requirement will affect approximately 1,700 business and institutions across Massachusetts including supermarkets, colleges and universities, hotels, hospitals, convention centers, nursing homes, restaurants and food service and food processing companies. MassDEP has also been promoting the program and ban with available local conferences, webinars, literature distribution, and mailings. It is possible that some entities have already diverted organic food waste out of the solid waste stream. In a partnership with MassDEP, the Massachusetts Food Association has already worked with 300 supermarkets to divert food waste.

Of the 2,070 entities state-wide that received the MassDEP letter, approximately 985 were in communities receiving MWRA water or sewer service. These 985 businesses represent 48% of the businesses notified. Looking just at MWRA's wastewater communities, which are more tightly geographically clustered, approximately 858 or roughly 40% of the businesses are from within those communities. Although data on exactly how many tons of waste would be generated by each facility is missing for most of the entities on the MassDEP list, it is not unreasonable to extrapolate that these percentages may roughly reflect the percentage of food waste generated within MWRA communities given the proliferation of larger institutions

(hospitals, colleges, larger businesses etc.) in eastern Massachusetts. The MWRA service area also represents approximately 32% of the Massachusetts population. Figure 1 shows the distribution of facilities within MWRA wastewater communities that received the notification

Figure 1
Food Waste Ban - MWRA Wastewater Communities



letter from MassDEP. MassDEP has identified the potential number and locations of commercial/industrial sources that may be impacted by the ban, however, MassDEP does not have specific volume estimates per facility. Therefore, MWRA staff cannot accurately predict the total volume of organic food material that will be generated within the MWRA sewer service

area. However, looking at the percentage of businesses in the sewer service area (40%) as a rough proxy, it appears both state-wide demand and MWRA's wastewater service communities demand only will exceed MWRA's available digester capacity.

State-wide 2020 Ban Goal	=350,000 wet tons/year (210--230 dtpd)
MWRA Long-term Full Scale Capacity	=500 wet tons/day (70 dtpd)
MWRA Pilot Program Capacity (max.)	=150 wet tons/day (21 dtpd)

Based on available digester capacity, a potential MWRA long-term co-digestion program could take a maximum amount of 70 dry tons per day (500 wet tons/day or approximately 30% of the 2020 MassDEP goal of 350,000 wet tons diverted from landfills) at full scale operation.

It is not unreasonable to assume that if 40% of businesses state-wide impacted by the ban are in the MWRA sewer service area, they might generate 88 dtpd (220 dtpd x 40%) of the state-wide ban goal. Therefore, as a rough planning assumption, Deer Island does not have sufficient excess digester capacity to handle all of the organic material generated within the sewer service area.

In addition to MWRA, it is likely that other Massachusetts wastewater treatment plants with anaerobic digesters will also consider the benefits of taking food waste, as previously mentioned with Greater Lawrence Sanitary District. MassDEP and the Governor's office are promoting the development of anaerobic digestion capacity in other locations including farm sites. Some companies that generate significant amounts of food waste, such as Stop & Shop, may also developed regional anaerobic digestion capacity. Stop and Shop has recently announced it is moving forward with design evaluation of a food waste only digester at its Freetown food distribution facility.

The Massachusetts organic food waste landfill ban does not require MWRA or any other Massachusetts wastewater treatment facility to provide co-digestion of such material. However, the convergence of the Commonwealth's ban and MWRA's efforts to look at long-term residual processing capacity and opportunities for optimization of on-site energy production has caused MWRA to focus on opportunities to use existing excess digester capacity at its Deer Island Plant.

DISCUSSION:

Feasibility Study

The initial co-digestion feasibility study completed by CDM Smith evaluated the waste characteristics and potential co-digestion impacts on the wastewater treatment process based on a survey of previous research completed in the industry. CDM Smith also used its own research data from several studies it conducted for clients. The report prepared a food waste operational model that predicted the benefits MWRA might expect to receive from a pilot program consisting of 150 wet tons per day (wtpd) and a potential full-scale program consisting of 500 wtpd. CDM Smith estimated what equipment would be needed to accept the material on-island, process that material, and deliver it to the digesters. CDM Smith also evaluated what equipment would be needed to beneficially utilize the digester gas in a cost-effective manner that would

extract the highest value of energy from the gas. Appendix 1 provides additional information on the estimated levels of biogas production and estimated equipment needs.

The initial CDM Smith cost model appears to have been conservative in its predictions. Further bench testing (described below) utilizing organic food wastes and actual MWRA wastewater sludge indicated higher solids destruction and thus higher methane gas and less solids to the Pellet Plant than assumed in the original feasibility analysis. The cost model also did not include the heat value benefit (fuel oil offsets), which can be substantial, and the value of RPS green credits for electricity generated with digester gas.

Even so, CDM Smith concluded that with a modest tipping fee (\$0.062/gal), an annual million dollar profit margin could be achievable while still keeping a tipping fee that remains competitive in the industry.

Bench Scale Study

In a parallel study with the CDM Smith feasibility study, Fay, Spofford & Thorndike together with UMass Amherst conducted a bench scale analysis on varying levels of food waste added into MWRA sludge and digesters. The study was conducted over a 180-day period and utilized 4-liter digesters operated in similar fashion to the 3-million gallon egg-shaped digesters on DITP.



UMass Amherst found food waste to be very digestible, enhancing digester gas production beyond predicted levels. Solids destruction assumed by CDM Smith was found to be extremely conservative at only 82% volatile solids destruction while UMass found destruction rates on the order of 88%. CDM Smith assumed in its model lower digester gas production relative to normal wastewater sludge (normal DITP sludge generate digester gas at the rate of 17.4 cuft/lb VS destroyed, CDM Smith assumed food waste digester gas production would be at a more modest 13.6 cu.ft./lb VS destroyed). UMass Amherst found food waste produced the same if not more digester gas production compared to normal wastewater sludge. Food waste performed much better than predicted, generating more digester gas per unit material with less solids going to the pellet plant (increasing green revenue while decreasing operating expenses in the CDM Smith model). It also determined recycle stream contributions should not negatively impact DITP operations.

Based upon the results of the Bench Scale Study, MWRA staff revised the CDM Smith cost model. These revisions improved the economics for co-digestion, making it more profitable for MWRA.

Original Pilot Program

Given the favorable economics shown by the CDM Smith cost model and the better than expected performance of the UMass Amherst bench scale, MWRA staff proposed to verify the co-digestion model once more by scaling the study to a one to two digester scale pilot. In this program, MWRA would feed varying quantities of food waste to one or two digesters for a period of one to three years under controlled conditions but at Deer Island operational scales. Eight digesters are normally in operation on any particular day. The “test” digesters would be evaluated versus the performance of the other “control” digesters being fed solely wastewater sludge.

The logistics of the pilot program, including transport of the pre-processed food organics to Deer Island is described below.

The goal of the pilot program was to minimize pilot costs while maximizing the value of the data generated, and to further refine the operational and cost models to better predict any future facility designs. Trucking of the pre-processed source separated organics to Deer Island was proposed to minimize the pilot program costs. The following operational parameters are especially critical to future plant sizing: digester gas production, sludge destruction and recycle stream impacts. Some equipment costs were expected during the pilot given that DITP does not have facilities to receive or feed non-wastewater derived material into the anaerobic digesters. The initial cost estimate (using trucking) to construct the on-island pilot facilities was \$650-\$700,000 (\$500,000 currently spent) with \$360,000 in funding from MassDEP and Massachusetts Clean Energy Center, to defray some of the costs of the pilot.

The pilot program was proposed to ramp-up (increase) during the duration of the pilot period and was expected to consist of the following phases:

Phase	Quantity	Trucks/Day	Di-Gas	Sludge Impacts
Baseline	246 dtpd	-	186 kscfh	102 tons
1	+7 dtpd	3	+4.2%	+1.4% (+ 1.5 tons)
2	+14 dtpd	6	+8.5%	+2.9% (+ 3.0 tons)
3	+21 dtpd	9	+12.7%	+4.3% (+ 4.5 tons)

The revised cost model on the pilot program predicted annual benefits; without a tipping fee, for the first year of the co-digestion pilot of over \$400,000 in operating expenses (not including capital costs).

Heat value benefit	+\$ 496,000
Electricity value including RPS value	+\$ 256,000*
Cost to Pellet Operation	-\$ 333,000
Total Benefit	+\$ 417,000

*Assumes no change at MWRA Combined Heat and Power (CHP) Plant at DITP during the pilot

Including capital costs, with a trucking scenario, the pilot program would break even in the first year. In Years 2 and 3 of the pilot, the pilot was expected to generate \$835,000 per year.

Pilot Program Logistics

On December 23, 2013, MWRA entered into a no-cost contract with Waste Management of Massachusetts (Waste Management) to deliver pre-processed, source-separated organic material (PSSO) into the anaerobic digesters at DITP for one year, with two consecutive one-year options. The contract specifies performance standards regarding operations and PSSO quality and includes indemnification language to hold MWRA harmless under specified circumstances. It also requires Waste Management to comply with MWRA's Sewer Use Regulations, including obtaining a Sewer Use Discharge Permit issued by MWRA's Toxic Reduction and Control Department in compliance with the U.S. EPA Pretreatment Program requirements.

Waste Management has subsequently completed review under the Massachusetts Environmental Policy Act to modify an existing recycling facility in Charlestown for the purpose of collecting and pre-processing food waste for the pilot program on Deer Island.

In general, the process would begin with the commercial or industrial generator subject to the ban, separating their wastes into an additional third category. In addition to the solid waste and recyclables containers they would have on-site, a third container for organic food wastes would be maintained. Waste Management would contract with specific haulers to bring the source separated food waste to the Charlestown facility (located in the industrial port area at 200 Terminal Street) in the amount required for each phase of the pilot. The layout of the Charlestown facility is shown below. Trucks would be front or rear-end loaders or roll-off trucks with compactor boxes or rendering style bodies and the number of trucks coming to the facility each day would range from 5-7 trucks for Phase 1 (7 dry tons of material) to 15-20 inbound trucks for Phase 3 (21 dry tons of material). At the Charlestown facility, the food waste will be screened and impurities and debris removed and the material will be turned into a slurry.



The original pilot program plan envisioned trucking of the slurry from Charlestown to Deer Island with 3 to 9 trucks per day, five days a week during the day shift. Sealed tanker trucks as shown here were proposed.



A Winthrop public meeting was held on Wednesday, March 26, 2014 to discuss MWRA's co-digestion program. More than 200 people were in attendance along with elected officials and representatives of MWRA, MassDEP and Waste Management. Based on opposition to trucking expressed at the meeting, MWRA agreed to place the project on-hold and to revisit the trucking issues.

Revised Pilot Program

As a result, barging of the organic wastes was then investigated. Various barging options including self-propelled barges, barges with tugboats and roll-on/roll-off transport barges were considered.

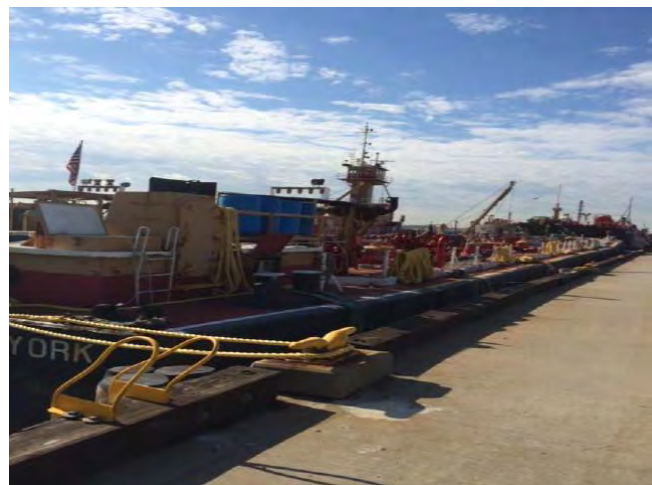
Barges guided by tugboats were determined to be the most cost-effective.

Once pre-processing has occurred, the slurry can be transported to Deer Island by barge. Waste Management has proposed leasing a large barge with storage capabilities of 10 compartments that could each hold 80,000 gallons of pre-processed food waste slurry. Some barge and landside improvements at the Charlestown site would be necessary to enable barging to proceed. Initially, the pilot program would use only one to two compartment(s) of the available storage. However, at full pilot operation, the volume of slurry transported would be approximately 235,000 gallons and would use half of the barge capacity. Bays would be filled approximately 75% to account for expansion. It is anticipated that the barge will be filled at the Charlestown site over the course of a week; transported to Deer Island and off-loaded over a 4-6 hour period and then returned to Charlestown.



Cost Impacts of Barging

Waste Management believes it could have a pilot program barge operation ready at its site in 6 months from start of construction. Waste Management has estimated their impact of this change from trucking to barging during the pilot at approximately \$1.9-2.5 million (including a 30% contingency for early planning variables). They have also indicated they cannot fund this change in costs in lump sum and need funding assistance, preferably in the form of



grants, to lessen the impact of this forced change in project plan. Waste Management has also indicated its desire to extend the duration of the pilot agreement and incrementally increase the outbound dry tonnage of PSSO to DITP to 30 dtpd if barging became necessary.

Once the barge has arrived at Deer Island, the pre-processed material will need to be pumped from the barge to a receiving/storage tank. From there, the material would be fed to the test digesters according to the schedule previously discussed. Given the move from trucks to barge, Waste Management would be transporting larger volumes of material at one time to make barging cost-effective. DITP adjusted its plan by changing the intended receiving and storage tank to reflect the larger delivery volumes. DITP would use an existing gravity thickener as the new interim food waste receiving and storage tank and include underground piping from the pier and other physical improvements (minor pier repair, flushing system, mixing pumps, etc.)

MWRA staff have been evaluating the cost impacts of the change from trucking to barging food waste to Deer Island. The incremental cost impact to MWRA is currently estimated around \$2.3 million (including a 20% contingency) in addition to the Waste Management cost impacts mentioned above. Preliminary MWRA costs are broken down as follows:

- \$160,000 for work at the pier (repair of offloading gantry cranes & flexible piping/connections (for connection between pipeline & barge), and replacement of wood piles on the pier);
- \$122,000 for a pipe line (materials/labor by MWRA staff) from pier to the intended receiving tank,
- \$95,000 for a receiving line flushing system,
- \$1,486,000 for conversion of a gravity thickener to a food waste receiving tank, includes piping & supports, valving, controls and modifications to the gravity thickener to receive and recirculate the material during on-site storage including \$600,000 for gravity thickener coatings work at the designated unit to protect the unit from the acidity of the food waste material.

The proposed Deer Island barge unloading area and required pipe routing is shown on the aerial photo below.



Changing the pilot program transportation of the pre-processed separate source organics from trucking to barging results in a significant increase in costs. Rather than breaking even in the initial year of pilot program operations, the additional MWRA incurred costs result in the pilot program breaking even over the three year duration of the program. This analyses does not include the costs incurred by Waste Management for barge modifications and modifications to the Charlestown facility.

Permanent Co-Digestion Plan

Analysis of the information obtained during the pilot operation will be the basis for long-term decision-making relative to full scale operations. Based on the feasibility study, a full scale operation that ramps up from the pilot program level of 21 dtpd to a potential of 70 dtpd is envisioned.

The full-scale program, as predicted by CDM Smith, would have DITP receiving and feeding 500 wtpd or 120,000 gpd of PSSO into DITP's digesters. Although pier improvements and the buried outside piping would be part of the permanent facilities, additional improvements would need to be made for full scale operations. Barging operations would be more frequent resulting in the need for on-site storage tanks and new pumping facilities would be required. CDM Smith

proposed designing and installing new receiving and pumping facilities for approximately \$4.4 million (including digester modifications) Refer to Table 2 in Appendix 1 for the early projections of what costs would be incurred to get to full-scale operation. These costs do not include other recommended capital costs that MWRA staff feel is appropriate to spend, regardless of whether co-digestion is implemented or not, such as a redundant gas line between the digester complex and the Power Plant to ensure reliable operation and \$25 million in expenses related to a new CHP installation. CHP options were revisited in a later study and staff expects to brief the Board of Directors on these issues in September.

The revised cost model based on full-scale operation as proposed with a change in CHP is projected as follows but could be higher given the improved changes in assumptions and CHP payback:

Heat Value benefit	+ \$ 1 million
Electricity value including RPS value	+\$ 5 million
<u>Cost to Pellet Operation</u>	<u>-\$ 1.6 million</u>
Total Annual Benefit	+\$ 4.4 million

Assuming the CHP improvements and the additional costs of \$4.4 million, the total costs of \$29.4 million have an approximate payback period of 6-7 years based on the annual project benefits of \$4.4 million. This payback period reflects the increased efficiencies of a new CHP system. In addition, this does not reflect the inclusion of a tipping fee. A tipping fee for the permanent operations of \$0.062/gallon is expected to generate an additional \$2.7 million dollars per year, further improving the payback period to approximately 4 years.

At this point, digester gas is projected to be capable of being responsible for 100% of DITP's heating needs (from 98%), 46% of DITP's electrical needs (from 18%), and overall 75% of DITP's total energy profile (heat plus electricity, from 62%). Based upon the bench scale study and the cost model results, staff believe that co-digestion of organic food waste with MWRA wastewater sludge can be a significant source of cost avoidance and revenue for MWRA.

If the full scale program was developed and approved by the Board of Directors to proceed as it is currently envisioned, the projected annual value is conservatively estimated at \$4.4 million from additional heat and electricity. Today Deer Island produces 25% of its electricity on-site from all sources. With full-scale co-digestion, this could rise to 42% (or 72% with a new CHP system). In addition, Deer Island's total on-site energy production could go from 62% to 75% produced on site.

BUDGET/FISCAL IMPACT:

The original cost estimate for the pilot program utilizing trucking was \$650,000 to \$700,000 of which \$500,000 is committed year-to-date. The FY14 budget includes \$250,000 for this project. The receipt of \$360,000 in grants makes the original project more than 50% State funded. The current estimated additional MWRA costs for receiving food waste material by barge is estimated at approximately \$2.3 million (including a 20% contingency). Waste Management's increased expenses from barging are estimated at between \$1.9 and \$2.5 million including a 30%

contingency (given unresolved design issues). The total anticipated benefit from the 3-year pilot program is approximately \$2.1 million and may offset the capital costs of the pilot project. The total anticipated annual benefit from the long-term program is approximately \$4,960,000.

Updated Co-Digestion Cost/Benefit Analysis (Revised Model)

Category	150 wtpd case Pilot	500 wtpd case Permanent Program
Estimated Capital Costs		
On-Island Receiving, Storage	\$500K + \$2.3M ¹	\$2.4M
Digester Modification		\$2.0M
Combined Heat & Power		\$25 M
Total Estimated Capital	\$2.8M	\$29.4M
Estimated Annual Costs		
Annual Debt Service on Capital (20-yrs)	\$180K	\$1.9M
Total O&M (including pellets)	\$575K	\$1.9M
Total Annual Cost	\$755K	\$3.8M
Estimated Offsetting Annual Savings		
Savings for Value of Additional Biogas**	\$1.3M ²	\$6.1M ³
Net Annual Savings:	\$585k	\$2.3M
Potential Additional Revenues (Post Pilot)		
<i>Industry Standard Tipping Fee</i>		<i>\$0.09-0.12/gal</i>
Suggested Tipping Tee		\$0.062/gal
Estimated Annual Revenue from Tipping Fee		\$2.7M
Estimated Total Net Annual Benefit:	\$585K	\$5.0M

1. \$2.3M capital costs associated with change from trucking to barging option.
2. Value of additional biogas includes heat value, electrical value and RPS credits.
3. Value of additional biogas includes heat value, electrical value and RPS credits and is based on output from new Combined Heat and Power Facility (CHP) option.

(Above costs do not include Waste Management's cost impact and benefit from MaDEP and MaCEC grants.)

Appendix 1 Feasibility Study-2012

Co-Digestion Feasibility Study

In brief, CDM Smith evaluated the waste characteristics and co-digestion impacts on the wastewater treatment process based on a survey of previous research completed in the industry. CDM Smith also used its own hands-on research data from several studies it conducted for clients. Armed with this research data, CDM Smith prepared a food waste operational model that predicted the benefits MWRA might expect to receive from a pilot plant program consisting of 150 wet tons per day (wtpd) and a potential full-scale program consisting of 500 wtpd. CDM Smith estimated what equipment would be needed to accept the material on-island, process that material, and deliver it to the digesters. CDM Smith also evaluated what equipment would be needed to beneficially utilize the digester gas in a cost-effective manner that would extract the highest value of energy from the gas.

Levels of Food Waste	Units	Proposed Pilot Program 150 wtpd	Proposed Long-Term Program 500 wtpd
Organic Food Waste	Wet tons per day (wtpd)	150	500
	Dry tons per day (dtpd)	21	70
	Gal/day	36,000	120,000
Biogas Produced	Cubic feet/hour	14,900	49,900
	MMBTU/hr	9	30
Electricity Produced	kW	236	3,333*
Electricity Savings	\$/yr	\$190K	\$2.63M*
Pellet Impact	Dtpd	5.9	19.7
Pellet Cost	\$/yr	(\$600K)	(\$2.01M)

From these data, equipment estimates were prepared:

Table 2: Initial Co-Digestion Cost Analysis

Category	150 wtpd case	500 wtpd case
Capital Costs		
On-Island Receiving, Storage	\$720K	\$2.4M
Digester Modification		\$2.0M
Combined Heat & Power		\$16.7M
Total Capital	\$720K	\$21.1M
Annualized capital (20-yr)	\$50K	\$1.37M
Total O&M (including pellets)	\$650K	\$2.83M
Total Annual Cost	\$700K	\$4.2M
Value of Additional Biogas*	-\$190K	-\$2.63M
Net costs:	\$510K	\$1.57M
Break Even Tipping Fee		\$0.04/gal
\$1M profit		\$0.062/gal
Industry Standard Tipping Fee		\$0.09-0.12/gal

*did not include green credits from Renewable Portfolio Standard.

The initial CDM Smith model appears now to have been conservative in its predictions. Further bench testing utilizing organic food wastes and actual MWRA wastewater sludge indicated higher solids destruction and thus higher methane gas and less solids to the Pellet Plant than assumed in Tables 1 and 2 above. The cost model also did not include the heat value benefit (fuel oil offsets), which can be substantial, and the value of RPS green credits for electricity generated with digester gas. CDM Smith concluded that with a modest tipping fee, an annual million dollar profit margin could be achievable while still keeping a tipping fee that remains competitive in the industry.

Updated inputs to the cost model after the bench scale testing (described in more detail below) indicated:

- Increase solids destruction:
 - More di-gas production and more green energy; and
 - Reduced sludge to FRSA
- Revised cost inputs:
 - Takes into account Heat Value benefit; and
 - RPS credits (green energy benefit for digester gas)

New model for pilot – year 1: \$417K/year profit
 Years 2 and 3: \$835K/per year for both Years 2 & 3

Without a tipping fee and no changes to CHP

Table 3 reflects the revised cost-benefit analysis for the pilot program with barging and the the long-term permanent program.


Updated Co-Digestion Cost/Benefit Analysis (Revised Model)

Category	150 wtpd case Pilot	500 wtpd case Permanent Program
Estimated Capital Costs		
On-Island Receiving, Storage	\$500K + \$2.3M ¹	\$2.4M
Digester Modification		\$2.0M
Combined Heat & Power		\$25 M
Total Estimated Capital	\$2.8M	\$29.4M
Estimated Annual Costs		
Annual Debt Service on Capital (20-yrs)	\$180K	\$1.9M
Total O&M (including pellets)	\$575K	\$1.9M
Total Annual Cost	\$755K	\$3.8M
Estimated Offsetting Annual Savings		
Savings for Value of Additional Biogas**	\$1.3M ²	\$6.1M ³
Net Annual Savings:	\$585k	\$2.3M
Potential Additional Revenues (Post Pilot)		
<i>Industry Standard Tipping Fee</i>		<i>\$0.09-0.12/gal</i>
Suggested Tipping Tee		\$0.062/gal
Estimated Annual Revenue from Tipping Fee		\$2.7M
Estimated Total Net Annual Benefit:	\$585K	\$5.0M

1. \$2.3M capital costs associated with change from trucking to barging option.
2. Value of additional biogas includes heat value, electrical value and RPS credits.
3. Value of additional biogas includes heat value, electrical value and RPS credits and is based on output from new Combined Heat and Power Facility (CHP) option.

(Above costs do not include Waste Management's cost impact and benefit from MaDEP and MaCEC grants.)

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: Approval of One New Member of the Wastewater Advisory Committee

COMMITTEE: Wastewater Policy & Oversight

 INFORMATION
 X VOTE

Wendy Leo, Senior Program Manager
Preparer/Title



Kevin A. McCluskey
Director, Public Affairs 

RECOMMENDATION:

To approve the addition of one new member, Mr. Daniel Winograd, to the Wastewater Advisory Committee.

DISCUSSION:

The Wastewater Advisory Committee (WAC) was created in 1990 to offer independent recommendations on wastewater programs and policies; it is a successor to the Facilities Planning Citizen Advisory Committee, which was established during the planning of the new Deer Island Treatment Plant. WAC's members include citizen advocates, representatives from the Metropolitan Area Planning Council, watershed associations, the engineering and business communities, and the science and education fields.

WAC elects its chairman and employs an Executive Director (selected by WAC's membership with the concurrence and approval of MWRA's Public Affairs Department). WAC's current chairman is Stephen Greene and WAC's current Executive Director is Andreae Downs.

The current Agreement between WAC and MWRA for FY15, which was approved by the Board on June 4, 2014, provides that WAC shall have a maximum of twenty members approved by MWRA's Board of Directors; the Agreement prohibits alternates or designees.

The current eleven members on WAC are: Mary Adelstein, citizen advocate; Craig Allen, Commonwealth Research Group, Inc.; Wayne Chouinard, Town of Arlington DPW; Zhanna Davidovitz, Massachusetts Institute of Technology; Stephen Greene (WAC Chairman), Howland-Greene Consultants; Taber Keally, Neponset River Watershed Association; Karen Lachmayr, Harvard University; Beth Miller, independent engineer; Martin Pillsbury, Metropolitan Area Planning Council; Elie Saroufim, Boston Water & Sewer Commission; Vincent Spada, SEA Consultants. (Longtime member Bill Katz, retired from industry, recently resigned from WAC.)


In accordance with the current Agreement, WAC unanimously nominated the following individual for membership at its last meeting:

Daniel Winograd

Mr. Winograd is an environmental consultant and senior project manager with Woodard & Curran, a consulting, engineering, and operations company, where he has worked for nine years. He assists industrial, commercial, academic, and municipal clients with a wide range of environmental compliance matters, including environmental audits, training, permitting, storm water, wastewater, hazardous waste, used oil, universal waste, lead paint, asbestos, and PCB issues, and with the design, implementation, and evaluation of environmental management systems. Mr. Winograd received a J.D. from NYU Law School. Before joining Woodard & Curran, he worked in the real estate and environmental law department of a large Boston law firm for three years, as an enforcement attorney for US EPA in its Boston office for 11 years, and as an environmental attorney in MIT's legal counsel's office for three years.

Since Woodard & Curran currently operates the Union Park CSO facility, which is jointly operated by MWRA and the Boston Water & Sewer Commission, Mr. Winograd will recuse himself from any issues or discussions regarding Union Park, as well as from any other matters that may arise in the future in which he or his employer may have an identifiable financial or other interest.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: I/I Local Financial Assistance Program Guidelines Revisions

COMMITTEE: Wastewater Policy & Oversight

 INFORMATION

 X VOTE

Carl H. Leone, Senior Program Manager
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

The Infiltration/Inflow (I/I) Local Financial Assistance Program annual update was recently presented to the Board on April 16, 2014. That staff summary presented information on typical projects and program results. In addition, Board approval was received to establish sunset dates for the grant portion of remaining community financial assistance allocations under Program Phases 6 and 7.

This staff summary presents recommended revisions to the Program Guidelines for future Phases of the I/I Local Financial Assistance Program as proposed in the Advisory Board's comments to the MWRA FY15 Capital Improvement Program (CIP).

Staff concur with the Advisory Board's proposal to reconfigure the program's new Phase 9 and Phase 10 grant/loan split to 75% grant and 25% loan (currently 45% grant and 55% loan) and extend the loan repayment period to 10 years (currently 5 years). Also, to help MWRA staff plan for large community funding requests and manage MWRA's construction fund, the Advisory Board recommends community applications exceeding \$2.0 million be subject to 90-day notification to MWRA.

RECOMMENDATION:

To approve the following revisions to the I/I Local Financial Assistance Program Guidelines: 1.) reconfigure the program's grant/loan split to 75% grant and 25% interest-free loan from the current 45% grant and 55% loan and extend the loan repayment period to 10 years from the current 5 years for distribution of Phase 9 and 10 funds; 2.) require communities to exhaust their remaining Phase 6, 7, and 8 funds prior to becoming eligible for distribution of Phase 9 and 10 funds. (For remaining community financial assistance allocations under Phases 6, 7, and 8, the grant/loan split and loan repayment period will remain unchanged.) 3.) extend the current 30-day notification period to MWRA for community grant/loan funding applications that exceed \$2.0 million to a 90-day notification period prior to the target distribution date; 4.) based on the combined impact of each quarter's current community assistance applications, authorize the Executive Director to waive the 90-day notification rule on a case-by-case basis; and 5.) establish a "trigger" by which each community's Phase 10 funds are automatically approved for local authorization when MWRA has distributed 50% of the community's Phase 9 funds. (All Phase 9 funds must be used prior to using Phase 10 funds.)

BACKGROUND:

MWRA's I/I Local Financial Assistance Program was initiated in May 1993 to provide funding to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. The program's goal is to assist member communities in improving local sewer system conditions to reduce I/I and ensure ongoing repair/replacement of the collection system. This program is a critical component of MWRA's Regional I/I Reduction Plan.¹ Specifically, local sewer system rehabilitation projects are intended to at least offset ongoing collection system deterioration, thus preventing a net increase in regional I/I. In the long-term, system rehabilitation should result in lower I/I, which will allow for future increases in sanitary flows (residential, commercial, industrial, and institutional) without a net increase in total wastewater flow. The program fosters efficient operation and maintenance of local sewer systems.

All 43 member sewer communities have participated in the I/I Local Financial Assistance Program. A total of \$300.75 million in grant and loan funds have been allocated among member sewer communities based on respective shares of sewer charges for the first eight program phases (FY93-FY14). Attachment 2 provides a summary of funds allocated, distributed, and remaining for each member community through Phase 8 of the program. To date, \$261 million has been distributed to member communities to fund 459 local sewer rehabilitation projects. Thirteen communities have received their entire funding allocation. Remaining grant/loan funding totals \$39 million that is allocated to 30 communities. Financial assistance is currently distributed for approved projects as a 45% grant and a 55% interest-free loan. The loan portion is repaid to MWRA over a 5-year period. All scheduled community loan repayments have been made, a total of \$128 million to date.

DISCUSSION:

In response to MWRA's Draft FY15 CIP, MWRA's Advisory Board recommended the addition of Phase 9 and 10, at \$80 million per phase, as well as other revisions, to the I/I Local Financial Assistance Program. Relevant excerpts of the Advisory Board's CIP comments are presented as Attachment 1. In order to implement these changes, it is necessary to revise the Board-approved I/I Local Financial Assistance Program Guidelines. The recommended revised guidelines were developed jointly by a committee consisting of the Advisory Board and MWRA staff, along with the Advisory Board's Operations Committee Chairperson and have been presented to the Advisory Board's Executive Committee and the full Advisory Board. Approval of funding for additional Phases 9 and 10 of the I/I grant/loan program (\$80 million per phase) is recommended in the FY15 CIP staff summary that will be presented separately at this meeting. The addition of the two new grant/loan program phases will increase the total program budget to \$460.75 million and extend the distribution of grants and loans through FY25.

¹ As required by the National Pollutant Discharge Elimination System (NPDES) Permit for the Deer Island Treatment Plant, MWRA's Regional Infiltration/Inflow Reduction Plan was approved by the Board in May 2001 and approved by MassDEP in November 2002. MWRA is required to report on the Regional I/I Reduction Plan and present estimates of I/I each year.

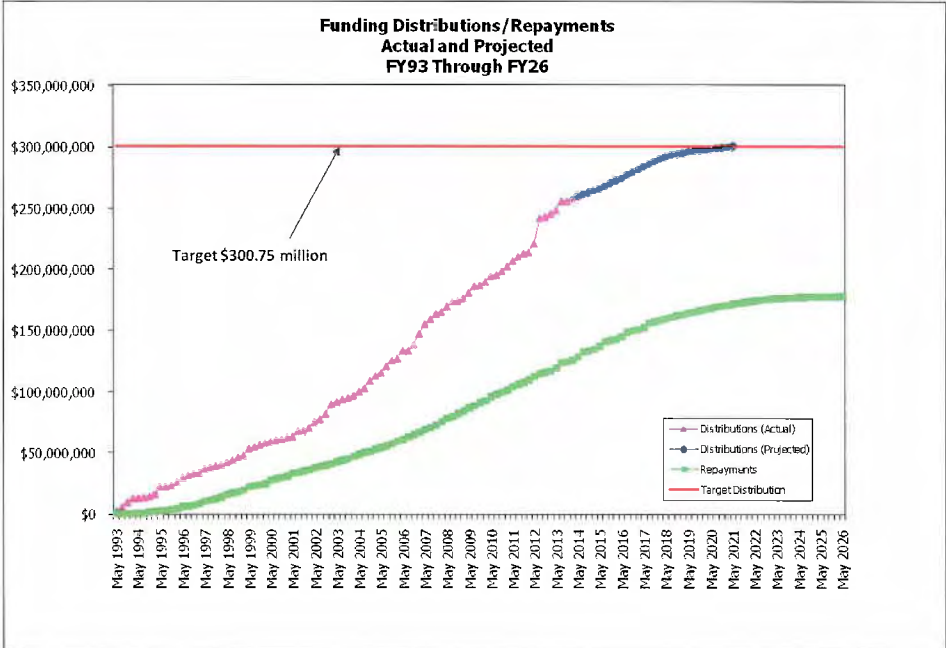
The Advisory Board also recommended the program’s grant/loan split for Phases 9 and 10 be reconfigured to 75% grant and 25% interest-free loan (currently 45% grant and 55% interest-free loan split) and to extend the loan repayment period to 10 years (currently 5 years). Phase 9 funds will be scheduled for distribution beginning in FY15. Each community’s Phase 10 funds will become available to the community in the fiscal year following the distribution of half of its Phase 9 funds (known as the “trigger” for Phase 10 funds). Attachment 3 presents an estimated allocation of Phase 9 and Phase 10 funds based on the FY15 sewer charge percent share for each community. The actual allocations for both Phase 9 and 10 funds will be based on the Final FY15 sewer charge percent share for each community.

MWRA staff concur with the Advisory Board’s proposal and recommend that the Board approve these revisions to the Local Financial Assistance Program Guidelines. Board approval of the additional funding for Phase 9 and 10 is recommended in the FY15 CIP staff summary that is being presented separately at this meeting.

BUDGET/FISCAL IMPACT:

The FY14 CIP includes an overall budget of \$122.6 million for the grant portion of the I/I Local Financial Assistance Program. An additional \$178.2 million is budgeted for the loan portion of the program. However, this amount is offset by an equal amount of loan repayments. As community loans are repaid, the funds are deposited into MWRA’s construction fund.

The graph below presents grant and loan distributions and loan repayments (actual and projected) for the first eight phases of the program (FY93 through FY26).



Community grants and loans are financed via MWRA 30-year bonds. The cost to MWRA to distribute each \$10 million in 45% grants and 55% interest-free 5-year loans is approximately \$8.3 million (see detail in Attachment 4). This cost estimate is based on three components: (1) \$4.5 million in principal cost for the grant portion; (2) \$3.2 million in 30-year bond interest expense for the grant portion; and (3) \$0.6 million in bond interest expense for the loan portion.

The addition of Phases 9 and 10, at \$80 million per phase (for combined grants and loans), will increase the total program budget to \$460.75 million and extend the distribution of grants and loans through FY25. Under the recommended Program Guideline revisions, the cost to MWRA to distribute each \$10 million in 75% grants and 25% interest-free 10-year loans will increase to approximately \$13.5 million (see detail in Attachment 4). This cost estimate is based on three components: (1) \$7.5 million in principal cost for the grant portion; (2) \$5.4 million in 30-year bond interest expense for the grant; and (3) \$0.6 million in bond interest expense for the loan portion. The overall budget impact of adding each \$80 million I/I grant/loan phase to fund community projects is estimated at \$108 million.

The expansion of MWRA's I/I Local Financial Assistance Program and the more favorable grant component and loan repayment terms are major positive developments for member communities. Having more funds available will enhance the communities' ability to make needed local improvements to their sewer systems.

MBE/WBE PARTICIPATION:

MBE/WBE participation goals are included in the Program Guidelines and in each community Financial Assistance Agreement.

ATTACHMENTS:

- Attachment 1 – Excerpts from the Advisory Board's CIP Recommendations and Comments
- Attachment 2 – Community Funding Summary for Phases 1 through 8
- Attachment 3 – Community Allocations for Phase 9 and 10 Funding
- Attachment 4 – I/I Program Cost Estimates

ATTACHMENT 1

Excerpts from the Advisory Board's FY2015 Integrated CIP and CEB
Recommendations and Comments

Advisory Board Recommendations/Comments

2. The Advisory Board recommends that Phase 9 and Phase 10 of the I/I Local Financial Assistance Program be increased to \$80 million per phase to be distributed to eligible communities.

3. The Advisory Board recommends that an automatic "trigger," the exact mechanism of which is to be determined by the Authority, be incorporated in the I/I Program to make Phase 10 funds available to communities.

24. The Advisory Board recommends that the payback period for Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be extended to ten years.

25. The Advisory Board recommends that Phase 9 and Phase 10 of the Inflow/Infiltration Local Financial Assistance Program be reconfigured to allow for a grant/loan ratio of 75% grants and 25% interest-free loans.

**ATTACHMENT 2
MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FUNDING SUMMARY AS OF MAY 2014**

Community	Total Allocations (Phases 1 - 8)	Total Distributions (Phases 1 - 8)	Percent Distributed	Funds Remaining
Arlington	\$5,613,000	\$5,613,000	100%	\$0
Ashland	\$1,328,500	\$1,328,500	100%	\$0
Bedford	\$2,282,600	\$1,691,600	74%	\$591,000
Belmont	\$3,439,100	\$2,992,100	87%	\$447,000
Boston	\$85,585,200	\$83,711,976	98%	\$1,873,224
Braintree	\$5,319,000	\$3,425,800	64%	\$1,893,200
Brookline	\$8,605,200	\$5,526,400	64%	\$3,078,800
Burlington	\$3,304,800	\$3,285,800	99%	\$19,000
Cambridge	\$15,566,100	\$11,077,055	71%	\$4,489,045
Canton	\$2,675,900	\$2,675,900	100%	\$0
Chelsea	\$4,232,100	\$4,232,100	100%	\$0
Dedham	\$3,914,000	\$3,914,000	100%	\$0
Everett	\$5,229,500	\$3,141,500	60%	\$2,088,000
Framingham	\$8,025,000	\$5,003,000	62%	\$3,022,000
Hingham	\$1,032,500	\$952,852	92%	\$79,648
Holbrook	\$1,059,600	\$896,562	85%	\$163,038
Lexington	\$4,835,300	\$4,835,300	100%	\$0
Malden	\$7,825,900	\$4,593,900	59%	\$3,232,000
Medford	\$7,961,600	\$4,794,600	60%	\$3,167,000
Melrose	\$3,914,300	\$3,914,300	100%	\$0
Milton	\$3,736,500	\$3,251,500	87%	\$485,000
Natick	\$3,644,600	\$3,644,600	100%	\$0
Needham	\$4,269,600	\$2,892,150	68%	\$1,377,450
Newton	\$13,861,400	\$11,565,400	83%	\$2,296,000
Norwood	\$4,519,400	\$3,955,399	88%	\$564,001
Quincy	\$12,882,000	\$11,125,000	86%	\$1,757,000
Randolph	\$3,894,800	\$3,894,800	100%	\$0
Reading	\$2,941,100	\$2,870,100	98%	\$71,000
Revere	\$6,424,900	\$5,502,900	86%	\$922,000
Somerville	\$10,117,800	\$10,117,800	100%	\$0
Stoneham	\$3,291,900	\$3,291,900	100%	\$0
Stoughton	\$3,126,900	\$2,696,900	86%	\$430,000
Wakefield	\$3,932,900	\$3,527,400	90%	\$405,500
Walpole	\$2,404,000	\$1,928,300	80%	\$475,700
Waltham	\$9,022,400	\$7,808,400	87%	\$1,214,000
Watertown	\$4,185,800	\$2,581,800	62%	\$1,604,000
Wellesley	\$3,769,700	\$2,748,808	73%	\$1,020,892
Westwood	\$1,650,300	\$1,425,300	86%	\$225,000
Weymouth	\$7,490,900	\$5,545,300	74%	\$1,945,600
Wilmington	\$1,606,000	\$1,388,000	86%	\$218,000
Winchester	\$2,777,000	\$2,777,000	100%	\$0
Winthrop	\$2,221,400	\$1,926,400	87%	\$295,000
Woburn	\$7,229,500	\$7,229,500	100%	\$0
Totals	\$300,750,000	\$261,300,902	87%	\$39,449,098

ATTACHMENT 3
MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
COMMUNITY ALLOCATIONS FOR PHASES 9 AND 10 FUNDING

Community	FY15 Sewer Charge Percent Share	Phase 9 Allocation	Funds Remaining (Phase 6 - 8)	FY15 Funds Available	Future Phase 10 Funds
Arlington	1.76%	\$1,405,000	\$0	\$1,405,000	\$1,405,000
Ashland	0.52%	\$420,000	\$0	\$420,000	\$420,000
Bedford	0.70%	\$561,000	\$591,000	\$1,152,000	\$561,000
Belmont	1.06%	\$848,000	\$447,000	\$1,295,000	\$848,000
Boston	29.12%	\$23,293,000	\$1,873,224	\$25,166,224	\$23,293,000
Braintree	1.90%	\$1,520,000	\$1,893,200	\$3,413,200	\$1,520,000
Brookline	2.85%	\$2,280,000	\$3,078,800	\$5,358,800	\$2,280,000
Burlington	1.12%	\$899,000	\$19,000	\$918,000	\$899,000
Cambridge	5.03%	\$4,027,000	\$4,489,045	\$8,516,045	\$4,027,000
Canton	0.81%	\$645,000	\$0	\$645,000	\$645,000
Chelsea	1.65%	\$1,319,000	\$0	\$1,319,000	\$1,319,000
Dedham	1.14%	\$913,000	\$0	\$913,000	\$913,000
Everett	1.78%	\$1,421,000	\$2,088,000	\$3,509,000	\$1,421,000
Framingham	2.56%	\$2,050,000	\$3,022,000	\$5,072,000	\$2,050,000
Hingham	0.38%	\$300,000	\$79,648	\$379,648	\$300,000
Holbrook	0.36%	\$290,000	\$163,038	\$453,038	\$290,000
Lexington	1.63%	\$1,305,000	\$0	\$1,305,000	\$1,305,000
Malden	2.79%	\$2,229,000	\$3,232,000	\$5,461,000	\$2,229,000
Medford	2.52%	\$2,013,000	\$3,167,000	\$5,180,000	\$2,013,000
Melrose	1.35%	\$1,081,000	\$0	\$1,081,000	\$1,081,000
Milton	1.14%	\$914,000	\$485,000	\$1,399,000	\$914,000
Natick	1.21%	\$969,000	\$0	\$969,000	\$969,000
Needham	1.24%	\$994,000	\$1,377,450	\$2,371,450	\$994,000
Newton	4.58%	\$3,668,000	\$2,296,000	\$5,964,000	\$3,668,000
Norwood	1.48%	\$1,180,000	\$564,001	\$1,744,001	\$1,180,000
Quincy	4.32%	\$3,454,000	\$1,757,000	\$5,211,000	\$3,454,000
Randolph	1.35%	\$1,078,000	\$0	\$1,078,000	\$1,078,000
Reading	1.05%	\$844,000	\$71,000	\$915,000	\$844,000
Revere	2.32%	\$1,853,000	\$922,000	\$2,775,000	\$1,853,000
Somerville	3.37%	\$2,699,000	\$0	\$2,699,000	\$2,699,000
Stoneham	1.02%	\$814,000	\$0	\$814,000	\$814,000
Stoughton	1.00%	\$798,000	\$430,000	\$1,228,000	\$798,000
Wakefield	1.27%	\$1,017,000	\$405,500	\$1,422,500	\$1,017,000
Walpole	0.80%	\$638,000	\$475,700	\$1,113,700	\$638,000
Waltham	2.94%	\$2,355,000	\$1,214,000	\$3,569,000	\$2,355,000
Watertown	1.31%	\$1,050,000	\$1,604,000	\$2,654,000	\$1,050,000
Wellesley	1.21%	\$970,000	\$1,020,892	\$1,990,892	\$970,000
Westwood	0.55%	\$441,000	\$225,000	\$666,000	\$441,000
Weymouth	2.49%	\$1,995,000	\$1,945,600	\$3,940,600	\$1,995,000
Wilmington	0.53%	\$428,000	\$218,000	\$646,000	\$428,000
Winchester	0.88%	\$703,000	\$0	\$703,000	\$703,000
Winthrop	0.73%	\$586,000	\$295,000	\$881,000	\$586,000
Woburn	2.17%	\$1,733,000	\$0	\$1,733,000	\$1,733,000
Totals	100%	\$80,000,000	\$39,449,098	\$119,449,098	\$80,000,000

ATTACHMENT 4

**I/I Program Cost Estimates
Grant/Loan Program**

**I/I Program Current Phases
45% Grant and 55% Interest-Free Loan Repaid over 5 Years**

I/I Program - Borrowing at \$10 million	
Loan Component: \$5,500,000	
Interest Expense	\$ 613,377
<i>Interest of 4.01% for six years with principal amortizing between years 1 and 5</i>	
Grant Component: \$4,500,000	
Interest Expense	\$ 3,229,353
Principal Cost	\$ 4,500,000
Total Grant Cost	\$ 7,729,353
<i>Interest of 4.01% for 30 years with principal amortizing between years 1 and 30</i>	
Total Cost of \$10 million	\$ 8,342,730

**I/I Program Proposed Phases 9 and 10
75% Grant and 25% Interest-Free Loan Repaid over 10 Years**

I/I Program - Borrowing at \$10 million	
Loan Component: \$2,500,000	
Interest Expense	\$ 607,014
<i>Interest of 4.01% for eleven years with principal amortizing between years 1 and 10</i>	
Grant Component: \$7,500,000	
Interest Expense	\$ 5,382,255
Principal Cost	\$ 7,500,000
Total Grant Cost	\$ 12,882,255
<i>Interest of 4.01% for 30 years with principal amortizing between years 1 and 30</i>	
Total Cost of \$10 million	\$ 13,489,269



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

WATER POLICY AND OVERSIGHT COMMITTEE MEETING

Chair: A. Pappastergion
Vice-Chair: B. Swett
Committee Members:
J. Barrera
J. Carroll
J. Foti
H. Vitale
J. Walsh
J. Wolowicz

to be held on

Wednesday, June 25, 2014

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: Immediately following Wastewater Comm.

AGENDA

A. Approvals

1. Stoughton First Amended Water Supply Continuation Agreement

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the
Water Policy and Oversight Committee

June 4, 2014

A meeting of the Water Policy and Oversight Committee was held on June 4, 2014 at the Authority headquarters in Charlestown. Chairman Pappastergion presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Cotter, Flanagan, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Steve Estes-Smargiassi, Joshua Das, Pam Heidell, Mike Hornbrook, Carl Leone, Fred Brandon, and Bonnie Hale. The meeting was called to order at 11:45 a.m.

Information

2013 Annual Water Quality Report (Consumer Confidence Report)

Staff handed out the report and Committee members commented that it was always so well done and positively received by residents of the MWRA service area.

Approvals

*Water Supply Citizens Advisory Committee Contract

The Committee recommended approval of a one-year contract with the Water Supply Citizens Advisory Committee (ref. agenda item B.1).

*Emergency Water Supply Agreement with Town of Hudson

Staff summarized the Town's progress on its long-term corrective action plan, which is scheduled for completion by December 31, 2014. The Committee recommended approval of the six-month Emergency Water Supply Agreement (ref. agenda item B.2).

*Local Water System Assistance Program – Approval of Water Loan Program Guidelines Revision for Town of Winthrop

Staff described Winthrop's request to borrow its remaining water loan application in order to fund a high priority water main replacement construction project. The Committee recommended approval of a one-time exemption to the program guidelines to waive the annual allocation restriction and allow the Town to borrow up to its remaining \$2,287,000 allocation.

* Approved as recommended at June 4, 2014 Board of Directors meeting.

Contract Amendments/Change Orders


***Preliminary Design and Owner's Representative Services for the Spot Pond Storage Facility: Camp Dresser & McKee, Inc., Contract 7233, Amendment 1**

Staff summarized the work to be performed during the 28 month time extension and reallocation of unused funds which comprise Amendment 1. There was general discussion and question and answer. The Committee recommended approval of Amendment 1 (ref. agenda item C.1).

The meeting adjourned at 11:55 a.m.


* Approved as recommended at June 4, 2014 Board of Directors meeting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: First Amended Water Supply Continuation Agreement with Stoughton

COMMITTEE: Water Policy & Oversight

Pamela Heidell, Policy and Planning Manager
Preparer/Title

 INFORMATION
 X VOTE

Michael J. Hornbrook
Chief Operating Officer

The interest rate for entrance fee payment has been the subject of Advisory Board discussions and recommendations related to MWRA System Expansion. On April 17, 2014, as a result of the Town of Wilmington's request, the Advisory Board voted to adjust the interest rate for both Wilmington's and Stoughton's entrance fee payments to 4.34%. On May 14, 2014, the Board approved a new contract with Wilmington reflecting the adjusted interest rate. This staff summary recommends a similar adjustment for Stoughton's entrance fee payment in the proposed First Amended Water Supply Continuation Agreement with Stoughton.

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute the First Amended Water Supply Continuation Agreement between MWRA and the Town of Stoughton, substantially in the form attached hereto.

DISCUSSION:

Stoughton was admitted into the MWRA Water System in 2002, and entered into a Water Supply Contract with MWRA for the period 2002-2007, as well as a subsequent Continuation Agreement for 2007-2016. The Agreements incorporated a schedule of entrance fee payments reflecting a 20-year payment term at a 4.43% interest rate (MWRA's average fixed-rate cost in 2002 when Stoughton was admitted to the MWRA system). At its April 2014 meeting, the MWRA Advisory Board voted to adjust the interest rate costs for both Wilmington and Stoughton to reflect MWRA's current prevailing fixed-rate cost of 4.34%. Accordingly, the proposed First Amended Water Supply Continuation Agreement with the Town of Stoughton includes a revised entrance fee schedule of payments. It parallels MWRA's Agreement with the Town of Wilmington, which was approved by the Board on May 14, 2014.

BUDGET/FISCAL IMPACT:

Stoughton has eight years remaining on its entrance fee payment schedule; the total reduction in interest reflecting the rate adjustment from 4.43% to 4.34% in Stoughton's entrance fee payments is \$26,997.28 over the remaining years of its payment schedule.

ATTACHMENT:

Draft Copy of First Amended Water Supply Continuation Agreement with Stoughton

FIRST AMENDED
WATER SUPPLY CONTINUATION AGREEMENT
BETWEEN
THE MASSACHUSETTS WATER RESOURCES AUTHORITY
AND
THE TOWN OF STOUGHTON

This First Amended Water Supply Continuation Agreement (“Agreement”) by and between the Massachusetts Water Resources Authority (the “MWRA”) and the Town of Stoughton (the “Town”), (hereinafter jointly referred to as the “Parties”), documents the amended agreement and understanding of the Parties regarding the arrangement whereby the MWRA will continue to supply water to the Town and the Town will purchase a portion of its water supply from the MWRA water supply system and this Agreement supersedes the agreement between the Parties dated April 10, 2008.

RECITALS

- R.1. Whereas, MWRA was created in 1984 by chapter 372 of the Acts of 1984 (the “Act”) to operate, regulate, finance, and modernize the waterworks and sewerage systems serving the greater metropolitan Boston area;
- R.2. Whereas, MWRA currently provides water supply and distribution services and wastewater collection and treatment services, to certain cities, towns and special service districts (the “Communities”) within its service area;
- R.3. Whereas, MWRA desires to continue to provide safe and sufficient water supplies to the Town and to provide system-wide assistance to help protect and conserve water supplies;
- R.4. Whereas, Section 8 (d) of the Act permits the MWRA to extend its waterworks system to a community and to provide the continued delivery of water to the new community under reasonable terms as determined by MWRA provided that specific requirements are met;

- R.5. Whereas, the MWRA finds that the applicable requirements of section 8(d) of the Act have been met as follows:
- (1) the safe yield of the watershed system as of the date of this contract and as projected for the term hereof, is sufficient to meet the projected demand of the Town;
 - (2) No existing or potential water supply source for the Town has been abandoned;
 - (3) Effective demand management measures have been developed by the Town;
 - (4) A local water supply source feasible for development has not been identified by either the Town or the Department of Environmental Protection (the "DEP");
 - (5) A water use survey has been completed which identifies all users within the Town that consume in excess of twenty million gallons a years.
- R.6. Whereas, the Town, having met the conditions of Section 8 (d) and the conditions of O.P. #10, Admission of a New Community to the Waterworks System, was duly admitted to the MWRA Waterworks system on June 12, 2002, thereby acquiring certain rights and obligations conferred by that admission;
- R.7. Whereas, a regulation entitled "Continuation of Contract Water Supply", promulgated by the MWRA at 360 C.M.R. 11.00 and most recently revised on November 18, 1994, (the "Regulation") defines more specifically the requirements of section 8(d) of the Act and governs the continued delivery of water by the MWRA to the communities purchasing water from the MWRA;
- R.8. Whereas, the Town executed a contract dated July 1, 2002 for the purchase of water from the MWRA which expired on June 30, 2007;
- R.9. Whereas, the Town agreed to pay MWRA an entrance fee of Five Million Six Hundred Fifty-seven Thousand One Hundred Seventeen and 64/100 Dollars (\$5,657,117.64) for its share of the present asset value of the waterworks system in place at the time of its entrance to MWRA, in accordance with a schedule of payments established at the time of its entrance and will continue to make monthly installments in accordance with the provisions of Paragraph 6 herein during the term of this Agreement and thereafter until fully paid;
- R.10. Whereas, the Town, pursuant to the Regulation, has requested from the MWRA that its water supply be continued and has submitted a continuation request and a Supplementary Report including a supply analysis, a demand analysis, a water management plan, an ordinance for the protection of local sources, and a description of the local user charges system and accounting system which meet the Regulation's requirement for conservation based rates;
- R.11. Whereas, the Town has adopted a schedule for adoption of a local drought restriction by-law;
- R.12. Whereas, DEP issued MWRA Water Management Act Registrations for 2008-2017

that requires MWRA as a system to meet the Water Resources Commission's performance standards of 65 residential gallons per capita day water use (RGPCD) and 10% unaccounted for water loss (UAW) by December 31, 2017; and

R.13. Whereas, the MWRA and the Town wish to formalize their rights and obligations regarding the supply of water to the Town and therefore enter into this Agreement.

NOW, THEREFORE, in consideration of mutual promises contained herein and for other good and valuable consideration, the MWRA and the Town agree to the following:

1. The term ("Term") of this Agreement shall be ten (9.5) years effective on July 1, 2007 and ending at midnight on December 31, 2016.
2. The MWRA shall during the Term provide the Town with water on a maximum annual water volume basis, stated in millions of gallons, as follows:

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
419.75	419.75	419.75	419.75	419.75
<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
419.75	419.75	419.75	419.75	419.75

and up to 2.5 million gallons per day (mgd) on a maximum daily water volume basis. In any year in which the Town's usage exceeds the maximum annual volume or maximum daily volume stated above, the Town will provide MWRA with a written explanation of the increased demand and a plan to reduce the water volume below the contract limits.

3. Any increase beyond 419.75 million gallons on an annual basis will require a written contract revision signed by each of the Parties hereto and a revision to the entrance fee. The Parties agree that a water supply emergency may be an appropriate reason for the Town to increase its maximum daily water volume in excess of the above referenced volume without requiring a revision to this Agreement.
4. In the event that revised circumstances regarding local demand and/or supply should occur and the Town determines that the volume designated in this Agreement to be supplied for the MWRA system is insufficient to meet the Town's projected demand, the Town may petition the MWRA to amend this Agreement pursuant to 360 CMR 11.11 and MWRA Policy # OP.10 Admission of a New Community to the Waterworks System.
5. The Town agrees that the MWRA shall not be liable to the Town for any disruption of water service delivery to the Town attributable to the water distribution systems of the Town.

6. Stoughton agrees to continue to make 10 installment payments annually to the Authority toward its entrance fee for Stoughton's share of the asset value of the waterworks system (\$5,657,117.64) in place at the time of its entrance based on the annual volumes set forth in Paragraph 2 above in the amounts shown on the schedule attached to this Agreement as Exhibit A and incorporated herein, but at a reduced rate of interest of 4.34% instead of 4.43% beginning with the July 1, 2014 installment and continuing thereafter until all remaining installments have been fully paid. Installments due through and including June 2015 shall continue to be paid in the amounts and at the interest rate originally calculated pursuant to the Parties' 2002 Agreement. It is the express understanding of the Parties, in consideration of Stoughton's payment of the entrance fee in accordance with the provisions of this and past Agreements, that Stoughton shall have the right to a continuation of its purchase of water supply from MWRA in accordance with Section 8(d) of the Act and with the Regulations. The process for requesting the continuation of water supply shall be as set forth in the Regulations.
7. The MWRA shall bill the Town and the Town shall timely pay to the MWRA charges for all water supplied under this Agreement in accordance with MWRA's Community Charge Determination Policy. All billing procedures, due dates, and interest charges for late payments shall be in accordance with the MWRA's standard policies and procedures.
8. The Town agrees to continue a user charge system and an accounting system which meets the Regulation's requirement to a) incorporate a uniform rate or an alternative structure which provides incentives for water conservation and/or is designed to ensure the affordability of water services to low and/or fixed income persons; and b) prohibit rate structures that incorporate descending or declining block rates.
9. The Town shall develop and implement a full cost pricing system within twelve (12) months from the date that all communities listed in section 8(d) of the Act other than those subject to 360 CMR 11.00 have implemented a full cost pricing system.
10. The Town agrees that during the Term it shall continue the implementation of its current and proposed local demand management programs, including but not limited to participation in MWRA conservation programs, and distribution of MWRA-provided materials to all water users, and compliance with MWRA's regulations for town-wide leak detection and repair (360 C.M.R. 12.00).
11. The parties agree that it is a shared goal of MWRA and Town to reach and maintain the MWRA system-wide goal of 65 RGPCD and 10% UAW as set forth in MWRA's Water Management Act registration by 2017.
12. The Town agrees that during the Term it shall not abandon any local source and substitute for it water from MWRA sources unless DEP has declared that the local source will be or has been abandoned, is unfit for drinking, and cannot be economically restored for drinking purposes.

13. The Town agrees to use its best efforts to either continue in full force and effect during the Term the ordinance for the protection of local water sources, or, at the Town's discretion, to adopt an ordinance with more stringent measures.
14. The Town agrees to notify the MWRA promptly, in writing, at any time that the Town becomes aware that a permanent solution which does not include meeting Massachusetts Drinking Water Standards is proposed for remediation undertaken pursuant to M.G.L. c. 21E and its implementing regulations (the "MCP") for groundwater in or hydrologically connected to an aquifer that has been identified by the Town as a potentially productive drinking water source.
15. Any dispute arising between the MWRA and the Town concerning the calculation of the Town's annual assessment shall be resolved in accordance with MWRA's Rate Basis Data Review and Dispute Resolution process. Any other dispute between MWRA and the Town under terms of this Agreement shall be resolved in accordance with the dispute resolution process set forth at 360 CMR 11.14 and the administrative procedures set forth at 360 CMR 1.00.

IN WITNESS WHEREOF, the Parties have caused this amended Agreement to be executed on this ____ day of _____, 2014 by their duly authorized representatives:

MASSACHUSETTS WATER RESOURCES AUTHORITY

By:

Frederick A. Laskey
Executive Director

TOWN OF STOUGHTON

By:

Michael J. Hartman,
Town Manager

Town of Stoughton

REVISED MWRA Entrance Fee Payment Schedule

Pmt No.	Payment Date	Scheduled Payment
1	7/1/2002	\$432,263.51
2	7/1/2003	432,263.51
3	7/1/2004	432,263.51
4	7/1/2005	432,263.51
5	7/1/2006	432,263.51
6	7/1/2007	432,263.51
7	7/1/2008	432,263.51
8	7/1/2009	432,263.51
9	7/1/2010	432,263.51
10	7/1/2011	432,263.51
11	7/1/2012	432,263.51
12	7/1/2013	432,263.51
13	7/1/2014	428,888.85
14	7/1/2015	428,888.85
15	7/1/2016	428,888.85
16	7/1/2017	428,888.85
17	7/1/2018	428,888.85
18	7/1/2019	428,888.85
19	7/1/2020	428,888.85
20	7/1/2021	428,888.85



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

PERSONNEL & COMPENSATION COMMITTEE MEETING

Chair: K. Cotter
Vice-Chair: J. Wolowicz
Committee Members:
J. Barrera
J. Carroll
P. Flanagan
J. Foti
A. Pappastergion
H. Vitale
J. Walsh

to be held on

Wednesday, June 25, 2014

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: Immediately following Water Comm.

A. Approvals

1. PCR Amendments – June 2014
2. Appointment of Program Manager, SCADA Engineering
3. Appointment of Construction Coordinator
4. Appointment of Construction Coordinator

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Personnel and Compensation Committee

June 4, 2014

A meeting of the Personnel and Compensation Committee was held on June 4, 2014 at the Authority headquarters in Charlestown. Chairman Cotter presided. Present from the Board were Ms. Wolowicz and Messrs. Carroll, Flanagan, Pappastergion, Vitale and Walsh. Among those present from the Authority staff were Fred Laskey, Steve Remsberg, Rachel Madden, Mike Hornbrook, Bob Donnelly, and Bonnie Hale. The meeting was called to order at 11:55 a.m.

Approvals

There was some discussion and question and answer, and the Committee recommended approval of the following items:

*PCR Amendments – June 2014 (ref. agenda item A.1)

*Appointment of Assistant Director, Construction – Eleanor Duffy (ref. agenda item A.2)

*Appointment of Manager of Treatment and Transmission – Bradley Palmer (ref. agenda item A.3)

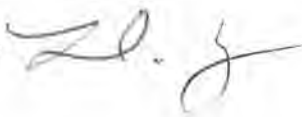
*Appointment of Senior Sampling Associate, Toxic Reduction and Control - Thomas Coffey (ref. agenda item A.4)

*Appointment of Senior Staff Engineer, Structural – Bhikhubhai Khalifa (ref. agenda item A.5).

The meeting adjourned at 12:00 p.m.

* Approved as recommended at June 4, 2014 Board of Directors meeting.

STAFF SUMMARY

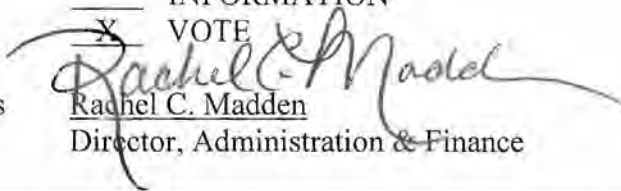
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: June PCR Amendments

COMMITTEE: Personnel and Compensation


Robert Donnelly, Director of Human Resources
Joan C. Carroll, Manager Compensation
Preparer/Title

INFORMATION

VOTE


Rachel C. Madden
Director, Administration & Finance

RECOMMENDATION:

To approve the amendment to the Position Control Register (PCR) included in the attached chart¹.

DISCUSSION:

The PCR amendment included in this package reflects organizational changes aimed at improving the cost-effectiveness, structural soundness and staffing patterns within the Operations Division.

The amendment is:

1. A title change to a vacant position (Program Manager, Process Engineering to Program Manager, Process Monitoring) to meet current staffing needs in Process Control Department, Deer Island Wastewater Treatment Plant.

This amendment requires approval by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

None

ATTACHMENTS:

New/Old Job Descriptions

¹ The Position Control Register lists all regular positions in this fiscal year's Current Expense Budget. Any changes to positions during the year are proposed as amendments to the PCR. The Personnel and Compensation Committee of the Board of Directors must approve all PCR amendments. In addition, any amendments resulting in an upgrade of a position by more than one grade level or increasing a position's annual cost by \$10,000 or more must be approved by the Board of Directors after review by the Personnel and Compensation Committee.

MASSACHUSETTS WATER RESOURCES AUTHORITY
 POSITION CONTROL REGISTER AMENDMENTS
 FISCAL YEAR 2014

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - June 25, 2014

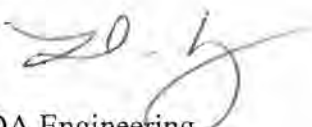
Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary	Estimated Annual \$ Impact	Reason For Amendment
P26	Operations Process Control 2938511	V	T	Program Manager, Process Engineering	9	29	Program Manager, Process Monitoring	9	29	N/A	N/A - N/A	\$0 - \$0	To meet current staffing needs in Process Control, Deer Island
PERSONNEL & COMP COMMITTEE TOTAL=					1					TOTAL			\$0 - \$0
BOARD TOTAL =					0					SUBTOTAL:			\$0 - \$0
GRAND TOTAL =					1					TOTAL ESTIMATED COSTS:			\$0 - \$0

Legend:

V = Vacant position, F = Filled position

T = Title change, L = Location change, transfer to another Cost Center, G = Grade Change, SA= Salary Adjustment, E = Elimination


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: Appointment of Program Manager, SCADA Engineering

COMMITTEE: Personnel & Compensation

 INFORMATION
 X VOTE

Robert G. Donnelly, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Brian L. Kubaska, P.E., Manager, SCADA and Process Control
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Thai Nguyen, (Unit 9, Grade 25) to the position of Program Manager, SCADA Engineering (Unit 9, Grade 29), at an annual salary of \$99,318.82, commencing on June 28, 2014.

DISCUSSION:

The position of Program Manager, SCADA Engineering became vacant upon the promotion of the prior incumbent to the position of Sr. Program Manager, SCADA, which was approved by the Board on April 16, 2014.

Organizationally, the Program Manager, SCADA Engineering position reports to the Sr. Program Manager of SCADA. The position is responsible for supporting the management of the SCADA system and supervising five engineering staff at MWRA's Chelsea Facility.

MWRA's SCADA system provides monitoring and/or control of approximately 100 water and wastewater transport facilities across MWRA's service area, ranging in size from the John J. Carroll Water Treatment Plant down to individual pressure-reducing valve chambers. SCADA engineers and technicians perform the programming, maintenance, and enhancement of an operational technology infrastructure, including wide area networks, local area networks, data radios, landline communications equipment, programmable logic controllers (PLCs), field instrumentation, human-machine interface software, PCs and servers, an extensive microwave system, and cyber security hardware and software. SCADA staff also review Capital Improvement Program contract technical designs, provide start-up support for new facilities, perform system-wide upgrades, design, program, and implement smaller SCADA systems, contribute to process control decisions, update system documentation, and provide data collection support for MWRA's water quality security monitoring system.

SCADA Engineering staff maintain and improve upon the computer and communications hardware, software, and programming that enable remote communications, facility monitoring and automation, and cyber security safeguards. The Program Manager, SCADA Engineering position is responsible for MWRA's East SCADA Engineering group, which includes all the metropolitan water and wastewater facilities, as well as multiple water metering sites used for monitoring system health.

Selection Process

The position of Program Manager, SCADA Engineering was posted internally and five candidates applied, four of which were determined to have met the minimum qualifications. The Manager, SCADA and Process Control, Sr. Program Manager of SCADA, and a representative of MWRA's Affirmative Action and Compliance unit interviewed the four candidates meeting the minimum qualifications. Upon completion of the interviews, it was determined that Mr. Thai Nguyen was the best candidate to fill the position.

Mr. Nguyen has more than 16 years of experience building, troubleshooting, and improving upon MWRA's SCADA system. Mr. Nguyen began his career at MWRA in 1998 as a Senior Monitoring and Control Engineer. After only three years, Mr. Nguyen was promoted to Project Manager, SCADA. Since that time he has been instrumental in building MWRA's SCADA system, including design and implementation of the SCADA communications networks. Mr. Nguyen has lead the implementation of many cyber security safeguards and also played a key role in the development and implementation of graphics used to monitor and control remote facilities and water quality monitoring sites. He also was a key member of the team that converted MWRA's Human-Machine Interface software from its earliest version through several iterations to the current version of the software. In addition, Mr. Nguyen has played an instrumental role in the evaluation of new SCADA technologies and has proven to be a highly sought after technical resource.

Before coming to MWRA, Mr. Nguyen worked for a manufacturing company building and testing equipment used in the implementation of SCADA systems.

Mr. Nguyen earned a Bachelor of Science degree in Electrical Engineering from the University of Massachusetts, Lowell and he holds a Grade IV Water Treatment license.

BUDGET/FISCAL IMPACT:

Adequate funds for this position are included in the Operations Division's FY14 and Proposed FY15 Current Expense Budgets. The recommended salary is in accordance with guidelines established in Unit 9's current collective bargaining agreement for promotional increases.

ATTACHMENTS:

Resume of Thai Nguyen
Position Description, Program Manager, SCADA Engineering
SCADA Organization Chart

Thai N. Nguyen

EXPERIENCE:

Massachusetts Water Resources Authority, Southborough MA

07/01 - present

Project Manager, SCADA

Responsible for maintaining and enhancing the SCADA system for MWRA western water department/operations department. Lead engineering role in SCADA network design, configuration and security. Specific duties include:

- SCADA network design and security
- Lead engineer for developing SCADA router configuration standard, and network optimization.
- Lead engineer for developing SCADA network firewall rule set, configuration and implementation.
- Lead engineer for configuration and implementation of McAfee virus scan/EPO server
 - Configured, installed and maintained original antivirus windows 2005 SQL server
 - Configured, installed, hardened and maintained antivirus windows 2008 server
- Lead engineer for configuration of Intravue network monitoring/IDS software
- Lead engineer responsible for implementing frame-relay circuits into SCADA network.
- Lead engineer responsible for designing and implementing data encryption with IPSEC tunnels over SCADA network.
- Lead engineer responsible for implementing Secure Shell (SSH) for network device configuration.
- Provide technical assistance to SCADA engineering staff on network troubleshooting, configuration and implementation.
- Interfacing with contractors in order to assist with technical problems and ensure that the system satisfies process requirements and is implemented correctly and efficiently.
- Supervisor of Sr. Monitoring and Controls Systems engineers.
- Troubleshooting problems in Western Water Facilities on many SCADA/controls systems related issues.
- Assisted SCADA staff responsible for Water & Wastewater SCADA systems.
- Coordinate work with various MWRA disciplines such as electrical & operations.
- Programming Allen Bradley SLC and Control Logix PLC's.
- Designed, built, installed SCADA iFix Redundant Servers to improve SCADA reliability.
- Designed, built, installed SCADA network logging system for cyber security.
- SCADA development with Intellution software.
- Created custom faceplate that verifies a SCADA user's group privileges prior to allowing write control of SCADA set points using Microsoft Visual Basic
- Created custom login screen that SCADA HMI users use to login iFix using Microsoft Visual Basic
- Designed technique to monitor loss of communication to PLC using Microsoft Visual basic
- Developed iFix database conversion from ABR to IGS interface.
- Actively involved in the start-up, testing and enhancements of the Carol Water Treatment Plant UV system, including: facility start-up testing, contractor over sight, technical support and enhancements of the system when contractors work was complete.
- Responsible for the implementation of the UV SCADA network
- Wrote monthly/weekly report for Western Scada Group.
- Created SCADA network configuration drawing using AutoCAD.
- Part of the SCADA on-call crew rotation.

Massachusetts Water Resources Authority, Southborough MA

01/98 - 07/01

Senior Controls & Monitoring Engineer

Responsible for maintaining and enhancing the SCADA system for the MWRA western water department. Specific duties include:

- Developed the programming, database, and HMI's prototype system for the Water Quality Censar's project.
- Maintained and modified iFix database as needed.

- Involved with FIX32 to iFIX conversion of SCADA nodes in Water system.
- Involved with MIS department to create a secure means to provide data communication of SCADA data to MIS network for PI server.
- PLC programming Allen Bradley SLC PLC's.
- Maintained master equipment inventory database in Microsoft access
- Involved in development of MWRA SCADA standards. Wrote HMI verification standard.
- Responsible for SCADA system and process controls troubleshooting.
- Maintained and configured SCADA network operation and security devices such as routers, switches, digiconcentrators, network security software, network monitoring software, network antivirus systems.
- SCADA development with Intellution software.
- Creating Process Control Diagrams (P&ID's) that show how field measurement devices and process equipment shall communicate control signals, as discrete and analog inputs/outputs, with Programmable Logic Controllers.

Two-in-One Manufacturing, Nashua NH

02/91 – 01/98

Test Engineer

Responsible for ordering of parts, testing, troubleshooting, and shipping of finished product.

- Build, tested, electromechanical power supply, plc's panel.
- Electronic soldering, assembly, electrical assembly, circuit board soldering.
- Provided technical support for the production division of the manufacturing facility.

Education & Professional Certifications:

BS, Electrical Engineering, Feb, 1991
University of Massachusetts, Lowell, MA

Grade IV Water Treatment License in MA

References:

Dan Tran, MWRA ext. 3667

**MWRA
POSITION DESCRIPTION**

POSITION: Program Manager, SCADA Engineering
PCR #: 5842010
DIVISION: Operations
DEPARTMENT: Field Operations/Operations Support/Metering & Monitoring

BASIC PURPOSE:

Provides supervision and technical support for the Authority's Supervisory Control and Data Acquisition (SCADA) security, networking, process data interfacing with management information systems, and all software control and monitoring aspects of the SCADA system. Is required to be on-call for emergencies twenty-four (24) hours a day, seven (7) days a week.

SUPERVISION RECEIVED:

Works under the general supervision of the Senior Program Manager, SCADA.

SUPERVISION EXERCISED:

Exercises general supervision of SCADA Project Managers and Senior Monitoring & Control Engineers.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages and supervises the design, installation and maintenance of SCADA security including: 1) installing security patches and upgrades to all SCADA PC operating systems, firewalls, security software, and routers; 2) maintaining password controls on SCADA PCs and PLCs; 3) maintaining rules on security devices and software, and monitoring security logs.
- Manages and supervises the design, installation, and maintenance of the Water and Wastewater SCADA networks for PCs and PLCs.
- Manages and supervises the design, installation, and maintenance of the SCADA interface to the Authority's management information system including: 1) managing tags and data collection; 2) maintaining data historian interface servers; and 3) coordinating with MIS staff.
- Coordinates extensively with the other Program Manager SCADA Engineering to make sure that the eastern and western systems remain uniform and that new initiatives are mutually agreed upon.

- Manages and supervises SCADA personnel in the enhancement, expansion, and maintenance of all software aspects of the Authority's SCADA system. This includes: 1) enhancing PLC and HMI programs as needed; 2) overseeing the programming, testing and start-up work of consultants and integrators; 3) insuring strict compliance with software backup schedules; and 4) upgrading the HMI software to more recent releases as needed.
- Supervises the in-house design and installation of new and modified monitoring and control systems including preparation of project scope and P&ID drawing through user interview, the PLC and HMI programming, testing, startup, documentation and training.
- Manages and supervises advanced corrective maintenance of SCADA equipment and systems.
- Prepares technical specifications and budget estimates for SCADA equipment and systems.
- Participates in the development of SCADA standards. Reviews consultant and in-house staff design for conformance to SCADA standards.
- Prepares written and computer generated reports. Oversees daily work schedules of system maintenance and enhancement.
- Manages the creation and maintenance of up to date records and documentation on SCADA network, PC, PLC, and security installations.
- Oversees the management of the SCADA tag databases and the coordination of any necessary changes.
- Motivates, assists and trains staff in the development and troubleshooting of SCADA hardware and software.
- Monitors and reports on staff productivity and utilization. Recommends and institutes improvements on same.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Four (4) year college program in Electronic/Electrical Engineering or a related field; and

- (B) Seven (7) to nine (9) years experience in the design, installation, operation and maintenance of SCADA systems of which three (3) to five (5) years should be in a supervisory capacity and four (4) of which should be in a water or wastewater related industry; and
- (C) Five (5) to seven (7) years of ladder logic and HMI programming experience.
- (D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills, and Abilities:

- (A) Working knowledge of cyber security as it relates to SCADA systems
- (B) Thorough working knowledge of Ethernet, routers, switches, servers, firewalls, personal computers and Windows 7.
- (C) Working knowledge of EIA RS-232, RS-422, RS-485, V.35, X.25, and other communications signaling standards and protocols.
- (D) Ability to test and troubleshoot to the component level using a variety of electronic test equipment as well as computer driven diagnostics.
- (E) Familiarity with both waterworks and wastewater treatment and distribution/collection systems.
- (F) Thorough knowledge of electrical/electronic wiring practices.
- (G) Demonstrated ability to plan, organize, direct, train and assign duties to subordinates.
- (H) Demonstrated interpersonal, written, and verbal communication skills.
- (I) Working knowledge of AutoCad or equivalent CAD design program, spreadsheet, and database programs.

SPECIAL REQUIREMENTS:

Vendor training certification in at least one of the following disciplines: HMI Software, PLC Programming Software, MSCE, or Cisco.

A valid Massachusetts Grade II Drinking Water Distribution or Treatment license or a Grade II Wastewater Collection System certification, or a Grade III Wastewater Treatment Plant license or the ability to obtain one of the above within six (6) months.

A valid Massachusetts Drivers License required.

Ability to obtain a FCC General Radiotelephone Operators License within six (6) months.

Successful completion of Confined Space training with MWRA certification within six (6) months of employment.

Security certification such as CISSP or GIAC is desirable.

TOOLS AND EQUIPMENT USED:

Electronic test equipment, computers, PLCs, hand tools, climbing and fall retrieval equipment, mobile radio, etc.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee occasionally is required to sit, stand, and walk. The employee is frequently required to climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance, color vision, peripheral vision, depth perception, and the ability to adjust focus.

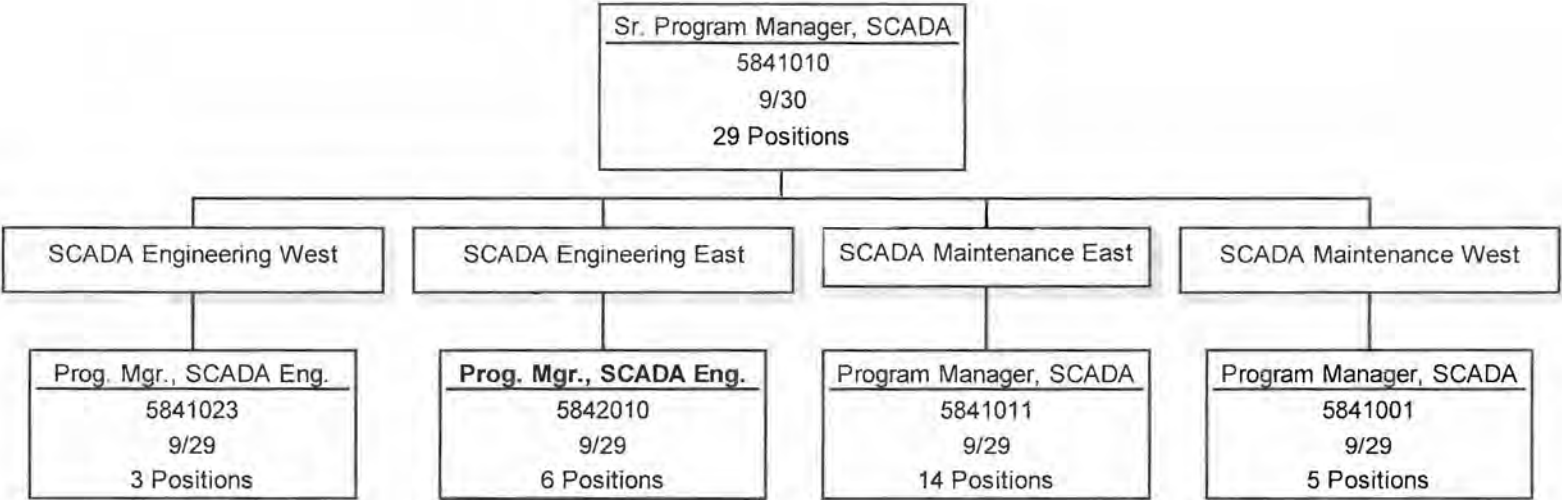
WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.


While performing the duties of this job, the employee regularly works in an office environment. The employee occasionally works in outside weather conditions. The employee occasionally works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock. The noise level in the work environment is usually loud in field settings, and moderately quiet in office settings.

SCADA Program

June 2014



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: Appointment of Construction Coordinator
Engineering and Construction Department

COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Robert G. Donnelly, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Corinne M. Barrett, Director of Construction
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Jeremiah Sheehan, Principal Civil Engineer (Unit 9, Grade 25) to the position of Construction Coordinator (Unit 9, Grade 30) in the Engineering & Construction Department, at an annual salary of \$99,462.06, commencing on June 28, 2014.

DISCUSSION:

As a result of a number recent retirements and promotions, there are currently four vacant Construction Coordinator positions in the Engineering and Construction Department. The Construction Coordinators report to the Assistant Director, Construction, and manage all aspects of MWRA's construction projects, which include the rehabilitation and improvement of MWRA's water and wastewater facilities and pipelines. Construction Coordinators take the lead role in all communication with contractors and design engineers in negotiating change order costs and determining the reasons and necessity for the changes, and in general, ensure that MWRA's best interests are served during the construction of any project. Construction Coordinators also perform constructability reviews of construction plans and specifications prior to bid. Additional responsibilities include supervision of field engineers and assignment of projects, evaluation of performance and staff development, and provision of technical and administrative assistance as required to staff assigned to the construction projects.

Selection Process

At this time, staff recommend that two of the four vacant Construction Coordinator positions be filled. Both positions were posted internally because there was a sufficient number of potential candidates from within MWRA's workforce who met the requirements of the positions. In total, eleven candidates applied for the positions and seven were determined to have met the minimum

qualifications. Senior staff from Engineering and Construction and MWRA's Affirmative Action and Compliance Unit interviewed all seven candidates and determined that Mr. Jeremiah Sheehan was one of the two most qualified candidates based on his combination of education, experience, abilities, and knowledge. (A separate staff summary being presented at this meeting recommends the appointment of the other Construction Coordinator position, selected from the same pool of interviewed candidates.)

Mr. Sheehan has 30 years of construction experience, including 24 years with MWRA. He began his employment at MWRA in 1990 as a Senior Civil Engineer. Since that time, Mr. Sheehan has actively participated in the successful completion of a number of MWRA projects, including the Pelletizing Plant in Quincy, Boston Low Spot Pond Rehabilitation, Spot Pond East and West Pipelines, Section 97A Water Main Extension, the Deer Island Wind Turbine, and the Hultman Aqueduct Interconnections project. Mr. Sheehan is currently working on the Storm Pump, Gear Box, and Diesel Engine Upgrade at Prison Point and Cottage Farm CSO Facilities.

In December 2010, Mr. Sheehan was promoted to Principal Civil Engineer. His responsibilities have included overseeing the work of contractors and consultants, regular attendance at contractor progress meetings in the field, supervision of field inspectors, ensuring close coordination with MWRA Operations staff and senior management on construction issues, and ensuring that all construction work is performed in accordance with contract specifications. He has successfully demonstrated the ability to manage multiple projects. Mr. Sheehan has demonstrated good leadership skills and has earned the respect of his supervisors and colleagues.

Mr. Sheehan earned a Bachelor of Science Degree in Civil Engineering from Northeastern University and he has successfully completed various courses in construction health and safety training.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Division's FY15 Current Expense Budget for this position. The recommended salary is in accordance with guidelines established in Unit 9's collective bargaining agreement for promotional increases.

ATTACHMENTS:

- Resume of Jeremiah Sheehan
- Position Description
- Organizational Chart

JERRY SHEEHAN

QUALIFICATION SUMMARY

Accomplished Engineer with over 20 years experience specifically related to water and wastewater construction projects. Solid construction management capabilities including ability to manage personnel, negotiate with contractors, validate and process construction claims including involvement in the litigation process, review of periodic and final contractor payment requisitions, interface and coordinate with town, city, state and federal agencies, as well as other MWRA Departments. Knowledge of the Massachusetts General Laws and OSHA Regulations pertaining to construction, and adept computer skills for generating reports, schedules and other tasks assigned.

EXPERIENCE

MASSACHUSETTS WATER RESOURCES AUTHORITY 1990 - present

Senior Civil Engineer/Principal Civil Engineer

- Pump, Gear Box and Diesel Engine Upgrade @PP/CF: (\$6M) Principal engineer responsible for rehabilitation of pumps, gear boxes and engines at Cottage Farm and Prison Point CSO Facilities in Cambridge.
- Hultman Aqueduct Interconnections: (\$50M) Project manager for installation of interconnections with MetroWest Water Supply Tunnel and Hultman Aqueduct and rehabilitation/repair of the existing Hultman Aqueduct from Weston to Southborough.
- Medford Section 18, 50 & 51 Rehabilitation: (\$5M) Project manager for installation of new water pipeline and rehabilitation of approximately 15,000 linear feet of existing 20-48 inch water transmission lines with new cement lining.
- Deer Island Furnish & Install (2) 600W Wind Turbine Generators: (\$4 M): Resident Engineer during installation of two wind turbine generators at Deer Island Treatment Facility.
- East Boston 97A Water Main Extension: (\$1.75 M): Project manager during installation of 3,000 linear feet of new water main pipeline along Bennington St.
- Spot Pond Supply Main Rehabilitation: (\$12 M): Project manager during rehabilitation of approximately 45,000 linear feet of existing 48-inch water transmission lines with new cement lining.
- Boston Low Service Rehabilitation: (\$12 M): Project manager during rehabilitation of approximately 45,000 linear feet of existing 48-inch water transmission lines with new cement lining.
- Framingham Extension Relief Sewer Rehab: (\$12 M): Project manager during sewerage bypass and rehabilitation of approximately 14,000 linear feet of existing 48-inch sewer interceptor.
- Sludge Processing Facility Expansion: (\$22 M): Project manager during rehabilitation of existing sludge processing system and installation of new computerized process.

- Electrical Upgrade at Headworks Facilities: (\$1.2 M): Project manager during electrical upgrade of motor control centers, generators and automation of existing sewerage facilities.
- Framingham Extension Relief Sewer: (\$6M): Project manager during installation of approximately 25,000 linear feet of new sewerage force main (36") through downtown Natick.
- Squantum Force Main Rehabilitation: (\$2M): Project manager during sewerage bypass and rehabilitation of approximately 4,575 linear feet of existing force main.
- Bremen Street Siphon Replacement: (\$700K): Project manager during replacement of sewer siphon underneath MBTA transit blue line.
- Wellesley Extension Sewer Replacement (\$2M): Assistant project manager during installation of approximately 7,000 linear feet of new water and sewer lines.

WHITMAN & HOWARD (H2O Engineering)

1986-1990

Construction Inspector

- Nantucket, MA: Responsible for construction inspection during installation of new wastewater treatment facility.
- North Attleborough, NH: Responsible for construction inspection during installation of 21 MGD sewerage pumping station.
- North Attleborough, NH: Responsible for construction inspection during installation of 20,000 linear feet of water main and sewer lines
- Portsmouth, NH: Responsible for construction inspection during installation of 27,000 linear feet of water main and sewer lines as well as installation of three 10 MGD sewerage pumping stations.

STONE & WEBSTER (H2O Engineering)

1985-1986

Construction Inspector

- Boston, MA: Responsible for construction inspection during installation of 10,000 linear feet of large diameter (84"-102") sewer interceptor for Boston Water & Sewer Commission.

ASEC ENGINEERING

1984-1985

Construction Surveyor

- Perform survey, computations, and property control for residential as well as large scale highway, bridge and building projects.
- Research of existing survey control at Registry of Deeds and Land Court.

EDUCATION

Bachelor of Science in Civil Engineering, Northeastern University

AFFILIATIONS

American Society of Civil Engineers

SPECIAL TRAINING

OSHA Construction Safety & Health Training
 MWRA Confined Space Training
 OSHA Hazardous Waste – Health & Safety Training

**MWRA
POSITION DESCRIPTION**

POSITION: Construction Coordinator
PCR#: 55250142, 55250146
DIVISION: Operations
DEPARTMENT: Engineering and Construction

BASIC PURPOSE:

Supervises office and field engineers to oversee and manage construction contracts and professional engineering contracts in the construction, rehabilitation, improvements, and start-up of Waterworks and Wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of the Assistant Director, Construction.

SUPERVISION EXERCISED:

Exercises close supervision of office and field employees including professional and technical staff, resident engineers, and inspectors.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees and manages a program of construction projects, including the rehabilitation and improvement of waterworks and wastewater facilities and pipelines.
- Supervises and manages office and field engineers, including assignment of projects, evaluation of performance, and staff development planning. Provides technical and administrative assistance to staff during the construction, startup, and warranty of projects.
- Oversees and directs consultant engineering services and contracts during construction, including all work for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies. Negotiates and reviews construction services in consultant contracts.
- Acts as liaison with engineering, operations, and maintenance staff to ensure the smooth construction and start-up of new or rehabilitated facilities.

- Ensures contractor compliance with construction documents, MWRA procedures and policies, regulatory requirements, and applicable engineering standards.
- Supervises the development and maintenance of construction tracking and reporting procedures. Prepares and updates construction budget and schedule projections.
- Performs constructability reviews of construction plans and specifications.
- Reviews, negotiates, and processes change orders and claims in accordance with MWRA policies and procedures.
- Reviews and processes pay estimates and final payment and construction closeout documents in a timely manner. Oversees preparation and submittal of accurate record drawings upon construction completion.
- Oversees office and field project files, ensuring that all project documentation is complete, up-to-date, and in accordance with MWRA policies and procedures.
- Prepares staff summaries for the Executive Director and Board for construction contract and engineering agreement changes, and project status.

SECONDARY DUTIES:

- Participates in preparing for collective bargaining and hears Step-One grievances.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Completion of a four (4) year college program in civil engineering or a related field; and
- (B) Eight (8) to (10) ten years experience in the construction of water and wastewater facilities and infrastructure, of which four (4) years should be in a supervisory capacity and four (4) years should include a project management experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills, and Abilities:

- (A) Demonstrated ability to work effectively as part of a project team and also to function independently with minimal supervision.
- (B) Knowledge of Massachusetts laws, including MGL Chapter 30 and Chapter 149 construction regulations.
- (C) Familiarity with computer software, such as Word and Excel.
- (D) Excellent interpersonal, managerial, oral, and written communication skills are required.

SPECIAL REQUIREMENTS:

Registration as a Professional Engineer in Massachusetts is preferred.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and frequently required to reach with hands and arms. The employee regularly is required to talk or hear. The employee is occasionally required to walk; stand; climb or balance; stoop, kneel, crouch, or crawl; or sit.

The employee must frequently lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT:

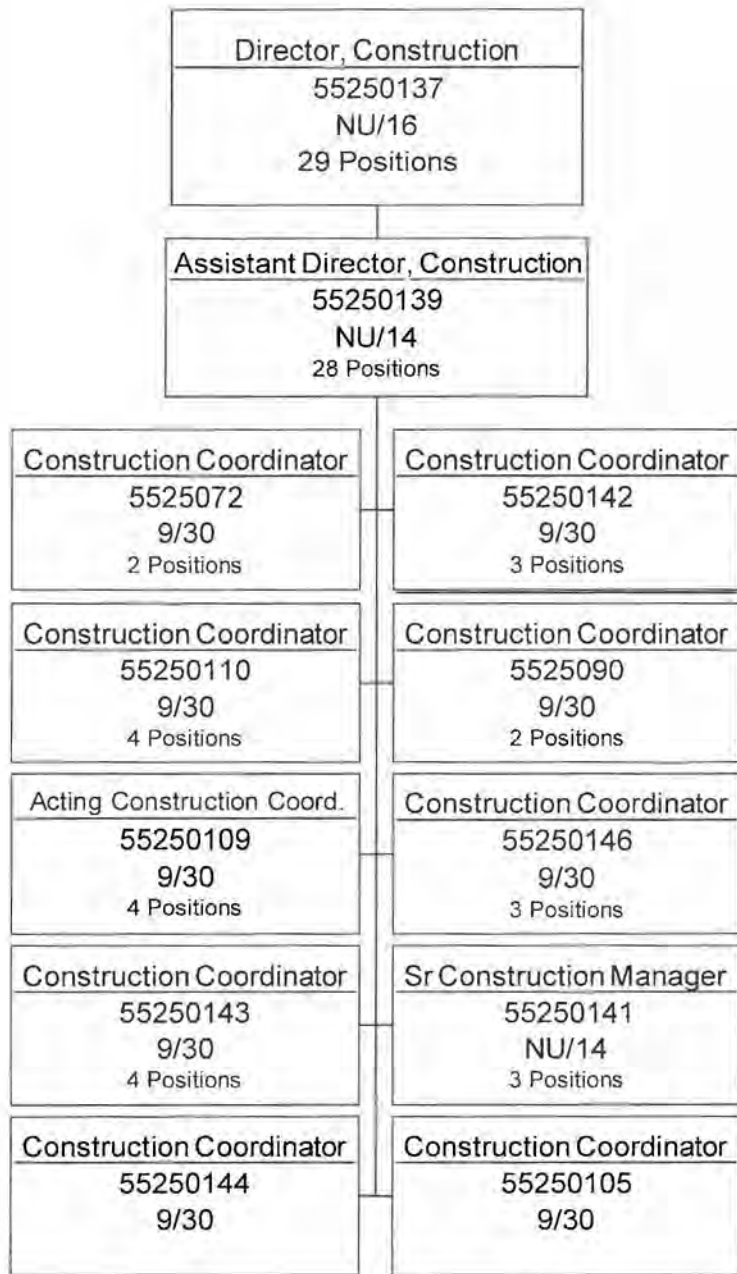
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employees frequently works in outside weather conditions. The employee occasionally works near moving mechanical parts, and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high precarious places and is occasionally exposed to fumes or airborne particles, extreme heat or extreme cold, and the risk of electrical shock.


The noise level in the work environment is usually loud in field settings, and moderately quiet in office settings.

Engineering & Construction
Construction

June 2014



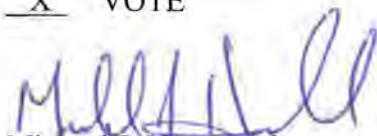
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 25, 2014
SUBJECT: Appointment of Construction Coordinator
Engineering and Construction Department

COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Robert G. Donnelly, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Corinne M. Barrett, Director of Construction
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Terrence Flynn, Project Manager, (Unit 9, Grade 25) to the position of Construction Coordinator (Unit 9, Grade 30) in the Engineering & Construction Department, at an annual salary of \$99,462.06, commencing on June 28, 2014.

DISCUSSION:

As a result of a number recent retirements and promotions, there are currently four vacant Construction Coordinator positions in the Engineering and Construction Department. The Construction Coordinators report to the Assistant Director, Construction, and manage all aspects of MWRA's construction projects, which include the rehabilitation and improvement of MWRA's water and wastewater facilities and pipelines. Construction Coordinators take the lead role in all communication with contractors and design engineers in negotiating change order costs and determining the reasons and necessity for the changes, and in general, ensure that MWRA's best interests are served during the construction of any project. Construction Coordinators also perform constructability reviews of construction plans and specifications prior to bid. Additional responsibilities include supervision of field engineers and assignment of projects, evaluation of performance and staff development, and provision of technical and administrative assistance as required to staff assigned to the construction projects.

Selection Process

At this time, staff recommend that two of the four vacant Construction Coordinator positions be filled. Both positions were posted internally because there was a sufficient number of potential candidates from within MWRA's workforce who met the requirements of the positions. In total, eleven candidates applied for the positions and seven were determined to have met the minimum

qualifications. Senior staff from Engineering and Construction and MWRA's Affirmative Action and Compliance Unit interviewed all seven candidates and determined that Mr. Terrence Flynn was one of the two most qualified candidates based on his combination of education, experience, abilities, and knowledge. (A separate staff summary being presented at this meeting recommends the appointment of the other Construction Coordinator position, selected from the same pool of interviewed candidates.)

Mr. Flynn began his career with MWRA in 1991 and has more than 23 years of experience in the operation, design, and construction of MWRA's water and wastewater systems. He is currently a Project Manager in the Operations Support Unit, where he acts as the Field Operation Department's liaison on capital and in-house construction projects coordinating a wide variety of operational, engineering, and construction issues from conceptual design through completion of construction, and warranty issues. Mr. Flynn played an important role in the Transport SCADA Implementation Contract, updating the controls at all of MWRA's wastewater facilities. He was also responsible for the development of all the standard operating procedures related to the North Dorchester Bay CSO Facility.

Mr. Flynn's responsibilities have included coordinating shutdowns, scheduling, SCADA and O&M manual reviews, training and start-up activities, and construction submittal reviews. He has successfully demonstrated the ability to manage multiple projects, demonstrated good leadership skills, and has earned the respect of his supervisors and colleagues.

Mr. Flynn holds a Bachelor of Science Degree in Civil/Environmental Engineering from Worcester Polytechnic Institute and is a registered Professional Civil Engineer. He has also completed several other licenses and training courses during his tenure at MWRA.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the Operations Division's FY15 Current Expense Budget for this position. The recommended salary is in accordance with guidelines established in Unit 9's collective bargaining agreement for promotional increases.

ATTACHMENTS:

Resume of Terrance Flynn
Position Description
Organizational Chart

TERRENCE FLYNN, P.E.

WORK EXPERIENCE

MASSACHUSETTS WATER RESOURCES AUTHORITY

Project Manager, Operation Support 2011-Present

Coordinating water and wastewater design and construction contracts for Field Operations, including pipeline shutdowns, scheduling issues, SCADA and O&M manual review, training and start-up activities and construction submittal review. These projects include: Headworks Modifications, NI Grit and Screenings and Electrical, Alewife Brook PS Rehabilitation, Alewife Brook CSO Improvements, Cottage Farm and Prison Point Upgrades, DeLauri Pump Station Upgrades and numerous pipeline contracts.

Assisted with the management of the design and construction of all three North Dorchester Bay Facility Contracts dealing with all operational issues, Facility Manual preparation, SOP development, training, testing, start up and warranty issues.

Developing Operation Plans for the shutdowns of Authority water distribution mains and facilities for Construction Projects and In-House work, including pipeline and station isolations, flow and pressure monitoring.

Utilize SCADA and PI to monitor ongoing operations and/or evaluate possible impacts of future construction activities.

Senior Engineer, Operation Support 2006-2011

Assisted with the management of the design and construction of the Wastewater Transport SCADA Implementation Program including budget, document review, equipment procurement, and coordination of operational issues.

Coordinated operational issues for the recent construction projects including: Hingham Pump Station Isolation Gate, EBBS Micro-tunneling and Pipe Bursting and the Cottage Farm Connection.

Acted as Responsible Person in the EOC and at the Carroll Water Treatment Plant for planned and emergency overnight operations for both Water and Wastewater incidents.

Developed traffic safety plans for water and wastewater metering sites.

Senior Engineer, In-House Design Group 2000-2006

Completed design and engineering services during construction for large water valve and meter replacement contracts and wastewater pipeline rehabilitation contracts including project development and scheduling, plan and specification preparation, community meetings, cost estimates, bid review, and management of consultants on a Task Order Basis.

Managed a consultant's design of the water quality laboratory in the MWRA facility in Chelsea MA and participated on consultant selection committees to procure consultant design services for other MWRA projects.

Worked as part of the interceptor renewal task team to prioritize future wastewater pipeline projects and review wastewater pipeline rehabilitation methods and design projects.

Completed Conceptual Design and Preliminary Design Reports and processed numerous staff summaries for water and wastewater projects.

Project Engineer, Consultant Management 1998-2000

Assisted in the management of consultant's designs of pipeline improvement and replacement projects in the Northern Extra High and Southern Extra High systems including review of plans and specifications, conducting community/agency meetings, project scheduling and permitting issues.

Assisted in the development of conceptual design and Scope of Services for the Southern Spine Distribution Mains pipeline rehabilitation projects.

Staff Engineer, Sewage Facilities Development 1994-1998

Acted as MWRA resident engineer on community sewer rehabilitation projects funded through the MWRA I/I Local Financial Assistance Program.

Estimated community wastewater flow components used in the MWRA sewer rates calculation.

Senior Engineering Aide, Transport 1991-1994

Assisted in all aspects of managing the wastewater metering systems; including staff management, equipment procurement, budget preparation, data management and interpretation, calibration and maintenance of wastewater flow meters, and personnel training and equipment purchasing including wastewater meters, hydrogen sulfide meters, telogs and safety equipment.

Installed temporary wastewater flow meters and completed data acquisition and manipulation to assist other departments and communities with wastewater studies.

EDUCATION

Worcester Polytechnic Institute, Worcester Massachusetts
B.S. Civil/Environmental Engineering, May 1990

REGISTRATIONS/CERTIFICATIONS

Registered Professional Engineer – Civil #40088
Grade 4D Drinking Water Distribution License
Grade 6 Wastewater Treatment Plant Operator
Grade 2 Wastewater Collections System
Massachusetts Licensed Soil Evaluator
FEMA - ICS 700-NIMS, ICS 100, and IS-00200 Certification
MWRA Emergency Response Plan Training – Modules 1-4, 2013

**MWRA
POSITION DESCRIPTION**

POSITION: Construction Coordinator

PCR#: 55250142, 55250146

DIVISION: Operations

DEPARTMENT: Engineering and Construction

BASIC PURPOSE:

Supervises office and field engineers to oversee and manage construction contracts and professional engineering contracts in the construction, rehabilitation, improvements, and start-up of Waterworks and Wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of the Assistant Director, Construction.

SUPERVISION EXERCISED:

Exercises close supervision of office and field employees including professional and technical staff, resident engineers, and inspectors.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees and manages a program of construction projects, including the rehabilitation and improvement of waterworks and wastewater facilities and pipelines.
- Supervises and manages office and field engineers, including assignment of projects, evaluation of performance, and staff development planning. Provides technical and administrative assistance to staff during the construction, startup, and warranty of projects.
- Oversees and directs consultant engineering services and contracts during construction, including all work for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies. Negotiates and reviews construction services in consultant contracts.
- Acts as liaison with engineering, operations, and maintenance staff to ensure the smooth construction and start-up of new or rehabilitated facilities.

- Ensures contractor compliance with construction documents, MWRA procedures and policies, regulatory requirements, and applicable engineering standards.
- Supervises the development and maintenance of construction tracking and reporting procedures. Prepares and updates construction budget and schedule projections.
- Performs constructability reviews of construction plans and specifications.
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- Oversees office and field project files, ensuring that all project documentation is complete, up-to-date, and in accordance with MWRA policies and procedures.
- Prepares staff summaries for the Executive Director and Board for construction contract and engineering agreement changes, and project status.

SECONDARY DUTIES:

- Participates in preparing for collective bargaining and hears Step-One grievances.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Completion of a four (4) year college program in civil engineering or a related field; and
- (B) Eight (8) to (10) ten years experience in the construction of water and wastewater facilities and infrastructure, of which four (4) years should be in a supervisory capacity and four (4) years should include a project management experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills, and Abilities:

- (A) Demonstrated ability to work effectively as part of a project team and also to function independently with minimal supervision.
- (B) Knowledge of Massachusetts laws, including MGL Chapter 30 and Chapter 149 construction regulations.
- (C) Familiarity with computer software, such as Word and Excel.
- (D) Excellent interpersonal, managerial, oral, and written communication skills are required.

SPECIAL REQUIREMENTS:

Registration as a Professional Engineer in Massachusetts is preferred.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and frequently required to reach with hands and arms. The employee regularly is required to talk or hear. The employee is occasionally required to walk; stand; climb or balance; stoop, kneel, crouch, or crawl; or sit.

The employee must frequently lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT:

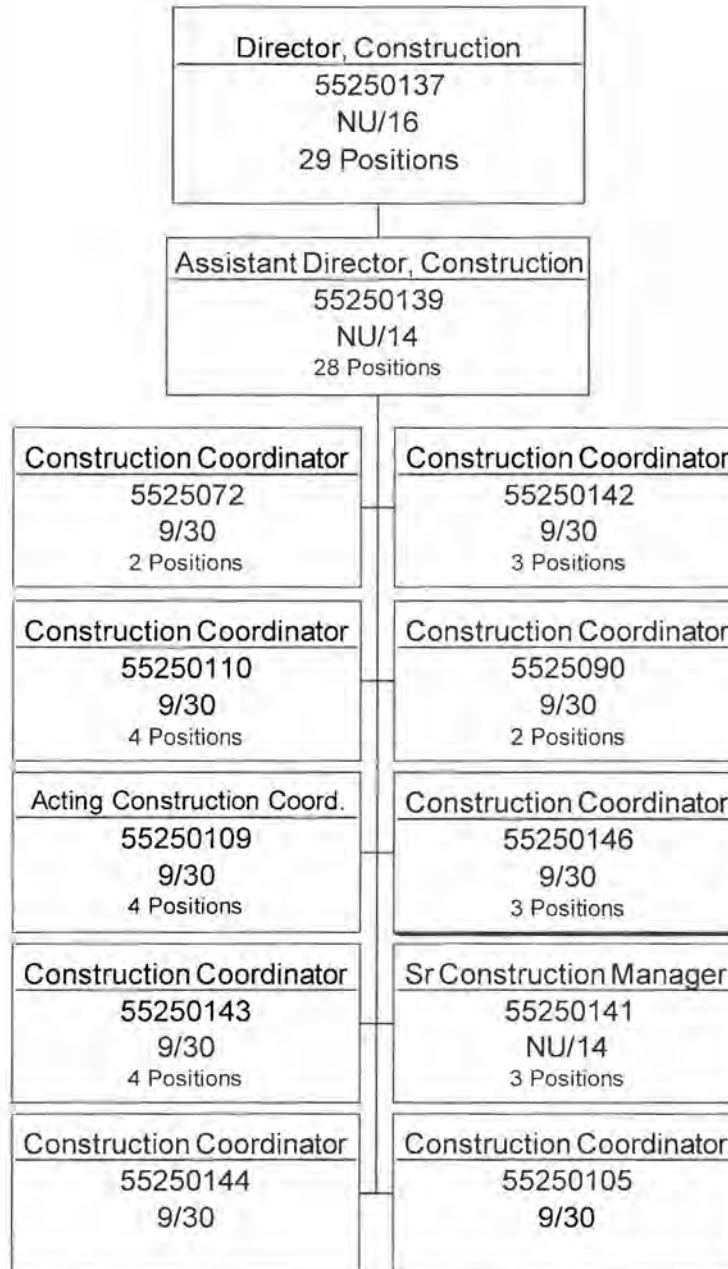
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While performing the duties of this job, the employees frequently works in outside weather conditions. The employee occasionally works near moving mechanical parts, and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high precarious places and is occasionally exposed to fumes or airborne particles, extreme heat or extreme cold, and the risk of electrical shock.

The noise level in the work environment is usually loud in field settings, and moderately quiet in office settings.

**Engineering & Construction
Construction**

June 2014





MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

BOARD OF DIRECTORS' MEETING

to be held on

Wednesday, June 25, 2014

Location: 100 First Avenue, 2nd Floor
Charlestown Navy Yard
Boston, MA 02129

Time: 1:00 p.m.

AGENDA

- I. **APPROVAL OF MINUTES**
- II. **REPORT OF THE CHAIR**
- III. **REPORT OF THE EXECUTIVE DIRECTOR**
- IV. **BOARD ACTIONS**
 - A. **Approvals**
 1. Final FY15 Capital Improvement Program (ref. AF&A B.1)
 2. Final FY15 Current Expense Budget (ref. AF&A B.2)
 3. Final FY15 Water and Sewer Assessments (ref. AF&A B.3)
 4. Approval of One New Member of the Wastewater Advisory Committee (ref. WW B.1)
 5. I/I Local Financial Assistance Program Guidelines Revisions (ref. WW B.2)
 6. Stoughton First Amended Water Supply Continuation Agreement (ref. W A.1)
 7. PCR Amendments – June 2014 (ref P&C A.1)

8. Appointment of Program Manager, SCADA Engineering (ref P&C A.2)
9. Appointment of Construction Coordinator (ref P&C A.3)
10. Appointment of Construction Coordinator (ref P&C A.4)

B. Contract Awards

1. Bond Consulting Engineering Services: CDM Smith Inc., Contract F231 (ref. AF&A C.1)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

- A. Extension of Contract for Executive Director
- B. Extension of Contract for Chief Operating Officer

VII. EXECUTIVE SESSION

A. Real Estate:

1. Contract No. 7448 - Pipeline Rehabilitation, Arlington and Medford - Approval of Order of Taking
2. Authorization to Surplus Property Located in Fore River Shipyard, Quincy

B. Litigation:

1. Authorization to Settle Dispute with NSTAR Re: Costs of Protection of the Deer Island Cross-Harbor Electric Cable
2. MWRA Entry Upon Private Property - Cambridge CSO Contract

VIII. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

June 4, 2014

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on June 4, 2014 at the Authority headquarters in Charlestown. Vice-Chair Carroll presided. Present from the Board were Ms. Wolowicz and Messrs. Barrera, Cotter, Flanagan, Pappastergion, Swett, Vitale and Walsh. Messrs. Foti and Sullivan were absent. Among those present from the Authority staff were Frederick Laskey, Executive Director, Steven Remsberg, General Counsel, Michael Hornbrook, Chief Operating Officer, Rachel Madden, Director of Administration and Finance, Robert Donnelly, Director of Human Resources, John Vetere, Deputy Chief Operating Officer, David Duest, Director of Deer Island Treatment Plant, and Bonnie Hale, Assistant Secretary. The meeting was called to order at 1:00 p.m.

APPROVAL OF MINUTES

Upon a motion duly made and seconded, it was

Voted to approve the minutes of the Board of Directors' meeting of May 14, 2014, as presented and filed with the records of the meeting.

REPORT OF THE CHAIRMAN

Vice-Chairman Carroll introduced incoming Chair Maeve Bartlett, who will be replacing Chairman Sullivan effective June 9, 2014. Ms. Bartlett said she was looking forward to her new responsibilities, and observed the meeting from the audience.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported on various matters, including the repair of the CVA Shea Avenue leak, the Deer Island Treatment Plant's receipt of the NACWA Platinum Peak Performance Award for the seventh year in a row, and the ongoing momentum of the aqueduct trails program.

BOARD ACTIONS

APPROVALS

MWRA FY15 Insurance Program Renewal

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to award to the lowest eligible and responsive bidders, insurance policies, bonds and contracts for services for MWRA's FY15 Insurance Program, for the period beginning July 1, 2014, through June 30, 2015, for the premiums and fees described below, and incorporated by reference for the record, for a total program amount not to exceed \$1,668,684:

(1) Workers' Compensation Excess Policy with New York Marine Insurance Co. submitted by broker Willis of Massachusetts, with a \$25 million limit and a \$500,000 self-insured retention, for a premium of \$146,016;

(2) Property Policy (including Boiler & Machinery coverage) with FM Global Insurance Co., with various limits of coverage with a \$2.5 million self-insured retention, for a premium of \$725,197;

(3) General Liability Policies (including Automobile Liability, Marine Liability, Wharfingers, and Employment Practice Liability) with C.V. Starr/Civic Risk Insurance companies submitted by broker William Gallagher Associates, with a \$25 million limit and a \$2.5 million self-insured retention, for a premium of \$357,118;

(4) Excess Liability Policies with insurance companies to be determined and submitted by broker William Gallagher Associates, providing a combined total of \$75 million of excess liability coverage for a total combined premium not to exceed \$300,000;

(5) Public Official's Liability Policy with ACE USA Insurance Co., submitted by broker William Gallagher Associates, with a \$5 million limit and a \$1 million deductible, for a premium of \$47,187;

(6) Fiduciary Liability Policy with AXIS Insurance Co., submitted by broker William Gallagher Associates, with a \$5 million limit and a \$1 million deductible, for a premium of \$10,902;

(7) Public Official's/Crime Bond with The Hartford Insurance Co., submitted by broker William Gallagher Associates, with a \$1 million limit and a \$25,000 deductible for a premium (including commission) of \$6,714;

(8) Treasurer's Bond with a \$1 million limit with a vendor to be determined in an amount not to exceed \$3,300, with a one year term beginning 2/5/15; and

(9) Broker contracts with William Gallagher Associates for an amount of \$57,000 and with Willis of Massachusetts for an amount of \$15,250, with a term beginning from notice of award through June 30, 2015.

Wastewater Advisory Committee Contract

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a contract, substantially in the form presented and filed with the records of the meeting, with the Wastewater Advisory Committee for a term of one year, from July 1, 2014 to June 30, 2015, for a total contract cost of \$65,689.

Water Supply Citizens Advisory Committee Contract

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a contract, substantially in the form presented and filed with the records of the meeting, with the Water Supply Citizens Advisory Committee for a one-year period beginning July 1, 2014, with a total contract cost of \$97,580.

Emergency Water Supply Agreement with Town of Hudson

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a six-month Emergency Water Supply Agreement with the Town of Hudson, substantially in the form presented and filed with the records of the meeting,

Local Water System Assistance Program – Approval of Water Loan Program Guidelines Revision for Town of Winthrop

Upon a motion duly made and seconded, it was

Voted to approve a one-time exemption to the Program Guidelines for the Local Water System Assistance Program to waive the annual allocation restriction for the Town of Winthrop to allow the Town to borrow up to its entire \$2,287,000 remaining water loan allocation.

PCR Amendments – June 2014

Upon a motion duly made and seconded, it was

Voted to approve amendments to the Position Control Register, as presented and filed with the records of the meeting.

Appointment of Assistant Director, Construction

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Ms. Eleanor Duffy (Unit 9, Grade 30) to the position of Assistant Director of Construction, Operations Division (Non-Union, Grade 14), at an annual salary of \$121,431, commencing on June 9, 2014.

Appointment of Manager of Treatment and Transmission

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Bradley J. Palmer (Non-Union, Grade 14) to the position of Manager, Treatment and Transmission, Operations Division, (Non-Union, Grade 14), at an annual salary of \$121,431, commencing on June 9, 2014.

Appointment of Senior Sampling Associate, Toxic Reduction and Control

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Thomas J. Coffey (Unit 9, Grade 23) to the position of Senior Sampling Associate, Toxic Reduction and Control (Unit 9, Grade 25), at an annual salary of \$92,567.13, commencing on June 9, 2014.

Appointment of Senior Staff Engineer, Structural

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Mr. Bhikhubhai S. Khalifa, P.E. to the position of Senior Staff Engineer, Structural (Unit 9, Grade 25), at the recommended salary of \$92,567.13, to be effective on the date designated by the Executive Director.

CONTRACT AWARDS

DRAFT

Janitorial Services at Janitorial Services at MWRA's Western Facilities: S.J. Services, Inc., WRA-3848Q

Upon a motion duly made and seconded, it was

Voted to approve the award of Contract WRA-3848Q, Janitorial Services at the Carroll Water Treatment Plant, the Southborough Complex, the Records Center, and the Carroll Water Treatment Plant Warehouse, to the lowest eligible and responsible bidder, S.J. Services, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute and deliver said contract in an amount not to exceed \$250,608, for a contract term of three years from August 1, 2014 through July 31, 2017, in accordance with State Blanket Contract FAC81.

CONTRACT AMENDMENTS/CHANGE ORDERS

Preliminary Design and Owner's Representative Services for the Spot Pond Storage Facility: Camp Dresser & McKee, Inc., Contract 7233, Amendment 1

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment 1 to extend the term of Contract 7233, with Camp Dresser & McKee, Inc., Preliminary Design and Owner's Representative Services for the Spot Pond Storage Facility, by 28 months to November 22, 2016, and to reallocate unused funds in certain tasks within the contract, with no overall increase in contract amount.

REPORT OF THE EXECUTIVE DIRECTOR (cont'.d)

Mr. Laskey handed out and reviewed the monthly co-digestion status report, and there was general discussion and question and answer.

The meeting adjourned at 1:30 p.m.