



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: (vacant)
Vice-Chair: H. Vitale
Committee Members:
J. Carroll
K. Cotter
J. Foti
A. Pappastergion
J. Walsh

to be held on

Wednesday, June 24, 2015

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

Time: 10:00 a.m.

AGENDA

A. Information

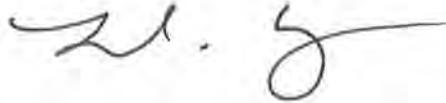
1. Delegated Authority Report – May 2015
2. FY15 Financial Update and Summary as of May 2015

B. Approvals

1. Final FY16 Capital Improvement Program
2. Final FY16 Current Expense Budget
3. Final FY16 Water and Sewer Assessments
4. Town of Stoneham Loan Amendment
5. Memorandum of Understanding with the Town of Winthrop (materials to follow)
6. Memorandum of Understanding with the City of Quincy (materials to follow)
7. Amendment 4 to Memorandum of Understanding with the Department of Public Safety for Electrical Inspections

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Delegated Authority Report – May 2015

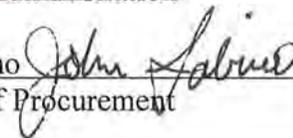


COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE

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


Michele S. Gillen
Director, Administration


John Sabino
Director of Procurement

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, 2015.

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, 2015

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	05/08/15	SOUTH DIKE TREE REMOVAL AT WACHUSETT RESERVOIR AWARD OF CONTRACT TO LOWEST RESPONSIVE BIDDER FOR SOUTH DIKE TREE REMOVAL AT WACHUSETT RESERVOIR FOR A TERM OF 75 CALENDAR DAYS. THE IDEAL CONDITION OF AN EARTHEN DAM IS A MAINTAINED GRASS COVER FREE OF TREES AND WOODY VEGETATION.	OP-274	AWARD	MAYER TREE SERVICE, INC.	\$59,725.00
C-2.	05/08/15	ELECTRICAL EQUIPMENT UPGRADE CONSTRUCTION 4 DEER ISLAND TREATMENT PLANT FURNISH AND INSTALL SIX STAINLESS STEEL THROATS FOR SIX LOAD BREAK SWITCHES TO REPLACE DETERIORATED THROATS. CONDITION OF THE THROATS COULD NOT BE EVALUATED UNTIL THE EQUIPMENT WAS SHUT DOWN AND THE THROATS WERE REMOVED TO TAKE MEASUREMENTS.	6901	1	DAGLE ELECTRICAL CONSTRUCTION CORP.	\$61,610.30
C-3.	05/15/15	STRATEGIES TO MINIMIZE THE ADVERSE IMPACTS OF AN OIL SPILL IN WACHUSETT RESERVOIR ON MWRA'S FINISHED WATER AWARD OF A ONE YEAR SOLE SOURCE CONTRACT TO RESEARCH STRATEGIES TO MINIMIZE THE ADVERSE IMPACTS OF A POTENTIAL OIL SPILL IN WACHUSETT RESERVOIR ON MWRA'S FINISHED WATER.	W310	AWARD	UNIVERSITY OF MASSACHUSETTS/ AMHERST	\$97,568.00
C-4.	05/21/15	WIND TURBINE MAINTENANCE REMOVE AND REPLACE MAIN POWER CABLE AND ASSOCIATED CONNECTIONS AND SUPPORTS WITHIN WIND TURBINE 2, DUE TO AN UNFORESEEN CONDITION.	5525	1	BALDWIN CRANE & EQUIPMENT CORP.	\$31,693.92
C-5.	05/21/15	REHABILITATION OF ANAEROBIC DIGESTERS, PRIMARY CLARIFIERS AND NEW INFLUENT GATES CLINTON WASTEWATER TREATMENT PLANT PERFORM WELDING, SANDBLASTING AND SURFACE COATING ON UNFORESEEN ADDITIONAL HOLES ON THE FLOATING-COVER DIGESTER ROOF.	7277A	6	R.H. WHITE CONSTRUCTION COMPANY, INC.	\$74,931.08
C-6.	05/28/15	WARD STREET HEADWORKS RADIO TOWER DEMOLITION AWARD OF CONTRACT TO LOWEST AND RESPONSIVE BIDDER FOR DEMOLITION OF CONCRETE TOWER SUPPORTING AN INACTIVE MICROWAVE DISH AT THE WARD STREET HEADWORKS FOR A TERM OF 150 CALENDAR DAYS.	OP-267	AWARD	J.R. VINAGRO CORPORATION	\$66,500.00
C-7.	05/28/15	PUMP, GEAR BOX AND DIESEL ENGINE UPGRADE PRISON POINT AND COTTAGE FARM CSO FACILITIES REMOVE AND REPLACE WITH SPARE THEN RETURN TO DELAWARE FOR INSTALLATION OF NEW BEVEL GEARS, FACTORY TEST AND THEN REINSTALL AT PRISON POINT. THE RIGHT-ANGLE GEAR THAT WAS TEMPORARILY USED IN ITS PLACE THEN WILL BE REMOVED AND STORED AS A SPARE PART.	7452	8	IPC LYDON, LLC	\$100,000.00

NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1. 5/6/15	THREE 20-INCH HORIZONTAL GATE VALVES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THREE 20-INCH, HORIZONTAL GATE VALVES. AS A PART OF ITS OVERALL MAINTENANCE AND OPERATION OF THE METROPOLITAN WATER SYSTEM, FIELD OPERATIONS' WATER PIPELINE UNIT REPLACES APPROXIMATELY 20 MAIN LINE VALVES OF VARYING SIZES EACH YEAR. TO ENSURE THAT THE PROPER SIZED VALVE IS ALWAYS AVAILABLE TO MINIMIZE DOWN TIME AND TO BE ABLE TO IMMEDIATELY RESPOND IN THE EVENT OF A SUDDEN BREAK IN SERVICE, VALVES OF VARIOUS DIMENSIONS ARE STOCKED AT THE CHELSEA FACILITY.	WRA-4029Q		HD SUPPLY WATERWORKS	\$32,962.50
P-2. 5/6/15	PLUMBING SUPPLIES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR PLUMBING SUPPLIES FOR THE COTTAGE FARM WASH-DOWN TANKS. THE COTTAGE FARM DETENTION TANKS ARE EQUIPPED WITH A SELF-CONTAINED WASH-DOWN SYSTEM WHICH CONSISTS OF A PIPING NETWORK WITH NOZZLES SPACED AT INTERVALS FOR WASHING DOWN THE TANKS. ALTHOUGH THE FACILITY WAS BUILT IN 1971, AND UPDATED IN 1985 AND 1993 WITH NEW VENTILATION AND HEATING EQUIPMENT, THE WASH-DOWN SYSTEM IS ORIGINAL EQUIPMENT. THERE HAVE BEEN A NUMBER OF LEAKS IN THIS SYSTEM OVER THE RECENT PAST REQUIRING PATCHING, AND THIS PURCHASE WILL BE THE SECOND FOR REPLACEMENT PIPING AND ASSOCIATED VALVES AND FITTINGS, AND WILL COMPLETE THE REPLACEMENT OF THE ENTIRE NETWORK OF THE PIPING FOR THE TANKS AND WET WELL WASH-DOWN SYSTEM.	WRA-4011		F.W. WEBB COMPANY	\$41,681.40
P-3. 5/8/15	ONE DIAGNOSTIC DATA COLLECTOR/MACHINE ANALYZER AWARD OF A SOLE SOURCE PURCHASE ORDER FOR A DIAGNOSTIC DATA COLLECTOR/MACHINE ANALYZER, CUSTOM WORKSHOP TRAINING, AND EQUIPMENT BALANCING SOFTWARE. VIBRATION TESTING AND MONITORING IS AN ESSENTIAL COMPONENT OF DEER ISLAND'S CONDITION MONITORING PROGRAM. IN JULY 2012, DEER ISLAND ACQUIRED TWO NEW AZIMA DLI DATA COLLECTORS, MODEL TRIO CAG, UPGRADING FROM TWO AZIMA DLI WATCHMAN VIBRATION DATA COLLECTOR/ANALYZERS (MODEL DCA 5D) THAT BECAME OBSOLETE. AZIMA DLI NO LONGER OFFERS A SERVICE & SUPPORT AGREEMENT FOR DEER ISLAND'S THIRD REMAINING DATA COLLECTOR, THE DCX MODEL. THEREFORE, STAFF RECOMMENDED THAT IT BE REPLACED WITH AZIMA DLI'S TRIO CX10, WHICH IS NOW THE NEXT GENERATION DATA COLLECTOR WITH EMBEDDED EXPERT ALERT VIBRATION ANALYSIS DIAGNOSTIC SOFTWARE, ALONG WITH THE STANDARD COLLECTOR VIBRATION DATA COLLECTION SOFTWARE THAT IS ALSO USED BY THE CAG DATA COLLECTORS.			AZIMA DLI	\$27,000.00
P-4. 5/15/15	PEST CONTROL SERVICES AWARD OF A TWO YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR PEST CONTROL SERVICES AT THE DEER ISLAND TREATMENT PLANT. PEST CONTROL SERVICES ARE REQUIRED FOR THE ENTIRE DEER ISLAND TREATMENT FACILITY, WHICH COVERS APPROXIMATELY 210 ACRES ON WHICH THERE ARE 17 BUILDINGS AND NUMEROUS UNDERGROUND EQUIPMENT GALLERIES, CROSS-GALLERIES, AND STAIRWELLS. A CONTINUOUS PEST CONTROL PROGRAM IS NECESSARY TO PREVENT THE MIGRATION OF PESTS TO ADJACENT PROPERTIES AND TO SAFEGUARD THE HEALTH OF DEER ISLAND STAFF, CONTRACTORS, AND VISITORS.	WRA-3988Q		FREEDOM PEST CONTROL	\$27,300.00
P-5. 5/15/15	VIBRATION ANALYSIS AND SUPPORT SERVICES AWARD OF A TWO-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE VIBRATION ANALYSIS AND SUPPORT SERVICES TO VARIOUS MWRA FIELD OPERATIONS SITES. AS PART OF ITS OVERALL MAINTENANCE PROGRAM, FIELD OPERATIONS IS BROADENING ITS USE OF VIBRATION ANALYSIS FOR ALL OF ITS ROTATING MACHINERY. VIBRATION ANALYSIS PROVIDES INFORMATION SO THAT STAFF CAN TAKE EARLY CORRECTIVE ACTIONS TO PREVENT FAILURES AND DETERMINE EARLIER WHAT EQUIPMENT IS STARTING TO FAIL SO THAT REBUILDS/REPAIRS CAN BE SCHEDULED PRIOR TO FAILURE.	WRA-3974Q		M & B ENGINEERED SOLUTIONS	\$36,500.00
P-6. 5/15/15	AQUATIC INVASIVE MACROPHYTE SURVEY UPDATE APPROVAL OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR AN AQUATIC INVASIVE MACROPHYTE SURVEY UPDATE AT MWRA/DCR SOURCE AND EMERGENCY RESERVOIRS. MWRA AND THE DEPARTMENT OF CONSERVATION AND RECREATION (DCR) MANAGE TWO LARGE SOURCE RESERVOIRS (QUABBIN AND WACHUSETT), THE WARE RIVER, AND SEVEN EMERGENCY DISTRIBUTION RESERVOIRS. THESE RESERVOIRS HAVE BEEN MONITORED BY DCR AQUATIC BIOLOGISTS AND MWRA CONSULTANTS TO ASSESS AQUATIC PLANT COMMUNITIES AND PRESENCE OF INVASIVE AQUATIC PLANTS. THE MOST RECENT COMPREHENSIVE SURVEYS WERE COMPLETED IN 2014. THE PURPOSE OF THIS CONTRACT IS TO PERFORM UPDATE SURVEYS TO ASSESS AQUATIC PLANT CONDITIONS AND MORE IMPORTANTLY, TO PROVIDE AN EARLY DETECTION OF NEW AQUATIC INVASIVE PLANTS SO THEY CAN BE PROMPTLY ADDRESSED.	WRA-4012		ESS GROUP, INC.	\$61,860.00
P-7. 5/19/15	CRYPTOSPORIDIUM AND GIARDIA TESTING APPROVAL OF A TWO-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR CRYPTOSPORIDIUM AND GIARDIA TESTING. MWRA HAS BEEN MONITORING FOR CRYPTOSPORIDIUM AND GIARDIA IN SOURCE WATERS SINCE 1994. IN AUGUST 2003, EPA PROPOSED THE LONG-TERM 2 ENHANCED SURFACE WATER TREATMENT RULE, WHICH TOOK EFFECT IN OCTOBER 2006. THIS RULE REQUIRES ALL LARGE, SURFACE-WATER-SUPPLIED UTILITIES TO MONITOR FOR CRYPTOSPORIDIUM AND GIARDIA FOR A TWO-YEAR PERIOD, EVERY SEVEN YEARS. EPA'S LONG-TERM 2 ENHANCED SURFACE WATER TREATMENT RULE (LTS) REQUIRES LARGE WATER SYSTEMS ACROSS THE COUNTRY TO CONDUCT A SECOND ROUND OF MANDATORY CRYPTOSPORIDIUM SAMPLING. THIS MANDATORY TESTING, WHICH MUST BE CONDUCTED FOR 24 MONTHS BEGINNING IN APRIL 2015, WILL BE USED BY EPA AND MA DEP TO DETERMINE THE LEVEL OF DISINFECTION FOR CRYPTOSPORIDIUM THAT MWRA MUST ACHIEVE AT ITS WATER TREATMENT PLANTS. DATA GENERATED UNDER THIS CONTRACT NEEDS TO BE CONSISTENT WITH THE REQUIREMENTS OF THE LT2. THIS TESTING REQUIRES SPECIALIZED EQUIPMENT AND TRAINED ANALYSTS. STAFF HAVE DETERMINED THAT IT IS MORE COST EFFECTIVE TO UTILIZE OUTSIDE LABORATORY SERVICES FOR THIS CONTRACT. BECAUSE OF THE COMPLEXITY OF THE TEST PROCEDURES AND THE RELATIVELY SMALL NUMBER OF SAMPLES, MWRA STAFF DO NOT RECOMMEND DEVELOPING IN-HOUSE TESTING CAPABILITY. STAFF RECOMMEND THAT A SINGLE CONTRACT BE AWARDED TO COVER THE MANDATORY TWO-YEAR COMPLIANCE TESTING PERIOD.	WRA-4030Q		ANALYTICAL SERVICES, INC.	\$61,054.00

PURCHASING DELEGATED AUTHORITY ITEMS - May 1 - 31, 2015

NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-8.	5/22/15 30 GLASS-LINED PLUG VALVES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 30 GLASS-LINED PLUG VALVES FOR THE DEER ISLAND TREATMENT PLANT. THE PRIMARY SLUDGE LINES AT THE DEER ISLAND TREATMENT PLANT CARRY PUMPED SETTLED SOLIDS, OR SLUDGE, FROM THE PRIMARY TANKS TO THE RESIDUALS COMPLEX FOR THICKENING, DIGESTION, AND FINAL PUMPING TO THE PELLETIZING PLANT IN QUINCY. THE SLUDGE CONTAINS SOLIDS AND GRIT THAT CAN, OVER TIME, ERODE THE INTERIOR GLASS LINING OF THE PIPING AND FITTINGS, WHICH CAN LEAD TO THE VALVE NOT ISOLATING PROPERLY AND LEAKING. CURRENTLY, THERE ARE APPROXIMATELY 25 GLASS-LINED PLUG VALVES THAT WERE ORIGINALLY INSTALLED UNDER THE BOSTON HARBOR PROJECT THAT NO LONGER PROVIDE LEAK FREE ISOLATION. STAFF RECOMMENDED THAT ALL 25 BE REPLACED AND THAT AN ADDITIONAL FIVE PLUG VALVES BE PURCHASED TO HAVE ON HAND FOR IMMEDIATE, AS-NEEDED REPLACEMENTS.	WRA-4022		AQUILLA NEPTUN, LLC.	\$46,080.00
P-9.	5/22/15 FUME HOOD MAINTENANCE AWARD OF A THREE-YEAR, SOLE SOURCE PURCHASE ORDER FOR FUME HOOD MAINTENANCE FOR THE CENTRAL LABORATORY AT DEER ISLAND. FUME HOODS ARE USED TO VENT TOXIC AND NOXIOUS CHEMICAL FUMES OUT OF THE BUILDING. THERE ARE CURRENTLY 28 FUME HOODS IN THE LAB THAT WOULD BE INCLUDED IN THIS CONTRACT. THE CENTRAL LABORATORY'S FUME HOODS ARE CONTROLLED BY A SIEMENS ENVIRONMENTAL CONTROL SYSTEM THAT IS INTEGRATED WITH THE HVAC CONTROLS FOR THE ENTIRE ADMINISTRATION/LABORATORY BUILDING. SIEMENS HAS BEEN PREVIOUSLY ESTABLISHED AS THE SOLE-SOURCE VENDOR FOR THE FUME HOOD CONTROLS SINCE THE CENTRAL LABORATORY OPENED IN 1995. SIEMENS IS STILL THE ONLY FIRM THAT CAN PROVIDE HIGHLY-SKILLED SERVICE ENGINEERS, TRAINED AND CERTIFIED TO DIAGNOSE AND REPAIR THE SIEMENS FUME HOOD CONTROLLERS AND MONITORS AND ALSO PROVIDE A GUARANTEED SUPPLY OF SIEMENS PARTS. UNDER THIS CONTRACT, SIEMENS WILL PERFORM AN ANNUAL PREVENTATIVE MAINTENANCE ON EACH FUME HOOD CONTROLLER AND MONITOR, AND WILL EXERCISE ALL OPERATING FUNCTIONS OF THE CONTROLLER TO ENSURE PROPER OPERATION.			SIEMENS INDUSTRY, INC.	\$70,055.00
P-10.	5/22/15 PEST CONTROL SERVICES AWARD OF A TWO-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR PEST CONTROL SERVICES AT VARIOUS FIELD OPERATIONS SITES. MWRA'S FACILITIES ARE TYPICALLY COVERED UNDER CONTINUOUS PEST CONTROL PURCHASE ORDER CONTRACTS TO PREVENT INFESTATIONS OR THE MIGRATION OF PESTS AT EACH LOCATION TO SAFEGUARD THE HEALTH OF MWRA STAFF, CONTRACTORS, AND VISITORS. BID WRA-4027 IS FOR THE FOLLOWING MWRA FACILITIES: THE CHELSEA FACILITY, ALEWIFE BROOK PUMP STATION, DELAURI PUMP STATION, FRAMINGHAM PUMP STATION, BRAINTREE-WEYMOUTH IPS, COTTAGE FARM CSO FACILITY, SOMERVILLE MARGINAL CSO FACILITY, CHELSEA HEADWORKS, COLUMBUS PARK HEADWORKS, WARD STREET HEADWORKS, AND THE NUT ISLAND HEADWORKS. THIS IS THE FIRST TIME ALL OF THESE FACILITIES HAVE BEEN COVERED UNDER A SINGLE CONTRACT.	WRA-4027		A-1 EXTERMINATORS, INC.	\$77,500.00
P-11.	5/26/15 ONE 45-TON, AIR COOLED CHILLER AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE 45-TON, AIR-COOLED CHILLER FOR THE DEER ISLAND TREATMENT PLANT. CHILLERS, SIMILAR TO AIR CONDITIONING UNITS, USE EITHER WATER OR GLYCOL DEPENDING ON LOCATION AS THE COOLING MEDIUM THAT REGULATES AIR TEMPERATURE IN THE BUILDING ON DEER ISLAND THAT COOLS AIR. THE THERMAL/POWER PLANT'S ELECTRIC/VFD ROOM CURRENTLY HAS ONLY ONE CHILLER, INSTALLED ON THE ROOF, WHICH IS USED TO CONTROL THE AIR TEMPERATURE TO PREVENT THE VFD'S FROM OVERHEATING OR SHUTTING DOWN. IT ONLY SUPPLIES COOLING, SO DURING SUMMER MONTHS, THERE IS A HIGH DEMAND BUT DURING WINTER MONTHS DEMAND DECREASES; HEATING IS SUPPLIED BY A SEPARATE SOURCE. THE CHILLER IS ORIGINAL EQUIPMENT INSTALLED UNDER THE BOSTON HARBOR PROJECT. THIS CHILLER IS STILL OPERATIONAL BUT IS IT REQUIRING INCREASINGLY MORE FREQUENT MAINTENANCE AND REPAIR, AND STAFF ARE HAVING DIFFICULTY LOCATING REPLACEMENT PARTS. STAFF HAVE DETERMINED THAT IT IS NO LONGER ECONOMICAL OR EFFICIENT TO CONTINUE TO REPAIR THE UNIT AND RECOMMENDED THAT IT BE REPLACED.	WRA-4014Q		STEBBINS-DUFFY, INC.	\$29,900.00
P-12.	5/28/15 36 POWER QUALITY METERS AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 36 POWER QUALITY METERS FOR THE DEER ISLAND TREATMENT PLANT. DEER ISLAND USES POWER QUALITY METERS TO MONITOR THE CIRCUIT BREAKERS ASSOCIATED WITH THE SWITCHGEAR, AND TO TRANSMIT IMPORTANT OPERATIONAL PARAMETERS SUCH AS ENERGY (KWH), VOLTAGE, AND CURRENT USAGE TO THE PROCESS INSTRUMENTATION AND CONTROLS SYSTEM (PICS). IN TOTAL, THERE ARE APPROXIMATELY 100 POWER QUALITY METERS INSTALLED THROUGHOUT THE PLANT. THE EXISTING METERS WERE ALL INSTALLED IN THE MID-1990S WHEN THE ELECTRICAL DISTRIBUTION SYSTEM WAS FIRST PLACED INTO SERVICE. COMMUNICATION AT SOME FACILITIES ON DEER ISLAND RECENTLY HAS BEEN IMPACTED BY UNRELIABLE POWER QUALITY METERS. REPLACEMENT PARTS FOR THE METERS ARE NO LONGER AVAILABLE FROM THE ORIGINAL EQUIPMENT MANUFACTURERS OR THROUGH THIRD-PARTY VENDORS. THEREFORE, STAFF DEVELOPED A PROJECT TO REPLACE ALL OF THE POWER QUALITY METERS AS PART OF AN ONGOING EFFORT TO ENSURE MAXIMUM RELIABILITY OF DEER ISLAND'S ELECTRICAL DISTRIBUTION SYSTEM. EARLIER THIS SPRING, THE EXECUTIVE DIRECTOR APPROVED THE AWARD OF A SEPARATE PURCHASE ORDER FOR 63 REPLACEMENT POWER QUALITY METERS.	WRA-4024		GRAYBAR ELECTRIC CO., INC.	\$27,515.16
P-13.	5/28/15 MAINTENANCE AND SUPPORT OF SYMANTEC ENTERPRISE VAULT FILE SYSTEM ARCHIVING AND CLEARWELL IDENTIFICATION AND COLLECTION LICENSES APPROVAL OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE MAINTENANCE AND SUPPORT OF THE SYMANTEC ENTERPRISE VAULT FILE SYSTEM ARCHIVING AND CLEARWELL IDENTIFICATION AND COLLECTION LICENSES. LAST YEAR THE MWRA PURCHASED SYMANTEC ENTERPRISE VAULT AND CLEARWELL IDENTIFICATION AND COLLECTION SOFTWARE LICENSES TO IMPLEMENT THE ARCHIVING AND EDISCOVERY SOLUTION FOR THE AUTHORITY. THIS REQUEST IS FOR MAINTENANCE AND SUPPORT OF THOSE LICENSES, FOR THE PERIOD OF MAY 21, 2015 THROUGH MAY 20, 2016.	WRA-4031Q ITS42		SHI INTERNATIONAL, INC.	\$52,571.90

PURCHASING DELEGATED AUTHORITY ITEMS - May 1 - 31, 2015

NO.	TITLE AND EXPLANATION	CONTRACT #	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-14. 5/28/15	ONE 50-KVA UNINTERRUPTIBLE POWER SUPPLY AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE 50-KVA UNINTERRUPTIBLE POWER SUPPLY (UPS) FOR THE NORTH MAIN PUMP STATION AT THE DEER ISLAND TREATMENT PLANT. THE BATTERY RUNTIME OF A TYPICAL UPS IS NOT UNLIMITED AND IS GENERALLY DETERMINED BY THE SIZE OF THE LOAD AND THE CAPACITY OF THE BATTERIES. THERE ARE A NUMBER OF UPS UNITS INSTALLED AT VARIOUS LOCATIONS ON DEER ISLAND. STAFF ROUTINELY EVALUATE THE CONDITION AND CAPACITY OF EACH UPS BATTERY BANK TO ENSURE THAT THEY ARE SUFFICIENTLY VITAL TO DELIVER THE REQUIRED POWER TO THE CRITICAL LOAD WHEN NEEDED. DEER ISLAND'S CURRENT UPS MAINTENANCE PROGRAM PROTOCOL DICTATES THAT UPS UNITS BE REPLACE EVERY TEN YEARS. THE 50-KVA UPS IN THE NORTH MAIN PUMP STATION AT DEER ISLAND IS APPROACHING THE 10-YEAR MARK. THEREFORE, STAFF RECOMMENDED THAT IT BE REPLACED.	WRA-3990		GRAYBAR ELECTRIC CO., INC.	\$57,159.00
P-15. 5/28/15	350 FEET OF N111 GRIT COLLECTOR CHAIN AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR 350 FEET OF N111 GRIT COLLECTOR CHAIN. GRIT COLLECTOR CHAIN IS USED AT THE THREE REMOTE HEADWORKS, CHELSEA CREEK, COLUMBUS PARKS, AND WARD STREET. DURING ROUTINE MAINTENANCE, STAFF INSPECT THE CHAIN AND REPLACE BADLY WORN OR CORRODED SECTIONS AS NEEDED, MOST TYPICALLY IN FIVE FEET, SIX-INCH SECTIONS, EVENLY ON BOTH SIDES OF THE CHANNEL. THE HIGHLY CORROSIVE WASTEWATER AND GRIT CAN ACCELERATE CHAIN DETERIORATION. BID WRA-3982 IS FOR 350 FEET OF N111 GRIT COLLECTOR CHAIN TO REPLENISH THE EXISTING INVENTORY SO THAT THERE IS SUFFICIENT CHAIN ON HAND FOR IMMEDIATE REPLACEMENT IF A CHAIN FAILURE WERE TO OCCUR.	WRA-3982		MOTION INDUSTRIES, INC.	\$61,922.00
P-16. 5/28/15	WEBSense APPLIANCE UPGRADE, MAINTENANCE AND SUPPORT APPROVAL OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR WEBSense APPLIANCE UPGRADE, MAINTENANCE AND SUPPORT FOR A PERIOD OF 36 MONTHS FROM DATE OF EXECUTION AND CONCURRENT WITH EXISTING LICENSES. WEBSense WEB FILTER IS A COMPREHENSIVE AND ACCURATE WEB FILTERING, MONITORING AND REPORTING SOFTWARE PRODUCT THAT HAS BEEN ACTIVELY USED BY THE MWRA SINCE APRIL 2005 TO IMPLEMENT MWRA'S WEB ACCESS POLICY. THIS CONTRACT WILL UPGRADE THE CURRENT PRODUCT FROM WEBSense WEB FILTERING TO WEBSense SECURITY GATEWAY.	WRA-4020		K-LOGIX, LLC	\$64,085.01
P-17. 5/28/15	MAINTENANCE AND SUPPORT FOR PROCESS INFORMATION SOFTWARE APPROVAL OF A ONE YEAR SOLE SOURCE PURCHASE ORDER FOR THE MAINTENANCE AND SUPPORT OF PROCESS INFORMATION SOFTWARE FOR THE PERIOD OF JULY 1, 2015 THROUGH JUNE 30, 2016. 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 REAL TIME DATA. OSI SOFTWARE, INC. IS THE SOLE SOURCE VENDOR FOR SOFTWARE LICENSES AND SUPPORT OF PI SYSTEMS.			OSI SOFTWARE, INC.	\$71,272.50
P-18. 5/28/15	HEWLETT PACKARD EQUIPMENT ANNUAL MAINTENANCE AND SUPPORT APPROVAL OF A PURCHASE ORDER FOR HEWLETT PACKARD EQUIPMENT MAINTENANCE AND SUPPORT CONTRACT FOR THE PERIOD OF JULY 1, 2015 THROUGH JUNE 30, 2016. THE MWRA HAS A COMPREHENSIVE MAINTENANCE AGREEMENT THAT LEVERAGES THE COMMONWEALTH'S BLANKET DISCOUNT PRICING. THE AGREEMENT PROVIDES 24/7 HARDWARE/OPERATING SYSTEM COVERAGE ON CRITICAL SYSTEMS, 4-HOUR AND/OR NEXT DAY SERVICE ON LESS CRITICAL SERVERS, AND TRADITIONAL OPERATING SYSTEM SOFTWARE MAINTENANCE, SECURITY PATCHES AND UPDATES.	ITC47		HEWLETT PACKARD COMPANY	\$135,092.99
P-19. 5/28/15	SEVEN UNINTERRUPTIBLE POWER SUPPLIES AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR SEVEN UNINTERRUPTIBLE POWER SUPPLIES FOR VARIOUS LOCATIONS AT THE DEER ISLAND TREATMENT PLANT. THE BATTERY RUNTIME OF A TYPICAL UPS IS NOT UNLIMITED AND IS GENERALLY DETERMINED BY THE SIZE OF THE LOAD AND THE CAPACITY OF THE BATTERIES. THERE ARE A NUMBER OF UPS UNITS INSTALLED AT VARIOUS LOCATIONS ON DEER ISLAND. STAFF ROUTINELY EVALUATE THE CONDITION AND CAPACITY OF EACH UPS BATTERY BANK TO ENSURE THAT THEY ARE SUFFICIENTLY VITAL TO DELIVER THE REQUIRED POWER TO THE CRITICAL LOAD WHEN NEEDED. DEER ISLAND'S CURRENT UPS MAINTENANCE PROGRAM PROTOCOL DICTATES THAT UPS UNITS BE REPLACE EVERY TEN YEARS. THE TEN-YEAR LIFE CYCLE FOR A UPS RESULTS FROM OBSOLESCENCE OF KEY ELECTRICAL COMPONENTS WITHIN THE UNITS THAT ARE NO LONGER AVAILABLE FROM THE MANUFACTURER OR ITS REPRESENTATIVES. THE AGE AND SIZE OF THESE SEVEN UPS ARE APPROACHING THE TEN-YEAR MARK AND ARE SCHEDULED FOR REPLACEMENT.	WRA-3993		NEEDHAM ELECTRIC SUPPLY	\$148,250.00

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: FY15 Financial Update and Summary

COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


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


Thomas J. Durkin
Director, Finance

RECOMMENDATION:

For information only. This staff summary provides the financial update and variance highlights through May 2015, comparing actual spending to the FY15 Budget, and a year-end projection for the Current Expense Budget.

DISCUSSION:

Total year-to-date expenses are lower than budget by \$6.2 million or 1.0% due to lower direct expenses of \$5.4 million, lower indirect expenses of \$847,000, and higher total revenues of \$2.5 million or 0.4% for a net variance of \$8.7 million.

In line with the Authority's long standing multi-year rate strategy, in May \$3.5 million was transferred to the Defeasance Account mostly as a result of the continued low variable rate environment which brought the year-to-date defeasance account balance to \$17.6 million. In addition to the \$11.9 million variable rate related favorable variance, the defeasance account also includes \$5.7 million as a result of the November 2014 debt refinancing and lower than budgeted State Revolving Fund (SRF) borrowings. Staff projects the balance of the Defeasance Account by year-end at \$26.8 million.

Without the transfer of the \$17.6 million in debt service savings to the Defeasance Account, the total year-to-date favorable budgetary variance through May would have been \$26.3 million.

Beyond debt service savings, staff projects a surplus of approximately \$6.6 million at year-end of which \$4.0 million would be for lower direct expenses mainly as result of conservative budgeting for wages and utilities, both of which are lower than anticipated, \$698,000 for lower indirect expenses, and \$1.8 million for greater than budgeted revenues.

Please refer to Attachment 4 for a more detailed comparison by line item.

Total Expenses were lower than budget by \$6.2 million or 1.0% and total Revenues were higher than budgeted by \$2.5 million or 0.4%.

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

	FY15 Budget (May)	FY15 Actual (May)	\$ Variance	% Variance
Direct Expenses	\$194.7	\$189.4	-\$5.4	-2.8%
Indirect Expenses	\$44.7	\$43.8	-\$0.8	-1.9%
Debt Service	\$375.6	\$375.6	\$0.0	0.0%
Total	\$615.0	\$608.8	-\$6.2	-1.0%

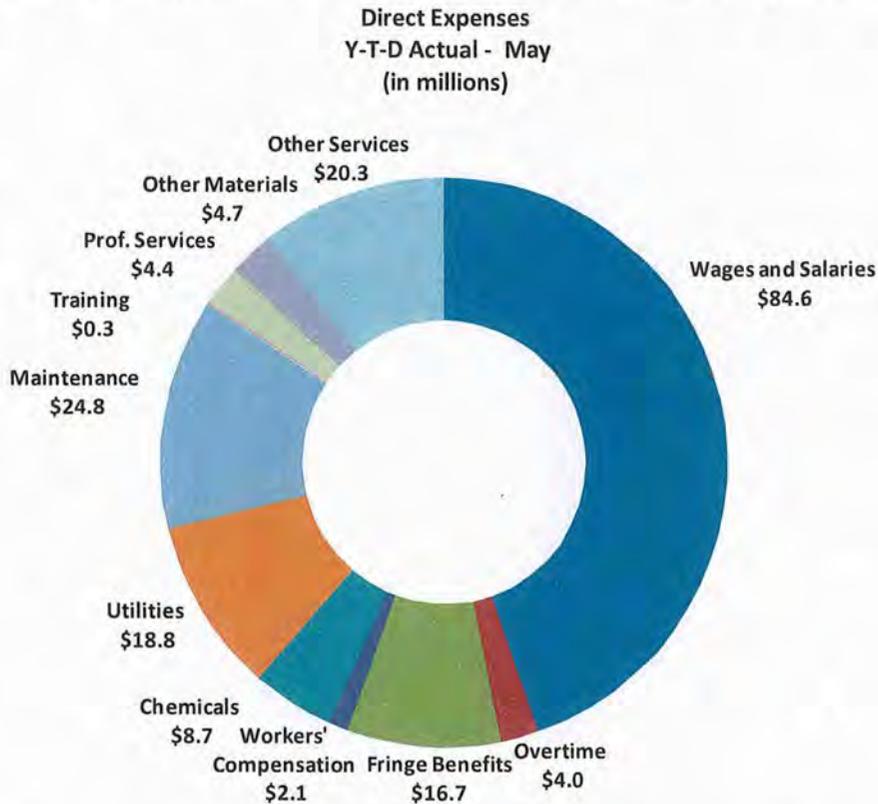
Besides debt service, the largest variances year-to-date are driven by:

- Direct Expenses are lower than budget by \$5.4 million for utilities, wages and salaries, professional services, chemicals, and fringe benefits;
- Indirect Expenses are lower than budget by \$847,000 due to lower PILOT payments, overaccrual of Watershed expenses in FY14, lower Harbor Electric Energy Company (HEEC) payments, and lower Mitigation payments; and
- Revenues exceeding budget by \$2.5 million due to \$995,000 for a prior period adjustment for Watershed related expenses, \$425,000 for the sale of unbudgeted emergency water for the Town of Hudson, \$372,000 payment received for the sale of the Fox Point CSO Facility, \$141,000 for higher permit, monitoring, and penalty fees, \$75,000 reimbursement for Briarwood Rehabilitation Easement project, \$60,000 for the timing of Fore River Railroad Corporation payments, \$55,000 for the timing of antenna license revenue, \$33,000 for the timing of Rutland/Holden payments, and a variety of smaller items totaling approximately \$313,000.

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

Direct Expenses

Direct expenses total \$189.4 million, \$5.4 million or 2.8% lower than budgeted.



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

Utilities

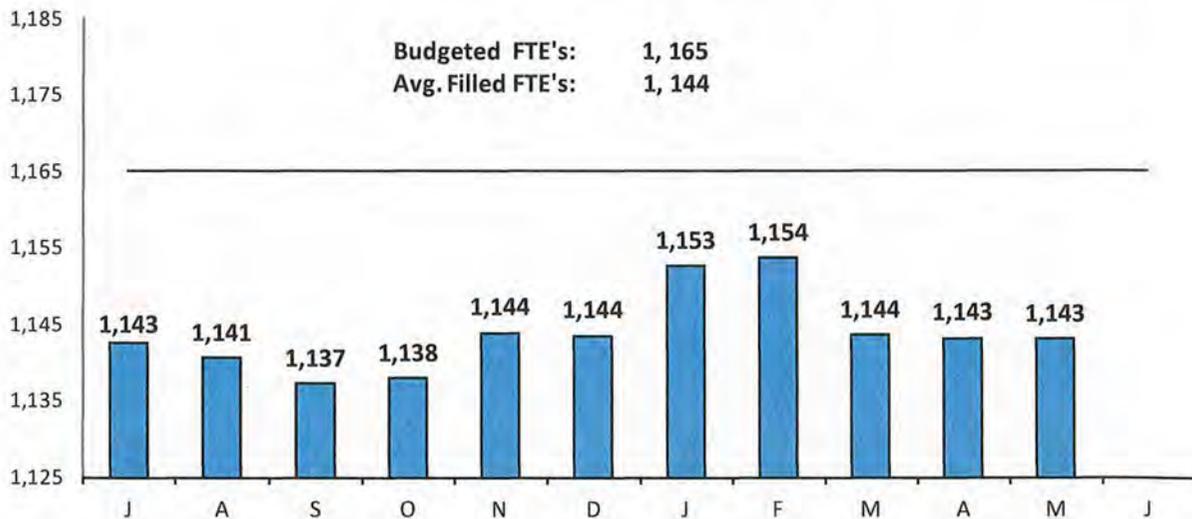
Utilities are underspent \$3.1 million or 14.3% year-to-date primarily for lower Diesel Fuel of \$1.8 million mainly in Deer Island due to timing of deliveries (budgeted for May, but scheduled for June delivery) and Field Operations for favorable pricing, lower Electricity of \$1.3 million mainly due to lower commodity and transmission and distribution costs and lower flows which resulted in less pumping demand at Deer Island, and Water use of \$143,000. Staff is projecting a \$2.3 million underspending on utilities for year-end.

Wages and Salaries

Wages and Salaries were underspent by \$2.4 million or 2.8% mainly as a result of lower than budgeted positions and the salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates. As indicated at the March Board meeting, starting in April staff began reporting the Full Time Equivalent (FTE) positions. The average year-to-date FTE's

were 1,144 which is 21 positions lower than the 1,165 FTE's budgeted. Additionally, MWRA had 4 temporary employees.

FY15 MWRA Full Time Equivalent (FTE) Position Trend



Year-to-date May average filled positions were 1,150 vs. the 1,175 budgeted positions.

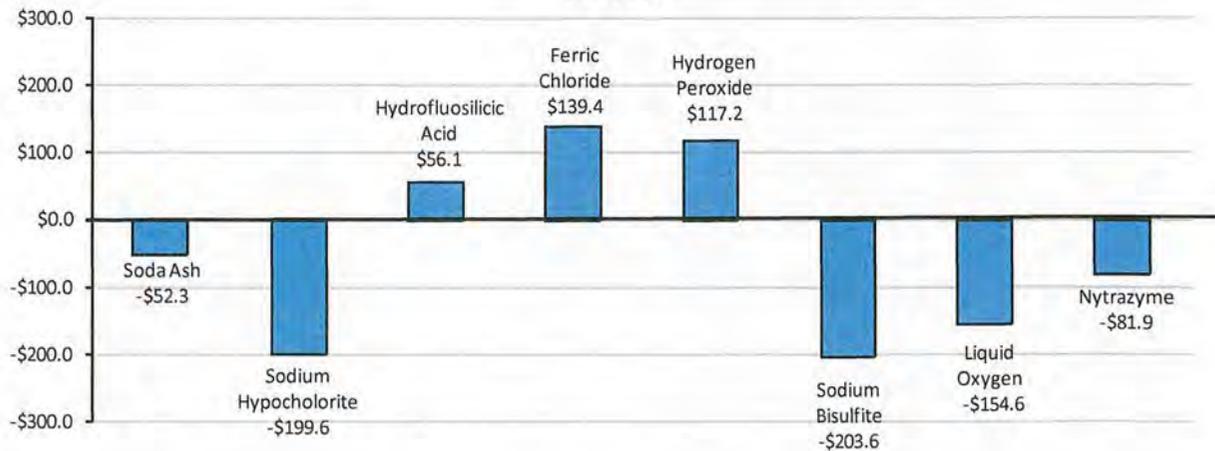
Professional Services

Professional Services are lower than budget by \$647,000 or 12.9% mainly due to the timing of initiatives such as the Mystic River Modeling project, dam safety work, as-needed engineering for maintenance projects, and delay of the Maximo software upgrade project which was awarded at the May Board of Director's meeting.

Chemicals

Chemicals are underspent by \$517,000 or 5.6% year-to-date mainly due to lower than budgeted Sodium Bisulfite of \$204,000 and Liquid Oxygen of \$155,000 due to better water quality, Sodium Hypochlorite of \$200,000 due to lower pricing and timing of deliveries, and Activated Carbon of \$168,000 due to timing of deliveries. Underspending is offset by overspending for Ferric Chloride of \$139,000 due to struvite control and Hydrogen Peroxide of \$117,000 due to increased need for pretreatment of hydrogen sulfide gas due to lower than budgeted plant flows.

FY15 Chemical Expense Variances (Year-To-Date May)
(in 000's)



Fringe Benefits

Fringe Benefits are lower than budget by \$191,000 or 1.1% mainly due to lower than budgeted health and unemployment insurance due to the fewer than budgeted positions.

Other Materials

Other Materials are higher than budget by \$313,000 or 7.1% mainly due to timing of postage for the Consumer Confidence Report as well as, work clothes, vehicle purchases, computer hardware, and equipment and furniture purchases. The overspending is offset by lower vehicle expenses mostly related to lower gasoline pricing.

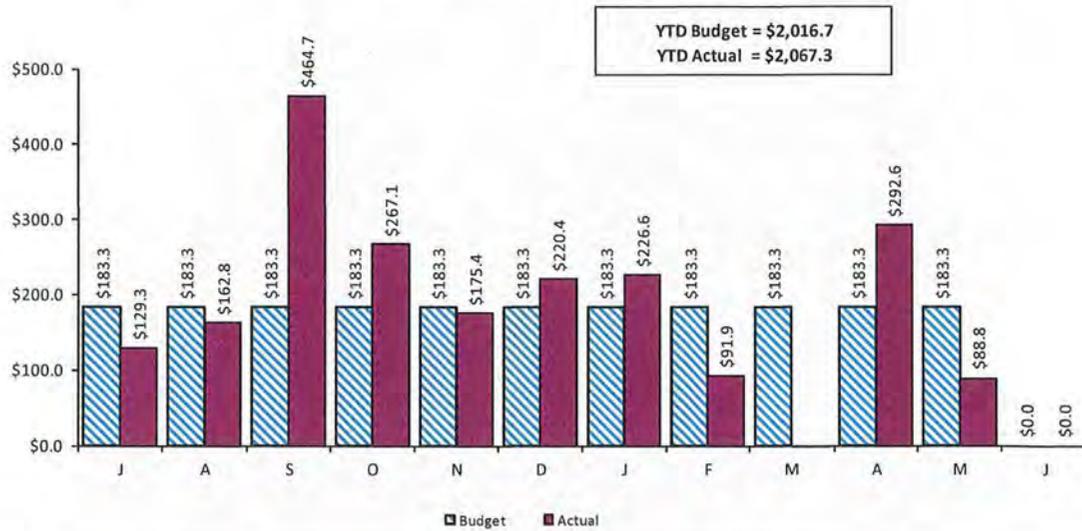
Overtime

Overtime expenses are higher than budgeted by \$715,000 or 21.5% for higher than projected wet weather events, specifically for winter snow removal, and coverage requirements.

Workers' Compensation

Workers' Compensation expenses are higher than budget by \$51,000 or 2.5% based on higher compensation payments of \$82,000 and administrative costs of \$54,000 offset by lower medical expenses of \$85,000.

FY15 Workers' Compensation Spending (Year-To-Date May)
(in thousands)



# of Open Claims-Lost Time	69	72	70	66	66	62	64	66	64	61	62	0
# of Open Claims-Medical Only	16	24	24	21	14	15	16	24	25	20	20	0

Maintenance

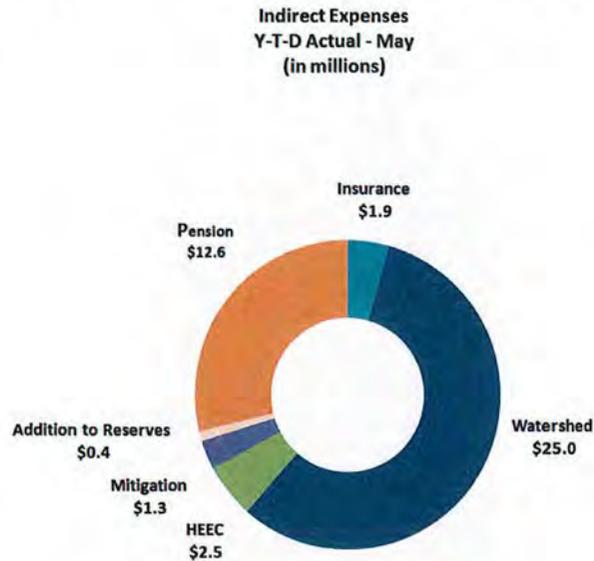
Maintenance is overspent by \$458,000 or 1.9% year-to-date. Materials are overspent by \$1.8 million and services are underspent by \$1.3 million.

Other Services

Other Services are lower than budget by \$38,000 or 0.2% mainly for Sludge Pelletization of \$143,000 and Grit of \$45,000 reflecting lower quantities and Permit Fees of \$66,000 and printing of \$63,000 due to timing. This is offset by higher than budgeted telecommunications expenses of \$203,000 due to security data line upgrades in support of the enhanced security system and Charlestown Navy Yard headquarters carpet and painting upgrades of \$107,000.

Indirect Expenses

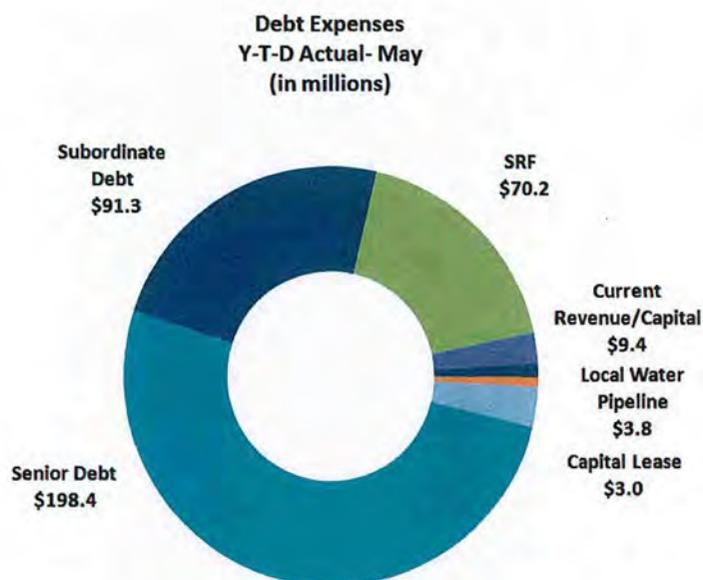
Indirect expenses total \$43.8 million, \$847,000 or 1.9% lower than budget.



The majority of the year-to-date underspending on Indirect Expenses is for lower Watershed Reimbursement of \$369,000 mainly due to lower Payment in Lieu of Taxes (PILOT) payments and FY14 overaccrual, lower Harbor Electric Energy Company (HEEC) of \$307,000 due to fewer special projects than anticipated, and lower Mitigation payments of \$135k.

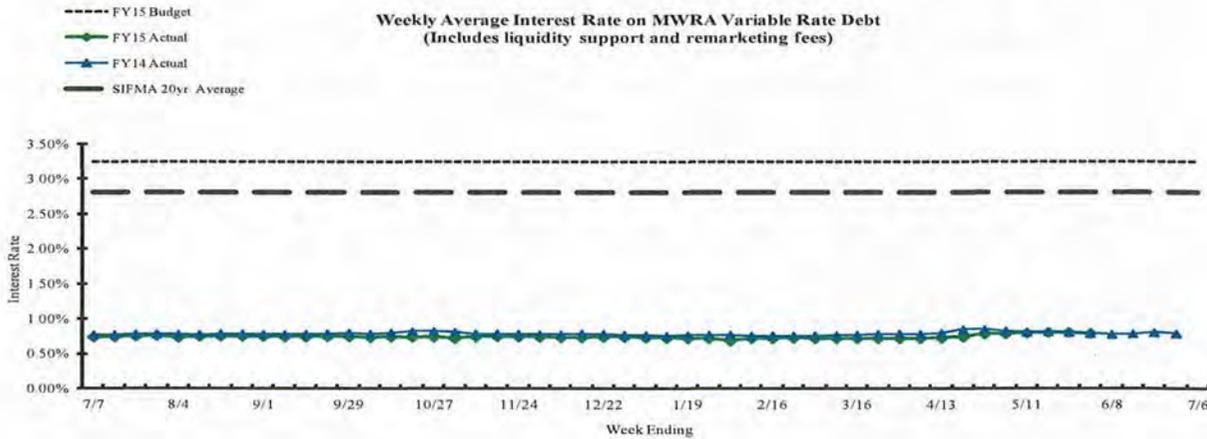
Debt Service Expenses

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 totaled \$375.6 million which is at budgeted level after the transfer of \$17.6 million of a favorable year-to-date debt variance to the Defeasance Account. \$11.9 million of the \$17.6 million favorable year-to-date debt variance is pertaining to the low short-term variable rate and the balance is attributable to the November 2014 debt refinancing and lower State Revolving Fund (SRF) borrowings.

The graph below reflects the variable rate trend by month over the past year in comparison with FY14 Actuals and the FY15 Budget for the same period.



Revenue

Year-to-date revenue for FY15 totals \$624.6 million which is \$2.5 million or 0.4% higher than budget.

The higher non-rate Revenue is due to \$995,000 for a prior period adjustment for Watershed related expenses, \$425,000 for the sale of unbudgeted emergency water for the Town of Hudson, \$372,000 payment received for the sale of the Fox Point CSO Facility, \$141,000 for higher permit, monitoring, and penalty fees, \$75,000 reimbursement for Briarwood Rehabilitation Easement project, \$60,000 for the timing of Fore River Railroad Corporation payments, \$55,000 for the timing of antenna license revenue, \$33,000 for the timing of Rutland/Holden payments and a variety of smaller items totaling approximately \$313,000.

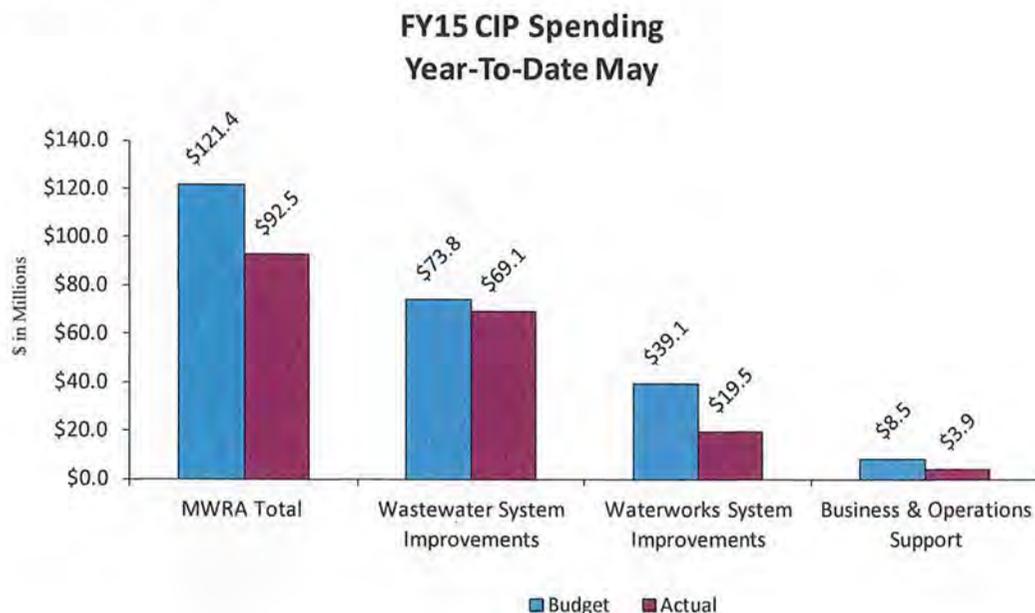
Please refer to Attachment 2 for a more detailed comparison by line item.

FY15 Capital Improvement Program

Spending year-to-date in FY15 totals \$92.5 million, \$28.9 million or 23.8% 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 \$38.3 million or 40.6%.

Underspending was reported in Waterworks of \$19.6 million, Wastewater of \$4.6 million, and Business and Operations Support of \$4.6 million.

Spending By Program:



\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	10.8	8.3	-2.5	-22.9%
Treatment	33.2	20.0	-13.3	-39.9%
Residuals	0.0	0.0	0.0	N/A
CSO	18.6	23.4	4.8	25.8%
Other	11.2	17.5	6.3	56.2%
Total Wastewater System Improvements	\$73.8	\$69.1	-\$4.6	-6.3%
Waterworks System Improvements				
Drinking Water Quality Improvements	21.5	12.0	-9.5	-44.2%
Transmission	9.7	2.0	-7.7	-79.2%
Distribution & Pumping	8.7	7.3	-1.4	-15.9%
Other	-0.8	-1.9	-1.1	131.7%
Total Waterworks System Improvements	\$39.1	\$19.5	-\$19.6	-50.2%
Business & Operations Support	\$8.5	\$3.9	-\$4.6	-54.2%
Total MWRA	\$121.4	\$92.5	-\$28.9	-23.8%

The main reasons for the underspending were:

1. **Wastewater Treatment** of \$16.2 million – mainly for Electrical Equipment Upgrade Construction of \$3.7 million, Butterfly Valve Replacement Construction of \$3.0 million, North Main Pump Station VFD Replacement of \$1.8 million, Centrifuge Backdrive Replacement of \$809,000, Secondary Reactor VFDs of \$724,000, and HVAC Equipment Replacement Design/Engineering Services During Construction of \$554,000 mainly due to timing, Gravity Thickener Rehabilitation of \$964,000 due to schedule change, and other smaller projects totaling approximately \$4.8 million.
2. **Drinking Water Quality Improvements** of \$10.1 million – mainly for Spot Pond Covered Storage of \$5.7 million due to timing of work and weather delays and Carroll Water Treatment Plant of \$4.3 million for CP7 Existing Facilities work and Storage Tank Roof Drainage System due to updated schedules and less than anticipated UV Disinfection Engineering Services During Construction.
3. **Water Transmission** of \$8.2 million – mainly for Wachusett Aqueduct Pump Station Construction of \$5.5 million due to schedule changes, Sudbury Aqueduct – MEPA review of \$976,000 due to alternatives analysis, Watershed Land purchases of \$784,000 due to timing, Hultman Interconnections Final Design/Construction Administration/and Resident Inspection of \$416,000, and Dam Safety Modifications and Repairs of \$250,000.
4. **Business and Operations Support** of \$4.9 million – mainly for lower than budgeted spending for MIS initiatives of \$2.4 million, As-Needed Design Services of \$925,000, Vehicle Purchases of \$784,000 due to timing, and Alternative Energy Initiatives of \$562,000 mainly due to the elimination of the Shaft E Hydro In-Conduit initiative.
5. **Wastewater Interception and Pumping** of \$3.3 million – for lower spending mainly on Chelsea Creek Headworks Design of \$795,000, Alewife Brook Pump Station Rehabilitation of \$720,000, Chelsea Screenhouse Upgrades of \$508,000, and Nut Island Electric Grit & Screening Conveyance Construction of \$459,000 and other small projects totaling \$818,000 mainly due to timing.
6. **Water Distribution and Pumping** of \$2.3 million – mainly for Weston Aqueduct Supply Mains Design/Construction Administration/Resident Inspection for WASM3 of \$808,000 and Section 36 of \$247,000; Southern Extra High Redundancy of \$890,000 mainly for Final Design and Construction Administration; and Valve Replacement of \$596,000 due to timing.
7. **Waterworks Other** of \$1.1 million – primarily due to less than anticipated community requests for loans.

The underspending was offset by overspending on the following programs:

1. **Wastewater Other** of \$6.3 million – primarily due to Inflow and Infiltration (I/I) Financial Assistance Program community requests for higher loans and grants.
2. **Combined Sewer Overflow (CSO)** of \$4.8 million – due to the higher than anticipated estimates due to increased scope from the City of Boston for work on the Reserved Channel Sewer Separation project of \$2.9 million, Cambridge Sewer Separation of \$984,000 due to higher than anticipated cost estimates, and MWRA003 Gates and Siphon of \$785,000 due to actual award being greater than budgeted.
3. **Wastewater Treatment** of \$2.9 million – due to Scum Skimmer Replacement project due to greater than budgeted contractor progress.
4. **Wastewater Interception and Pumping** of \$815,000 – for Prison Point/Cottage Farm Engine Pump and Gearbox Rebuilds of \$649,000 due to contractor progress and Nut Island Headworks Electric, Grit & Screenings Conveyance Design of \$166,000 due to timing.
5. **Drinking Water Quality Improvements** of \$636,000 – mainly for Quabbin Water Treatment Plant due to contractor progress on Quabbin Ultraviolet project and the Chicopee Valley Aqueduct (CVA) Shea Avenue Leak Repair.
6. **Water Distribution and Pumping** of \$939,000 – mainly for Weston Aqueduct Supply Mains Section 36/W11 C/S 9 A11 Construction of \$567,000 and Northern Intermediate High West Street Pipe Reading Construction of \$372,000 due to progress.
7. **Water Transmission** of \$508,000 – mainly for Wachusett Aqueduct Pump Station Design/Engineering Services During Construction due to progress.
8. **Business and Operations Support** of \$241,000 – mainly due to IT System Architectural and Enterprise Data Management project due to timing.

Construction Fund Balance

The construction fund balance was at \$68.8 million as of May. Commercial Paper availability was at \$220 million to fund construction projects.

Attachment 1 – Variance Summary May 2015

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

Attachment 4 – FY15 Budget vs. FY15 Projection

ATTACHMENT 1

	May 2015 Year-to-Date					
	Period 11 YTD Budget	Period 11 YTD Actual	Period 11 YTD Variance	%	FY15 Approved	% Expended
<u>EXPENSES</u>						
WAGES AND SALARIES	\$ 86,981,107	\$ 84,558,300	\$ (2,422,807)	-2.8%	\$ 96,554,749	87.6%
OVERTIME	3,328,000	4,043,336	715,336	21.5%	3,620,600	111.7%
FRINGE BENEFITS	16,927,925	16,736,618	(191,307)	-1.1%	18,299,405	91.5%
WORKERS' COMPENSATION	2,016,667	2,067,321	50,654	2.5%	2,200,000	94.0%
CHEMICALS	9,265,201	8,747,800	(517,401)	-5.6%	10,219,580	85.6%
ENERGY AND UTILITIES	21,901,199	18,770,276	(3,130,923)	-14.3%	23,472,354	80.0%
MAINTENANCE	24,333,998	24,791,857	457,859	1.9%	27,972,607	88.6%
TRAINING AND MEETINGS	277,670	333,276	55,606	20.0%	361,019	92.3%
PROFESSIONAL SERVICES	5,001,971	4,354,565	(647,406)	-12.9%	5,957,201	73.1%
OTHER MATERIALS	4,380,923	4,694,092	313,169	7.1%	5,952,729	78.9%
OTHER SERVICES	20,305,978	20,267,487	(38,491)	-0.2%	22,538,498	89.9%
TOTAL DIRECT EXPENSES	\$ 194,720,639	\$ 189,364,928	\$ (5,355,713)	-2.8%	\$ 217,148,742	87.2%
<u>INDIRECT EXPENSES</u>						
INSURANCE	\$ 1,964,450	\$ 1,912,589	\$ (51,861)	-2.6%	\$ 2,128,155	89.9%
WATERSHED/PILOT	25,353,960	24,984,710	(369,250)	-1.5%	27,466,790	91.0%
BEC PAYMENT	2,810,093	2,503,422	(306,671)	-10.9%	3,198,174	78.3%
MITIGATION	1,482,431	1,347,605	(134,826)	-9.1%	1,605,967	83.9%
ADDITIONS TO RESERVES	445,803	445,803	-	0.0%	482,953	92.3%
RETIREMENT FUND	12,629,475	12,645,475	16,000	0.1%	12,629,475	100.1%
TOTAL INDIRECT EXPENSES	\$ 44,686,212	\$ 43,839,604	\$ (846,608)	-1.9%	\$ 47,511,514	92.3%
<u>DEBT SERVICE</u>						
STATE REVOLVING FUND	\$ 72,319,612	\$ 70,161,223	\$ (2,158,389)	-3.0%	\$ 78,460,635	89.4%
SENIOR DEBT	201,991,487	198,411,022	(3,580,465)	-1.8%	220,835,626	89.8%
CORD FUND	803,464	803,464	-	0.0%	876,506	91.7%
DEBT SERVICE ASSISTANCE	(853,660)	(853,660)	-	0.0%	(853,660)	100.0%
CURRENT REVENUE/CAPITAL	9,415,384	9,415,384	-	0.0%	10,200,000	92.3%
SUBORDINATE MWRA DEBT	91,345,487	91,345,487	-	0.0%	99,686,106	91.6%
LOCAL WATER PIPELINE CP	3,829,341	3,829,341	-	0.0%	4,148,453	92.3%
CAPITAL LEASE	2,969,594	2,969,594	-	0.0%	3,217,060	92.3%
VARIABLE DEBT	-	(11,882,405)	(11,882,405)	---	-	0.0%
BOND REDEMPTION SAVINGS	(6,226,706)	(6,226,706)	-	0.0%	(6,745,598)	92.3%
DEFEASANCE ACCOUNT	-	17,621,260	17,621,260	---	-	0.0%
TOTAL DEBT SERVICE	\$ 375,594,003	\$ 375,594,003	\$ -	0.0%	\$ 409,825,128	91.6%
TOTAL EXPENSES	\$ 615,000,855	\$ 608,798,536	\$ (6,202,321)	-1.0%	\$ 674,485,384	90.3%
<u>REVENUE & INCOME</u>						
RATE REVENUE	\$ 600,291,493	\$ 600,291,493	\$ -	0.0%	\$ 650,315,784	92.3%
OTHER USER CHARGES	7,632,197	7,637,144	4,947	0.1%	8,259,693	92.5%
OTHER REVENUE	5,292,202	7,815,158	2,522,956	47.7%	6,180,450	126.4%
RATE STABILIZATION	-	-	-	---	-	---
INVESTMENT INCOME	8,928,779	8,870,079	(58,700)	-0.7%	9,729,457	91.2%
TOTAL REVENUE & INCOME	\$ 622,144,671	\$ 624,613,874	\$ 2,469,202	0.4%	\$ 674,485,384	92.6%

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY15 Budget YTD May	FY15 Actuals YTD May	FY15 YTD Actual vs. FY15 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	86,981,107	84,558,300	(2,422,808)	-2.8%	Underspending is due to lower filled positions and salary mix differential between staff retiring at higher rates and new hires coming on board at lower rates. At the end of May the average Full Time Equivalent (FTE) positions were 1,144, 21 positions less than the 1,165 budgeted FTE's.
Overtime	3,328,000	4,043,336	715,336	21.5%	Overspending due to higher than projected wet weather events, especially winter snow removal, and coverage requirements.
Fringe Benefits	16,927,925	16,736,618	(191,308)	-1.1%	Lower than budget mainly due to Health of \$198k and Unemployment Insurance of \$16k due to lower filled positions.
Worker's Compensation	2,016,667	2,067,321	50,654	2.5%	Overspending due to higher Compensation Payments of \$82k and Administrative costs of \$54k, partially offset by lower medical payments of \$85k.
Chemicals	9,265,201	8,747,800	(517,401)	-5.6%	Lower year-to-date spending mainly due to lower than budgeted Sodium Bisulfite of \$204k and Liquid Oxygen of \$155k due to better water quality, Sodium Hypochlorite of \$200k due to lower pricing and timing of deliveries, and Activated Carbon of \$168k due to timing of deliveries. Underspending is offset by overspending for Ferric Chloride of \$139k due to struvite control and Hydrogen Peroxide of \$117k due to increased need for pretreatment of hydrogen sulfide gas due to lower than budgeted plant flows.
Utilities	21,901,199	18,770,276	(3,130,923)	-14.3%	Underspending due to lower Diesel Fuel of \$1.8 million due to timing of deliveries (Deer Island scheduled for May will occur in June) and lower pricing at Deer Island and Field Operations, Electricity of \$1.3 million mainly due to lower commodity and transmission and distribution costs and lower flows which resulted in less pumping demand at Deer Island, and Water use of \$143k.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY15 Budget YTD May	FY15 Actuals YTD May	FY15 YTD Actual vs. FY15 Budget		Explanations
			\$	%	
Maintenance	24,333,998	24,791,857	457,859	1.9%	Materials are overspent by \$1.8 million and services are underspent by \$1.3 million.
Training & Meetings	277,670	333,276	55,606	20.0%	
Professional Services	5,001,971	4,354,565	(647,406)	-12.9%	Lower than budget mainly due to the timing of initiatives such as the Mystic River Modeling project, dam safety work, and as-needed engineering for maintenance projects.
Other Materials	4,380,923	4,694,092	313,169	7.1%	Higher than budget mainly for postage costs \$142k due to timing of Consumer Confidence Report (CCR), Work Clothes of \$73k, Vehicle purchases \$68k, Computer Hardware of \$61k, Health and Safety purchases \$58k, and Lab and Testing Support supplies of \$57k mainly due to timing. Overspending offset by lower Vehicle Expenses of \$193k mostly due to lower gasoline prices.
Other Services	20,305,978	20,267,487	(38,491)	-0.2%	Lower than budgeted spending for Sludge Pelletization \$143k and Grit of \$45k due to lower quantities and lower permit fees \$66k. Underspending if offset by higher Telecommunications expenses of \$203k due to increased security data lines and Space Lease/Rentals of \$107k for Charlestown Navy Yard headquarters carpet and painting upgrades.
Total Direct Expenses	194,720,639	189,364,928	(5,355,713)	-2.8%	
Indirect Expenses					
Insurance	1,964,450	1,912,589	(51,861)	-2.6%	Lower Premiums of \$146k offset by Higher Payments/Claims of \$94k.
Watershed/PILOT	25,353,960	24,984,710	(369,250)	-1.5%	Underspending due to lower Payment in Lieu of Taxes (PILOT) of \$250k and lower Reimbursement expenses of \$119k due to FY14 overaccrual .
HEEC Payment	2,810,093	2,503,422	(306,671)	-10.9%	Lower O&M charges of \$210k and Capacity Charges of \$96k.
Mitigation	1,482,431	1,347,605	(134,826)	-9.1%	
Addition to Reserves	445,803	445,803	-	0.0%	
Pension Expense	12,629,475	12,645,475	16,000	0.1%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	44,686,212	43,839,604	(846,608)	-1.9%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY15 Budget YTD May	FY15 Actuals YTD May	FY15 YTD Actual vs. FY15 Budget		Explanations
			\$	%	
Debt Service					
Debt Service	376,447,664	376,447,664	-	0.0%	Debt Service expenses through May are at budgeted level after the transfer of \$17.6 million of a favorable year-to-date variance to the Defeasance Account.
Debt Service Assistance	(853,660)	(853,660)	-	0.0%	
Total Debt Service Expenses	375,594,004	375,594,004	-	0.0%	
Total Expenses					
Total Expenses	615,000,855	608,798,536	(6,202,321)	-1.0%	
Revenue & Income					
Rate Revenue	600,291,493	600,291,493	-	0.0%	
Other User Charges	7,632,197	7,637,144	4,947	0.1%	
Other Revenue	5,292,202	7,815,158	2,522,956	47.7%	Revenues exceeding budget by \$2.5 million due to \$995k for a prior period adjustment for Watershed related expenses, \$425k for the sale of unbudgeted emergency water for the Town of Hudson, \$372k payment received for the sale of the Fox Point CSO Facility, \$141k for higher permit, monitoring, and penalty fees, \$75k reimbursement for Briarwood Rehabilitation Easement project, \$60k for the timing of Fore River Railroad Corporation payments, \$55k for the timing of antenna license revenue, \$33k for the timing of Rutland/Holden payments, and a variety of smaller items totaling approximately \$313k.
Rate Stabilization	-	-	-		
Investment Income	8,928,779	8,870,079	(58,700)	-0.7%	Lower Investment Income due to lower than budgeted short-term rates.
Total Revenue	622,144,671	624,613,874	2,469,202	0.4%	
Net Revenue in Excess of Expenses	7,143,816	15,815,338	8,671,523		

ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY15 Budget YTD May	FY15 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
Interception & Pumping (I&P)	\$10,791	\$8,323	(\$2,468)	-22.9%	Underspending mainly due to Chelsea Creek Upgrades Design/Construction Administration of \$795,000 due to design delays, Alewife Brook Pump Station Rehabilitation of \$720,000 and Nut Island Electrical and Grit and Screenings Conveyance of \$459,000 due to timing, and Chelsea Screenhouse Upgrades of \$508,000 due to schedule change. Offset by Prison Point/Cottage Farm Engine Pump & Gearbox Rebuilds of \$649,000 due to contractor progress and Nut Island Headworks Electric, Grit & Screenings Conveyance Design of \$166,000 due to timing.
Treatment	\$33,223	\$19,963	(\$13,261)	-39.9%	Underspending on Electrical Equipment Upgrade Construction 4 of \$3.7M, Butterfly Valve Replacement of \$3.0M, North Main Pump Station VFD Replacement of \$1.8M, Centrifuge Backdrive Replacement of \$809,000, Secondary Reactor VFDs of \$724,000, HVAC Equipment Replacement Design/Engineering Services During Construction of \$554,000 due to timing, Gravity Thickener Rehabilitation of \$964,000, Power System Improvements - Construction of \$550,000, Barge Berth and Facility Replacement of \$540,000, North Main Pump Station/Winthrop Terminal Facility ESDC/REI of \$413,000, Digested Sludge Pump Replacement Phase 2 of \$388,000 and Clarifier Rehabilitation Phase 2 Design of \$378,000 due to schedule changes, and other smaller projects of \$2.3 million. Offset by overspending on Scum Skimmer Replacement of \$2.9M due to contractor progress.
Residuals	\$0	\$0	\$0	-	

ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY15 Budget YTD May	FY15 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
CSO	\$18,561	\$23,354	\$4,793	25.8%	Overspending on Reserved Channel Sewer Separation of \$2.9M due to updated cost estimate as a result of increased scope of work, Cambridge Sewer Separation of \$984,000 due to higher than anticipated cost estimates, and MWR003 Gate & Siphon of \$785,000 due to greater than budgeted contract award.
Other Wastewater	\$11,212	\$17,507	\$6,295	56.2%	Overspending on Infiltration and Inflow (I/I) due to community requests for grants and loans being more than budgeted.
Total Wastewater	\$73,786	\$69,146	(\$4,640)	-6.3%	
Drinking Water Quality Improvements	\$21,473	\$11,992	(\$9,480)	-44.2%	Underspending for Spot Pond Storage Facility of \$5.7M mainly for timing of work and weather delays and Carroll Water Treatment Plant of \$4.3M mainly for Existing Facilities CP-7 and Storage Tank Roof Drainage System due to schedule changes and Ultraviolet Disinfection - Design/Engineering Services During Construction/Resident Engineer Inspection due to timing. Offset by overspending on Quabbin Water Treatment Plant of \$636,000 primarily due to contractor progress.
Transmission	\$9,695	\$2,021	(\$7,674)	-79.2%	Underspending for Wachusett Aqueduct Pump Station Construction of \$5.5M due to schedule change, Sudbury Aqueduct - MEPA of \$976,000 due to alternatives analysis, Watershed Land of \$784,000 due to the timing of land acquisitions, Hultman Interconnect - Final Design/CA/RI of \$416,000 due to less than anticipated construction administration resident inspection services, and Dam Projects of \$250,000 due to less than anticipated design and engineering services. Offset by overspending on Wachusett Aqueduct Pump Station Design of \$506,000.

ATTACHMENT 3
Capital Improvement Program Variance Explanations
(000's)

	FY15 Budget YTD May	FY15 Actuals YTD May	YTD Actuals vs. Budget		Explanations
			\$	%	
Distribution & Pumping	\$8,701	\$7,316	(\$1,385)	-15.9%	Underspending on Southern Extra High (SEH) Redundancy & Storage of \$928,000 due to Redundancy/Storage Phase 1 - Final Design/Construction Administration/Resident Inspection delays pending additional time to meet with local communities, Valve Replacement of \$596,000 due to timing of equipment purchases, and Weston Aqueduct Supply Mains of \$587,000 mainly due to timing for WASM 3 and Section 36 Design/Construction Administration/Resident Inspection offset by contractor progress on Section 36/W11 C/S 9 - All Valve of \$567,000 and Northern Intermediate High West Street Pipe Construction in Reading of \$372,000 mainly for greater than budgeted progress.
Other Waterworks	(\$810)	(\$1,877)	(\$1,067)	-	Underspending on Local Water System Assistance Program of \$840,000 due to less than budgeted community requests for loans and Central Monitoring System of \$157,000 due to schedule shift for SCADA implementation.
Total Waterworks	\$39,059	\$19,453	(\$19,607)	-50.2%	
Business & Operations Support	\$8,522	\$3,901	(\$4,620)	-54.2%	Underspending on MIS-related projects of \$2.2 million due to timing of IT Strategic Plan implementation, Capital Maintenance Planning & Development of \$925,000 due to lower than projected use of as-needed technical assistance, timing of FY14-18 Vehicle Purchases of \$784,000, and Alternative Energy of \$562,000 mainly due to Shaft E Hydro project being removed from CIP.
Total MWRA	\$121,367	\$92,500	(\$28,867)	-23.8%	

ATTACHMENT 4

FY15 Budget vs FY15 Projection

TOTAL MWRA	FY15 Budget	FY15 Projection	Change FY15 Budget vs FY15 Budget vs Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 96,554,749	\$ 93,894,681	\$ (2,660,068)	-2.8%
OVERTIME	3,620,600	4,296,570	675,970	18.7%
FRINGE BENEFITS	18,299,405	18,058,098	(241,307)	-1.3%
WORKERS' COMPENSATION	2,200,000	2,400,000	200,000	9.1%
CHEMICALS	10,219,580	9,902,400	(317,180)	-3.1%
ENERGY AND UTILITIES	23,472,354	21,152,929	(2,319,425)	-9.9%
MAINTENANCE	27,972,607	28,487,376	514,769	1.8%
TRAINING AND MEETINGS	361,019	379,552	18,533	5.1%
PROFESSIONAL SERVICES	5,957,201	5,531,108	(426,093)	-7.2%
OTHER MATERIALS	5,952,729	6,314,420	361,691	6.1%
OTHER SERVICES	22,538,498	22,704,030	165,532	0.7%
TOTAL DIRECT EXPENSES	\$ 217,148,742	\$ 213,121,164	\$ (4,027,577)	-1.9%
INSURANCE	\$ 2,128,155	\$ 2,193,807	\$ 65,652	3.1%
WATERSHED/PILOT	27,466,790	27,163,746	(303,044)	-1.1%
HEEC PAYMENT	3,198,174	2,831,518	(366,656)	-11.5%
MITIGATION	1,605,967	1,496,419	(109,548)	-6.8%
ADDITIONS TO RESERVES	482,953	482,953	-	0.0%
RETIREMENT FUND	7,808,155	7,824,155	16,000	0.2%
POSTEMPLOYMENT BENEFITS/ ADDITIONAL PENSION DEPOSIT	4,821,320	4,821,320	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 47,511,514	\$ 46,813,919	\$ (697,595)	-1.5%
STATE REVOLVING FUND	\$ 78,460,635	\$ 74,982,110	\$ (3,478,525)	-4.4%
SENIOR DEBT	220,835,626	214,202,742	(6,632,884)	-3.0%
DEBT SERVICE ASSISTANCE	(853,660)	(853,660)	-	
CURRENT REVENUE/CAPITAL	10,200,000	10,200,000	-	0.0%
SUBORDINATE MWRA DEBT	99,686,105	99,686,105	-	0.0%
LOCAL WATER PIPELINE CP	4,148,453	341,921	(3,806,532)	-91.8%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
VARIABLE DEBT	-	(12,855,668)	(12,855,668)	
CORE FUND DEPOSIT	876,507	876,507	-	0.0%
DEFEASANCE ACCOUNT	-	26,773,609	26,773,609	
BOND REDEMPTION	(6,745,598)	(6,745,598)	-	
TOTAL DEBT SERVICE	\$ 409,825,128	\$ 409,825,128	\$ -	0.0%
TOTAL EXPENSES	\$ 674,485,386	\$ 669,760,211	\$ (4,725,172)	-0.7%
REVENUE & INCOME				
RATE REVENUE	\$ 650,315,782	\$ 650,315,782	\$ -	0.0%
OTHER USER CHARGES	8,259,693	8,259,693	-	0.0%
OTHER REVENUE	6,180,451	8,178,838	1,998,387	32.3%
RATE STABILIZATION	-	-	-	#DIV/0!
INVESTMENT INCOME	9,729,458	9,579,458	(150,000)	-1.5%
TOTAL REVENUE & INCOME	\$ 674,485,384	\$ 676,333,769	\$ 1,848,387	0.3%
VARIANCE		\$ (6,573,558)	\$ 6,573,558	

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Final FY16 Capital Improvement Program



COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


Kathy Soni, Budget Director

David Whelan, Budget Manager
Preparer/Title


Thomas J. Durkin
Director, Finance

The Final FY16 Capital Improvement Program projects \$140.5 million in spending for FY16, of which \$88.1 million supports Wastewater System Improvements, \$43.4 million supports Waterworks System Improvements, and \$9.0 million is for Business and Operations Support.

Some of the larger projects with spending in FY16 include Deer Island Asset Protection- \$29.7 million, Interception and Pumping Facility Asset Protection-\$13.8 million, Infiltration/Inflow (I/I) Local Financial Assistance- \$17.2 million, Long-Term Redundancy- \$12.8 million, and Cambridge Sewer Separation- \$10.4 million.

FY16 is the third year of the FY14-18 Base-Line Cap which was set at \$791.7 million. Based on the Final FY16 Budget, Cap Spending for FY14-18 stands at \$689.1 million which is \$102.5 million or 13.0% lower than the Base-Line Cap. This lower Cap Spending is the result of lower projected spending and the exclusion of the community assistance programs. As a reminder, beginning in FY15 as recommended by the MWRA Advisory Board, the Community Financial Assistance programs (Both I/I and Local Water Pipeline) are excluded from the Cap calculation.

The Final FY16 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 Final FY16 Capital Improvement Program (CIP), with \$148.1 million spending level, including contingency.
2. To approve the Responses to the Advisory Board's Comments and Recommendation on MWRA's Fiscal Year 2016 Proposed Capital Improvement Program (Attachment D).

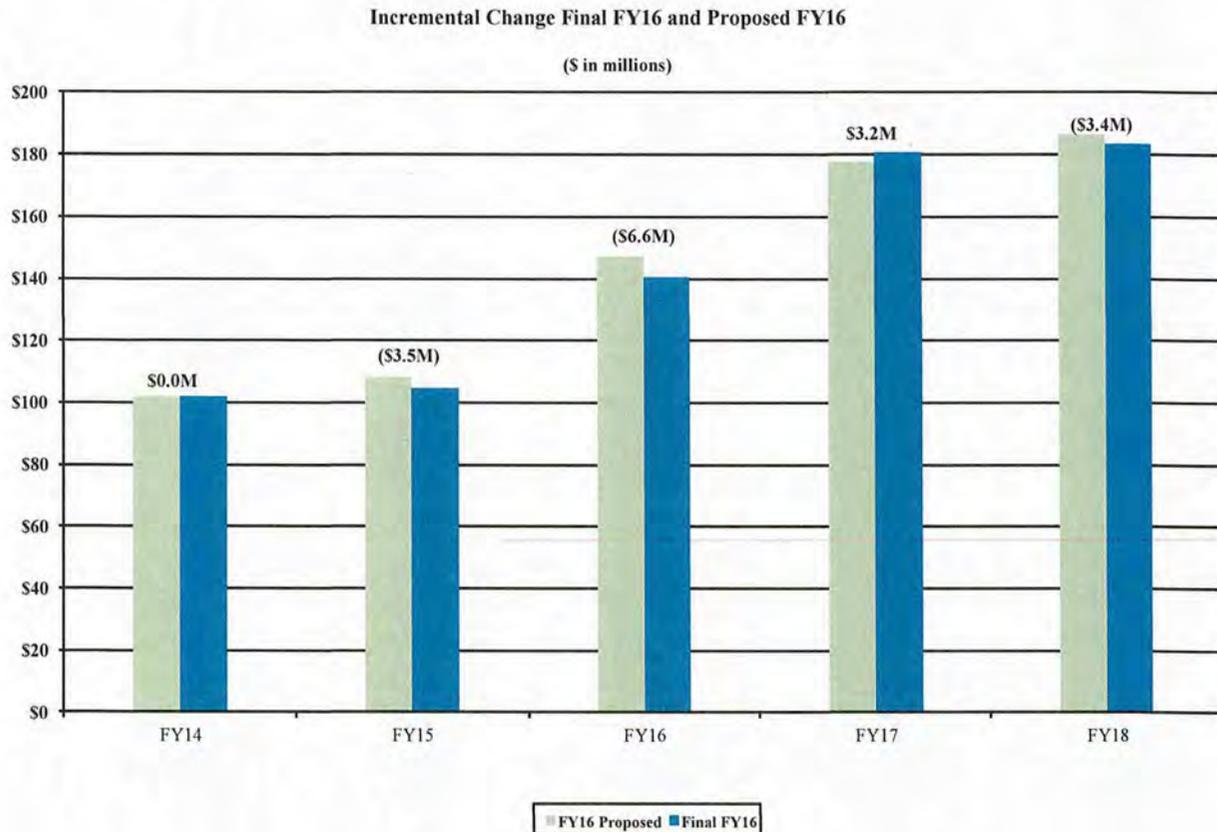
DISCUSSION:

The Final FY16 Capital Improvement Program represents an update to the Proposed FY16 program presented to the Board in December 2014.

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

In comparison with the Proposed FY16 CIP, the Final FY16 CIP increased at the overall program level by \$3.2 million, with a net (\$10.2) million decrease in the FY14-18 Cap period. This change was due to updated cost estimates and revised schedules and cashflows.

The table below shows the incremental change by fiscal year between the Final FY16 and FY15 Final CIP.



The Final FY16 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).

Spending Cap

The Base-Line Cap

The Final FY14 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 Final FY16 CIP budget anticipates capital expenditures in the FY14-18 timeframe to total \$711.5 million. Including contingency of \$34.8 million and inflation of \$15.1 million offset by \$65.0 million in Community Loan Program Support and Chicopee Valley Aqueduct adjustments of \$7.3 million, the Final FY16 FY14-18 Cap totals \$689.1 million which is \$102.5 million or 13.0% less than the FY14 Final Y14-18 Base-Line Cap. However, of the \$102.5 million projected underspending, \$60.1 million is due to exclusion of the Community Financial Assistance Programs from the Cap calculation.

Final FY16 Cap FY14-18 Comparison

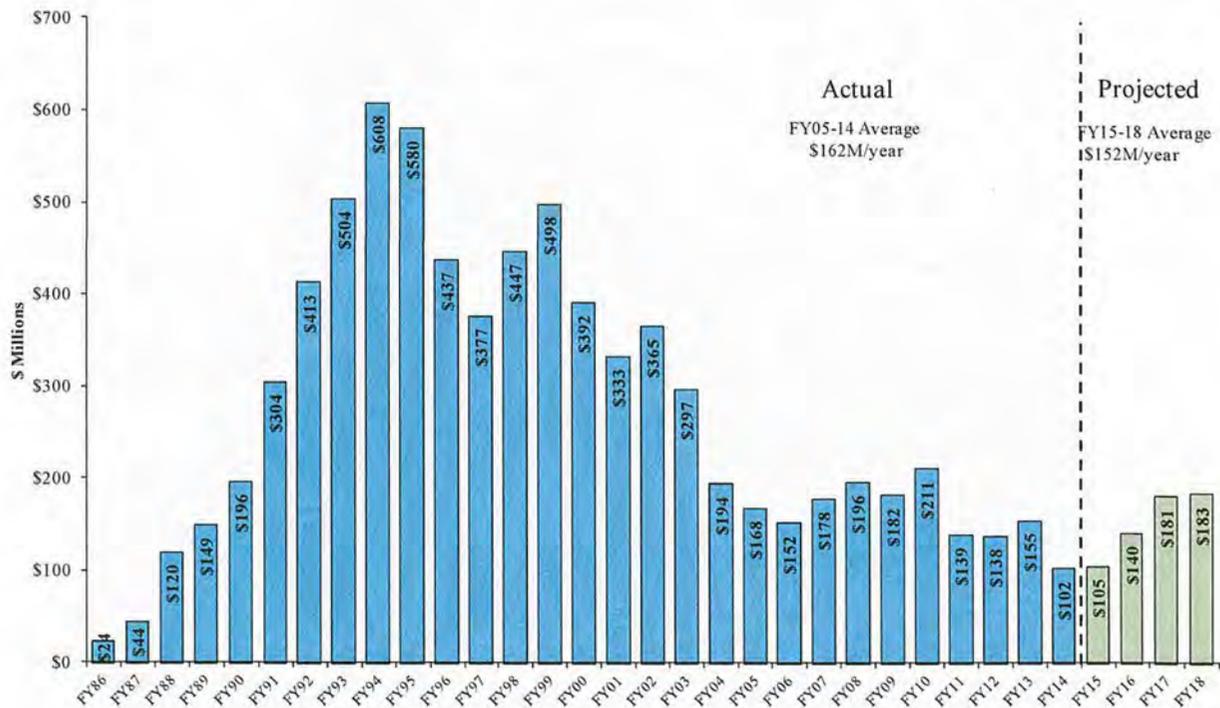
Final FY16		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	\$102.2	\$104.7	\$140.5	\$180.8	\$183.4	\$711.5
Contingency	0.0	4.7	7.6	11.1	11.4	34.8	
Inflation on Unawarded Construction	0.0	0.0	1.1	5.4	8.6	15.1	
Less: I/I Program	0.0	(17.2)	(17.2)	(18.9)	(17.6)	(71.0)	
Less: Water Loan Program	0.0	1.4	2.2	2.5	(0.1)	6.0	
Less: Chicopee Valley Aqueduct Projects	(5.6)	(1.4)	(0.1)	(0.1)	(0.2)	(7.3)	
FY16 Draft Final FY14-18 Spending	\$96.6	\$92.2	\$134.1	\$180.8	\$185.5	\$689.1	

Final FY16 vs. FY14-18 Base-Line Cap		FY14	FY15	FY16	FY17	FY18	Total FY14-18
	Projected Expenditures	(\$40.3)	(\$42.9)	(\$8.8)	\$39.1	\$46.5	(\$6.4)
Contingency	(7.6)	(4.8)	(2.4)	1.3	2.1	(11.3)	
Inflation on Unawarded Construction	(0.8)	(4.2)	(7.3)	(5.7)	(4.9)	(22.8)	
Less: I/I Program	0.0	(17.2)	(17.2)	(18.9)	(17.6)	(71.0)	
Less: Water Loan Program	0.0	1.4	2.2	2.5	(0.1)	6.0	
Less: Chicopee Valley Aqueduct Projects	(0.6)	0.7	1.4	1.2	0.2	3.0	
FY14-18 Cap (\$ Change)	(\$49.2)	(\$66.9)	(\$32.2)	\$19.5	\$26.3	(\$102.5)	
FY14-18 Cap (% Change)	-33.8%	-42.1%	-19.4%	12.1%	16.6%	-13.0%	

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

Historical Spending

The chart below captures the historical CIP spending through FY14 and projected spending to FY18 based on the Final FY16 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.

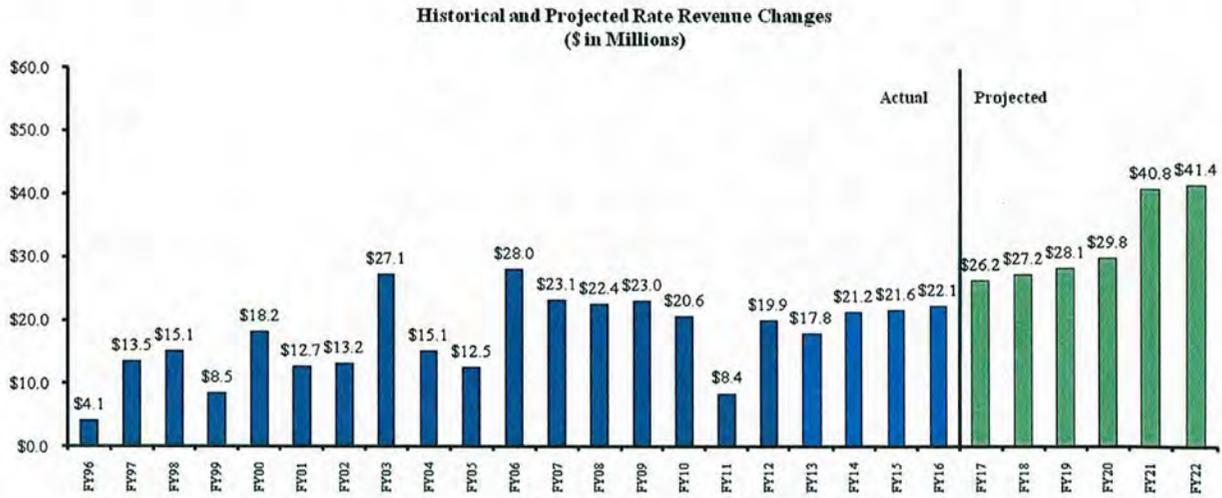
The average spending for FY05-14 timeframe was \$162 million per year and based on the Final FY16 CIP, we are currently projecting that average spending during the current FY15-18 period will be \$152 million per year.

MWRA Capital Improvement Spending versus Debt Service

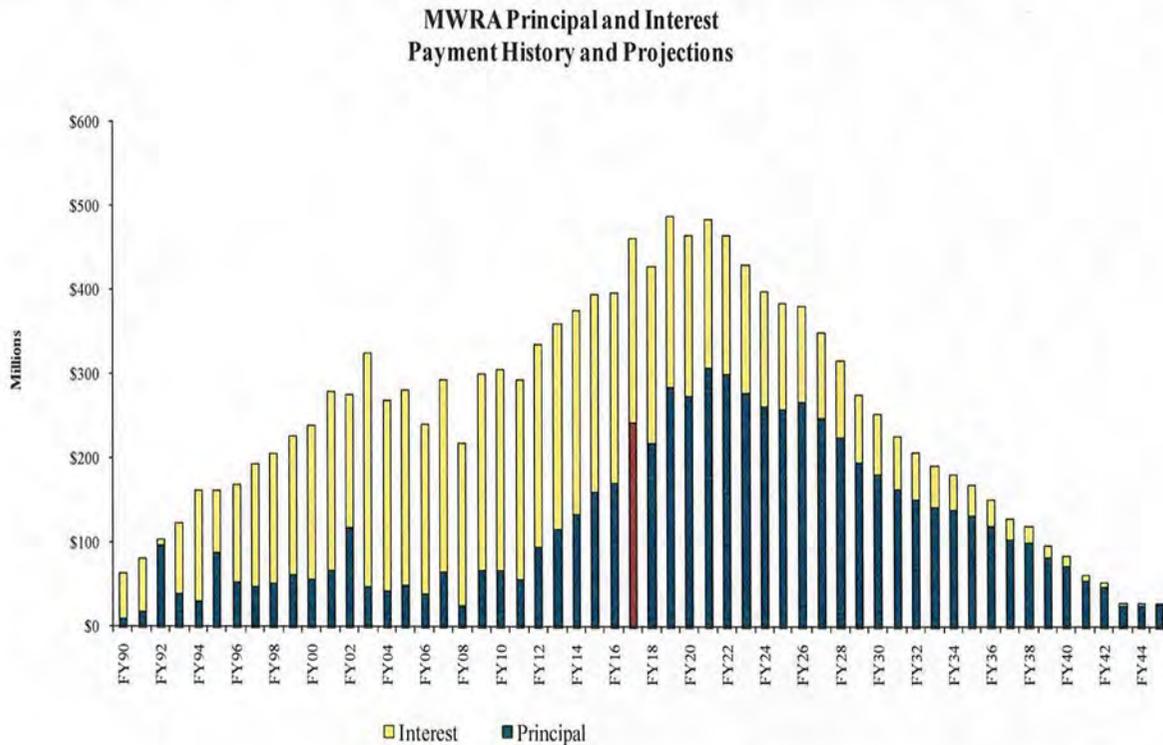
As of June 30th, MWRA's total debt will be \$5.8 billion which results in significant increases in debt service obligations in the upcoming years. The Authority's debt service as a percent of total expenses has increased from 36% in 1990 to nearly 61% in the Final FY16 Current Expense Budget.

Through FY22, the Rate Revenue Requirement is projected to increase an average of \$32.2 million per year, mostly driven by Debt Service related expenses.

The graph below shows the projected Rate Revenue Requirement changes updated with the FY16 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.



Future of the Capital Program - Shift from Mandated Projects

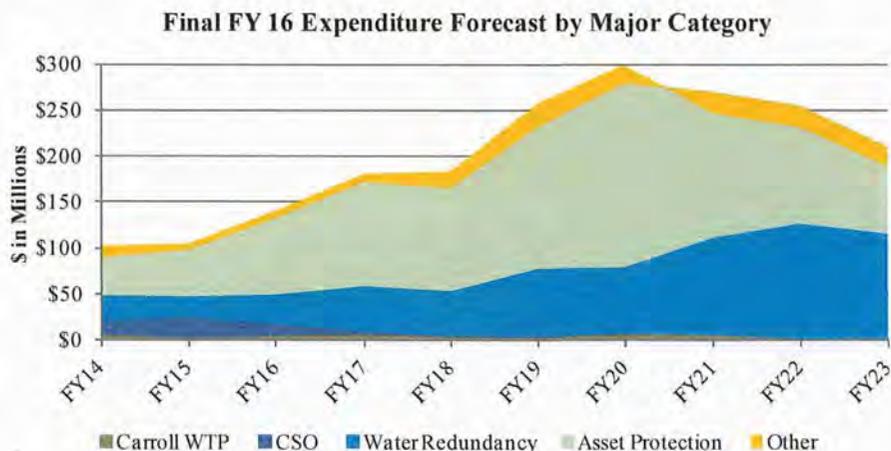
Since 1985, nearly 80% of the Authority's spending has been on court mandated and regulatory required projects. Based on the Final FY16 CIP, mandated or regulatory related projects account for ~ 30% of contract spending - the majority of which will support Asset Protection, Water System Redundancy, Pipeline 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 FY23
Asset Protection	\$2,254.7	\$248.0	\$401.2	\$734.8	\$235.3
Carroll WTP	438.2	38.5	15.2	11.8	0.0
Water Redundancy	1895.0	134.7	183.8	495.3	218.5
CSO	873.8	315.5	57.7	3.0	0.0
Other	550.7	88.4	53.6	-21.1	-64.8
Total	\$6,012.4	\$825.1	\$711.5	\$1,223.8	\$389.0
Asset Protection	37.5%	30.1%	56.4%	60.0%	60.5%
Carroll WTP	7.3%	4.7%	2.1%	1.0%	0.0%
Water Redundancy	31.5%	16.3%	25.8%	40.5%	56.2%
CSO	14.5%	38.2%	8.1%	0.2%	0.0%
Other	9.2%	10.7%	7.5%	-1.7%	-16.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

As presented above, Asset Protection and Water Redundancy initiatives accounted for 30.1% and 16.3% of FY09-13 spending, respectively. Asset Protection and Water System Redundancy spending is projected to rise from past levels and currently accounts for 56.4% and 25.8% of FY14-18 capital expenditures respectively, a total of nearly \$585.0 million of the \$711.5 million, or over 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.



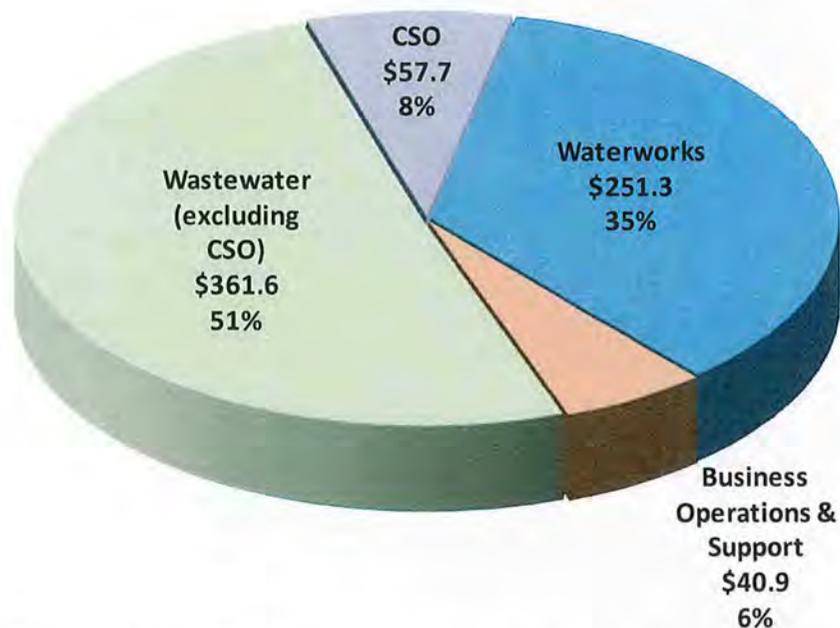
Final FY16 CIP Expenditures

The Final FY16 CIP contains future spending estimated at \$2.2 billion. The Final FY16 CIP (without contingency) includes planned expenditures of \$140.5 million for FY16 and total projected expenditures of \$711.5 million for the FY14-18 timeframe.

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

	Total Contract Amount	Payments Thru FY14	Projected Spending	FY14	FY15	FY16	FY17	FY18	Total FY14-18
Wastewater System Improvements	\$2,974.6	\$1,791.7	\$1,182.9	\$55.7	\$71.5	\$88.1	\$108.3	\$95.7	\$419.3
Interception & Pumping	890.0	527.4	362.6	6.9	9.5	20.1	32.2	29.3	98.0
Treatment	775.6	213.8	561.8	29.1	21.5	37.6	50.2	45.7	184.0
Residuals	167.6	64.6	103.0	0.1	-	-	2.9	1.6	4.6
CSO	898.5	853.3	45.2	15.6	23.3	13.2	4.1	1.5	57.7
Other Wastewater	242.9	132.5	110.3	4.0	17.2	17.2	18.9	17.6	75.0
Waterworks System Improvements	\$2,909.4	\$1,915.6	\$993.8	\$41.0	\$26.3	\$43.4	\$62.9	\$77.7	\$251.3
Drinking Water Quality Improvements	666.3	625.4	40.9	30.2	15.1	6.4	4.9	2.3	58.9
Transmission	1,224.2	759.5	464.7	4.5	3.0	19.5	24.3	27.5	78.8
Distribution & Pumping	949.1	377.5	571.6	4.8	9.1	17.4	31.9	42.6	105.8
Other Waterworks	69.8	153.2	(83.4)	1.5	(0.9)	0.1	1.8	5.2	7.8
Business & Operations Support	128.4	83.0	45.4	5.5	6.9	9.0	9.6	10.0	40.9
Total MWRA	\$6,012.4	\$3,790.3	\$2,222.1	\$102.2	\$104.7	\$140.5	\$180.8	\$183.4	\$711.5

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 \$7.6 million for FY16 and \$34.8 million for the FY14-18 timeframe.

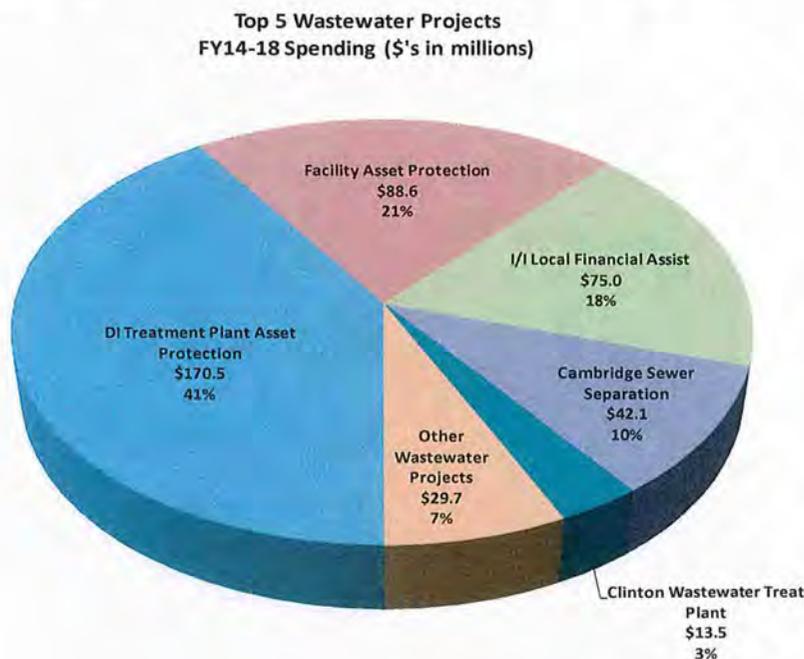
Top 10 Projects – FY14-18 Cap Period

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.

Project	Total Contract Amount	FY14-18 Spending	% of Program
DI Treatment Plant Asset Protection	\$720.4	\$170.5	41%
Facility Asset Protection	\$311.8	\$88.6	21%
I/I Local Financial Assist	\$242.6	\$75.0	18%
Cambridge Sewer Separation	\$92.6	\$42.1	10%
Clinton Wastewater Treat Plant	\$20.5	\$13.5	3%
Total Top 5 Wastewater Projects	\$1,387.8	\$389.7	93%
Other Wastewater Projects	\$1,586.8	\$29.7	7%
Total Wastewater	\$2,974.6	\$419.3	100%

The top five projects for the Wastewater program total \$389.7 million for the FY14-18 period and represent 93% of the \$419.3 million total program.

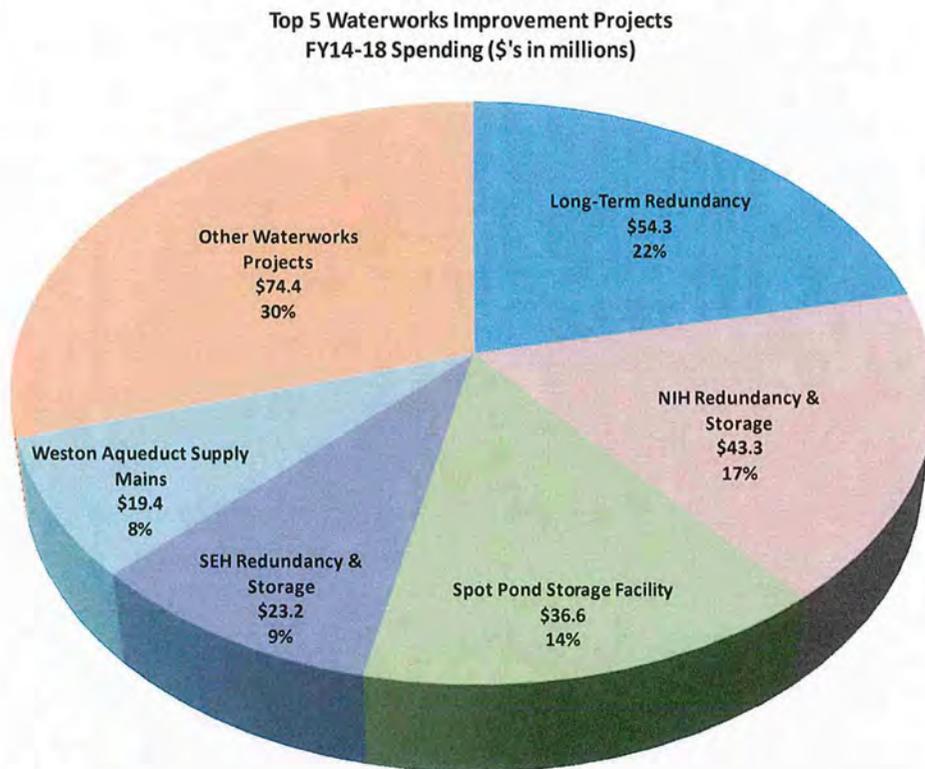
The breakdown of the \$419.3 million program by the major projects is illustrated below:



Similarly, the top five projects for the Waterworks program total \$176.9 million for FY14-18 and represent 70% of the \$251.3 million total program.

Project	Total Contract Amount	FY14-18 Spending	% of Program
Long-Term Redundancy	\$409.4	\$54.3	22%
NIH Redundancy & Storage	\$90.2	\$43.3	17%
Spot Pond Storage Facility	\$61.2	\$36.6	15%
SEH Redundancy & Storage	\$99.5	\$23.2	9%
Weston Aqueduct Supply Mains	\$281.1	\$19.4	8%
Total Top 5 Waterworks Projects	\$941.4	\$176.9	70%
Other Waterworks Projects	\$1,968.0	\$74.4	30%
Total Waterworks	\$2,909.4	\$251.3	100%

The breakdown of the \$251.3 million program by the major projects is illustrated below:



Major Planned Contract Awards for Fiscal Year 2016:

In Fiscal Year 2016, 49 contracts totaling \$224.8 million are projected to be awarded. The largest ten projected contract awards are listed below and account for over 77% of expected awards:

Project	Subphase	NTP	FY16 Budget
Long Term Redundancy	Wachusett Aqueduct Pump Station Construction	Sep-15	\$60.5
Facility Asset Protection	Chelsea Creek Upgrade Construction	Dec-15	54.8
NIH Redundancy & Storage	Section 89/29 Redundancy Construction Phase 1B	Aug-15	11.0
Facility Asset Protection	Alewife Brook Pump Station Rehabilitation -	Aug-15	10.4
Clinton Wastewater Treatment Plant	Phosphorus Reduction Construction	Feb-16	7.1
Carroll Water Treatment Plant	Existing Facilities Modifications - CP7	Jul-15	6.7
DI Treatment Plant Asset Protection	Sodium Bisulfite & Hypochlorite Tanks Rehabilitation	Jun-16	6.6
DI Treatment Plant Asset Protection	Combined Heat & Power Design	Jan-16	6.0
DI Treatment Plant Asset Protection	Gravity Thickener Rehabilitation	Dec-15	5.8
DI Treatment Plant Asset Protection	Digester Sludge Pump Replacement Phase 2	Oct-15	4.7
Top Ten Awards for FY16			\$173.5
49 Contract Awards Planned for FY16			\$224.8

Future Risks and Opportunities

Going forward the largest decision that MWRA will have to make is pertaining to the Long-Term Redundancy project specifically the Sudbury Aqueduct alternatives plans. That decision will have a significant impact on the capital program for the next 10-15 years.

CIP Review and Adoption Process

In December, the MWRA transmitted the FY16 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.

ATTACHMENTS:

- A. New Capital Projects Added to the FY16 CIP
- B. Final FY16 Expenditure Forecast at Project Level
- C. Comparison of the Final FY16 CIP and the Final FY15 CIP
- D. MWRA Responses to Advisory Board’s FY16 Integrated CIP and CEB Comments and Recommendations

ATTACHMENT A

New Capital Projects Added to the FY16 CIP

Program	Project	Subphase	Total Contract Amount	FY16	FY17	FY18	FY14-18	FY19-23	Beyond FY23	Total Expenditures
Interception & Pumping	Wastewater Central Monitoring	Wastewater SCADA/PLC Upgrade	\$7,000,000		150,000	470,000	\$620,000	\$2,350,000	\$4,030,000	\$7,000,000
Transmission	Sudbury/Weston Aqueduct Repairs	Replacement of Weston Aqueduct Flow Control Valve (Southborough)	\$900,000		675,000	225,000	\$900,000	\$0		\$900,000
	Quabbin Transmission System	Oakdale High Line Replacement	\$500,000		500,000		\$500,000	\$0		\$500,000
Other Waterworks	Waterworks Facility Asset Protection	Flat Roof Replacement at Cosgrove	\$300,000		300,000		\$300,000	\$0		\$300,000
	Central Monitoring	Waterworks SCADA/PLC Upgrade	\$18,500,000		350,000	1,244,000	\$1,594,000	\$6,220,000	\$10,686,000	\$18,500,000
SUMMARY:										
Total Wastewater Projects			\$7,000,000	\$0	\$150,000	\$470,000	\$620,000	\$2,350,000	\$4,030,000	\$7,000,000
Total Waterworks Projects			\$20,200,000	\$0	\$1,825,000	\$1,469,000	\$3,294,000	\$6,220,000	\$10,686,000	\$20,200,000
Total Projects			\$27,200,000	\$0	\$1,975,000	\$1,939,000	\$3,914,000	\$8,570,000	\$14,716,000	\$27,200,000

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
Total MWRA	6,012,395,317	3,790,288,064	2,222,107,252	140,497,933	711,532,304	1,223,762,003	388,976,133
Wastewater	2,974,567,125	1,791,690,217	1,182,876,908	88,109,253	419,343,793	634,898,652	184,324,035
Interception & Pumping	890,031,273	527,413,833	362,617,440	20,101,234	98,023,637	224,869,580	46,597,991
102 Quincy Pump Facilities	25,907,202	25,907,202	-				
104 Braintree-Weymouth Relief Facilities	232,454,622	227,703,644	4,750,978	-	309,835	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	6,634,725	939,770	5,694,955	-	-	5,694,954	-
131 Upper Neponset Valley Sewer System	54,174,078	54,174,078	-				
132 Corrosion & Odor Control	19,781,890	3,001,406	16,780,484	87,500	542,503	16,237,981	
136 West Roxbury Tunnel	11,313,573	10,313,573	1,000,000	-	-	1,000,000	
137 Wastewater Central Monitoring	27,482,036	19,782,036	7,700,000	-	759,836	2,910,000	4,030,000
139 South System Relief Project	4,939,244	3,439,244	1,500,000	-	-	1,500,000	
141 Wastewater Process Optimization	10,382,688	1,216,655	9,166,033	64,688	1,391,021	5,816,539	1,969,948
142 Wastewater Meter System-Equip. Replacement	27,737,912	5,137,912	22,600,000	358,974	6,435,898	1,564,102	14,600,000

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
143 Regional I/I Management Planning	168,987	168,987	-				
145 Facility Asset Protection	311,790,717	24,115,727	287,674,990	19,590,072	88,584,545	179,955,150	25,998,043
146 D.I. Cross Harbor Tunnel	5,000,000	-	5,000,000	-	-	5,000,000	
147 Randolph Trunk Sewer Relief	750,000	-	750,000	-	-	750,000	
Treatment	775,572,590	213,805,783	561,766,807	37,566,920	183,993,877	352,082,969	54,772,976
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	720,365,098	176,308,421	544,056,676	34,960,571	170,510,713	347,938,363	54,415,448
210 Clinton Wastewater Treatment Plant	20,511,018	2,800,886	17,710,131	2,606,349	13,483,163	4,144,606	357,528
211 Laboratory Services	2,227,674	2,227,674	-				
Residuals	167,642,622	64,642,623	103,000,000	-	4,570,307	8,469,507	90,066,993
261 Residuals	63,810,848	63,810,848	-				
271 Residuals Asset Protection	103,831,775	831,775	103,000,000	-	4,570,307	8,469,507	90,066,993

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
CSO	898,454,777	853,284,951	45,169,826	13,228,016	57,747,155	3,001,304	
MWRA Managed	433,759,856	430,576,324	3,183,532	786,531	3,881,389	-	
339 North Dorchester Bay	221,597,299	221,601,931	(4,632)	-	(23,295)	-	
347 East Boston Branch Sewer Relief	85,637,164	85,637,164	-	-	(8,831)	-	
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	4,562,261	1,374,097	3,188,164	786,531	3,913,516	-	
357 Charles River CSO Controls	3,633,077	3,633,077	-				
CSO Community Managed	414,446,801	374,520,110	39,926,691	12,423,485	54,243,723	1,739,639	
340 Dorchester Bay Sewer Separation (Fox Point)	54,625,590	54,625,590	-	-	473,295		
341 Dorchester Bay Sewer Sep. (Commercial Point)	64,173,625	60,322,568	3,851,057	400,000	1,286,836	1,739,639	
342 Neponset River Sewer Separation	2,549,086	2,549,086	-	-	104,692		
343 Constitution Beach Sewer Separation	3,731,315	3,731,315	-	-	(37,573)		
344 Stony Brook Sewer Separation	44,246,462	44,246,462	-	-	48,079		

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
346 Cambridge Sewer Separation	92,562,714	63,493,803	29,068,911	10,430,000	42,078,510	-	
351 BWSC Floatables Controls	945,936	945,936	-	-	12,957		
352 Cambridge Floatables Controls	1,126,708	1,086,925	39,783	-	39,783	-	
356 Fort Point Channel Sewer Separation	11,917,090	11,917,090	-	-	(89,619)		
358 Morrissey Boulevard Drain	32,185,790	32,188,262	(2,472)	(2,472)	(160,999)		
359 Reserved Channel Sewer Separation	72,612,534	64,361,307	8,251,228	1,595,958	12,572,633		
360 Brookline Sewer Separation	24,715,545	25,997,364	(1,281,819)	-	(1,281,819)		
361 Bulfinch Triangle Sewer Separation	9,054,405	9,054,405	-	-	(803,052)		
CSO Planning & Support	50,248,120	48,188,517	2,059,603	18,000	(377,957)	1,261,665	
324 CSO Support	50,248,120	48,188,517	2,059,603	18,000	(377,957)	1,261,665	
Other Wastewater	242,865,861	132,543,027	110,322,835	17,213,083	75,008,817	46,475,291	(7,113,925)
128 I/I Local Financial Assistance	242,584,985	132,262,151	110,322,835	17,213,083	75,008,817	46,475,291	(7,113,925)
138 Sewerage System Mapping Upgrades	280,876	280,876	-				

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
Waterworks	2,909,435,666	1,915,648,552	993,787,114	43,430,312	251,266,386	578,834,798	204,652,098
Drinking Water Quality Improvements	666,291,655	625,440,011	40,851,644	6,430,927	58,903,283	12,160,835	20,009
542 Carroll Water Treatment Plant	438,191,551	415,484,707	22,706,844	3,248,294	15,166,026	11,797,000	20,009
543 Quabbin Water Treatment Plant	19,718,993	18,358,535	1,360,458	53,549	6,950,751		
544 Norumbega Covered Storage	106,674,146	106,674,146	-				
545 Blue Hills Covered Storage	40,554,905	40,082,823	472,082	53,723	228,247	363,835	
550 Spot Pond Storage Facility	61,152,059	44,839,800	16,312,259	3,075,361	36,558,258		
Transmission	1,224,184,761	759,501,011	464,683,749	19,503,960	78,812,099	275,899,672	114,434,833
597 Winsor Station Pipeline	27,883,243	1,734,958	26,148,286	737,822	9,660,830	16,826,822	
601 Sluice Gate Rehabilitation	9,158,411	9,158,411	-				
604 MetroWest Tunnel	708,664,247	696,776,534	11,887,713	233,508	3,259,836	9,888,122	117,781
615 Chicopee Valley Aqueduct Redundancy	8,666,292	8,666,292	-				
616 Quabbin Transmission System	15,456,914	7,456,913	8,000,000	-	773,199	7,481,250	
617 Sudbury/Weston Aqueduct Repairs	7,148,957	659,948	6,489,009	1,226,039	3,146,406	3,342,603	
620 Wachusett Reservoir Spillway Improvements	9,287,460	9,287,460					
621 Watershed Land	24,000,000	17,882,400	6,117,600	2,500,000	6,657,600		
623 Dam Projects	4,538,205	3,094,856	1,443,349	71	978,024	474,999	

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
625 Long Term Redundancy	409,381,031	4,783,239	404,597,792	14,806,520	54,336,204	237,885,876	114,317,052
Distribution And Pumping	949,122,944	377,520,183	571,602,761	17,388,581	105,791,099	324,977,156	145,651,109
618 Northern High NW Transmission Section 70	1,000,000	-	1,000,000	-	474,000	526,000	
677 Valve Replacement	22,702,289	12,016,378	10,685,911	835,962	2,716,876	3,618,703	4,350,327
678 Boston Low Service - Pipe & Valve Rehab.	23,690,864	23,690,864	-				
683 Heath Hill Road Pipe Replacement	19,358,036	19,358,036	-				
689 James L. Gillis Pump Station	33,419,006	33,419,006	-				
692 Northern High Service - Section 27 Improvement	1,091,568	123,646	967,922	4,550	177,506	790,416	
693 NHS - Revere & Malden Pipeline Improvements	55,160,861	26,832,740	28,328,121	460,000	11,020,000	16,606,767	701,355
702 New Connecting Mains - Shaft 7 to WASM 3	34,295,531	10,960,807	23,334,725	-	403,000	17,110,668	5,821,056
704 Rehab 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	7,863,498	3,632,119	4,231,379	36,400	61,114	3,495,000	675,266
712 Cathodic Protection Of Distribution Mains	1,667,849	140,913	1,526,935	254,490	508,980	763,470	254,490
713 Spot Pond Supply Mains Rehabilitation	66,806,744	61,168,728	5,638,016	1,730,000	2,712,693	3,112,051	
714 Southern Extra High - Sections 41 & 42	3,657,243	3,657,243	-				
719 Chestnut Hill Connecting Mains	32,035,145	17,486,675	14,548,470	-	316,000	10,156,494	4,075,977

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
720 Warren Cottage Line Rehabilitation	1,204,822	1,204,822	-				
721 Southern Spine Distribution Mains	74,773,200	36,681,373	38,091,827	1,269	368,533	4,036,837	33,676,182
722 NIH Redundancy & Storage	90,186,811	8,145,032	82,041,778	5,613,910	43,327,076	40,885,371	
723 Northern Low Service Rehabilitation - Section 8	23,333,783	2,320,986	21,012,797	14,000	553,421	20,459,375	
725 Hydraulic Model Update	598,358	598,358	-				
727 SEH Redundancy & Storage	99,543,770	6,830,942	92,712,829	853,000	23,223,812	15,273,809	54,289,180
730 Weston Aqueduct Supply Mains	281,136,768	68,490,501	212,646,267	7,585,000	19,421,782	160,114,416	35,557,276
731 Lynnfield Pipeline	5,625,832	5,625,828	-	-	(51,693)		
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717,140	2,717,140	-				
735 Section 80 Rehabilitation	9,835,779	-	9,835,779	-	558,000	9,277,779	
Other Waterworks	69,836,306	153,187,346	(83,351,040)	106,845	7,759,905	(34,202,866)	(55,453,852)
753 Central Monitoring System	39,006,328	15,803,729	23,202,599	1,494,498	6,296,599	6,220,000	10,686,000
763 Distribution Systems Facilities Mapping	2,298,919	1,036,368	1,262,551	-	914,095	348,456	
764 Local Water Infrastructure Rehabilitation	7,487,762	7,487,762	-				
765 Local Water Pipeline Assistance Program	-	128,313,468	(128,313,468)	(2,156,653)	(4,508,413)	(53,489,976)	(68,860,852)
766 Waterworks Facility Asset Protection	21,043,297	546,018	20,497,278	769,000	5,057,624	12,718,655	2,721,000

**ATTACHMENT B
FINAL FY16 PROJECT LEVEL EXPENDITURE FORECAST**

Program/Project/Subphase	Total Contract Amount	Payments through FY14	Remaining Balance	FY16	FY14 - FY18	FY19-FY23	Beyond FY23
Business & Operations Support	128,392,526	82,949,295	45,443,231	8,958,368	40,922,125	10,028,554	
881 Equipment Purchase	23,167,626	13,348,295	9,819,331	3,000,882	10,063,297	997,000	
925 Technical Assistance	1,125,000	-	1,125,000	375,000	1,125,000		
930 MWRA Facility - Chelsea	9,813,633	9,813,633	-				
931 Business Systems Plan	24,551,785	24,515,683	36,102	-	100,555		
932 Environmental Remediation	1,478,602	1,478,602	-	-	(200)		
933 Capital Maintenance Planning & Development	16,720,749	11,057,829	5,662,920	1,871,133	6,596,524		
934 MWRA Facilities Management	2,150,535	370,533	1,780,002	-	-	1,780,002	
935 Alternative Energy Initiatives	25,629,544	17,387,564	8,241,980	52,000	3,575,680	4,857,055	
940 Application Improvement Program	10,176,000	366,135	9,809,865	1,566,064	8,437,071	1,665,804	
942 Information Security Program (ISP)	2,385,411	819,825	1,565,586	351,667	1,595,221	255,000	
944 Information Technology Management Program	922,640	-	922,640	58,230	863,306	59,334	
946 IT Infrastructure Program	10,271,000	3,791,196	6,479,804	1,683,392	8,565,670	414,359	

ATTACHMENT C
Comparison of the Final FY16 CIP and the Final FY15 CIP

Program and Project	Final FY15				Final FY16				Change from Final FY15			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Total MWRA	5,852,185	756,279	1,131,090	276,690	6,012,395	711,532	1,223,762	388,976	160,210	(44,738)	92,672	112,286
Wastewater	2,885,828	423,390	620,567	105,869	2,974,568	419,348	634,900	184,324	88,743	(4,044)	14,332	78,456
Interception & Pumping	873,172	108,970	213,926	29,735	890,032	98,025	224,870	46,598	16,861	(10,946)	10,944	16,863
102 Quincy Pump Facilities	25,907	-	-	-	25,907	-	-	-	-	-	-	-
104 Braintree-Weymouth Relief Facilities	232,453	309	4,441	-	232,455	310	4,441	-	2	1	-	-
105 New Neponset Valley Relief Sewer	30,300	-	-	-	30,300	-	-	-	-	-	-	-
106 Wellesley Extension Replacement Sewer	64,359	-	-	-	64,359	-	-	-	-	-	-	-
107 Framingham Extension Relief Sewer	47,856	-	-	-	47,856	-	-	-	-	-	-	-
127 Cummingsville Replacement Sewer	8,999	-	-	-	8,999	-	-	-	-	-	-	-
130 Siphon Structure Rehabilitation	6,520	-	5,580	-	6,635	-	5,695	-	115	-	115	-
131 Upper Neponset Valley Sewer	54,174	-	-	-	54,174	-	-	-	-	-	-	-
132 Corrosion & Odor Control	16,346	1,000	12,344	-	19,782	543	16,238	-	3,436	(457)	3,894	-
136 West Roxbury Tunnel	11,314	-	1,000	-	11,314	-	1,000	-	-	-	-	-
137 Wastewater Central Monitoring	20,482	327	373	-	27,482	760	2,910	4,030	7,000	433	2,537	4,030
139 South System Relief Project	4,939	-	1,500	-	4,939	-	1,500	-	-	-	-	-
141 Wastewater Process Optimization	10,360	1,391	5,794	1,970	10,383	1,391	5,817	1,970	23	-	23	-
142 Wastewater Meter System-Equipment	26,438	7,300	3,000	11,000	27,738	6,436	1,564	14,600	1,300	(864)	(1,436)	3,600
143 Regional I/I Management Planning	169	-	-	-	169	-	-	-	-	-	-	-
145 Facility Asset Protection	306,806	98,644	174,144	16,766	311,791	88,585	179,955	25,999	4,985	(10,059)	5,811	9,233
146 D.I. Cross Harbor Tunnel Inspection	5,000	-	5,000	-	5,000	-	5,000	-	-	-	-	-
147 Randolph Trunk Sewer Relief	750	-	750	-	750	-	750	-	-	-	-	-
Treatment	709,420	191,535	282,292	50,871	775,572	183,995	352,083	54,773	66,152	(7,541)	69,791	3,903
182 DI Primary and Secondary	(958)	-	-	-	(958)	-	-	-	-	-	-	-
200 DI Plant Optimization	33,427	-	-	-	33,427	-	-	-	-	-	-	-
206 DI Treatment Plant Asset Protection	655,558	178,663	278,524	50,871	720,365	170,511	347,938	54,416	64,807	(8,152)	69,414	3,545
210 Clinton Wastewater Treat Plant	19,166	12,872	3,768	-	20,511	13,483	4,145	358	1,345	611	377	358
211 Laboratory Services	2,228	-	-	-	2,228	-	-	-	-	-	-	-
Residuals	167,920	10,384	58,917	34,083	167,643	4,570	8,470	90,067	(277)	(5,814)	(50,447)	55,984
261 Residuals	63,811	-	-	-	63,811	-	-	-	-	-	-	-
271 Residuals Asset Protection	104,109	10,384	58,917	34,083	103,832	4,570	8,470	90,067	(277)	(5,814)	(50,447)	55,984

ATTACHMENT C
Comparison of the Final FY16 CIP and the Final FY15 CIP

Program and Project	Final FY15				Final FY16				Change from Final FY15			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23
CSO	892,449	53,481	1,262	-	898,455	57,749	3,002	-	6,007	4,268	1,740	-
340 Dorchester Bay Sewer Separation (Fox Point)	54,626	474	-	-	54,626	473	-	-	-	(1)	-	-
341 Dorchester Bay Sewer Separation (Commercial Point)	64,174	3,026	-	-	64,174	1,287	1,740	-	-	(1,739)	1,740	-
342 Neponset River Sewer Separation	2,549	105	-	-	2,549	105	-	-	-	-	-	-
343 Constitution Beach Sewer Separation	3,731	(38)	-	-	3,731	(38)	-	-	-	-	-	-
344 Stony Brook Sewer Separation	44,247	48	-	-	44,246	48	-	-	(1)	-	-	-
346 Cambridge Sewer Separation	90,847	40,363	-	-	92,563	42,079	-	-	1,716	1,716	-	-
351 BWSC Floatables Controls	946	13	-	-	946	13	-	-	-	-	-	-
352 Cambridge Floatables Control	1,127	40	-	-	1,127	40	-	-	-	-	-	-
356 Fort Point Channel Sewer Separation	11,917	(90)	-	-	11,917	(90)	-	-	-	-	-	-
358 Morrissey Boulevard Drain	32,339	(8)	-	-	32,186	(161)	-	-	(153)	(153)	-	-
359 Reserved Channel Sewer Separation	68,902	8,862	-	-	72,613	12,573	-	-	3,711	3,711	-	-
360 Brookline Sewer Separation	24,802	(1,195)	-	-	24,716	(1,282)	-	-	(86)	(87)	-	-
361 Bulfinch Triangle Sewer Separation	9,054	(803)	-	-	9,054	(803)	-	-	-	-	-	-
339 North Dorchester Bay	221,606	(14)	-	-	221,597	(23)	-	-	(9)	(9)	-	-
347 East Boston Branch Sewer Relief	85,638	(8)	-	-	85,637	(9)	-	-	(1)	(1)	-	-
348 BOS019 Storage Conduit	14,288	-	-	-	14,288	-	-	-	-	-	-	-
349 Chelsea Trunk Sewer	29,779	-	-	-	29,779	-	-	-	-	-	-	-
350 Union Park Detention Treatment Facility	49,583	-	-	-	49,583	-	-	-	-	-	-	-
353 Upgrade Existing CSO Facilities	22,385	-	-	-	22,385	-	-	-	-	-	-	-
354 Hydraulic Relief Projects	2,295	-	-	-	2,295	-	-	-	-	-	-	-
355 MWR003 Gate & Siphon	3,716	3,067	-	-	4,562	3,914	-	-	846	847	-	-
357 Charles River CSO Controls	3,633	-	-	-	3,633	-	-	-	-	-	-	-
324 CSO Support	50,264	(362)	1,262	-	50,248	(378)	1,262	-	(16)	(16)	-	-
Other Wastewater	242,866	59,020	64,171	(8,820)	242,866	75,009	46,475	(7,114)	-	15,989	(17,696)	1,706
128 I/I Local Financial Assistance	242,585	59,020	64,171	(8,820)	242,585	75,009	46,475	(7,114)	-	15,989	(17,696)	1,706
138 Sewerage System Mapping Upgrade	281	-	-	-	281	-	-	-	-	-	-	-
Total Waterworks	2,843,684	294,623	503,558	170,821	2,909,434	251,266	578,834	204,653	65,753	(43,356)	75,276	33,831
Drinking Water Quality	659,861	62,761	1,892	-	666,292	58,902	12,161	20	6,430	(3,858)	10,269	20
542 Carroll Water Treatment Plant	433,712	20,611	1,892	-	438,192	15,166	11,797	20	4,480	(5,445)	9,905	20
543 Quabbin Water Treatment Plant	19,305	6,536	-	-	19,719	6,951	-	-	414	415	-	-
544 Norumbega Covered Storage	106,674	-	-	-	106,674	-	-	-	-	-	-	-
545 Blue Hills Covered Storage	40,547	584	-	-	40,555	228	364	-	8	(356)	364	-
550 Spot Pond Storage Facility	59,624	35,030	-	-	61,152	36,558	-	-	1,528	1,528	-	-

ATTACHMENT C
Comparison of the Final FY16 CIP and the Final FY15 CIP

Program and Project	Final FY15				Final FY16				Change from Final FY15			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Transmission	1,201,724	98,047	236,780	111,859	1,224,183	78,813	275,899	114,434	22,460	(19,235)	39,119	2,576
597 Winsor Station Pipeline	27,434	17,182	8,856	-	27,883	9,661	16,827	-	449	(7,521)	7,971	-
601 Sluice Gate Rehabilitation	9,158	-	-	-	9,158	-	-	-	-	-	-	-
604 MetroWest Tunnel	708,490	4,981	8,110	-	708,664	3,260	9,888	118	174	(1,721)	1,778	118
615 Chicopee Valley Aqueduct Redundancy	8,666	-	-	-	8,666	-	-	-	-	-	-	-
616 Quabbin Transmission System	13,592	2,240	4,150	-	15,457	773	7,481	-	1,865	(1,467)	3,331	-
617 Sudbury/Weston Aqueduct Repairs	5,968	3,211	2,098	-	7,149	3,146	3,343	-	1,181	(65)	1,245	-
620 Wachusett Reservoir Spillway Improvement	9,287	-	-	-	9,287	-	-	-	-	-	-	-
621 Watershed Land	24,000	6,658	-	-	24,000	6,658	-	-	-	-	-	-
622 Cosgrove/Wachusett Redundancy	-	-	-	-	-	-	-	-	-	-	-	-
623 Dam Projects	4,540	1,412	43	-	4,538	978	475	-	(2)	(434)	432	-
625 Long Term Redundancy	390,588	62,363	213,524	111,859	409,381	54,336	237,886	114,317	18,793	(8,027)	24,362	2,458
Distribution & Pumping	932,592	121,064	306,096	132,729	949,123	105,791	324,976	145,651	16,534	(15,273)	18,880	12,921
618 Northern High NW Tran Sections 70 & 71	1,000	1,000	-	-	1,000	474	526	-	-	(526)	526	-
677 Valve Replacement	22,540	3,411	7,113	-	22,702	2,717	3,619	4,351	162	(694)	(3,494)	4,351
678 Boston Low Service-Pipe & Valve Rehabilitation	23,691	-	-	-	23,691	-	-	-	-	-	-	-
683 Heath Hill Road Pipe Replacement	19,358	-	-	-	19,358	-	-	-	-	-	-	-
689 James L. Gillis Pump Station Rehabilitation	33,419	-	-	-	33,419	-	-	-	-	-	-	-
692 NHS - Section 27 Improvements	1,071	178	770	-	1,092	178	790	-	21	-	20	-
693 NHS - Revere & Malden Pipeline Improvement	48,988	12,814	9,342	-	55,161	11,020	16,607	702	6,173	(1,794)	7,265	702
702 New Connect Mains-Shaft 7 to WASM 3	33,902	6,105	16,836	-	34,296	403	17,111	5,821	394	(5,702)	275	5,821
704 Rehabilitation of Other Pump Stations	55,058	-	18,750	6,250	55,058	-	18,750	6,250	-	-	-	-
706 NHS-Connecting Mains from Section 91	2,360	-	-	-	2,360	-	-	-	-	-	-	-
708 Northern Extra High Service New Pipelines	7,776	1,206	2,938	-	7,863	61	3,495	675	87	(1,145)	557	675
712 Cathodic Protection Of Distribution Mains	1,636	498	748	249	1,668	509	763	254	32	11	15	5
713 Spot Pond Supply Mains Rehabilitation	66,470	3,261	2,227	-	66,807	2,713	3,112	-	337	(548)	885	-
714 Southern Extra High Sections 41 & 42	3,657	-	-	-	3,657	-	-	-	-	-	-	-
719 Chestnut Hill Connecting Mains	31,731	805	8,031	5,408	32,035	316	10,156	4,076	304	(489)	2,125	(1,332)
720 Warren Cottage Line Rehabilitation	1,205	-	-	-	1,205	-	-	-	-	-	-	-
721 South Spine Distribution Mains	74,073	390	4,000	32,992	74,773	369	4,037	33,676	700	(21)	37	684
722 NIH Redundancy & Storage	88,723	39,821	42,928	-	90,187	43,327	40,885	-	1,464	3,506	(2,043)	-
723 Northern Low Service Rehabilitation Section 8	22,964	754	19,889	-	23,334	553	20,459	-	370	(201)	570	-
724 Northern High Service - Pipeline Rehabilitation	-	-	-	-	-	-	-	-	-	-	-	-
725 Hydraulic Model Update	598	-	-	-	598	-	-	-	-	-	-	-
727 Southern Extra High Redundancy & Storage	97,774	18,130	19,731	53,156	99,544	23,224	15,274	54,289	1,770	5,094	(4,457)	1,133
730 Weston Aqueduct Supply Mains	276,475	31,939	143,819	34,675	281,137	19,422	160,114	35,557	4,662	(12,517)	16,295	882
731 Lynnfield Pipeline	5,774	97	-	-	5,626	(52)	-	-	(148)	(149)	-	-
732 Walnut St. & Fisher Hill Pipeline Rehabilitation	2,717	-	-	-	2,717	-	-	-	-	-	-	-
733 NHS Pipeline Rehabilitation 13-18 & 48	-	-	-	-	-	-	-	-	-	-	-	-
734 Southern Extra High Pipelines-Sections 30, 39,40, & 44	-	-	-	-	-	-	-	-	-	-	-	-
735 Section 80 Rehabilitation	9,630	656	8,974	-	9,836	558	9,278	-	206	(98)	304	-

ATTACHMENT C
Comparison of the Final FY16 CIP and the Final FY15 CIP

Program and Project	Final FY15				Final FY16				Change from Final FY15			
	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23	Total Budget Amount	FY14-18	FY19-23	Beyond 23
Other	49,507	12,752	(41,211)	(73,767)	69,836	7,760	(34,203)	(55,454)	20,329	(4,991)	7,008	18,313
753 Central Monitoring System	19,592	3,789	-	-	39,006	6,297	6,220	10,686	19,414	2,508	6,220	10,686
763 Distribution Systems Facilities Mapping	1,799	763	-	-	2,299	914	348	-	500	151	348	-
764 Local Water Infrastructure Rehabilitation Assistance	7,488	-	-	-	7,488	-	-	-	-	-	-	-
765 Local Water Pipeline Improvement Loan Program	-	(2,581)	(49,647)	(74,632)	-	(4,508)	(53,490)	(68,861)	-	(1,927)	(3,843)	5,771
766 Waterworks Facility Asset Protection	20,628	10,781	8,436	865	21,043	5,058	12,719	2,721	415	(5,723)	4,283	1,856
Business & Operations Support	122,673	38,266	6,965	-	128,393	40,922	10,029	-	5,720	2,655	3,063	-
881 Equipment Purchase	20,491	7,460	924	-	23,168	10,063	997	-	2,677	2,603	73	-
925 Technical Assistance	1,125	1,125	-	-	1,125	1,125	-	-	-	-	-	-
930 MWRA Facility - Chelsea	9,814	-	-	-	9,814	-	-	-	-	-	-	-
931 Business Systems Plan	24,535	84	-	-	24,552	101	-	-	17	17	-	-
932 Environmental Remediation	1,479	-	-	-	1,479	-	-	-	-	-	-	-
933 Capital Maintenance Planning	13,971	3,847	-	-	16,721	6,597	-	-	2,750	2,750	-	-
934 MWRA Facilities Management	2,151	-	1,780	-	2,151	-	1,780	-	-	-	-	-
935 Alternative Energy Initiatives	26,522	5,707	3,618	-	25,630	3,576	4,857	-	(892)	(2,131)	1,239	-
940 Applicat Improv Program	10,050	9,795	182	-	10,176	8,437	1,666	-	126	(1,358)	1,484	-
942 Info Security Program ISP	1,343	808	-	-	2,385	1,595	255	-	1,042	787	255	-
944 Info Tech Mgmt Program	923	923	-	-	923	863	59	-	-	(60)	59	-
946 IT Infrastructure Program	10,271	8,519	461	-	10,271	8,566	414	-	-	47	(47)	-

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>1. The Advisory Board recommends that the Phosphorus Removal Construction Project be placed on indefinite hold pending receipt of \$500 thousand toward the operations of the Clinton Wastewater Treatment Plant. (Page 24)</p>	<p>The Authority received the \$500,000 on 6/15/2015 for FY15 and funds are appropriated in FY16.</p>
<p>2. The Advisory Board grants approval under Section 8 (d) of the MWRA's Enabling Act for the MWRA to provide water to the Commonwealth at its McLaughlin Fish Hatchery subject to the execution of a legally binding agreement between the Authority and the Commonwealth guaranteeing no less than \$2.5 million, as well as confirmation of the grant funding necessary to construct the hydropower turbine. (Page 33)</p>	<p>On June 3, the MWRA Board of Directors authorized the Executive Director, on behalf of the Authority, to execute a Memorandum of Agreement between the Massachusetts Division of Fisheries and Wildlife, the Massachusetts Department of Fish and Game, and the Massachusetts Water Resources Authority relating to the construction and operation of the McLaughlin Fish Hatchery Pipeline and Hydropower Project, at the Chicopee Valley Aqueduct. The Division of Fisheries and Wildlife Board also voted to approve the MOA. The MOA provides for \$2.5 million to be transferred to MWRA to be deposited in an interest-bearing money market account prior to the end of FY2015. The \$2.5 million represents the estimated capital cost of the pipeline at the 30% stage of design and includes a 25% contingency. Per the MOU, the \$2.5 million is to be used exclusively to pay for the costs of design, permitting, procurement, construction and resident engineering for the pipeline; if the pipeline costs are less than \$2.5 million, unused monies will be returned to Fisheries and Wildlife and Fish and Game. MWRA has received grants from both the Leading By Example Program and the Mass. Clean Energy Center for the hydropower facilities: the grants total \$577,000, which is the estimated capital cost of the hydropower facilities, including a 25% contingency.</p>
<p>3. The Advisory Board reverses its prior recommendation to remove the Hatchery Pipeline Project from the MWRA's Capital Improvement Program, subject to the terms of the prior recommendation. (Page 33)</p>	<p>Understood. MWRA is proceeding with the detail design of the project, and plans to advertise for construction bids late this year.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>4. The Advisory Board recommends that the Authority identifies the causes for continued capital underspending and takes the steps necessary to bring capital spending closer to the baseline cap levels. (Page 40)</p>	<p>The Authority agrees with the Advisory Board observation that although the current Cap (FY14-18) was lowered significantly versus the prior two Caps (FY04-09 and FY09-13) there is comparable level of underspending present. It is important to note that the underspending is measured against a base-line Cap set, by the end of the cap period, six years in advance of the actual spending. The annual underspending may not be a good measure of a successful investment program. A better measure may be the availability of equipment and the history of significant failures. As analyzed in great detail in prior periods, the spending against a set target which is an estimate at a given time, depends on a variety of factors and in most cases a combination of multiple factors. In 2007 at the Advisory Board's recommendation, a Committee was formed to identify and document the reasons of perceived underspending during the FY04-07 period. The committee identified a series of factors which may cause underspending, such as: delay in notices to proceed, deliberate decisions to pause or slow a project, design assumption changes, staffing issues, level of contingencies, cashflow assumptions, lower bid awards, legal settlements, environmental issues and permits. As result of the committee's recommendation, the contingency factors applied to cashflows were lowered downwards from 10% to 7%. These factors continue to impact the timing and the amount of spending in the capital program. As outlined in the Authority's presentation to the Board on June 3rd, 2015 during the budget briefings, the Authority is planning to improve CIP spending by implementing corrective measures such as streamlining the internal review process, improving the CIP progress monitoring and continuous backfilling of critical positions.</p>
<p>5. The Advisory Board recommends that the rate revenue requirement for the FY16 Current Expense Budget be reduced by \$4,811,604, resulting in a 3.36% wholesale rate increase. (Page 47)</p>	<p>Agree.</p>
<p>6. The Advisory Board recommends that the \$6,663,030 CORE Fund deposit is removed from the final FY16 CEB. (Page 53)</p>	<p>Agree, the CORE Fund deposit is no longer a requirement based on the Revised Bond Resolution.</p>
<p>7. The Advisory Board recommends reducing the anticipated use of bond redemption funds by \$3,547,000. (Page 53)</p>	<p>Agree. Given the dynamics of the CORE Funds requirement (see Item 6) the reduction of bond redemption funds enables the Authority to preserve these funds for future years, a strategy which is part of the long-term management of assessment increases.</p>
<p>8. The Advisory Board recommends that the Authority adjusts its attrition/vacancy rate assumptions upward by the average value of three positions, for a reduction of \$300,000 (including associated fringe benefits). (Page 59)</p>	<p>Upon further evaluation, the Authority's position is that the Regular Pay line item (based on a detail position by position comparison) is sized appropriately for FY16.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>9. The Advisory Board recommends adding \$100,000 to fund additional personnel for the Toxic Reduction and Control (TRAC) department to begin preparation for issuing permits aimed at reducing molybdenum in the wastewater system (Page 59, and page 104)</p>	<p>Agree. The Authority added two positions to TRAC in support the effort required if MWRA decides to adopt a regulatory approach to reduce molybdenum levels.</p>
<p>10. In order to avoid triggering Operating Reserve Requirement related to Other Post-Employment Benefits (OPEB) contributions, the Advisory Board recommends that any strategy toward funding the OPEB liability be framed as the Authority's "approach" or "practice" rather than as a formally voted policy of the MWRA Board of Directors. (Page 65-66)</p>	<p>Agree. The establishment of a policy would deem the OPEB contribution subject to the Operating Reserve calculation under the General Resolution.</p>
<p>11. The Advisory Board endorses designating the \$5,062,470 in the proposed FY16 CEB currently listed as "Post-Employment Benefits/Additional Pension Deposit" as an intended contribution toward the OPEB liability rather than as an additional pension payment. (Page 66)</p>	<p>As based on the latest actuarial evaluation, MWRA's Pension Fund is at 98.3%, it is appropriate to start funding the OPEB liability in FY16. The Authority included \$5,224,848 to fund the OPEB obligation based on the latest Actuarial valuation.</p>
<p>12. The Advisory Board recommends that the \$5,062,470 in the proposed FY16 CEB be deposited on the final day of FY 2016 to allow the Authority flexibility to use these funds for other purposes if deemed necessary. (Page 66)</p>	<p>Agree, for the amount indicated above, \$5,224,848. Depositing the funds on the final day of the Fiscal Year, ensures its exemption from the operating reserve requirements.</p>
<p>13. The Advisory Board recommends that the FY16 CEB be reduced by \$843,745 - the amount that had been budgeted in case OPEB contributions were found to trigger the Operating Reserve Requirement. (Page 66)</p>	<p>Agree.</p>
<p>14. The Advisory Board recommends that any future contributions to OPEB be no greater than 50% of the Actuarial Calculated Cost. (Page 67)</p>	<p>The Authority would like to reserve the right the re-evaluate in every Budget cycle the future contribution levels. Certainly the contribution in the current budget year will be subject of discussion with the OPEB Trust and the Board. The Authority agrees with the Advisory Board to not include more than 50% of the latest Actuarial Calculated cost in the long-term Planning Estimates.</p>
<p>15. The Advisory Board recommends that the Authority adopt the practice of depositing any funds intended as an OPEB contribution on the last day of the fiscal year in which they are intended to be deposited. (Page 67)</p>	<p>Agree.</p>
<p>16. The Advisory Board recommends that the Authority reduce the "additions to reserves" line item by \$207,404 FY16 to reflect reductions to applicable expenses as recommended by the Advisory Board (see Appendix C). (Page 67)</p>	<p>Partially agree. The reduction to the Operating Reserve is \$153,631.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>17. The Advisory Board recommends that Department of Conservation and Recreation should pursue a "green" recertification of Division of Water Supply Protection lands through the Forest Stewardship Council. (Page 69)</p>	<p>As discussed at the Water Supply Protection Trust meeting of June 4, DCR is actively evaluating "green" certification options for the Watershed Forestry Program. Further discussion will be held at the Trust's meeting in September.</p>
<p>18. The Advisory Board recommends that the Division of Water Supply Protection make a formal presentation to the MWRA Board of Directors comparing the current status of the forestry program with the recommendations of the Quabbin Science and Technical Advisory Committee report to see what progress has been made. (Page 69)</p>	<p>DCR made a presentation to the Water Supply Protection Trust on the status of the Watershed Forestry Program on June 4th. The program is going strong and all of the STAC report recommendations are being implemented. DCR, in collaboration with MWRA staff, is slated to present an overview on source water protection to the Board sometime soon and will include an update on forestry in the staff summary and presentation.</p>
<p>19. The Advisory Board recommends a reduction of \$58,000 to reflect a later start-up of the co-digestion pilot program until the last quarter of the fiscal year. (Page 78, Page 100)</p>	<p>Agree. The FY16 CEB will not include any funds for the DITP co-digestion pilot project, which is now expected to start-up after FY16.</p>
<p>20. The Advisory Board recommends that the Authority reduce the "other services" line item in the final FY16 CEB by \$5,425 consistent with the Advisory Board's final FY16 operating budget. (Page 79)</p>	<p>Agree.</p>
<p>21. The Advisory Board recommends that the Authority limit financial participation in the Mystic River Modeling Project to the amount committed to in the Joint Funding Agreement with USGS, and to revisit further contributions if and when the other collaborating entities secure funds for their portion of the project. (Page 86)</p>	<p>Agree.</p>
<p>22. The Advisory Board recommends a reduction of the Mystic River Modeling Project by \$116,000 in the final FY16 CEB. (Page 86)</p>	<p>Disagree. The Mystic River Watershed Association is actively seeking additional funding for this project and MWRA is optimistic their efforts will be successful. If so, MWRA is committed to providing matching funds up to \$150,000 for FY16 and thus does not want to decrease the budget as the Advisory Board has recommended. This will provide MWRA the flexibility to provide the matching funds in case additional funding is obtained through other organizations.</p>
<p>23. The Advisory Board supports the Authority's expected addition of \$435,000 in CEB spending and the estimated additional \$340,000 in CIP spending consistent with the additional contaminant monitoring needs. (Page 90)</p>	<p>The Authority appreciates the Advisory Board's support in funding this important initiative.</p>
<p>24. The Advisory Board recommends that Authority staff draft an informational staff summary and provide a detailed presentation to the full MWRA Board of Directors in July 2015 on the history and the significance of the issues at stake with regard to co-permittee language in the Deer Island NPDES permit. (Page 97)</p>	<p>Agree. Staff will work on a staff summary outlining the issues and concerns; however, this will be later in the calendar year.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>25. The Advisory Board recommends that the Authority join with the Advisory Board by actively pursuing NPDES delegation authority with the current administration. (Page 98)</p>	<p>Agree. Staff will continue to evaluate this issue. An expected benefit would be requirements that better reflect local conditions. However, a consequence could be a significant permit fee paid to DEP in order to administer the program, especially if DEP expects financial support on the basis of one or more metrics that require proportionate contributions.</p>
<p>26. The Advisory Board recommends that the Authority put together a joint MWRA/Advisory Board working committee to review and identify areas where the Authority may be of assistance to the member communities in meeting the requirements of the MS4 General Permits, including but not necessarily limited to the public education and outreach requirements. (Page 99)</p>	<p>Staff agree to meet with the Advisory Board to discuss the feasibility of participation in such a committee.</p>
<p>27. The Advisory Board recommends that the Authority arrange a presentation to the MWRA Board of Directors from MassDEP on the status of the Organics Diversion Program. Additionally, the Advisory Board recommends that Authority staff then extrapolate from this information the viability of a market/supply for Deer Island should co digestion be deemed viable. (Page 100)</p>	<p>MWRA staff will engage with DEP staff to get the requested information and evaluate timing of a presentation to the Board of Directors. An evaluation of the market will be one of the factors considered in a decision for implementation of co-digestion.</p>
<p>28. The Advisory Board recommends that the Authority convene a working group to develop an appropriate rate structure for Direct Source Water. Further that the recommendation of the working group be brought to the Operations Committee and full Advisory Board for a vote as a new admission policy for the MWRA. (Page 101)</p>	<p>MWRA is in agreement that development of an appropriate rate structure for Direct Source Water makes sense and that a working group should be convened, with the intent that the recommendation of the working group be brought to the Operations Committee and the full Advisory Board, and ultimately, to the MWRA Board of Directors for adoption in a formal policy.</p>
<p>29. The Advisory Board recommends that a working group be convened to discuss a methodology for structuring Water Capacity Insurance to be offered to non-member communities, including members of the Advisory Board, as well as staff from both MWRA and the Advisory Board. Further, that the recommendation of this working group be brought to the Operations Committee and full Advisory Board for a vote as a new admission policy for the MWRA. (Page 102)</p>	<p>MWRA staff shall work with the Advisory Board and its working group regarding a methodology for structuring Water Capacity Insurance. It is MWRA's understanding that it is the Advisory Board's desire to apply a water capacity insurance charge to communities that are not currently part of the MWRA system but that may need MWRA water from time to time. MWRA notes, though, that pursuant to Section 8C of the Interbasin Transfer Act, any MWRA service to new communities that are not within the Chicopee and Nashua Donor Basins require Interbasin Transfer Act approval, except if water is being provided pursuant to water supply emergencies declared by DEP or authorized by law.</p>
<p>30. The Advisory Board recommends that the Authority partner with the Advisory Board to take any and all actions necessary to ensure that 100% of the pellets from the Fore River Pelletization Plant are able to be placed within the Commonwealth year-round by FY 2017. (Page 104)</p>	<p>Staff have begun preliminary work to evaluate a regulatory response to the molybdenum issue, and will work closely with the Advisory Board if such a response is required.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>31. The Advisory Board recommends that the Five-Year Strategic Business Plan makes more specific references throughout the list of initiatives to better help readers "crosswalk" between the Business Plan and more detailed backup such as the Orange Notebook. (Page 106)</p>	<p>The Final Business Plan contains 31 hyperlinks throughout the Plan, that refer to existing documents in order to provide additional context and more detailed information about MWRA's activities, including, the Orange Notebook, the Water and Wastewater Master Plans, the CIP, the NPDES Permit, the TRAC Annual Report, as well as many others.</p>
<p>1. The Advisory Board supports the funds included in the proposed FY16 CIP to provide distributions to communities for Phase 9, Phase 10, and earlier phases as well. (Page 28)</p>	<p>The FY16 CIP continues to support and fund this important program at the projected level.</p>
<p>2. The Advisory Board supports the continued use of the defeasance account strategy, which clearly identifies a use of variable rate debt service savings that is consistent with the original intended use of the funds that were raised. (Page 52)</p>	<p>As the use of the defeasance account is a significant part of the Authority's multi-year assessment management strategy the continuation of this practice is essential. Besides the variable rate debt savings, any other debt related favorable variance is included in the defeasance account.</p>
<p>3. The Advisory Board expects the Authority to reduce capital financing by an additional \$400,000 to reflect the spring 2015 defeasance transaction. (Page 52)</p>	<p>Agree. The final reduction to capital financing based on the defeasance executed in May was \$389,225.</p>
<p>4. The Advisory Board expects the Authority to increase the line item for State Revolving Fund (SRF) debt service by \$1,000,000 to reflect the updated amounts anticipated for FY16. (Page 52)</p>	<p>Upon receipt of revised estimates from the Trust, the State Revolving Fund (SRF) debt service increased by \$510,288 versus the \$1,000,000 prior estimate. Both the estimates for the new money deal and the replacement loans were increased by approximately \$4.0 million/each for a total increase of \$8.0 million.</p>
<p>5. The Advisory Board supports and endorses the recommendation of the Long-Term Rates Management Committee and subsequent vote of the MWRA Board of Directors for the intended use of the unencumbered released reserves including \$10 million as an initial deposit into the OPEB irrevocable trust. (Page 56)</p>	<p>Based on the recommendation of the Long-Term Rates Management Committee and subsequent vote of the MWRA Board of Directors, \$10 million of the \$46.3 million reserve release pertaining to the Bond Resolution changes effecting the Community Obligation and Revenue Enhancement Fund (CORE) and the Renewal and Replacement Reserve Fund (RRR) was deposited into an OPEB account. Furthermore the irrevocable OPEB Trust has been established and funded as of April 23, 2015.</p>
<p>6. The Advisory Board expects the Authority's health insurance costs to increase based on new data released this spring from the GIC. The Advisory Board estimates this increase to be \$350,000. (Page 60)</p>	<p>The Authority increased the health insurance related cost, based on the latest GIC premium estimates by \$320,281.</p>
<p>7. The Advisory Board endorses the "virtual full funding" concept, which defines the pension as fully funded if the system's valuation is between 95% - 105% of the targeted funding level. (Page 65)</p>	<p>The Advisory Board's support is appreciated.</p>

ATTACHMENT D

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>8. The Advisory Board supports and endorses the MWRA Board of Directors' establishment of the irrevocable trust as presented at the April 2015 Board of Directors meeting. (Page 65)</p>	<p>The Advisory Board's support is appreciated.</p>
<p>9. The Advisory Board expects that future contributions to the OPEB trust will not trigger the need for the one-sixth Operating Reserve Requirement, per the opinion of bond counsel. (Page 65)</p>	<p>Agree.</p>
<p>10. The Advisory Board supports the Authority's actions in making an \$800 thousand deposit into the OPEB irrevocable trust from the funds appropriated in a previous year for this purpose. (Page 66)</p>	<p>The \$800,000 deposit, which was established in FY10 was rolled into the Irrevocable OPEB Trust established on April 23, 2015.</p>
<p>11. The Advisory Board expects the Authority to decrease its FY16 CEB "utilities" line item. The Advisory Board's estimate of this reduction is \$1,600,000. (Page 76)</p>	<p>Agree. The updated FY16 CEB for utilities results in a reduction of \$1,699,732.</p>
<p>12. The Advisory Board expects that the chemicals budget will be revised to reflect updated pricing and usage assumptions, including the reduction in fluoride dosing consistent with updated federal regulations. The Advisory Board estimates this to be a reduction of \$350,000. (Page 82)</p>	<p>Agree. The updated FY16 CEB for chemicals results in a reduction of \$359,062.</p>
<p>13. The Advisory Board agrees with the Authority's current belief that CSO/SSO discharges are not the primary cause of the Mystic River's water quality issues. (Page 86)</p>	<p>MWRA continues to work cooperatively with the Mystic River Watershed Association and the Mystic River Steering Committee to understand water quality issues facing the Mystic River.</p>
<p>14. The Advisory Board supports and endorses the increased staff training and participation in national groups and organizations provided there are checks and balances to ensure that there is no misuse of funds for these purposes, particularly with regard to out-of-state travel. (Page 92)</p>	<p>The Advisory Board support is appreciated. As in the past, the Authority will continue to approve staff training and participation in national groups and organizations one a case by case basis, after evaluation of the overall benefits for the organization.</p>

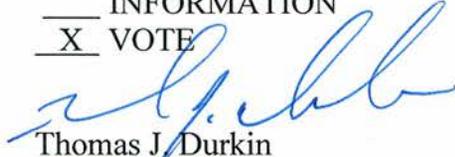
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: Final FY16 Current Expense Budget

COMMITTEE Administration, Finance & Audit


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

INFORMATION
 VOTE


Thomas J. Durkin
Director, Finance

The Proposed FY16 Current Expense Budget (CEB) submitted to the Advisory Board at the March 2015 Board meeting included a 4.1% combined assessment increase. Based on the Board discussions during the June 3rd budget hearings and the Advisory Board's recommendations, staff are now proposing a 3.4% combined assessment increase, which is significantly lower than the 4.3% increase projected for FY16 last year.

In comparison with the Proposed Budget, the Rate Revenue Requirement was reduced by \$4.6 million as result of a \$3.0 million reduction to Debt, \$922,000 in savings for direct expenses, and \$800,000 in savings for indirect expenses.

FY16 was favorably impacted by the Amended and Restated Bond Resolution effective in FY15, which eliminated the FY16 Community Obligation and Revenue Enhancement (CORE) fund deposit required under the old resolution, and enabled MWRA to preserve \$3.5 million of Bond Redemption reserves for use in future years. The elimination of the CORE fund and the reduction of the Renewal and Replacement Reserve fund contributed greatly to the future years assessment estimates reductions and allowed the Authority to deposit \$10 million in an Irrevocable Other Post Employment Benefit (OPEB) Trust. The larger than originally planned defeasance in FY15 will also contribute to future years assessment reductions.

MWRA continues to utilize a multi-year rates management strategy to provide sustainable and predictable assessment increases to its member communities. To achieve this goal again this year, MWRA has continued to employ conservative budgeting and fiscal discipline which includes controlled spending and use of historical variable rate assumptions. The combination of these measures resulted in assessment increase projections below 4.0% for the next five years, in line with the Advisory Board's recommendations.

RECOMMENDATION:

1. To adopt the Final FY16 Current Expense Budget (CEB) set forth in Attachment B and Attachment C with current revenue and expenses of \$702.5 million.
2. To adopt the Final FY16 Operating Budget (Trustee's Budget) set forth in Attachment D.

DISCUSSION:

This staff summary presents the Final FY16 CEB. On June 3rd, the Board of Directors held a hearing on the Draft Final FY16 CEB. Discussions and materials provided at the hearing outlined changes to the budget since the transmittal of the Proposed FY16 CEB in March 2015. The additional changes made to the Draft Final FY16 CEB are highlighted above.

For a line item comparison between the Proposed FY16 CEB to the Final FY16 CEB, please refer to Attachment A.

Summary

The Final FY16 Budget recommends a combined increase in rates and charges of 3.4%. Capital financing costs remain the largest component of the CEB and account for 61.6% of total expenses. Total expenses are \$702.5 million, an increase of \$28.0 million or 4.2% over the FY15 Budget. There are no offsets from Debt Service Assistance (DSA) assumed for FY16 or in any future years.

Total expenses include \$432.7 million for Capital Financing costs and \$269.8 million for operating expenses, of which \$222.8 million is for Direct Expenses and \$47.0 million is for Indirect Expenses. Total expenses increased \$28.0 million or 4.2% from the FY15 Budget mainly due to a higher debt service requirement of \$22.9 million, higher Direct Expenses of \$5.7 million due to inclusion of Cost of Living Adjustments (COLA) for staff, higher healthcare costs, and higher projected maintenance expenses. It is important to note that Direct Expenses increased slightly below the targeted 2.7% versus FY15, due to on-going cost improvement initiatives and favorable prices for utilities and chemicals.

The Final FY16 Budget revenues, excluding rate revenue, total \$30.0 million, an increase of \$5.9 million or 24.3% from the FY15 Budget. The Final FY16 Budget non-rate revenue budget includes \$20.7 million in Other User Charges and Other Revenue and \$9.4 million for Investment Income. The majority of the increase is due to recognizing a one-time water revenue for water provided to the City of Cambridge during an FY14 Combined Sewer Overflow (CSO) project.

The Final FY16 Rate Revenue Requirement is \$672.4 million, an increase of \$22.1 million or 3.4% over the FY15 Budget.

Table 1 on the following page provides a comparison of the Final FY16 CEB and FY15 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
Final FY16 Budget versus FY15 Budget**

(\$ in Millions)	FY15 Budget	Final FY16 Budget	\$ Change	% Change
Directs	\$ 217.1	\$ 222.8	\$ 5.7	2.6%
Indirects	47.5	47.0	(0.6)	-1.2%
Sub-Total Operating Expenses	\$ 264.7	\$ 269.8	\$ 5.1	1.9%
Capital Financing (before Offsets)	417.4	432.7	15.3	3.7%
Offsets: Bond Redemption ¹	(6.7)	-	6.7	
Variable Debt Savings	-	-	-	
Debt Service Assistance	(0.9)	-	0.9	0.0%
Sub-Total Capital Financing	\$ 409.8	\$ 432.7	\$ 22.9	5.6%
Total Expenses	\$ 674.5	\$ 702.5	\$ 28.0	4.2%
Investment Income	\$ 9.7	\$ 9.4	\$ (0.4)	-3.9%
Non-Rate Revenue	14.4	20.7	6.2	43.2%
Rate Stabilization ¹	-	-	-	
Sub-Total Non-Rate Revenue	\$ 24.2	\$ 30.0	\$ 5.9	24.3%
Rate Revenue	650.3	672.4	22.1	3.4%
Total Revenue & Income	\$ 674.5	\$ 702.5	\$ 28.0	4.2%
FY16 Rate Revenue Increase			3.4%	
Combined Use of Reserves	\$ 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

FY16 Direct Expenses total \$222.8 million, an increase of \$5.7 million, or 2.6%, from the FY15 Budget.

- *Wages and Salaries* – The budget includes \$99.4 million for Wages and Salaries as compared to \$96.6 million in the FY15 Budget, an increase of \$2.8 million or 2.9%. Regular Pay which is 98.2% of total Wages and Salaries, increased \$2.8 million mostly for COLA increases. The Final FY16 Budget funds 1,170 positions, 5 fewer positions than FY15 Budget. On the Full-Time-Equivalent (FTE's) basis the budget is set for 1,160. The Authority started to report FTE's in April of 2015. It is important to note that the Authority is striving to achieve the 1,150 FTE goal recommended by Amawalk consultants based on a staffing study in 2012, to be reached in a five-year timeframe. As always, new hires and backfills of vacant positions will be managed at the agency level and addressed on a case-by-case basis by senior management.
- *Overtime* – The budget includes \$4.2 million for Overtime, \$599,000 or 16.5% above the FY15 Budget. The main reason for the large increase in funding is associated with the planned overtime activities for the North Main Pump Station and Winthrop Terminal Facility Butterfly Valve Replacement project which will require as many as 62 overnight shutdowns.
- *Fringe Benefits* – The budget includes \$19.3 million for Fringe Benefits, an increase of \$1.0 million or 5.6% from the FY15 Budget. Health Insurance premiums total \$16.8 million, an increase of \$1.0 million or 6.4% from the FY15 Budget largely due to anticipated cost increases.
- *Workers' Compensation* – The budget includes \$2.3 million for Workers' Compensation, an increase of \$143,000 or 6.5% from the FY15 Budget and is based on a three-year average of actual and projected spending.
- *Chemicals* – The budget includes \$9.8 million for Chemicals, a decrease of \$429,000 or 4.2% from the FY15 Budget mainly due to the revised dosing protocol for fluoride as well as updated assumptions for usage and pricing based on the most recent information. The FY16 Budget does not include any funding for the new Deer Island National Pollutant Discharge Elimination System (NPDES) permit which is projected to have more stringent requirements for enterococcus treatment compliance.
- *Utilities* – The budget includes \$23.2 million for Utilities, which is a reduction of \$308,000 or 1.3% from the FY15 Budget. The decrease is mainly for lower projected unit pricing for energy, both electricity and diesel fuel. The budget funds \$16.9 million for Electricity, \$3.3 million for Diesel Fuel, \$2.2 million for Water, and \$486,000 for Natural Gas.

- *Maintenance* – The budget includes \$28.7 million for Maintenance projects, an increase of \$726,000 or 2.6% from the FY15 budget. The FY16 Maintenance request is in line with FY14 actual maintenance spending of \$29.5 million.
- *Training and Meetings* – The budget includes \$414,000 for Training and Meetings, an increase of \$53,000 or 14.6% from the FY15 Budget.
- *Professional Services* – The budget includes \$5.8 million for Professional Services, a decrease of \$138,000 or 2.3% from the FY15 Budget. The budget reflects funding of \$1.8 million for Security, \$1.7 million for Regulatory Monitoring, and \$1.3 million for Other Professional Services to support items such as the professional staff development and as-needed professional services.
- *Other Materials* – The budget includes \$6.2 million for Other Materials, an increase of \$212,000 or 3.6% from the FY15 Budget. The budget includes funding of \$1.7 million for Vehicle Purchases, \$996,000 for Vehicle Expenses mostly for gasoline purchases, \$841,000 for Lab and Testing Supplies, \$709,000 for Equipment/Furniture, \$435,000 for Health and Safety, \$425,000 for Computer Hardware needs, and \$377,000 for Work Clothes.
- *Other Services* – The budget includes \$23.5 million for Other Services, an increase of \$991,000 or 4.4% from the FY15 Budget. The budget includes funding of \$14.1 million for Sludge Pelletization, \$3.6 million for Space/Lease Rentals and related expenses for the CNY and Chelsea facilities, \$1.7 million for Voice and Data costs, \$1.2 million for Grit & Screenings, and \$1.2 million for Other Services. The largest increase is for Telecommunications of \$268,000 for increased lines for security initiatives, Sludge Pelletization of \$218,000 due to increases in inflation indices, and Space/Lease Rentals of \$144,000 for contractual increases.

Indirect Expenses

Indirect Expenses for FY16 total \$47.0 million, a decrease of \$559,000 or 1.2% from the FY15 Budget. Below are the highlights of major changes:

- The budget includes \$28.1 million for the Division of Water Supply Protection (formerly MDC Division of Watershed Management), an increase of \$629,000 or 2.3% over the FY15 Budget. The budget is comprised of \$14.1 million for reimbursement of operating expenses net of revenues, \$8.3 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 increases are for operating expenses net of revenues of \$394,000 mainly for contractual increases and Payment in Lieu of Taxes of \$200,000.
- The budget includes \$8.2 million for the Retirement Fund, an increase of \$351,000 or 4.5% over the FY15 required contribution. This funding of \$8.2 million represents the

minimum required contribution for FY16 based on the actuarial valuation of January 1, 2013, and confirmed by the January 1, 2015 actuarial report.

- The budget includes \$1.9 million for the Harbor Energy Electric Company (HEEC), a decrease of \$1.3 million or 39.1% from the FY15 Budget. This funding is for the repayment of the capital investment for the Deer Island electric cable and substation which provides electric power to the treatment plant. The significant decrease is due to contractual obligations which expired in May 2015, ending the amortization of the cable financing component of the capital investment.
- The budget includes \$2.2 million for Insurance, an increase of \$33,000 or 1.5% from the FY15 Budget. The FY16 Budget was based on actual average spending for the past five years, FY10-14. It should be noted that at the June 3th meeting, the Board of Directors approved the MWRA FY16 Insurance program with a not to exceed estimate of \$290,000 for the excess liability coverage line item. Since the June 3rd Board meeting, staff obtained the actual amount for the excess liability coverage which was \$267,000, for a savings of \$23,000.
- 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 plan to pay down our pension liability and upon reaching full funding, move to address the OPEB obligation. This strategy was employed in the FY08-15 budgets (although temporarily halted in FY11 to achieve a 1.5% rate increase). Based on the latest actuarial evaluation, MWRA's pension fund is at 98.3% funding level, which is considered virtually fully funded. As such, in the Final FY16 Budget the Authority will begin funding its OPEB liability at \$5.2 million, continuing the Authority's long-term commitment to address its liabilities. Furthermore, to maximize the benefits in terms of returns and accounting treatment, an irrevocable OPEB Trust was established after Board approval and funding started on April 23rd, 2015 with \$10,800,000 deposit. The source of the deposit is \$10 million cash reserves which became available due to the Amended and Revised Bond Indenture, and \$800,000 from funds appropriated in FY10 for funding OPEB.
- Funding for the Operating Reserve for FY16 is \$518,000 lower than the FY15 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 Final FY16 Budget the required balance is \$39.4 million versus the \$39.5 million required in FY15.

Capital Financing

As a result of the Authority's Capital Improvement Program, debt service as a percent of total expenses (before offsets) has increased steadily from 36% in 1990 to over 61% in the FY16 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, had been dominated by projects mandated by court ordered or regulatory requirements, which in total have accounted for ~80% of capital spending to date. Going forward, and as the Combined Sewer Overflow (CSO) projects wind down, the majority of spending will be focused on asset protection and water redundancy initiatives. The projected capital spending scheduled for fiscal year 2016 is less than scheduled principal payments which will decrease MWRA's outstanding indebtedness.

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.

The Final FY16 Budget capital financing costs total \$432.7 million and remain the largest portion of the MWRA's budget, accounting for 61.6% of total expenses.

The Final FY16 Budget includes a targeted defeasance which will reduce debt service by approximately \$1.3 million in FY16, \$12.6 million in FY17, \$13.1 million in FY18, and \$4.0 million in FY19.

The FY16 Budget assumes a 3.25% interest rate for variable rate debt which is the same level as in FY15. 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 remain as low as they are.

The Final FY16 Budget capital financing costs increased by \$22.9 million or 5.6% compared to the FY15 Budget. This increase in the MWRA's debt service is the result of projected FY16 borrowings and the structure of the debt, partially offset by the impact of the projected defeasance. The FY16 capital financing budget includes:

- \$283.0 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 June 2015 and \$1.8 million to support issuances of \$100 million of new money in June 2016. Also includes a reduction of 1.3 million for the effect of the planned FY15 defeasance;
- \$49.2 million in principal and interest payments on subordinate bonds;
- \$81.9 million in principal and interest payments on SRF loans. This amount includes \$5.4 million to support issuances of \$16.0 of replacement loans and \$46.5 million in regular loans during 2016;

- \$11.2 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; and,
- \$3.2 million for the Chelsea Lease.

Revenue

FY16 non-rate revenue totals \$30.0 million, an increase of \$5.9 million or 24.3% more than the FY15 Budget. The FY16 non-rate revenue budget includes:

- \$12.0 million in Other Revenue including \$5.6 million due to increased water utility related revenue, \$3.1 million from the sale of the Authority's Renewable Portfolio Credits, sale of generated power, and revenue from the demand response program as well as \$2.2 million in permit fees and penalties. Other Revenue increased \$5.8 million from the FY15 Budget.
- \$9.4 million in Investment Income, a decrease of \$377,000 or 3.9% from the FY15 Budget. The FY16 Budget will have fewer funds invested long-term due to liquidity needs for the reserve releases based on the amendments to the Bond Indenture anticipated for FY16. The short-term interest rate assumption is at 0.20% which is at the FY15 Budget level.
- \$8.7 million in Other User Charges, including \$4.8 million for Chicopee Valley Aqueduct (CVA) communities, \$1.7 million for Deer Island water usage, \$753,000 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 \$424,000 or 5.1% more than the FY15 Budget which is mainly due to assessment increases related to increases for Deer Island, Chicopee, and Lancaster as well as increased entrance fees to reflect Dedham Westwood increased demand.

The Rate Revenue Requirement for FY16 is \$672.4 million, an increase \$22.1 million or 3.4% over the FY15 Budget. The Rate Revenue Requirement is the difference between total expenses of \$702.5 million, less non-rate revenue of \$30.0 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. In FY14 the Authority tightened certain planning estimate assumptions such as inflation on direct expenses and limiting the annual capital improvement spending to \$160 million after FY17.

Table 2 below presents the combined estimated future rate increases and household charges based on the FY16 Budget. The planning estimates shown below assume no Debt Service Assistance from the Commonwealth and use of Rate Stabilization and Bond Redemption reserves through FY23 to manage the rate increases. These projections also include the release of cash and debt service reserves starting in FY16 as a result of Bond Indenture changes.

Table 2

Rates & Budget Projections										
Final FY16 CEB	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025
Total Rate Revenue (\$000)	\$ 672,440	\$ 698,606	\$ 725,790	\$ 753,918	\$ 783,697	\$ 824,471	\$ 865,825	\$ 836,159	\$ 822,366	\$ 813,431
Rate Revenue Change from Prior Year (\$000)	22,124	26,166	27,184	28,128	29,779	40,774	41,355	(29,666)	(13,793)	(8,935)
Rate Revenue Increase	3.4%	3.9%	3.9%	3.9%	3.9%	5.2%	5.0%	-3.4%	-1.6%	-1.1%
Use of Reserves (\$000)	\$ -	\$ -	\$ -	\$ -	\$ 34,682	\$ 13,646	\$ 13,136	\$ 1,156	\$ -	\$ -

Estimated Household Bill

Based on annual water usage of 61,000 gallons	\$ 1,055	\$ 1,100	\$ 1,154	\$ 1,204	\$ 1,253	\$ 1,326	\$ 1,393	\$ 1,425	\$ 1,460	\$ 1,497
Based on annual water usage of 90,000 gallons	\$ 1,556	\$ 1,622	\$ 1,703	\$ 1,777	\$ 1,848	\$ 1,956	\$ 2,055	\$ 2,102	\$ 2,154	\$ 2,208

CEB Review and Adoption Process

In March, the MWRA transmitted the Proposed FY16 Budget 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 - FY16 Final Budget vs. FY16 Proposed Budget
- Attachment B - FY16 Final Budget vs. FY15 Approved Budget
- Attachment C - FY16 Final Direct Expense Budget by Division
- Attachment D - FY16 Final Operating Budget (Trustee’s Budget)
- Attachment E - FY16 Final Budget vs. FY15 Projection
- Attachment F - MWRA Responses to Advisory Board’s FY16 Integrated CIP and CEB Comments and Recommendation

ATTACHMENT A

FY16 Final Budget vs FY16 Proposed Budget

TOTAL MWRA	FY15 Budget	FY16 Proposed Budget	FY16 Final Budget	Change FY16 Final Budget vs FY16 Proposed Budget	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 96,554,749	\$ 99,185,938	\$ 99,363,168	\$ 177,230	0.2%
OVERTIME	3,620,600	4,219,293	4,219,293	-	0.0%
FRINGE BENEFITS	18,299,405	19,006,475	19,326,756	320,281	1.7%
WORKERS' COMPENSATION	2,200,000	2,343,000	2,343,000	-	0.0%
CHEMICALS	10,219,580	10,149,911	9,790,849	(359,062)	-3.5%
ENERGY AND UTILITIES	23,472,354	24,864,554	23,164,822	(1,699,732)	-6.8%
MAINTENANCE	27,972,607	28,611,968	28,698,772	86,804	0.3%
TRAINING AND MEETINGS	361,019	413,714	413,714	-	0.0%
PROFESSIONAL SERVICES	5,957,201	5,681,504	5,819,611	138,107	2.4%
OTHER MATERIALS	5,952,729	5,881,553	6,164,588	283,035	4.8%
OTHER SERVICES	22,538,498	23,398,351	23,529,902	131,551	0.6%
TOTAL DIRECT EXPENSES	\$ 217,148,742	\$ 223,756,261	\$ 222,834,475	\$ (921,786)	-0.4%
INSURANCE	\$ 2,128,155	\$ 2,160,797	\$ 2,160,797	\$ -	0.0%
WATERSHED/PILOT	27,466,790	28,061,183	28,096,233	35,050	0.1%
HEEC PAYMENT	3,198,174	1,946,157	1,946,157	-	0.0%
MITIGATION	1,605,967	1,400,000	1,400,000	-	0.0%
ADDITIONS TO RESERVES	482,953	962,449	(34,927)	(997,376)	-103.6%
RETIREMENT FUND	7,808,155	8,159,521	8,159,521	-	0.0%
ADDITIONAL PENSION DEPOSIT		5,062,470		(5,062,470)	-100.0%
POSTEMPLOYMENT BENEFITS	4,821,320		5,224,848	5,224,848	
TOTAL INDIRECT EXPENSES	\$ 47,511,514	\$ 47,752,576	\$ 46,952,628	\$ (799,948)	-1.7%
STATE REVOLVING FUND	\$ 78,460,635	\$ 81,365,988	\$ 81,876,276	\$ 510,288	0.6%
SENIOR DEBT	220,835,626	283,413,656	283,024,431	(389,225)	-0.1%
SUBORDINATE DEBT	99,686,105	49,222,442	49,222,442	-	0.0%
LOCAL WATER PIPELINE CP	4,148,453	4,149,242	4,149,242	-	0.0%
CURRENT REVENUE/CAPITAL	10,200,000	11,200,000	11,200,000	-	0.0%
CAPITAL LEASE	3,217,060	3,217,060	3,217,060	-	0.0%
CORE FUND DEPOSIT	876,507	6,663,030		(6,663,030)	-100.0%
BOND REDEMPTION	(6,745,598)	(3,546,984)		3,546,984	
VARIABLE RATE SAVINGS	-	-	-	-	
DEFEASANCE ACCOUNT	-	-	-	-	
DEBT SERVICE ASSISTANCE	(853,660)	-	-	-	
TOTAL DEBT SERVICE	\$ 409,825,128	\$ 435,684,435	\$ 432,689,451	\$ (2,994,983)	-0.7%
TOTAL EXPENSES	\$ 674,485,384	\$ 707,193,272	\$ 702,476,554	\$ (4,716,719)	-0.7%
REVENUE & INCOME					
RATE REVENUE	\$ 650,315,782	\$ 676,995,000	\$ 672,440,000	\$ (4,555,000)	-0.67%
OTHER USER CHARGES	8,259,693	8,751,391	8,683,898	(67,493)	-0.8%
OTHER REVENUE	6,180,451	11,950,563	12,000,066	49,503	0.4%
RATE STABILIZATION	-	-	-	-	
INVESTMENT INCOME	9,729,458	9,496,318	9,352,590	(143,728)	-1.5%
TOTAL REVENUE & INCOME	\$ 674,485,384	\$ 707,193,272	\$ 702,476,554	\$ (4,716,719)	-0.7%

ATTACHMENT B

FY16 Final Budget vs FY15 Budget

TOTAL MWRA	FY15 Budget	FY16 Proposed Budget	FY16 Final Budget	Change	
				FY16 Final Budget vs FY15 Budget	
				\$	%
EXPENSES					
WAGES AND SALARIES	\$ 96,554,749	\$ 99,185,938	\$ 99,363,168	\$ 2,808,419	2.9%
OVERTIME	3,620,600	4,219,293	4,219,293	598,693	16.5%
FRINGE BENEFITS	18,299,405	19,006,475	19,326,756	1,027,351	5.6%
WORKERS' COMPENSATION	2,200,000	2,343,000	2,343,000	143,000	6.5%
CHEMICALS	10,219,580	10,149,911	9,790,849	(428,731)	-4.2%
ENERGY AND UTILITIES	23,472,354	24,864,554	23,164,822	(307,532)	-1.3%
MAINTENANCE	27,972,607	28,611,968	28,698,772	726,165	2.6%
TRAINING AND MEETINGS	361,019	413,714	413,714	52,695	14.6%
PROFESSIONAL SERVICES	5,957,201	5,681,504	5,819,611	(137,590)	-2.3%
OTHER MATERIALS	5,952,729	5,881,553	6,164,588	211,859	3.6%
OTHER SERVICES	22,538,498	23,398,351	23,529,902	991,404	4.4%
TOTAL DIRECT EXPENSES	\$ 217,148,742	\$ 223,756,261	\$ 222,834,475	\$ 5,685,733	2.6%
INSURANCE	\$ 2,128,155	\$ 2,160,797	\$ 2,160,797	\$ 32,642	1.5%
WATERSHED/PILOT	27,466,790	28,061,183	28,096,233	629,443	2.3%
HEEC PAYMENT	3,198,174	1,946,157	1,946,157	(1,252,017)	-39.1%
MITIGATION	1,605,967	1,400,000	1,400,000	(205,967)	-12.8%
ADDITIONS TO RESERVES	482,953	962,449	(34,927)	(517,880)	-107.2%
RETIREMENT FUND	7,808,155	8,159,521	8,159,521	351,366	4.5%
ADDITIONAL PENSION DEPOSIT	4,821,320	5,062,470		(4,821,320)	-100.0%
POSTEMPLOYMENT BENEFITS			5,224,848	5,224,848	
TOTAL INDIRECT EXPENSES	\$ 47,511,514	\$ 47,752,576	\$ 46,952,628	\$ (558,885)	-1.2%
STATE REVOLVING FUND	\$ 78,460,635	\$ 81,365,988	\$ 81,876,276	\$ 3,415,641	4.4%
SENIOR DEBT	220,835,626	283,413,656	283,024,431	62,188,805	28.2%
SUBORDINATE DEBT	99,686,105	49,222,442	49,222,442	(50,463,663)	-50.6%
LOCAL WATER PIPELINE CP	4,148,453	4,149,242	4,149,242	789	0.0%
CURRENT REVENUE/CAPITAL	10,200,000	11,200,000	11,200,000	1,000,000	9.8%
CAPITAL LEASE	3,217,060	3,217,060	3,217,060	-	0.0%
CORE FUND DEPOSIT	876,507	6,663,030		(876,507)	-100.0%
BOND REDEMPTION	(6,745,598)	(3,546,984)		6,745,598	-100.0%
VARIABLE RATE SAVINGS	-	-	-	-	
DEFEASANCE ACCOUNT	-	-	-	-	
DEBT SERVICE ASSISTANCE	(853,660)	-	-	853,660	-100.0%
TOTAL DEBT SERVICE	\$ 409,825,128	\$ 435,684,435	\$ 432,689,451	\$ 22,864,323	5.6%
TOTAL EXPENSES	\$ 674,485,384	\$ 707,193,272	\$ 702,476,554	\$ 27,991,169	4.2%
REVENUE & INCOME					
RATE REVENUE	\$ 650,315,782	\$ 676,995,000	\$ 672,440,000	\$ 22,124,218	3.40%
OTHER USER CHARGES	8,259,693	8,751,391	8,683,898	424,205	5.1%
OTHER REVENUE	6,180,451	11,950,563	12,000,066	5,819,615	94.2%
RATE STABILIZATION	-	-	-	-	
INVESTMENT INCOME	9,729,458	9,496,318	9,352,590	(376,868)	-3.9%
TOTAL REVENUE & INCOME	\$ 674,485,384	\$ 707,193,272	\$ 702,476,554	\$ 27,991,167	4.2%

ATTACHMENT C

FY16 Final Direct Expense Budget by Division

Division	FY15 Budget	FY16 Final Budget	Change FY16 Final Budget vs FY15 Budget	
			\$	%
Executive	\$1,228,621	\$1,276,807	\$48,186	3.9%
Emergency Preparedness	2,681,758	3,125,379	\$443,621	16.5%
Administration	41,978,750	43,641,893	\$1,663,143	4.0%
Finance	4,267,437	4,183,045	-\$84,392	-2.0%
Law	1,732,256	1,900,601	\$168,345	9.7%
Affirmative Action	578,752	534,332	-\$44,420	-7.7%
Internal Audit	701,437	755,720	\$54,283	7.7%
Public Affairs	1,125,052	1,212,328	\$87,276	7.8%
Operations/Planning	162,854,680	166,204,370	\$3,349,690	2.1%
Total Authority	\$217,148,742	\$222,834,475	\$5,685,733	2.6%

ATTACHMENT D

**Massachusetts Water Resources Authority
Fiscal Year 2016 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	\$18,594	\$23,243	\$18,594	\$18,594	\$23,243	\$18,594	\$18,594	\$23,243	\$18,594	\$18,594	\$23,243	\$18,594	\$241,726
Debt Service & Coverage	33,284	41,605	33,284	33,284	41,605	33,284	33,284	41,605	33,284	33,284	41,605	33,284	432,689
Debt Service Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
CORE	---	---	---	---	---	---	---	---	---	---	---	---	0
Commonwealth Obligations	---	---	3,547	---	---	3,547	---	---	11,847	---	---	9,156	28,096
Operating Reserve	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(35)
Insurance Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
Renewal & Replacement Reserve	---	---	---	---	---	---	---	---	---	---	---	---	0
Rate Stabilization Reserve	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	<u>\$51,875</u>	<u>\$64,844</u>	<u>\$55,422</u>	<u>\$51,875</u>	<u>\$64,844</u>	<u>\$55,422</u>	<u>\$51,875</u>	<u>\$64,844</u>	<u>\$63,722</u>	<u>\$51,875</u>	<u>\$64,844</u>	<u>\$61,031</u>	<u>\$702,477</u>

ATTACHMENT E

FY16 Final Budget vs FY15 Projection

TOTAL MWRA	FY15 Projection	FY16 Final Budget	Change FY16 Final Budget vs FY15 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 93,894,681	\$ 99,363,168	\$ 5,468,487	5.8%
OVERTIME	4,296,570	4,219,293	(77,277)	-1.8%
FRINGE BENEFITS	18,058,098	19,326,756	1,268,658	7.0%
WORKERS' COMPENSATION	2,400,000	2,343,000	(57,000)	-2.4%
CHEMICALS	9,902,400	9,790,849	(111,551)	-1.1%
ENERGY AND UTILITIES	21,152,929	23,164,822	2,011,893	9.5%
MAINTENANCE	28,487,376	28,698,772	211,396	0.7%
TRAINING AND MEETINGS	379,552	413,714	34,162	9.0%
PROFESSIONAL SERVICES	5,531,108	5,819,611	288,503	5.2%
OTHER MATERIALS	6,314,420	6,164,588	(149,832)	-2.4%
OTHER SERVICES	22,704,030	23,529,902	825,872	3.6%
TOTAL DIRECT EXPENSES	\$ 213,121,164	\$ 222,834,475	\$ 9,713,311	4.4%
INSURANCE	\$ 2,193,807	\$ 2,160,797	\$ (33,010)	-1.5%
WATERSHED/PILOT	27,163,746	28,096,233	932,487	3.4%
HEEC PAYMENT	2,831,518	1,946,157	(885,361)	-31.3%
MITIGATION	1,496,419	1,400,000	(96,419)	-6.4%
ADDITIONS TO RESERVES	482,953	(34,927)	(517,880)	-107.2%
RETIREMENT FUND	7,824,155	8,159,521	335,366	4.3%
ADDITIONAL PENSION DEPOSIT	4,821,320		(4,821,320)	-100.0%
POSTEMPLOYMENT BENEFITS		5,224,848	5,224,848	N/A
TOTAL INDIRECT EXPENSES	\$ 46,813,919	\$ 46,952,628	\$ 138,709	0.3%
STATE REVOLVING FUND	\$ 74,982,110	\$ 81,876,276	\$ 6,894,166	9.2%
SENIOR DEBT	214,202,742	283,024,431	68,821,689	32.1%
SUBORDINATE MWRA DEBT	99,686,105	49,222,442	(50,463,663)	-50.6%
LOCAL WATER PIPELINE CP	341,921	4,149,242	3,807,321	1113.5%
CURRENT REVENUE/CAPITAL	10,200,000	11,200,000	1,000,000	9.8%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
CORE FUND DEPOSIT	876,507	-	(876,507)	-100.0%
BOND REDEMPTION	(6,745,598)	-	6,745,598	-100.0%
VARIABLE DEBT SAVINGS	(12,855,668)	-	12,855,668	-100.0%
DEFEASANCE ACCOUNT	26,773,609	-	(26,773,609)	-100.0%
DEBT SERVICE ASSISTANCE	(853,660)	-	853,660	-100.0%
TOTAL DEBT SERVICE	\$ 409,825,128	\$ 432,689,451	\$ 22,864,323	5.6%
TOTAL EXPENSES	\$ 669,760,211	\$ 702,476,554	\$ 32,716,343	4.9%
REVENUE & INCOME				
RATE REVENUE	\$ 650,315,782	\$ 672,440,000	\$ 22,124,218	3.4%
OTHER USER CHARGES	8,259,693	8,683,898	424,205	5.1%
OTHER REVENUE	8,178,838	12,000,066	3,821,228	46.7%
RATE STABILIZATION	-	-	-	N/A
INVESTMENT INCOME	9,579,458	9,352,590	(226,868)	-2.4%
TOTAL REVENUE & INCOME	\$ 676,333,769	\$ 702,476,554	\$ 26,142,785	3.9%
VARIANCE	\$ 6,573,558	\$ -	\$ (6,573,558)	

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>1. The Advisory Board recommends that the Phosphorus Removal Construction Project be placed on indefinite hold pending receipt of \$500 thousand toward the operations of the Clinton Wastewater Treatment Plant. (Page 24)</p>	<p>The Authority received the \$500,000 on 6/15/2015 for FY15 and funds are appropriated in FY16.</p>
<p>2. The Advisory Board grants approval under Section 8 (d) of the MWRA's Enabling Act for the MWRA to provide water to the Commonwealth at its McLaughlin Fish Hatchery subject to the execution of a legally binding agreement between the Authority and the Commonwealth guaranteeing no less than \$2.5 million, as well as confirmation of the grant funding necessary to construct the hydropower turbine. (Page 33)</p>	<p>On June 3, the MWRA Board of Directors authorized the Executive Director, on behalf of the Authority, to execute a Memorandum of Agreement between the Massachusetts Division of Fisheries and Wildlife, the Massachusetts Department of Fish and Game, and the Massachusetts Water Resources Authority relating to the construction and operation of the McLaughlin Fish Hatchery Pipeline and Hydropower Project, at the Chicopee Valley Aqueduct. The Division of Fisheries and Wildlife Board also voted to approve the MOA. The MOA provides for \$2.5 million to be transferred to MWRA to be deposited in an interest-bearing money market account prior to the end of FY2015. The \$2.5 million represents the estimated capital cost of the pipeline at the 30% stage of design and includes a 25% contingency. Per the MOU, the \$2.5 million is to be used exclusively to pay for the costs of design, permitting, procurement, construction and resident engineering for the pipeline; if the pipeline costs are less than \$2.5 million, unused monies will be returned to Fisheries and Wildlife and Fish and Game. MWRA has received grants from both the Leading By Example Program and the Mass. Clean Energy Center for the hydropower facilities: the grants total \$577,000, which is the estimated capital cost of the hydropower facilities, including a 25% contingency.</p>
<p>3. The Advisory Board reverses its prior recommendation to remove the Hatchery Pipeline Project from the MWRA's Capital Improvement Program, subject to the terms of the prior recommendation. (Page 33)</p>	<p>Understood. MWRA is proceeding with the detail design of the project, and plans to advertise for construction bids late this year.</p>

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>4. The Advisory Board recommends that the Authority identifies the causes for continued capital underspending and takes the steps necessary to bring capital spending closer to the baseline cap levels. (Page 40)</p>	<p>The Authority agrees with the Advisory Board observation that although the current Cap (FY14-18) was lowered significantly versus the prior two Caps (FY04-09 and FY09-13) there is comparable level of underspending present. It is important to note that the underspending is measured against a base-line Cap set, by the end of the cap period, six years in advance of the actual spending. The annual underspending may not be a good measure of a successful investment program. A better measure may be the availability of equipment and the history of significant failures. As analyzed in great detail in prior periods, the spending against a set target which is an estimate at a given time, depends on a variety of factors and in most cases a combination of multiple factors. In 2007 at the Advisory Board's recommendation, a Committee was formed to identify and document the reasons of perceived underspending during the FY04-07 period. The committee identified a series of factors which may cause underspending, such as: delay in notices to proceed, deliberate decisions to pause or slow a project, design assumption changes, staffing issues, level of contingencies, cashflow assumptions, lower bid awards, legal settlements, environmental issues and permits. As result of the committee's recommendation, the contingency factors applied to cashflows were lowered downwards from 10% to 7%. These factors continue to impact the timing and the amount of spending in the capital program. As outlined in the Authority's presentation to the Board on June 3rd, 2015 during the budget briefings, the Authority is planning to improve CIP spending by implementing corrective measures such as streamlining the internal review process, improving the CIP progress monitoring and continuous backfilling of critical positions.</p>
<p>5. The Advisory Board recommends that the rate revenue requirement for the FY16 Current Expense Budget be reduced by \$4,811,604, resulting in a 3.36% wholesale rate increase. (Page 47)</p>	<p>Agree.</p>
<p>6. The Advisory Board recommends that the \$6,663,030 CORE Fund deposit is removed from the final FY16 CEB. (Page 53)</p>	<p>Agree, the CORE Fund deposit is no longer a requirement based on the Revised Bond Resolution.</p>
<p>7. The Advisory Board recommends reducing the anticipated use of bond redemption funds by \$3,547,000. (Page 53)</p>	<p>Agree. Given the dynamics of the CORE Funds requirement (see Item 6) the reduction of bond redemption funds enables the Authority to preserve these funds for future years, a strategy which is part of the long-term management of assessment increases.</p>
<p>8. The Advisory Board recommends that the Authority adjusts its attrition/vacancy rate assumptions upward by the average value of three positions, for a reduction of \$300,000 (including associated fringe benefits). (Page 59)</p>	<p>Upon further evaluation, the Authority's position is that the Regular Pay line item (based on a detail position by position comparison) is sized appropriately for FY16.</p>

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
9. The Advisory Board recommends adding \$100,000 to fund additional personnel for the Toxic Reduction and Control (TRAC) department to begin preparation for issuing permits aimed at reducing molybdenum in the wastewater system (Page 59, and page 104)	Agree. The Authority added two positions to TRAC in support the effort required if MWRA decides to adopt a regulatory approach to reduce molybdenum levels.
10. In order to avoid triggering Operating Reserve Requirement related to Other Post-Employment Benefits (OPEB) contributions, the Advisory Board recommends that any strategy toward funding the OPEB liability be framed as the Authority's "approach" or "practice" rather than as a formally voted policy of the MWRA Board of Directors. (Page 65-66)	Agree, The establishment of a policy would deem the OPEB contribution subject to the Operating Reserve calculation under the General Resolution.
11. The Advisory Board endorses designating the \$5,062,470 in the proposed FY16 CEB currently listed as "Post-Employment Benefits/Additional Pension Deposit" as an intended contribution toward the OPEB liability rather than as an additional pension payment. (Page 66)	As based on the latest actuarial evaluation, MWRA's Pension Fund is at 98.3%, it is appropriate to start funding the OPEB liability in FY16. The Authority included \$5,224,848 to fund the OPEB obligation based on the latest Actuarial valuation.
12. The Advisory Board recommends that the \$5,062,470 in the proposed FY16 CEB be deposited on the final day of FY 2016 to allow the Authority flexibility to use these funds for other purposes if deemed necessary. (Page 66)	Agree, for the amount indicated above, \$5,224,848. Depositing the funds on the final day of the Fiscal Year, ensures its exemption from the operating reserve requirements.
13. The Advisory Board recommends that the FY16 CEB be reduced by \$843,745 - the amount that had been budgeted in case OPEB contributions were found to trigger the Operating Reserve Requirement. (Page 66)	Agree.
14. The Advisory Board recommends that any future contributions to OPEB be no greater than 50% of the Actuarial Calculated Cost. (Page 67)	The Authority would like to reserve the right the re-evaluate in every Budget cycle the future contribution levels. Certainly the contribution in the current budget year will be subject of discussion with the OPEB Trust and the Board. The Authority agrees with the Advisory Board to not include more than 50% of the latest Actuarial Calculated cost in the long-term Planning Estimates.
15. The Advisory Board recommends that the Authority adopt the practice of depositing any funds intended as an OPEB contribution on the last day of the fiscal year in which they are intended to be deposited. (Page 67)	Agree.
16. The Advisory Board recommends that the Authority reduce the "additions to reserves" line item by \$207,404 FY16 to reflect reductions to applicable expenses as recommended by the Advisory Board (see Appendix C). (Page 67)	Partially agree. The reduction to the Operating Reserve is \$153,631.

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

		MWRA Responses
17.	The Advisory Board recommends that Department of Conservation and Recreation should pursue a "green" recertification of Division of Water Supply Protection lands through the Forest Stewardship Council. (Page 69)	As discussed at the Water Supply Protection Trust meeting of June 4, DCR is actively evaluating "green" certification options for the Watershed Forestry Program. Further discussion will be held at the Trust's meeting in September.
18.	The Advisory Board recommends that the Division of Water Supply Protection make a formal presentation to the MWRA Board of Directors comparing the current status of the forestry program with the recommendations of the Quabbin Science and Technical Advisory Committee report to see what progress has been made. (Page 69)	DCR made a presentation to the Water Supply Protection Trust on the status of the Watershed Forestry Program on June 4th. The program is going strong and all of the STAC report recommendations are being implemented. DCR, in collaboration with MWRA staff, is slated to present an overview on source water protection to the Board sometime soon and will include an update on forestry in the staff summary and presentation.
19.	The Advisory Board recommends a reduction of \$58,000 to reflect a later start-up of the co-digestion pilot program until the last quarter of the fiscal year. (Page 78, Page 100)	Agree. The FY16 CEB will not include any funds for the DITP co-digestion pilot project, which is now expected to start-up after FY16.
20.	The Advisory Board recommends that the Authority reduce the "other services" line item in the final FY16 CEB by \$5,425 consistent with the Advisory Board's final FY16 operating budget. (Page 79)	Agree.
21.	The Advisory Board recommends that the Authority limit financial participation in the Mystic River Modeling Project to the amount committed to in the Joint Funding Agreement with USGS, and to revisit further contributions if and when the other collaborating entities secure funds for their portion of the project. (Page 86)	Agree.
22.	The Advisory Board recommends a reduction of the Mystic River Modeling Project by \$116,000 in the final FY16 CEB. (Page 86)	Disagree. The Mystic River Watershed Association is actively seeking additional funding for this project and MWRA is optimistic their efforts will be successful. If so, MWRA is committed to providing matching funds up to \$150,000 for FY16 and thus does not want to decrease the budget as the Advisory Board has recommended. This will provide MWRA the flexibility to provide the matching funds in case additional funding is obtained through other organizations.
23.	The Advisory Board supports the Authority's expected addition of \$435,000 in CEB spending and the estimated additional \$340,000 in CIP spending consistent with the additional contaminant monitoring needs. (Page 90)	The Authority appreciates the Advisory Board's support in funding this important initiative.

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>24. The Advisory Board recommends that Authority staff draft an informational staff summary and provide a detailed presentation to the full MWRA Board of Directors in July 2015 on the history and the significance of the issues at stake with regard to co-permittee language in the Deer Island NPDES permit. (Page 97)</p>	<p>Agree. Staff will work on a staff summary outlining the issues and concerns; however, this will be later in the calendar year.</p>
<p>25. The Advisory Board recommends that the Authority join with the Advisory Board by actively pursuing NPDES delegation authority with the current administration. (Page 98)</p>	<p>Agree. Staff will continue to evaluate this issue. An expected benefit would be requirements that better reflect local conditions. However, a consequence could be a significant permit fee paid to DEP in order to administer the program, especially if DEP expects financial support on the basis of one or more metrics that require proportionate contributions.</p>
<p>26. The Advisory Board recommends that the Authority put together a joint MWRA/Advisory Board working committee to review and identify areas where the Authority may be of assistance to the member communities in meeting the requirements of the MS4 General Permits, including but not necessarily limited to the public education and outreach requirements. (Page 99)</p>	<p>Staff agree to meet with the Advisory Board to discuss the feasibility of participation in such a committee.</p>
<p>27. The Advisory Board recommends that the Authority arrange a presentation to the MWRA Board of Directors from MassDEP on the status of the Organics Diversion Program. Additionally, the Advisory Board recommends that Authority staff then extrapolate from this information the viability of a market/supply for Deer Island should co digestion be deemed viable. (Page 100)</p>	<p>MWRA staff will engage with DEP staff to get the requested information and evaluate timing of a presentation to the Board of Directors. An evaluation of the market will be one of the factors considered in a decision for implementation of co-digestion.</p>
<p>28. The Advisory Board recommends that the Authority convene a working group to develop an appropriate rate structure for Direct Source Water. Further that the recommendation of the working group be brought to the Operations Committee and full Advisory Board for a vote as a new admission policy for the MWRA. (Page 101)</p>	<p>MWRA is in agreement that development of an appropriate rate structure for Direct Source Water makes sense and that a working group should be convened, with the intent that the recommendation of the working group be brought to the Operations Committee and the full Advisory Board, and ultimately, to the MWRA Board of Directors for adoption in a formal policy.</p>
<p>29. The Advisory Board recommends that a working group be convened to discuss a methodology for structuring Water Capacity Insurance to be offered to non-member communities, including members of the Advisory Board, as well as staff from both MWRA and the Advisory Board. Further, that the recommendation of this working group be brought to the Operations Committee and full Advisory Board for a vote as a new admission policy for the MWRA. (Page 102)</p>	<p>MWRA staff shall work with the Advisory Board and its working group regarding a methodology for structuring Water Capacity Insurance. It is MWRA's understanding that it is the Advisory Board's desire to apply a water capacity insurance charge to communities that are not currently part of the MWRA system but that may need MWRA water from time to time. MWRA notes, though, that pursuant to Section 8C of the Interbasin Transfer Act, any MWRA service to new communities that are not within the Chicopee and Nashua Donor Basins require Interbasin Transfer Act approval, except if water is being provided pursuant to water supply emergencies declared by DEP or authorized by law.</p>

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>30. The Advisory Board recommends that the Authority partner with the Advisory Board to take any and all actions necessary to ensure that 100% of the pellets from the Fore River Pelletization Plant are able to be placed within the Commonwealth year-round by FY 2017. (Page 104)</p>	<p>Staff have begun preliminary work to evaluate a regulatory response to the molybdenum issue, and will work closely with the Advisory Board if such a response is required.</p>
<p>31. The Advisory Board recommends that the Five-Year Strategic Business Plan makes more specific references throughout the list of initiatives to better help readers "crosswalk" between the Business Plan and more detailed backup such as the Orange Notebook. (Page 106)</p>	<p>The Final Business Plan contains 31 hyperlinks throughout the Plan, that refer to existing documents in order to provide additional context and more detailed information about MWRA's activities, including, the Orange Notebook, the Water and Wastewater Master Plans, the CIP, the NPDES Permit, the TRAC Annual Report, as well as many others.</p>
<p>1. The Advisory Board supports the funds included in the proposed FY16 CIP to provide distributions to communities for Phase 9, Phase 10, and earlier phases as well. (Page 28)</p>	<p>The FY16 CIP continues to support and fund this important program at the projected level.</p>
<p>2. The Advisory Board supports the continued use of the defeasance account strategy, which clearly identifies a use of variable rate debt service savings that is consistent with the original intended use of the funds that were raised. (Page 52)</p>	<p>As the use of the defeasance account is a significant part of the Authority's multi-year assessment management strategy the continuation of this practice is essential. Besides the variable rate debt savings, any other debt related favorable variance is included in the defeasance account.</p>
<p>3. The Advisory Board expects the Authority to reduce capital financing by an additional \$400,000 to reflect the spring 2015 defeasance transaction. (Page 52)</p>	<p>Agree. The final reduction to capital financing based on the defeasance executed in May was \$389,225.</p>
<p>4. The Advisory Board expects the Authority to increase the line item for State Revolving Fund (SRF) debt service by \$1,000,000 to reflect the updated amounts anticipated for FY16. (Page 52)</p>	<p>Upon receipt of revised estimates from the Trust, the State Revolving Fund (SRF) debt service increased by \$510,288 versus the \$1,000,000 prior estimate. Both the estimates for the new money deal and the replacement loans were increased by approximately \$4.0 million/each for a total increase of \$8.0 million.</p>
<p>5. The Advisory Board supports and endorses the recommendation of the Long-Term Rates Management Committee and subsequent vote of the MWRA Board of Directors for the intended use of the unencumbered released reserves including \$10 million as an initial deposit into the OPEB irrevocable trust. (Page 56)</p>	<p>Based on the recommendation of the Long-Term Rates Management Committee and subsequent vote of the MWRA Board of Directors, \$10 million of the \$46.3 million reserve release pertaining to the Bond Resolution changes effecting the Community Obligation and Revenue Enhancement Fund (CORE) and the Renewal and Replacement Reserve Fund (RRR) was deposited into an OPEB account. Furthermore the irrevocable OPEB Trust has been established and funded as of April 23, 2015.</p>
<p>6. The Advisory Board expects the Authority's health insurance costs to increase based on new data released this spring from the GIC. The Advisory Board estimates this increase to be \$350,000. (Page 60)</p>	<p>The Authority increased the health insurance related cost, based on the latest GIC premium estimates by \$320,281.</p>

ATTACHMENT F

MWRA's Responses to the Advisory Board's FY2016 Integrated CIP and CEB Recommendations and Comments

	MWRA Responses
<p>7. The Advisory Board endorses the "virtual full funding" concept, which defines the pension as fully funded if the system's valuation is between 95% - 105% of the targeted funding level. (Page 65)</p>	<p>The Advisory Board's support is appreciated.</p>
<p>8. The Advisory Board supports and endorses the MWRA Board of Directors' establishment of the irrevocable trust as presented at the April 2015 Board of Directors meeting. (Page 65)</p>	<p>The Advisory Board's support is appreciated.</p>
<p>9. The Advisory Board expects that future contributions to the OPEB trust will not trigger the need for the one-sixth Operating Reserve Requirement, per the opinion of bond counsel. (Page 65)</p>	<p>Agree.</p>
<p>10. The Advisory Board supports the Authority's actions in making an \$800 thousand deposit into the OPEB irrevocable trust from the funds appropriated in a previous year for this purpose. (Page 66)</p>	<p>The \$800,000 deposit, which was established in FY10 was rolled into the Irrevocable OPEB Trust established on April 23, 2015.</p>
<p>11. The Advisory Board expects the Authority to decrease its FY16 CEB "utilities" line item. The Advisory Board's estimate of this reduction is \$1,600,000. (Page 76)</p>	<p>Agree. The updated FY16 CEB for utilities results in a reduction of \$1,699,732.</p>
<p>12. The Advisory Board expects that the chemicals budget will be revised to reflect updated pricing and usage assumptions, including the reduction in fluoride dosing consistent with updated federal regulations. The Advisory Board estimates this to be a reduction of \$350,000. (Page 82)</p>	<p>Agree. The updated FY16 CEB for chemicals results in a reduction of \$359,062.</p>
<p>13. The Advisory Board agrees with the Authority's current belief that CSO/SSO discharges are not the primary cause of the Mystic River's water quality issues. (Page 86)</p>	<p>MWRA continues to work cooperatively with the Mystic River Watershed Association and the Mystic River Steering Committee to understand water quality issues facing the Mystic River.</p>
<p>14. The Advisory Board supports and endorses the increased staff training and participation in national groups and organizations provided there are checks and balances to ensure that there is no misuse of funds for these purposes, particularly with regard to out-of-state travel. (Page 92)</p>	<p>The Advisory Board support is appreciated. As in the past, the Authority will continue to approve staff training and participation in national groups and organizations one a case by case basis, after evaluation of the overall benefits for the organization.</p>

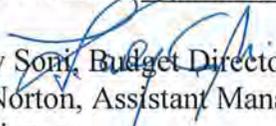
STAFF SUMMARY

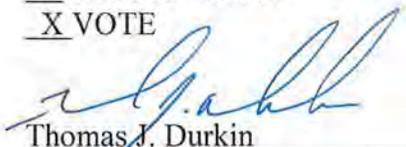
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: Final FY16 Water and Sewer Assessments

COMMITTEE: Administration, Finance & Audit

INFORMATION

X VOTE


Kathy Song, Budget Director
 Leo Norton, Assistant Manager, Rates, Revenue
and Finance
Preparer/Title


Thomas J. Durkin
Director, Finance

The FY16 Proposed Current Expense Budget (CEB) submitted to the Advisory Board at the March 2015 Board meeting included a 4.1% combined assessment increase.

Based on the Board discussions during the June 3rd budget hearings and the Advisory Board recommendation, staff is putting forth a 3.4% combined assessment increase, resulting in a Rate Revenue Requirement of \$672,440,000. This is significantly lower than the 4.3% increase projected for FY16 last year.

MWRA continues to utilize a multi-year rates management strategy to provide sustainable and predictable assessment increases to its member communities. To achieve this goal again this year, MWRA has continued to employ conservative budgeting and fiscal discipline which includes controlled spending and use of historical variable rate assumptions. The combination of these measures resulted in assessment increase projections below 4.0% for the next five years, in line with the Advisory Board recommendations.

RECOMMENDATION:

To adopt the following effective July 1, 2015:

- 1) Water system assessments of \$226,372,877 and sewer system assessments of \$446,067,123 for Fiscal Year 2016.
- 2) FY16 sewer assessments of \$500,000 for the Town of Clinton and \$285,140 for the Lancaster Sewer District.
- 3) FY16 charge to the City of Worcester of \$149,339 representing approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant.
- 4) FY16 water assessments of \$3,409,757 for the City of Chicopee, \$692,018 for South Hadley Fire District #1, and \$730,299 for the Town of Wilbraham.
- 5) A wholesale water rate of \$3,488.04 per million gallons.
- 6) A retail sewer rate of \$7,144.75 per million gallons.

DISCUSSION:

The Final FY16 Current Expense Budget includes a Rate Revenue Requirement of \$672,440,000, an increase of 3.4% over the FY15 requirement.

	FY16 Final	FY15 Approved	\$ Change from FY15	% Change from FY15
Water	\$226,372,877	\$210,233,607	\$16,139,270	7.7%
Sewer	446,067,123	440,082,175	\$ 5,984,948	1.4%
Total	\$672,440,000	\$650,315,782	\$22,124,218	3.4%

Attachment 1 summarizes FY16 wholesale water and sewer charges for each MWRA community.

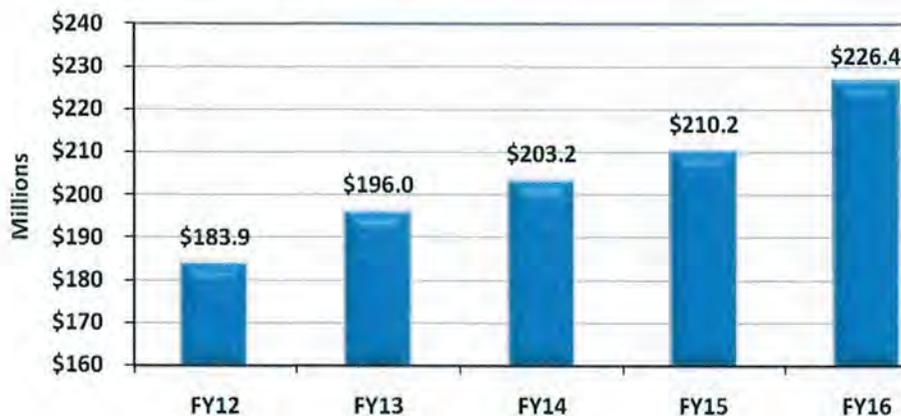
The estimated impact of the FY16 assessment increase on the MWRA portion of the average household bill for water and sewer service in a fully served MWRA community that uses close to the system average of 61,000 gallons of water per year is less than \$19.

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. FY16 assessments are based on each community's share of CY14 water use of 64.900 billion gallons, a 0.01% increase compared to CY13 water use of 64.894 billion gallons. Changes in FY16 water assessments for customer communities compared to FY15 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 CY14 compared to CY13. This is particularly true for communities that receive only part of their water from MWRA.

The graph below illustrates the water Rate Revenue Requirement for the past 5 years. The changes from FY15 to FY16 are primarily the result of increased debt service related to water utility rehabilitation and improvements.

MWRA Water Rate Revenue Requirement

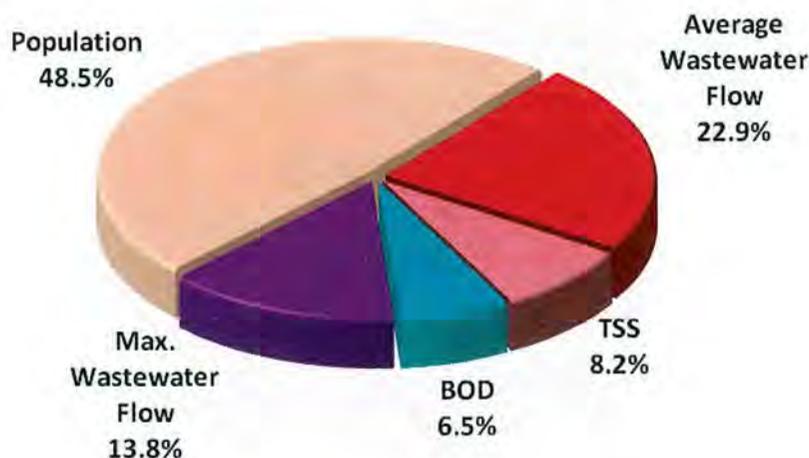


Sewer Assessments

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 51% of a community's FY16 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 49% is based on population as illustrated in the next graph.

Allocation of Total MWRA Sewer Utility Assessment



Both the preliminary and final FY16 assessment for population were calculated using the most recent (July 2013) 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 FY16 assessments were calculated using the average of CY12, CY13 and CY14 wastewater flows and strength of flows as of February 2015. Since February, staff has revised CY14 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. As with the water utility, the annual changes continue to be primarily the result of increased debt service related to sewer utility rehabilitation and improvements.

MWRA Sewer Rate Revenue Requirement



Clinton Sewer Service Area Assessments

FY16 operating and maintenance (O&M) and capital expenses attributable to the Clinton Wastewater Treatment Plant are \$2,998,612, an increase of 15.9% over FY15 expenses. This includes a 13.7% increase in operating costs, and a 24.2% increase in capital expenses related primarily to the digester cleaning/rehabilitation project.

In accordance with the agreement that allows the City of Worcester to take water from the Wachusett watershed, Worcester is charged approximately 7.9% of the direct operating expenses for the Clinton Wastewater Treatment Plant. FY16 direct operating expenses for the plant total \$1,887,745, resulting in an FY16 charge of \$149,339 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 FY16 expenses and CY14 wastewater flows, FY16 charges are \$285,140 for the Lancaster Sewer District and \$2,564,132 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 FY16 CIP and CEB for the Chicopee Valley Aqueduct (CVA) water system, the FY16 system assessment is \$4,832,074, an increase of 3.7% from FY15 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 CY14 water use, FY16 assessments are as follows:

- City of Chicopee: \$3,409,757 (+3.5%)
- South Hadley Fire District #1: \$ 692,018 (+2.1%)
- Town of Wilbraham: \$ 730,299 (+6.3%)

As with the metropolitan water system, changes in FY16 water assessments for each CVA community compared to FY15 assessments vary depending on their water use and how that use factors into their share of the CVA water system in CY14 compared to CY13.

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, and the Department of Youth Services. The wholesale water rate for FY16 is \$3,488.04 per million gallons. The FY16 CEB includes revenue of \$88,902 from these customers.

Retail Sewer Rate

MWRA provides direct retail sewer service to Regis College in Weston and the New England Center for Children in Southborough. In accordance with MWRA Policy #OP.11, "Admission of New Community to MWRA Sewer System and Other Requests for Sewer Service to Locations Outside MWRA Sewer Service Area", both entities are charged a modified per million gallon "retail" rate that captures both sanitary and non-sanitary flows. Based on FY16 sewer assessments, the FY16 retail sewer rate will be \$7,144.75 per million gallons. The FY16 CEB includes revenue of \$76,359 from these customers.

ATTACHMENTS:

1. Final FY16 Water and Sewer Assessments
2. Clinton Wastewater Treatment Plant: FY16 Sewer User Charge Determination
3. Chicopee Valley Aqueduct System Assessment: Fiscal Year 2016

MWRA Fully Served Water and Sewer Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
ARLINGTON	\$4,555,760	\$4,724,970	3.7%	\$7,726,704	\$7,699,278	-0.4%	\$12,282,464	\$12,424,248	\$141,784	1.2%
BELMONT	2,582,348	2,674,576	3.6%	4,664,723	4,624,861	-0.9%	7,247,071	7,299,437	52,366	0.7%
BOSTON (BWSC)	75,628,730	80,205,208	6.1%	128,143,674	129,701,392	1.2%	203,772,404	209,906,600	6,134,196	3.0%
BROOKLINE	6,529,438	6,910,863	5.8%	12,542,458	12,639,575	0.8%	19,071,896	19,550,438	478,542	2.5%
CHELSEA	3,782,023	4,155,184	9.9%	7,256,657	7,435,243	2.5%	11,038,680	11,590,427	551,747	5.0%
EVERETT	4,611,174	4,636,654	0.6%	7,816,187	8,056,404	3.1%	12,427,361	12,693,058	265,697	2.1%
FRAMINGHAM	7,583,720	8,243,826	8.7%	11,278,349	11,893,982	5.5%	18,862,069	20,137,808	1,275,739	6.8%
LEXINGTON	6,035,866	6,695,144	10.9%	7,177,414	6,970,176	-2.9%	13,213,280	13,665,320	452,040	3.4%
MALDEN	6,273,748	6,941,818	10.8%	12,260,112	12,439,049	1.5%	18,533,860	19,380,867	847,007	4.6%
MEDFORD	5,979,858	6,432,009	7.6%	11,075,116	11,355,458	2.5%	17,054,974	17,787,467	732,493	4.3%
MELROSE	2,650,477	2,853,930	7.7%	5,945,198	6,054,875	1.8%	8,595,675	8,908,805	313,130	3.6%
MILTON	2,854,051	3,156,824	10.6%	5,025,212	5,018,915	-0.1%	7,879,263	8,175,739	296,476	3.8%
NEWTON	10,437,524	12,205,271	16.9%	20,176,404	19,710,607	-2.3%	30,613,928	31,915,878	1,301,950	4.3%
NORWOOD	3,277,568	3,755,101	14.6%	6,492,751	6,718,885	3.5%	9,770,319	10,473,986	703,667	7.2%
QUINCY	10,605,214	11,918,042	12.4%	19,001,720	19,481,076	2.5%	29,606,934	31,399,118	1,792,184	6.1%
READING	1,931,410	2,032,766	5.2%	4,642,124	4,624,378	-0.4%	6,573,534	6,657,144	83,610	1.3%
REVERE	4,484,031	5,013,281	11.8%	10,193,891	10,261,623	0.7%	14,677,922	15,274,904	596,982	4.1%
SOMERVILLE	6,896,106	7,060,400	2.4%	14,845,808	15,585,894	5.0%	21,741,914	22,646,294	904,380	4.2%
STONEHAM	3,490,972	3,381,301	-3.1%	4,477,065	4,429,220	-1.1%	7,968,037	7,810,521	(157,516)	-2.0%
WALTHAM	8,061,502	8,631,171	7.1%	12,953,820	12,680,425	-2.1%	21,015,322	21,311,596	296,274	1.4%
WATERTOWN	3,096,347	3,392,382	9.6%	5,774,673	5,760,051	-0.3%	8,871,020	9,152,433	281,413	3.2%
WINTHROP	1,454,285	1,629,550	12.1%	3,221,355	3,183,339	-1.2%	4,675,640	4,812,889	137,249	2.9%
TOTAL	\$182,802,152	\$196,650,271	7.6%	\$322,691,415	\$326,324,706	1.1%	\$505,493,567	\$522,974,977	\$17,481,410	3.5%

MWRA Sewer and Partial Water Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
CANTON	\$991,292	\$1,286,728	29.8%	\$3,547,316	\$3,933,960	10.9%	\$4,538,608	\$5,220,688	\$682,080	15.0%
NEEDHAM	1,193,697	1,012,962	-15.1%	5,466,144	5,408,445	-1.1%	6,659,841	6,421,407	(238,434)	-3.6%
STOUGHTON	931,975	1,106,344	18.7%	4,391,426	4,392,863	0.0%	5,323,401	5,499,207	175,806	3.3%
WAKEFIELD	1,611,741	1,855,071	15.1%	5,594,367	5,563,282	-0.6%	7,206,108	7,418,353	212,245	2.9%
WELLESLEY	1,379,407	852,477	-38.2%	5,333,992	5,278,300	-1.0%	6,713,399	6,130,777	(582,622)	-8.7%
WILMINGTON	383,646	353,379	-2.8%	2,353,306	2,476,867	5.3%	2,716,952	2,830,246	113,294	4.2%
WINCHESTER	1,253,400	1,234,222	-1.5%	3,867,732	3,868,461	0.0%	5,121,132	5,102,683	(18,449)	-0.4%
WOBURN	3,032,534	3,091,283	1.9%	9,535,730	9,492,994	-0.4%	12,568,264	12,584,277	16,013	0.1%
TOTAL	\$10,757,692	\$10,792,466	0.3%	\$40,090,013	\$40,415,172	0.8%	\$50,847,705	\$51,207,638	\$359,933	0.7%

MWRA Sewer-only Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
ASHLAND				\$2,310,206	\$2,380,635	3.0%	\$2,310,206	\$2,380,635	\$70,429	3.0%
BEDFORD				3,085,246	3,199,185	3.7%	3,085,246	3,199,185	113,939	3.7%
BRAINTREE				8,363,839	8,507,387	1.7%	8,363,839	8,507,387	143,548	1.7%
BURLINGTON				4,943,181	4,905,353	-0.8%	4,943,181	4,905,353	(37,828)	-0.8%
CAMBRIDGE				22,157,757	23,259,670	5.0%	22,157,757	23,259,670	1,101,913	5.0%
DEDHAM				5,024,472	5,063,931	0.8%	5,024,472	5,063,931	39,459	0.8%
HINGHAM SEWER DISTRICT				1,651,545	1,695,096	2.6%	1,651,545	1,695,096	43,551	2.6%
HOLBROOK				1,594,287	1,657,660	4.0%	1,594,287	1,657,660	63,373	4.0%
NATICK				5,330,710	5,526,614	3.7%	5,330,710	5,526,614	195,904	3.7%
RANDOLPH				5,931,064	6,011,817	1.4%	5,931,064	6,011,817	80,753	1.4%
WALPOLE				3,509,806	3,559,098	1.4%	3,509,806	3,559,098	49,292	1.4%
WESTWOOD				2,426,073	2,473,296	1.9%	2,426,073	2,473,296	47,223	1.9%
WEYMOUTH				10,972,561	11,087,503	1.0%	10,972,561	11,087,503	114,942	1.0%
TOTAL				\$77,300,747	\$79,327,245	2.6%	\$77,300,747	\$79,327,245	\$2,026,498	2.6%

MWRA Water-only Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
LYNNFIELD WATER DISTRICT	\$490,333	\$614,185	25.3%				\$490,333	\$614,185	\$123,852	25.3%
MARBLEHEAD	2,101,639	2,278,325	8.4%				2,101,639	2,278,325	176,686	8.4%
NAHANT	382,274	425,527	11.3%				382,274	425,527	43,253	11.3%
SAUGUS	3,202,440	3,645,083	13.8%				3,202,440	3,645,083	442,643	13.8%
SOUTHBOROUGH	765,656	850,020	11.0%				765,656	850,020	84,364	11.0%
SWAMPSCOTT	1,782,932	1,827,959	2.5%				1,782,932	1,827,959	45,027	2.5%
WESTON	1,993,015	2,240,675	12.4%				1,993,015	2,240,675	247,660	12.4%
TOTAL	\$10,718,289	\$11,881,774	10.9%				\$10,718,289	\$11,881,774	\$1,163,485	10.9%

MWRA Partial Water-only Customers	Final FY15 Water Assessment	Final FY16 Water Assessment	Percent Change from FY15	Final FY15 Sewer Assessment	Final FY16 Sewer Assessment	Percent Change from FY15	Final FY15 Combined Assessment	Final FY16 Combined Assessment	Dollar Change from FY15	Percent Change from FY15
DEDHAM-WESTWOOD WATER DISTRICT	\$49,042	\$305,532	523.0%				\$49,042	\$305,532	\$256,490	523.0%
LYNN (LWSC)	209,723	264,873	26.3%				209,723	264,873	55,150	26.3%
MARLBOROUGH	3,433,407	3,894,026	13.4%				3,433,407	3,894,026	460,619	13.4%
NORTHBOROUGH	1,044,206	1,103,542	5.7%				1,044,206	1,103,542	59,336	5.7%
PEABODY	1,219,096	1,480,393	21.4%				1,219,096	1,480,393	261,297	21.4%
TOTAL	\$5,955,474	\$7,048,366	18.4%				\$5,955,474	\$7,048,366	\$1,092,892	18.4%
SYSTEMS TOTAL	\$210,233,607	\$226,372,877	7.7%	\$440,082,175	\$446,067,123	1.4%	\$650,315,782	\$672,440,000	\$22,124,218	3.4%

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

BUDGETED EXPENSES: Final FY2016	
Clinton Direct Operating Expenses:	\$1,887,745
MWRA Support Allocation:	436,811
Subtotal O&M Expenses:	\$2,324,556
Total Debt Service Expenses:	\$674,056
Total Clinton Service Area Expenses	\$2,998,612
Less Revenue (City of Worcester Payment)	-149,339
Clinton WWTP Rate Revenue Requirement:	\$2,849,273

WASTEWATER FLOW and FLOW SHARES:	CY2014		
	Town of Clinton Flow	Lancaster Sewer District Flow	Total Wastewater Flow
Average Daily Flow (MGD)	2.351	0.261	2.612
Average Flow (MG/YR)	857,954	95,407	953,361
Proportional Share of Flow	89.99%	10.01%	100.0%

Sewer User Charge Determination

TOWN OF CLINTON

O&M Expenses	\$2,324,556
Less Revenue (City of Worcester Payment)	-149,339
O&M Expenses to be Recovered	\$2,175,217
Clinton's Share of Flow	89.99%
Clinton's Share of O&M Costs	\$1,957,532
Total Clinton O&M Charge	\$1,957,532

LANCASTER SEWER DISTRICT

O&M Expenses	\$2,324,556
Less Revenue (City of Worcester Payment)	-149,339
O&M Expenses to be Recovered	\$2,175,217
Lancaster's Share of Flow	10.01%
Lancaster's Share of O&M Costs	\$217,684
Total Lancaster Sewer District O&M Charge	\$217,684

Debt Service Costs to be Recovered	\$674,056
Clinton's Share of Wastewater Flow	89.99%
Total Clinton Debt Service Charge	\$606,600

Debt Service Costs to be Recovered	\$674,056
Lancaster's Share of Wastewater Flow	10.01%
Total Lancaster Sewer District Debt Service Charge	\$67,456

Total Clinton O&M and Debt Service Charge	\$2,564,132
--	--------------------

Total Lancaster O&M and Debt Service Charge	\$285,140
--	------------------

Less MWRA Water Ratepayer Subsidy	-32,064,132
Billable Charge to the Town of Clinton as per CH. 307, Section 8 The Acts of 1987	\$500,000

Billable Charge to Lancaster Sewer District	\$285,140
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Billable Sewer User Charges and Payment Schedule

Sewer Customer	Billable Charges
Town of Clinton	\$500,000
Lancaster Sewer District	\$285,140
Total Sewer Charges	\$785,140

Payment 1 on or before Sept 15, 2015	Payment 2 on or before Nov 15, 2015	Payment 3 on or before Feb 15, 2016	Payment 4 on or before May 15, 2016
\$125,000	\$125,000	\$125,000	\$125,000
\$71,285	\$71,285	\$71,285	\$71,285
\$196,285	\$196,285	\$196,285	\$196,285

Massachusetts Water Resources Authority
Chicopee Valley Aqueduct Water System Assessment
Final FY2016

CVA Operating Budget	FY15	FY16
CVA Cost Center Expenses	\$726,566	\$817,336
Allocated Waterworks Expenses	115,941	131,065
Allocated Watershed/PILOT	460,660	511,971
Allocated Watershed Land Acquisition	19,962	22,924
Allocated MWRA Indirect Expenses	463,605	538,480
SUBTOTAL OPERATING BUDGET	\$1,786,735	\$2,021,776

Change from Prior Year	
Dollars	Percent
\$90,770	12.5%
15,123	13.0%
51,311	11.1%
2,962	14.8%
74,875	16.2%
\$235,042	13.2%

CVA Capital Budget	FY15	FY16
Capital Expenses	\$3,035,572	\$2,875,054
TOTAL CVA BUDGET	\$4,822,306	\$4,896,830

Change from Prior Year	
Dollars	Percent
-\$160,518	-5.3%
\$74,524	1.5%

BASE COMMUNITY ASSESSMENT	FY15 ¹	PFY16 ²
Chicopee	\$3,409,702	\$3,455,577
South Hadley Fire District #1	702,629	701,841
Wilbraham	709,975	739,411
CVA BASE SYSTEM ASSESSMENT	\$4,822,306	\$4,896,830

Change from Prior Year	
Dollars	Percent
\$45,875	1.3%
-787	-0.1%
29,436	4.1%
\$74,524	1.5%

PRIOR PERIOD ADJUSTMENTS	FY13 ³	FY13 ⁴
Chicopee	-\$115,117	-\$45,820
South Hadley Fire District #1	-24,680	-9,823
Wilbraham	-22,895	-9,113
TOTAL ADJUSTMENTS	-\$162,691	-\$64,756

Change from Prior Year	
Dollars	Percent
\$69,297	-60.2%
14,856	-60.2%
13,782	-60.2%
\$97,935	-60.2%

ADJUSTED ASSESSMENT	FY15	FY16
Chicopee	\$3,294,586	\$3,409,757
South Hadley Fire District #1	677,949	692,018
Wilbraham	687,080	730,299
ADJUSTED ASSESSMENT	\$4,659,615	\$4,832,074

Change from Prior Year	
Dollars	Percent
\$115,172	3.5%
14,069	2.1%
43,218	6.3%
\$172,459	3.7%

¹ Based on CY2013 water use and before prior period adjustments to account for a portion of budget to actual expenses for FY13.

² Based on CY2014 water use and before prior period adjustments to account for a portion of budget to actual expenses for FY13.

³ Portion of prior period adjustment to account for budget to actual expenses for FY13. Applied to FY15 assessments.

⁴ Portion of prior period adjustment to account for budget to actual expenses for FY13. Applied to PFY16 assessments.

⁵ Prior period adjustment to account for budget to actual expenses for FY14 added to CVA rate stabilization for use in FY17-18.

STAFF SUMMARY

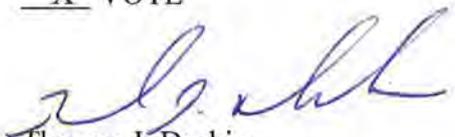
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Town of Stoneham Community Loan Amendments



COMMITTEE: Administration, Finance & Audit

 INFORMATION
 X VOTE

 Matthew Horan, Treasurer
Kathy Somi, Budget Director
Leo Norton, Asst. Mgr. Rates, Revenue and Finance
Preparer/Title


Thomas J. Durkin
Director, Finance

On December 31, 2015, the Kraft Foods plant in Woburn will close. Kraft Foods is supplied water from the Town of Stoneham and is its largest water customer, accounting for approximately 1 MGD or 34% of the town's total water use. Stoneham's revenue from this water customer is approximately \$1.25M per year.

In fiscal year 2016, Stoneham will lose six months of revenue estimated at \$625,000 and lose a full year of revenue of \$1.25M in fiscal year 2017 without the full reduction to their MWRA water assessment until fiscal year 2018. This will cause a temporary revenue-expense imbalance putting pressure on Stoneham's water rates. Stoneham requested assistance from MWRA in managing the increases to their rates due to this situation.

RECOMMENDATION:

To authorize the Executive Director, or his designee, to execute and deliver all necessary documents to provide a one-time exemption to the Program Guidelines for the Community Financial Assistance Programs to amend the existing loans with the Town of Stoneham to extend the final maturity of the each loan by one year and reduce the combined payments due in FY16 by up to a maximum amount of \$386,386.

DISCUSSION:

The Town of Stoneham will lose Kraft Foods as a large water customer on December 31, 2015. As a result of this loss of retail revenue, Stoneham will experience significant water rate pressure during FY16 due to the timing of the loss of revenue and MWRA's assessment methodology. Stoneham has requested assistance from MWRA in managing the increases to its rates.

MWRA's assessment methodology allocates each fiscal year's Waterworks System costs based on the water used by a community in the last full calendar year available at the time the assessments are set. For example, the FY16 assessments are based on the calendar year 2014 water use for each community. As a result of the methodology, Stoneham will start to experience

reductions in retail revenue as a result of the closing of Kraft Foods in FY16 but will not receive the full corresponding reduction in MWRA's assessments until FY18 which will be based on calendar year 2016 water use.

After meetings with Stoneham, MWRA, in consultation with the Advisory Board, offered to allow Stoneham to effectively push out the repayment on its Inflow/Infiltration and Local Water Pipeline Program Loans (LPAP) for one year and reduce the amount of principal paid in FY16. Stoneham has \$386,386 in payments on its six outstanding loans due during FY16. Under this proposed amendment, MWRA will allow Stoneham to restructure up to the full amount of its payments due in FY16. This payment restructuring will help provide Stoneham with time to address the loss of revenue due to the closing of Kraft Foods.

BUDGET/FISCAL IMPACT:

The cost for reducing the FY16 payment by \$386,386 is negligible for MWRA. The LPAP and I/I programs are funded from the Construction Fund and extending repayment on these loans will not impact MWRA's borrowing plans. MWRA will lose some interest income from not having the funds in the Construction Fund. The FY16 interest rate assumption for the money market account where the Construction Fund is invested is 0.20%. A one year deferral of \$386,386 will result in an estimated loss of less than \$773 in investment income.

STAFF SUMMARY

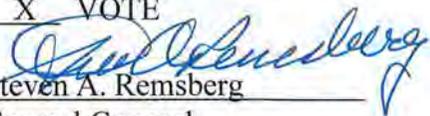
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: Amendment 4 to Memorandum of Understanding with the Department of Public Safety for Electrical Inspections

COMMITTEE: Administration, Finance & Audit

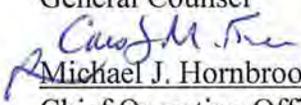
John V. Navoy, Associate General Counsel
Corinne Barrett, Director, Construction
Preparer/Title

 INFORMATION

 X VOTE


Steven A. Remsberg

General Counsel


Michael J. Hornbrook

Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute Amendment 4 to the Memorandum of Understanding with the Department of Public Safety, substantially in the form attached hereto, to provide electrical inspection services for Authority projects and operations in an amount not to exceed \$50,000, for a term of twenty-four months, from July 1, 2015, through June 30, 2017.

BACKGROUND:

Pursuant to the Authority's enabling legislation, the Department of Public Safety ("DPS") has "exclusive jurisdiction and responsibility with respect to projects and operations of the Authority for inspection, approvals, enforcement, permitting and licensure" authorized or required by the state building code. Through long standing agreements between DPS and MWRA, DPS historically provided electrical permits and has performed electrical inspections for MWRA construction projects as part of DPS's issuance of building permits and Certificates of Occupancy. This arrangement started with the Boston Harbor Project and since March 2000 has expanded to other MWRA construction projects and in-house electrical work. These electrical inspections were consistently performed by DPS staff at DPS expense.

In September 2007, MWRA was advised by DPS that due to both its lack of a qualified in-house electrical inspector and budgetary constraints, DPS would no longer provide electrical inspections for any electrical work. MWRA was advised that DPS had instead contracted with an outside individual to perform electrical inspections. However, funding to allow DPS to perform inspections was limited to work performed for the Convention Center and the Saltonstall

Building only and not for MWRA projects. While MWRA disagreed with DPS's interpretation of its responsibilities in this regard, the reality of the situation was that DPS would no longer fund MWRA inspections, and MWRA's enabling act does not require that DPS provide inspection services free of charge.

On January 16, 2008, the Board first authorized the Executive Director to enter into a Memorandum of Understanding (MOU) with DPS to provide permitting and the services of an electrical inspector for MWRA work. Staff, both then and now, believe that the efficient and safe prosecution of MWRA projects depends in large part upon the prompt and consistent interpretation of the electrical code and related regulations which DPS had regularly supplied. Since 2008, the Board has approved three amendments to the original MOU.

DISCUSSION:

The two-year term of the most recent amendment to the MOU is now due to expire on June 30, 2015. The services under the MOU have been satisfactorily performed in a timely manner and have been effective in meeting MWRA's needs. Under Amendment 3, MWRA has to date paid a total of \$32,477 for electrical inspection services with a total budget over the two years of \$50,000. Staff anticipate that there may be approximately an additional \$5,000 in billings to be received for services rendered before the expiration date of June 30, 2015.

While the electrical inspections subject to the MOU have in years past been performed by a person under a services contract with the Commonwealth's Operational Services Division ("OSD"), MWRA was advised in September 2014 that the contract would expire at the end of that calendar year and that OSD did not anticipate renewing it. In order to attempt to maintain the continuity of DPS inspections, MWRA staff met with DPS staff to discuss possible solutions. It was ultimately determined that DPS would hire an inspector part time whose salary would be funded in part by MWRA based on hours spent performing services on MWRA projects. However, the DPS hiring process was delayed by the State's hiring freeze. In order to continue to obtain the necessary inspectional services until such time as a waiver of the hiring freeze could be obtained, MWRA and DPS took advantage of a provision in the MOU which allowed MWRA to provide an inspector acceptable to DPS to perform the inspection, with DPS issuing the necessary permits. Since the beginning of 2015, MWRA and DPS have operated under this procedure. DPS has since obtained a waiver and the hiring process for a part time in-house inspector is expected to be completed by June 30, 2015.

Under Amendment 3, the hourly rate that MWRA paid for inspection services was approximately \$95 per hour paid directly to the inspector. Under Amendment 4, MWRA will pay for DPS inspection services performed by a DPS employee at the rate of \$29.42 per hour, which will be paid directly to DPS by way of an expendable trust formed pursuant to G.L. c.6A, §6 and 801 CMR 50. Amendment 4 will also extend the term for an additional two years through June 30, 2017.

Staff believe that it is important that DPS continue to be the sole permitting and inspecting agency for MWRA capital projects and in-house work. Therefore, staff recommend that the Board authorize the Executive Director to execute Amendment 4 to the MOU so that this relationship with DPS will remain in place.

BUDGET/FISCAL IMPACT:

An expenditure of \$25,000 per fiscal year will be funded from the FY16 and FY17 CIP Budgets.

ATTACHMENT:

Copy of Amendment 4 to the MOU

MEMORANDUM OF UNDERSTANDING
BETWEEN THE DEPARTMENT OF PUBLIC SAFETY
AND
THE MASSACHUSETTS WATER RESOURCES AUTHORITY
AMENDMENT NUMBER 4

WHEREAS, the Department of Public Safety ("Department") through the Board of Building Regulations ("BBRS") administers the provisions of chapter 143 of the General Laws; and

WHEREAS, pursuant to chapter 92, App. §1-8(k) of the General Laws, the Commissioner of Public Safety or his designee is granted exclusive jurisdiction and responsibility with respect to projects or operations of the Massachusetts Water Resources Authority ("MWRA") authorized or required by MGL chapter 143 or any regulation adopted pursuant to chapter 802 of the Acts of 1972; and

WHEREAS, the Department and the MWRA (collectively referred to as the "Parties") entered into a Memorandum of Understanding dated February 6, 2008 ("MOU") whereby the Department would provide the services of an Electrical Inspector to perform electrical inspections on MWRA projects and issue appropriate permits, including electrical permits, on MWRA projects, and the MWRA would pay the actual costs of such electrical services performed by the Department's Electrical Inspector; and

WHEREAS, the Department and the MWRA entered into Amendment 3 which extended the term of the MOU from July 1, 2013 through June 30, 2015; and

WHEREAS, the term of the MOU is due to expire as of June 30, 2015; and

WHEREAS, the Parties have found that the MOU has been efficient and effective in providing such necessary services with regard to MWRA projects; and

WHEREAS, the Parties wish to continue with the performance of the MOU and want to therefore extend the term of the MOU from July 1, 2015 through June 30, 2017.

NOW THEREFORE, in consideration of the mutual covenants of the Parties, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree that the MOU is extended and amended as follows:

- 1) Section II, Paragraph 1 is amended as follows:

In line 3, **CHANGE** "FY 2014 and FY 2015" to "FY 2016 and FY 2017" respectively.

- 2) Section II, Paragraph 2 is amended as follows:

DELETE Paragraph 2 in its entirety; **REPLACE** with the following Paragraph 2:

"2. The MWRA shall pay for electrical services performed by the Department's Electrical Inspector on MWRA projects from July 1, 2015 through June 30, 2017 at a rate of \$29.42 per hour. The MWRA shall pay for the electrical inspections directly to the Department based on the number of hours actually performed."

3) Section II, Paragraph 3 is amended as follows:

DELETE Paragraph 3 in its entirety; **REPLACE** with the following Paragraph 3:

"3. The Department will establish an expendable trust pursuant to M.G.L. c.6A, §6 and 801 CMR 50 for the receipt of payments from the MWRA for electrical services performed by the Department's Electrical Inspector from July 1, 2015 through June 30, 2017. The Parties agree that payment for all services rendered after July 1, 2015 is not due until the trust is established."

4) Section IV, Term, is amended as follows:

In line 1, **DELETE** "through June 30, 2015"; **INSERT** in its place "through June 30, 2017".

All other terms and conditions of the MOU remain unchanged.

The undersigned hereby execute this Amendment Number 4 to Memorandum of Understanding on behalf of the Department of Public Safety and the Massachusetts Water Resources Authority.

DATED this ____ day of _____, 2015.

Thomas G. Gatzunis, P.E., C.B.O.
Commissioner
Department of Public Safety

Frederick A. Laskey
Executive Director
Massachusetts Water Resources
Authority



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

WASTEWATER POLICY & OVERSIGHT COMMITTEE MEETING

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

to be held on

Wednesday, June 24, 2015

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

Time: Immediately following AF&A Comm.

AGENDA

A. Contract Award

1. Upgrades to Chelsea Screen House: WES Construction Corp., Contract 7431

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Upgrades to Chelsea Screen House
WES Construction Corp.
Contract 7431



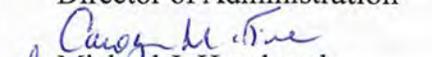
COMMITTEE: Wastewater Policy & Oversight

John P. Vetere, Deputy Chief Operating Officer
A. Navanandan, P.E., Chief Engineer
Kathleen M. Cullen, P.E., Project Manager
Preparer/Title

 INFORMATION
 X VOTE


Michele S. Gillen

Director of Administration


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 7431, Upgrades to Chelsea Screen House, to the lowest responsible and eligible bidder, WES Construction Corp., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$4,885,180, for a contract term of 365 calendar days from the Notice to Proceed.

DISCUSSION:

MWRA's Chelsea Screen House (pictured on the right), built in 1987, is located at 340 Marginal Street in Chelsea (see attached locus map). The facility screens wastewater from the communities of Chelsea and Revere prior to reaching the Chelsea Creek Siphons, which transport wastewater to the Caruso Pump Station, and on to Deer Island. The facility also provides screening of flows that are diverted from the Chelsea Creek Headworks to the Caruso Pump Station during wet-weather events. To provide this flexibility, the Chelsea Screen



House is partitioned into two separate sides. There is a “dry side” located on the east end of the building that operates continuously, receiving flows from Chelsea and Revere, which averages approximately 8 to 12 million gallons per day (mgd) with a maximum capacity of 32 mgd. There also is a “wet side” on the west end of the building, which is designed to accommodate some wet-weather overflow from the Chelsea Creek Headworks in the event that flow to the headworks is backing up, but the 125 mgd pumping capacity at Winthrop Terminal Facility on Deer Island has not been reached.

The Chelsea Screen House is nearly 30 years old and most of its original operating equipment, including four climber screens, two on the wet side and two on the dry side (one is shown on the right and below), and seven hydraulic gates, has exceeded its useful lifespan. A preliminary evaluation resulted in several recommendations for replacements and upgrades of equipment at the facility.



The work under this contract includes replacement of the two dry side climber screens, rehabilitation of the two wet side climber screens, replacement of all seven gates, and the addition of a SCADA system to the wet side to allow remote operation from the Operations Control Center at the Chelsea Facility.

In keeping with MWRA’s plan to ensure that all of its facilities are sufficiently protected from future flooding with climate change, this contract also includes the installation of flood protection measures, such as a retaining wall to protect the emergency generator and power panels, two new isolation sluice gates inside the facility, and flood barriers at all doors (similar to that shown in the picture on the right).



Procurement Process

Contract 7431 was advertised and bid in accordance with Massachusetts General Laws, Chapter 149. On May 21, 2015, bids were received and opened with the following results:

Bidders	Bid Price
<i>Engineer's Estimate</i>	\$3,912,510
WES Construction Corp.	\$4,885,180
O'Connor Corporation	\$5,814,235

WES Construction Corp.'s bid is 25% above the Engineer's Estimate. Staff analyzed the difference between the low bid and the Engineer's Estimate (prepared by Dewberry Engineers Inc.) and determined that WES Construction Corp.'s bid included higher costs for instrumentation, concrete demolition, site work, and, in particular, by-pass pumping, than what Dewberry assumed in its estimate.

Staff contacted references for WES Construction Corp. and found the firm's experience and performance to be acceptable. The references reported that the Contractor's performance was very good and the projects were completed on schedule. WES Construction Corp. has demonstrated its ability to successfully complete large, complex projects, including a water treatment facility for the Mattapoissett River Valley Water District, rehabilitation of the Randolph/Holbrook water filtration plant, and construction of the North Easton wastewater treatment plant. WES Construction Corp. also has successfully completed projects for MWRA, including Grit Classifier Modifications at Nut Island in 2005 and the Sudbury Dam Valve Replacement in 1997. MWRA staff have reported satisfaction with the Contractor's performance on those projects.

Staff have determined that WES Construction Corp. possesses the skill, ability, and integrity necessary to perform the work under this contract, and is qualified to do so. Staff have further determined that the bid price is reasonable, complete, and includes the payment of prevailing wage rates, as required. Therefore, staff recommend the award of this contract to WES Construction Corp. as the lowest responsible and eligible bidder.

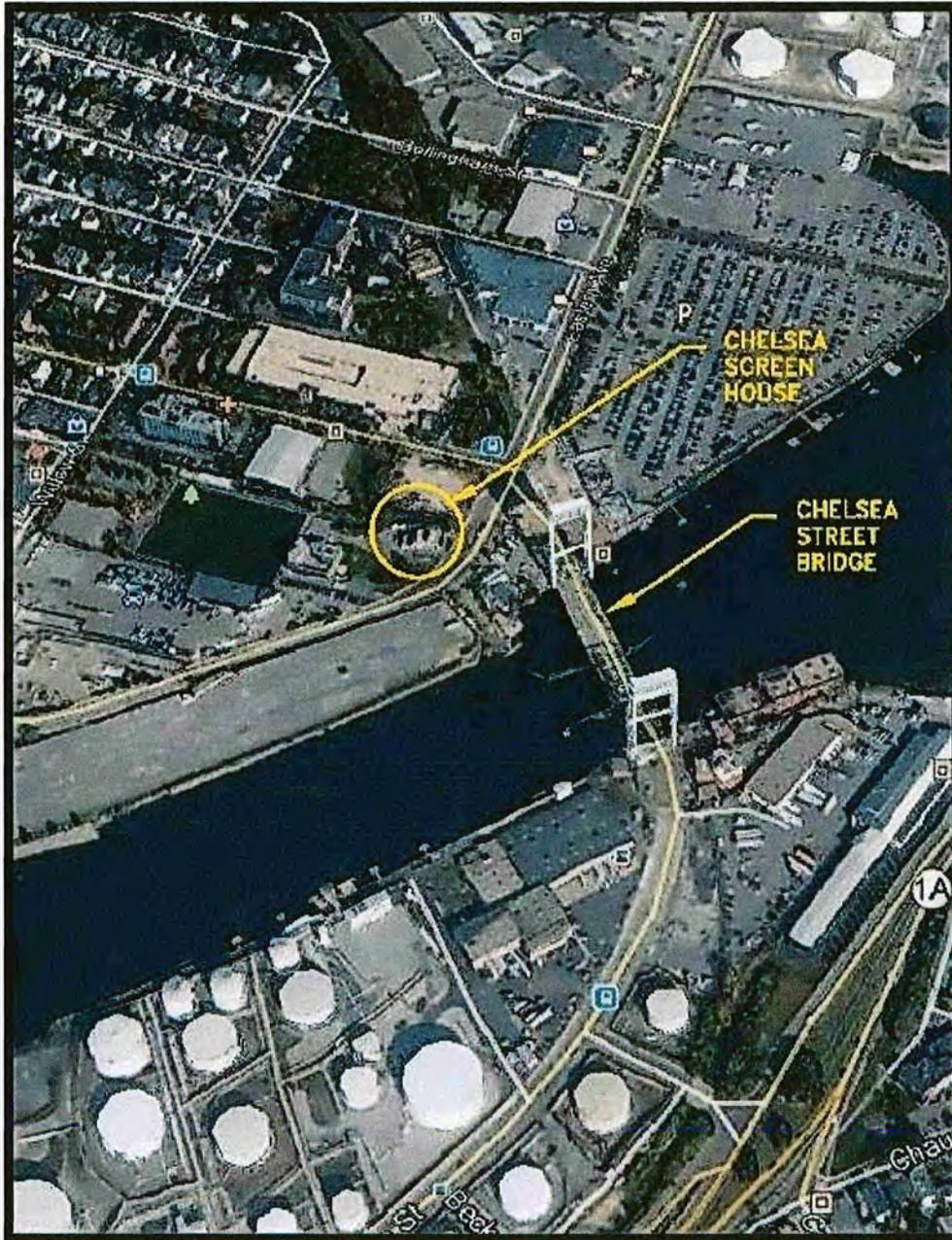
BUDGET/FISCAL IMPACT:

The FY16 CIP includes a budget of \$3,608,553 (based on Dewberry's original 100% design, which was later revised to \$3,912,510) for Contract 7431. The bid price of \$4,885,180 is \$1,276,627 over budget. This amount will be covered within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE/WBE participation requirements for this project were established at 3.4% and 3.8%, respectively. The Affirmative Action & Compliance Unit has reviewed the bids and determined that WES Construction Corp.'s bid is responsive to these requirements.

Attachment 1 – Locus Map



**UPGRADE TO CHELSEA SCREEN HOUSE
Contract 7431**



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: (vacant)

Committee Members:

J. Carroll

J. Foti

H. Vitale

J. Walsh

J. Wolowicz

to be held on

Wednesday, June 24, 2015

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

Time: Immediately following Wastewater Comm.

AGENDA

A. Information

1. Low Service System Modifications – Spot Pond Water Storage Facility Design/Build Project

B. Contract Awards

1. Supply and Delivery of Liquid Oxygen to the John J. Carroll Water Treatment Plant: Airgas USA, LLC, WRA-4040
2. Southborough Water Quality Laboratory Upgrades: Paul J. Rogan Co., Inc., Contract 6650A

C. Contract Amendments/Change Orders

1. Sudbury Aqueduct Pressurization and Connections Alternatives Analysis and MEPA Review: CDM Smith, Inc., Contract 7352, Amendment 1
2. Quabbin Ultraviolet Disinfection Facilities Design/CA/RI: AECOM Technical Services, Inc., Contract 6775, Amendment 4

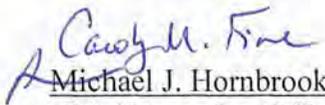
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: Low Service System Modifications – Spot Pond Water Storage Facility Design/Build Project

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Valerie Moran, P.E., Manager, Operations Engineering
David Coppes, P.E., Director, Waterworks
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

The Spot Pond Water Storage Facility Design/Build Project is nearing completion. As the project moves into the start-up and testing phase, changes are necessary in the Low Service water system (see map attached) to allow utilization of the new covered storage tanks and pump station, as designed. The project consists of two new 10-million-gallon, concrete water storage tanks that will provide emergency storage for the Northern Low communities of East Boston, Chelsea, Everett, Malden, Medford, and Somerville, that currently rely on pressure-reducing valves (PRVs) for supply, and a pump station that will provide redundancy to the Gillis Pump Station in serving the communities of Melrose, Reading, Saugus, Stoneham, Wakefield, Wilmington, Winchester, and Woburn. This staff summary discusses these modifications.

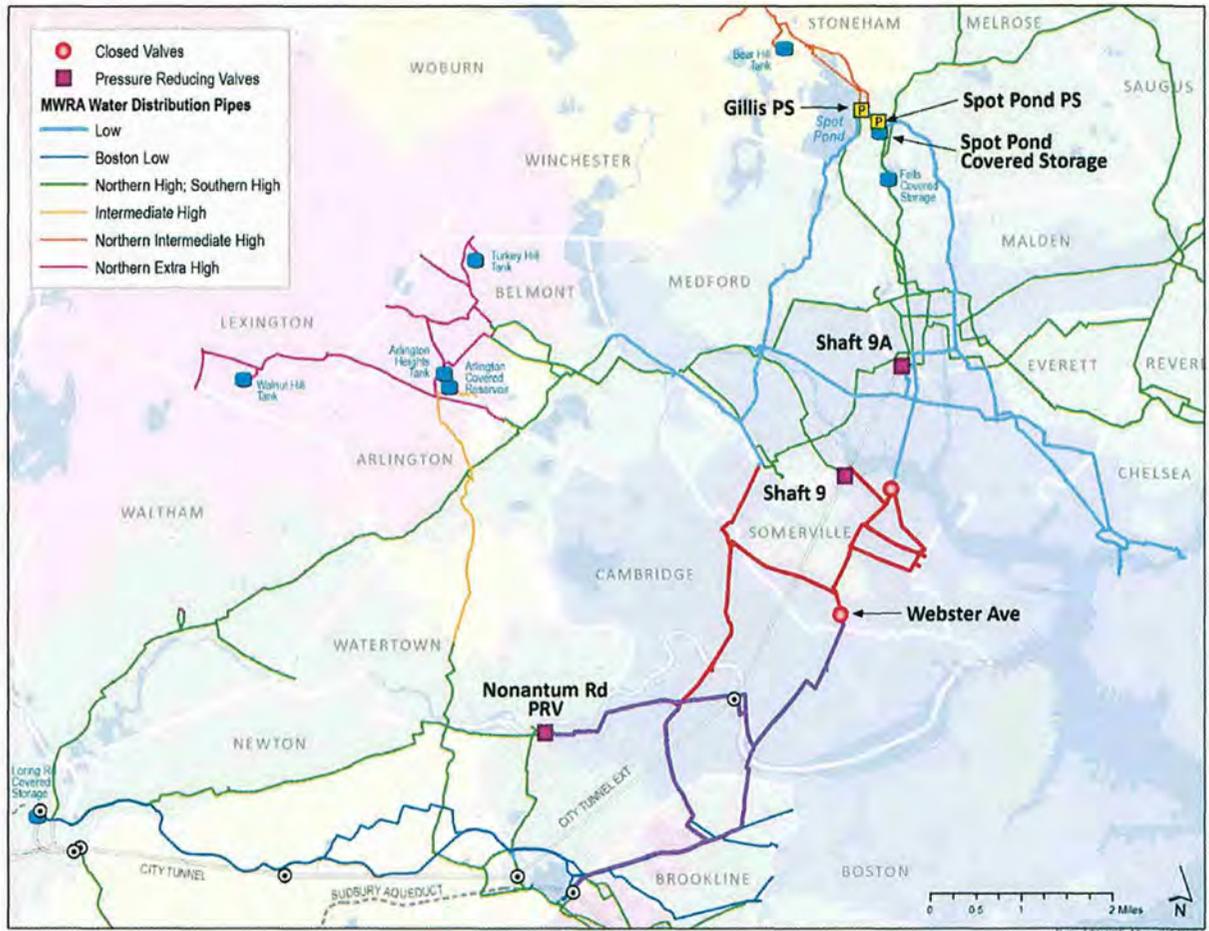
RECOMMENDATION:

For information only.

DISCUSSION:

MWRA's Low Service system is currently being fed in four distinct zones: 1) the Boston Low service area, which is supplied at a hydraulic grade line of 200 feet Boston City Base from the Loring Road tank in Weston through WASM 1 and WASM 2; 2) the Northern Low service areas, which are fed, in part, by the Nonantum Road PRV on WASM 4 at a hydraulic grade line of 185 feet Boston City Base, supplying part of Somerville; 3) a PRV at Shaft 9 of the City Tunnel Extension in Somerville at a hydraulic grade line of 185 feet Boston City Base, which supplies the rest of Somerville and the Brighton and Charlestown neighborhoods of Boston; and 4) a PRV at Shaft 9A of the City Tunnel Extension in Malden at a hydraulic grade line of 180 feet Boston City Base, which supplies East Boston, Chelsea, Everett, Malden, and Medford. The figure on the following page shows the three northern low PRV locations and the piping network that they supply (each shaded in a different color). The Boston Low WASM pipelines run along the bottom of the map.

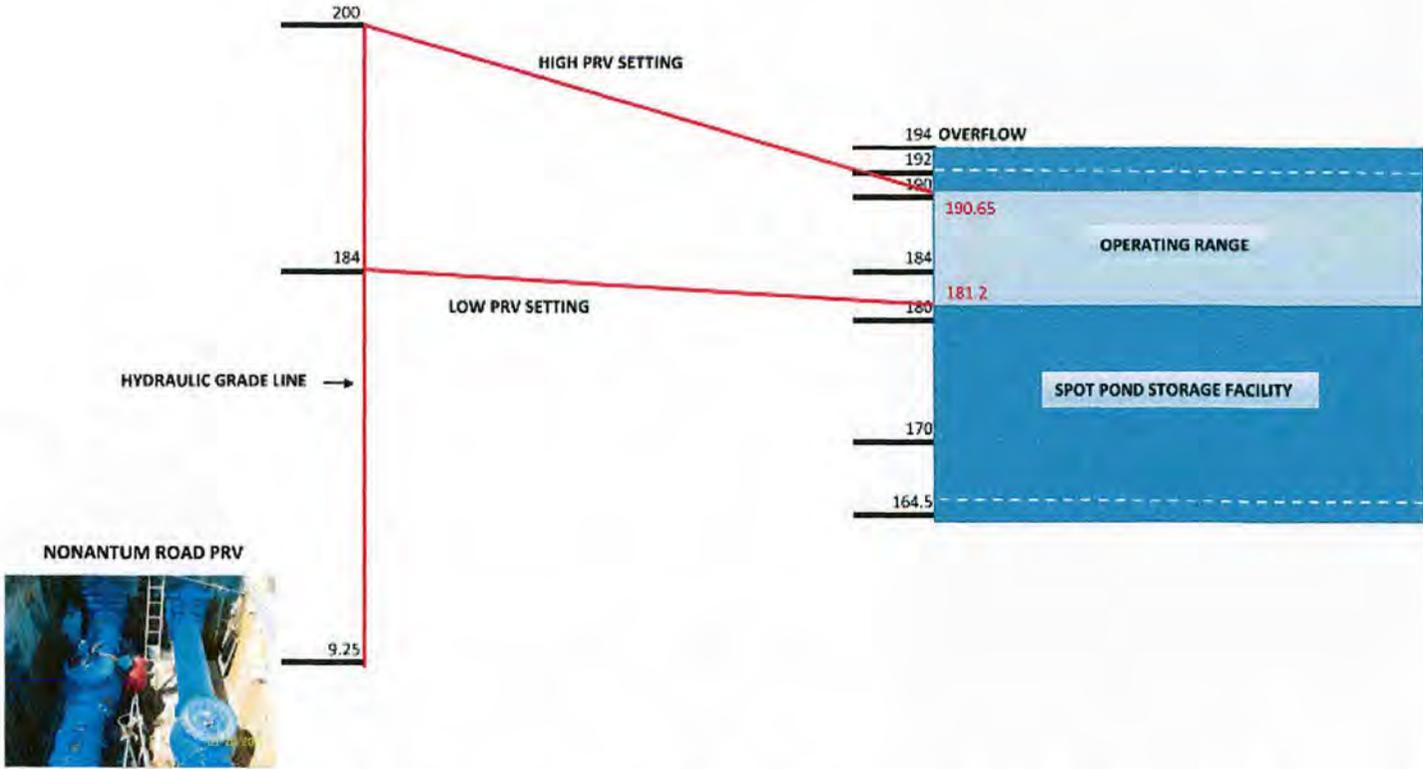
Upon completion of the Spot Pond Water Storage Facility Design/Build Project, this system will be reconfigured into two zones, the Boston Low Service Area, and a reunified Northern Low Service Area, with distribution storage at Loring Road and the Spot Pond tanks, respectively. Pressures in the Northern Low service will be increased slightly but should be evened out by the presence of the new tanks.



In preparation for required testing, the construction contractor requested low service water to fill one of the tank cells at a hydraulic grade line of 190 feet Boston City Base in advance of final disinfection of the tanks. MWRA considered this a reasonable request since it represents an intermediate step toward final operational changes for the low service area, and the particular test benefits MWRA. In order to accommodate this request, it was necessary for MWRA Operations staff to increase the output of the Shaft 9A PRVs by 10 feet (~4 pounds per square inch). On June 2, 2015, MWRA staff met with the affected low service communities to brief them on this and future grade line changes. On June 9, 2015, the output of the Shaft 9A PRVs was raised and no impacts were reported by any of the affected communities. Staff proposed to the communities at the June 2nd briefing to follow this increase at Shaft 9A with combination of the other two Northern Low service areas (those areas served by Nonantum Road and Shaft 9), and an increase to the same elevation of 190 feet Boston City Base (an increase of 2.1 psi) as an interim step toward the final system configuration. This step was carried out on June 15th and again, no impacts were reported.

The final system configuration, which will occur early this summer, will join all of the areas of the Northern Low with feed from the Nonantum Road PRV and with the new Spot Pond Tank on line. This will require disinfection of the tanks and will allow testing of the new pump station equipment. The operating range of the tank will be between elevation 181 and 191 feet Boston City Base with an overflow elevation of 194 feet Boston City Base. There are two 24-inch PRVs at Nonantum Road with dual pilot valves controlling each. The PRV would have programmable logic control (PLC) and would be set to maintain a grade line of 200 feet Boston City Base when filling the tank and 184 feet Boston City Base when the tank is supplying.

The following graphic illustrates the hydraulic grade line from the Nonantum Road PRV (supply) to the new Spot Pond Tanks, and the dual-range control settings relative to the tank operating range.



In the event of a power failure, the system will utilize the lower pressure pilot to avoid tank overflow or system over-pressurization. Each valve has a nominal 30 mgd capacity, which is adequate to supply the service areas needs. Water will flow to Somerville, Brighton, Charlestown, Malden, and Medford at a grade line as much as 15 feet (6.5 psi) higher than these communities see under the current configuration. Flow will then travel up the West Spot Pond supply line, through the new Spot Pond Tank, and back down the East Spot Pond supply line to Malden, Everett, Chelsea, and East Boston at a grade line as much as 12 feet (~5 psi) higher than under the current configuration.

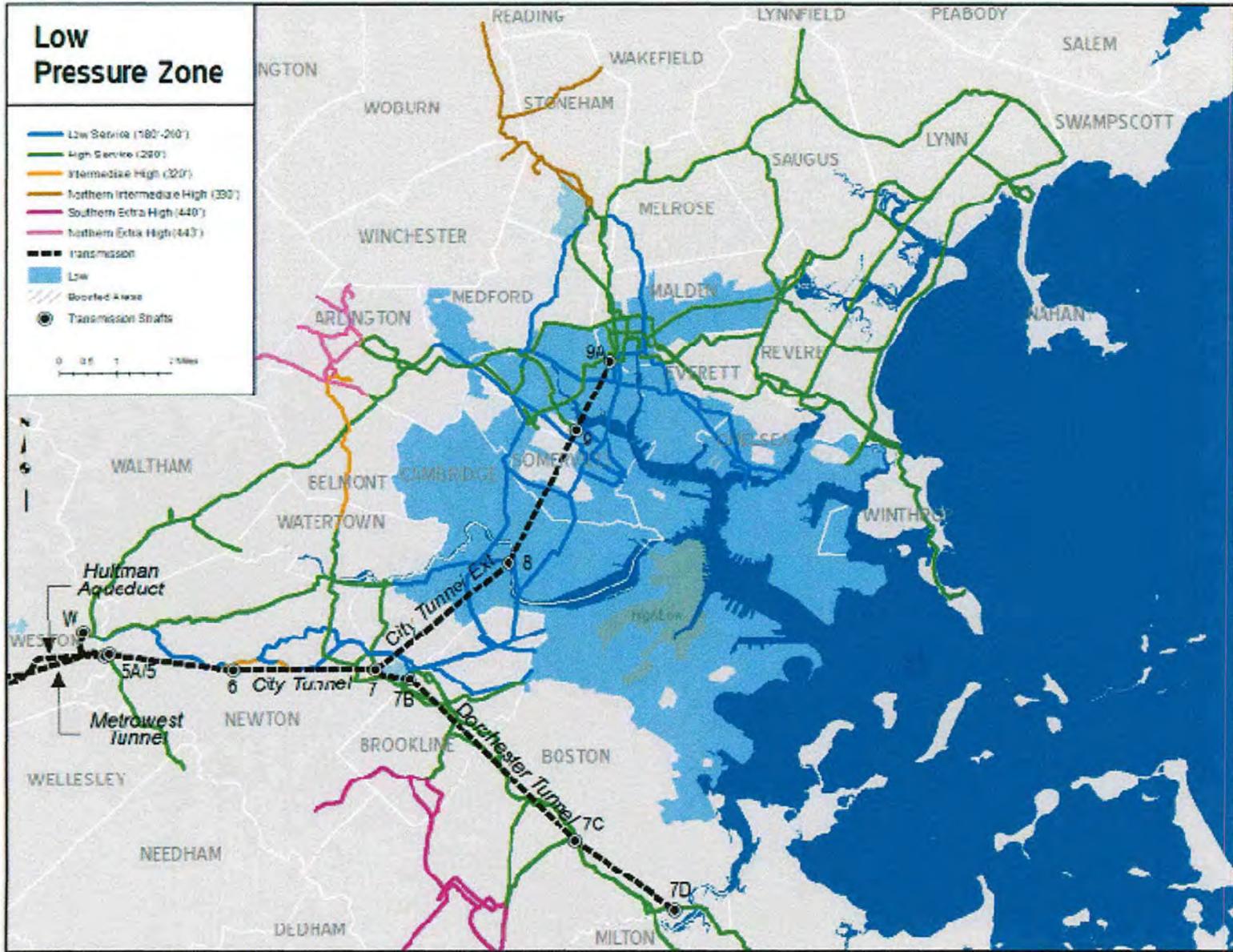
Low service communities will see slightly higher pressures as MWRA transitions to the new operating configuration; this could result in increases in community system leakage and/or pipeline breaks, and for some communities, reversal of flow within their distribution system, and initially, some discolored water. Through each phase of transition in the low service system, MWRA will monitor system grade line from the Operations Control Center in Chelsea, and will adjust as necessary to ensure that the PRVs are operating in the intended range and that system increases are limited to the target amount. MWRA staff will contact affected communities regularly to see if problems are occurring and will adjust plans accordingly. Alarms are being set on low service supply meters to give early warning of increased flows due to leaks or pipeline breaks.

Completion of the Spot Pond Water Storage Facility Design/Build Project represents a major step forward by providing emergency storage for the Northern Low service area, redundancy for the Gillis Pump Station, and flexibility for operation of the Northern Intermediate High. The storage tank should ultimately stabilize pressures in the low service area and reduce the impact of mechanical failures that can occur in pressure-reduced areas with no storage.

Staff will continue to provide the Board with updates on important developments as appropriate as the project continues toward completion.

ATTACHMENT:

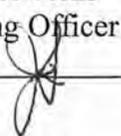
Map of MWRA's Low Pressure Zone



STAFF SUMMARY

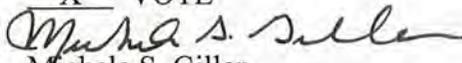
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: Supply and Delivery of Liquid Oxygen for the John J. Carroll Water Treatment Plant
Airgas USA, LLC
WRA-4040

COMMITTEE: Water Policy & Oversight

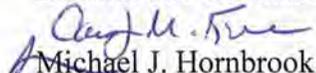
David W. Coppes, P.E., Director, Waterworks
John P. Vetere, Deputy Chief Operating Officer
John Sabino, Director of Procurement
Preparer/Title 

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration


Michael J. Hornbrook

Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract WRA-4040, a contract for the supply and delivery of liquid oxygen to the John J. Carroll Water Treatment Plant, to the lowest responsive bidder, Airgas USA, LLC, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$1,109,430, for a period of two years, from August 15, 2015 through August 14, 2017.

DISCUSSION:

In accordance with EPA's Long-Term 2 Enhanced Surface Water Treatment rule, MWRA must provide two means of primary disinfection at the Carroll Water Treatment Plant. MWRA has used ozone for primary disinfection since the plant went into service in 2005, and in April 2014, MWRA added ultra-violet (UV) disinfection as the second means of primary disinfection.

Ozone is a strong oxidant and provides for 3-log (99.9%) inactivation of *giardia* and significant *cryptosporidium* inactivation. The addition of UV met the regulatory requirement for *cryptosporidium* inactivation. Furthermore, ozone reacts significantly with organic matter in the raw water, which improves water clarity and taste, and reduces odor. Ozone also improves the efficiency of UV treatment and reduces the levels of total trihalomethanes and haloacetic acids, the disinfection by-products (regulated by both EPA and DEP) that are formed when chlorine reacts with precursors that are present in untreated water.

Liquid oxygen is a primary component of the ozonation process. At the Carroll Water Treatment Plant, liquid oxygen is stored in three 24,000-gallon tanks (shown on the right, with the vaporizers behind them). The vaporizers convert the liquid oxygen into gaseous oxygen, which is then fed through process piping to the four ozone generators (pictured below). The ozone generators apply an electrical charge to the gaseous oxygen converting the oxygen molecules (O₂) into ozone molecules (O₃).



Staff estimate that during the two-year contract term, approximately 14,000 tons of liquid oxygen will be required (7,000 tons per year). This purchase order contract will require the supplier to deliver liquid oxygen to the Carroll Water Treatment Plant on an as-needed basis. MWRA will only incur costs for product that is delivered and received.



Procurement Process

Bid WRA-4040 was advertised in the following publications:

Boston Herald, Goods and Services Bulletin, El Mundo, and Banner Publications. In addition, bids were made available for public downloading on MWRA’s e-procurement system (Event 1835), and four potential bidders were solicited through the e-Portal.

On June 4, 2015, Event 1835 closed with the following two bids received:

Item	Description	Airgas USA, LLC	Praxair
1	7,000 Tons of Liquid Oxygen, Year One	\$77.31 x 7,000 = \$541,170	\$81.64 x 7,000 = \$571,480
2	7,000 Tons of Liquid Oxygen, Year Two	\$81.18 x 7,000 = \$568,260	\$84.49 x 7,000 = \$591,430
	TOTAL	\$1,109,430	\$1,162,910

Based on previous procurements, staff have found that there are not many vendors who can provide the required volume of liquid oxygen. On July 17, 2013, the Board approved the current two-year contract with Airgas USA, LLC. In that procurement, MWRA received bids from three vendors, Airgas, Praxair, and Linde, LLC. Linde actually submitted the lowest total bid price for the two-year contract. However, in its bid, the company took several exceptions to MWRA's standard terms and conditions that shifted significant and unacceptable risk to MWRA, particularly limiting the company's liability. As a result, Linde, LLC's bid was determined to be non-responsive. Staff were not surprised that Linde did not participate in the current procurement.

Under the current two-year contract with Airgas USA, LLC, which expires on August 14, 2015, MWRA is paying \$75.60 per ton (second year pricing); MWRA paid \$71.20 per ton for the first year of the contract. The majority of the costs involved with manufacturing liquid oxygen are tied to the natural gas and energy markets, which have begun to trend upwards again and is likely the reason for the increased bid prices.

Staff have reviewed Airgas USA, LLC's bid and have determined that it meets all of the requirements of the specifications. Staff have been satisfied with the product and services currently being provided by Airgas USA, LLC under its current contract. Therefore, staff recommend the award of this purchase order contract to Airgas USA, LLC as the lowest responsive bidder.

BUDGET/FISCAL IMPACT:

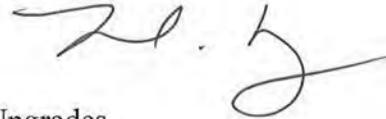
There are sufficient funds available for the first portion of this contract in the FY16 Current Expense Budget. Appropriate funding will be included in subsequent Proposed CEB requests for the remaining term of the contract.

MBE/WBE PARTICIPATION:

Airgas USA, LLC is not a certified Minority- or Women-owned business.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Southborough Water Quality Laboratory Upgrades
Paul J. Rogan Co., Inc.
Contract 6650A



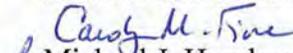
COMMITTEE: Water Policy & Oversight

John P. Vetere, Deputy Chief Operating Officer
A. Navanandan, P.E., Chief Engineer
Nitin Choksi, Sr. Program Manager
Preparer/Title

 INFORMATION
 X VOTE


Michele S. Gillen

Director of Administration


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the award of Contract 6650A, Southborough Water Quality Laboratory Upgrades, to the lowest responsible and eligible bidder, Paul J. Rogan Co., Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$3,125,840, for a contract term of 365 calendar days from the Notice to Proceed.

DISCUSSION:

MWRA's Water Quality Building in Southborough (shown on the right) is a one-story, 5,700-square-foot structure that was built in 1981. This facility houses the Water Quality Laboratory and office spaces.

There have been no major renovations on the building since it was built. The building is currently heated and cooled by electricity. The building has a ballasted membrane flat roof, which has been prone to leaks that staff have attempted to patch on a



number of occasions without success. Staff foresee continued long-term use of this facility and recommend a major overhaul of the building.

Under Contract 6650A, the contractor will remove the existing roof and replace it with a new metal hip roof to match the other buildings at the Southborough location (see attached Figure 1 map). The new roof will clearly provide better weather protection. The roof work will include some asbestos abatement, which was detected in the existing ballast and rubber membrane.

As mentioned, the heating and cooling systems are electric. These systems are in poor condition and will be replaced with new, energy-efficient, gas-fired systems. The contract also will include modifications to the electrical, HVAC, and fire protection systems. The Water Quality Lab, which is also much in need of refurbishment, will receive new windows, doors, flooring, and laboratory cabinetry.

Under this contract, the gutters and downspouts on the nearby Shaft 4 Building will also be replaced.

Procurement Process

Contract 6650A was advertised and bid in accordance with Massachusetts General Laws, Chapter 149. Bids were received and opened on May 28, 2015 from three contractors as follows:

<u>Bidders</u>	<u>Bid Amount</u>
Paul J. Rogan Co., Inc.	\$3,125,840
WES Construction Corp.	\$3,270,000
<i>Engineer's Estimate</i>	\$3,400,000
Northern Contracting Corp.	\$3,491,100

It should be noted that in May 2014, MWRA bid this work as part of a larger project that included work at the Interim Corrosion Control Facility in Marlborough, and work at the Cosgrove Facilities in Clinton. However, the bid received was approximately 60% higher than the Engineer's Estimate so a decision was made to cancel the bid. Subsequently, staff divided the construction work into three separate contracts (one for each construction site), with additional modifications. Contract 6650A is the first of the three contracts to be awarded.

Paul J. Rogan Co., Inc.'s bid is 8% below the Engineer's Estimate. The two lowest bids are within 4.6% of each other, though, which is an indication of the reasonableness of the pricing.

Staff reviewed Paul J. Rogan Co.'s bid and conducted further discussions with the Contractor. Following those discussions, staff are of the opinion that the Contractor fully understands the nature and scope of the work and that the bid contains all elements of the work. The difference between the bid price and the Engineer's Estimate is reflected in the filed sub-bid pricing; the design consultant that prepared the Engineer's Estimate, Hazen and Sawyer, appears to have been conservative in estimating the sub-bid work.

References were checked and found to be favorable. Paul J. Rogan Co., Inc. has demonstrated its ability to successfully complete comparable projects, including renovation work at the Alighieri School in East Boston and Boston Latin Academy in Dorchester.

After reviewing the bid and interviewing the Contractor, staff have concluded that Paul J. Rogan Co., Inc. possesses the skill, ability, and integrity necessary to perform the work under this contract and is qualified to do so. Staff have further determined that the bid price is reasonable, complete, and includes payment of prevailing wages, as required. Therefore, staff recommend that Contract 6650A be awarded to Paul J. Rogan Co., Inc as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

The FY16 CIP includes \$6,657,094 for Contract 6650, Modifications to Existing Waterworks Facilities (the original three-location contract). Of this amount, there are sufficient funds for Contract, 6650A, Southborough Water Quality Laboratory Upgrade, which is the first phase of the three phases of Contract 6650.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract have been established at 7.24% and 3.6%, respectively.

ATTACHMENTS:

Figure 1 – Map of Contract 6550A Southborough Water Quality Laboratory Upgrades

CONTRACT 6650A SOUTHBOROUGH WATER QUALITY LABORATORY UPGRADES



FIGURE 1

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: June 24, 2015
SUBJECT: Sudbury Aqueduct Pressurization and Connections, Alternatives Analysis and MEPA Review
CDM Smith, Inc.
Contract 7352, Amendment 1

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

John P. Vetere, Deputy Chief Operating Officer
A. Navanandan, P.E., Chief Engineer
Michael G. Rivard, P.E., Program Manager
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Amendment 1 to Contract 7352, Sudbury Aqueduct Pressurization and Connections, Alternatives Analysis and MEPA Review, with CDM Smith, Inc., reallocating available funds within the contract, and extending the contract term by 420 calendar days, from October 26, 2015 to December 24, 2016, with no overall increase in the contract amount.

DISCUSSION:

In July 2010, staff presented to the Board a proposed redundancy plan, which would allow shutdowns of the metropolitan tunnel system in the event of an emergency or for maintenance, while providing uninterrupted potable supply to the water service area. The plan included a northern component (WASM 3 Replacement/Rehabilitation and Spot Pond Covered Storage), and a southern component (Sudbury Aqueduct Pressurization and Connections).

On September 12, 2012, the Board approved the award of Contract 7352, Sudbury Aqueduct Pressurization and Connections, Alternatives Analysis and MEPA Review, to CDM Smith, Inc. to evaluate alternatives and complete a MEPA (Massachusetts Environmental Policy Act) review of the southern component of the transmission redundancy program. This contract also included the evaluation and recommendation for the historic Rosemary Brook Siphon Buildings in Wellesley that are in disrepair, and subsequent preliminary and final design, construction administration, and resident engineering services for the recommended plan.

A number of redundancy options for the southern portion of the transmission system were identified, including tunnel options. Further evaluation of redundancy alternatives was placed on

A number of redundancy options for the southern portion of the transmission system were identified, including tunnel options. Further evaluation of redundancy alternatives was placed on hold while system-wide tunnel alternatives were developed under the WASM 3 Replacement/Rehabilitation Project. The two projects (northern and southern components) are now being evaluated together to identify how alternatives might be configured to benefit the north and south transmission systems.

The evaluation of the historic Rosemary Brook Siphon buildings was completed in 2014 and preliminary and final design has been progressing over the the past year. This portion of the project is moving forward and staff anticipate a construction contract award in December 2015.

These historic buildings (shown in the archival pictures on the right and on the following page) provide ventilation of the aqueduct as it transitions from a gravity brick aqueduct to three cast-iron siphon pipes crossing the Rosemary Brook. Due to leaking roofs and the age of the structures, the buildings have shown significant signs of deterioration, with infiltration of water between the bricks and sandstone trim. In addition, rust has built up between the main floor beams and the granite floor slabs and floor grating, which has buckled the floor and loosened the grating making the buildings unsafe for access.

These siphon buildings provide a necessary function for the operation of the Sudbury Aqueduct as MWRA's emergency, non-potable back-up water supply for the Southern High and Southern Extra High communities, including Boston, Brookline, Milton, Quincy, Norwood, Canton, Dedham, and Westwood. The buildings were recommended for repair and stabilization to continue serving their intended purpose based on a review of possible alternatives that included demolition, relocation, full restoration, and long-term stabilization. The analysis found that the buildings could be repaired and stabilized so that they can continue to serve as part of the emergency transmission system, while maintaining the historic nature of the Sudbury Aqueduct, which is listed on the National Register of Historic Places.



West Building



East Building

The necessary repairs include re-pointing the mortar joints of both buildings, minor sandstone replacement, replacement of both roofs and drains, replacement of steel grating, and replacement of steel support beams beneath the floors.



Current View West Building



Current View East Building

This Amendment

The existing contract end date is October 26, 2015. However, to complete design, additional field testing and inspection of structural and architectural elements of the buildings and aqueduct were conducted during fall 2014 and spring 2015. This additional work delayed completion of the design and preparation of bid documents. Also, in order to ensure that the mortar is able to cure properly, construction must be performed when the temperatures do not fall below 40 degrees Fahrenheit. Thus, the present bidding schedule anticipates a construction contract award in December 2015 so that preparations can be made to utilize the full 2016 construction season, April to October 2016. The construction end date is now projected to be October 2016. Therefore, staff recommend a contract extension of 14 months, to December 24, 2016, so that the Consultant can continue to provide construction administration and resident engineering services through completion of construction and contract closeout.

To provide repair and stabilization of the Rosemary Brook Siphon Buildings in lieu of the originally planned demolition and capping of the siphons, the scope of the design changed from demolition and concrete construction, which would be a Chapter 30 contract under Massachusetts General Law, to historic building repairs, which is a Chapter 149 contract. Therefore, the required expertise of the subconsultants on the project changed from simple structural to historic structural and architectural, and more detailed bidding processes as Chapter 149 contracts require filed sub-bids. These subconsultants will also provide field support and submittal review on the structural and architectural elements of the project during construction. Additional project management costs also will be incurred as a result of the 14-month contract extension.

Staff estimate that the total additional cost will be \$120,000. However, there are sufficient available funds remaining in tasks that were not needed for a hazardous materials abatement plan, preparation of an Environmental Notification Form for demolition of the historic structures, and a Technical Assistance allowance for additional engineering services, if needed. Staff recommend that these funds be reallocated (\$50,000 to design; \$50,000 to engineering services during construction, and \$20,000 to project management) so that Amendment 1 will increase the contract term by 420 calendar days with no increase in the original overall contract amount.

CONTRACT SUMMARY

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Contract Award:	\$3,405,107	1,095 Days	09/12/12
Proposed Amendment 1:	<u>0.00</u>	<u>420 Days</u>	Pending
Adjusted Contract:	\$3,405,107	1,515 Days	

BUDGET/FISCAL IMPACT:

The FY16 CIP includes a budget of \$3,405,107 for Contract 7352. Amendment 1 is for a time extension and reallocation only and will have no budgetary impact.

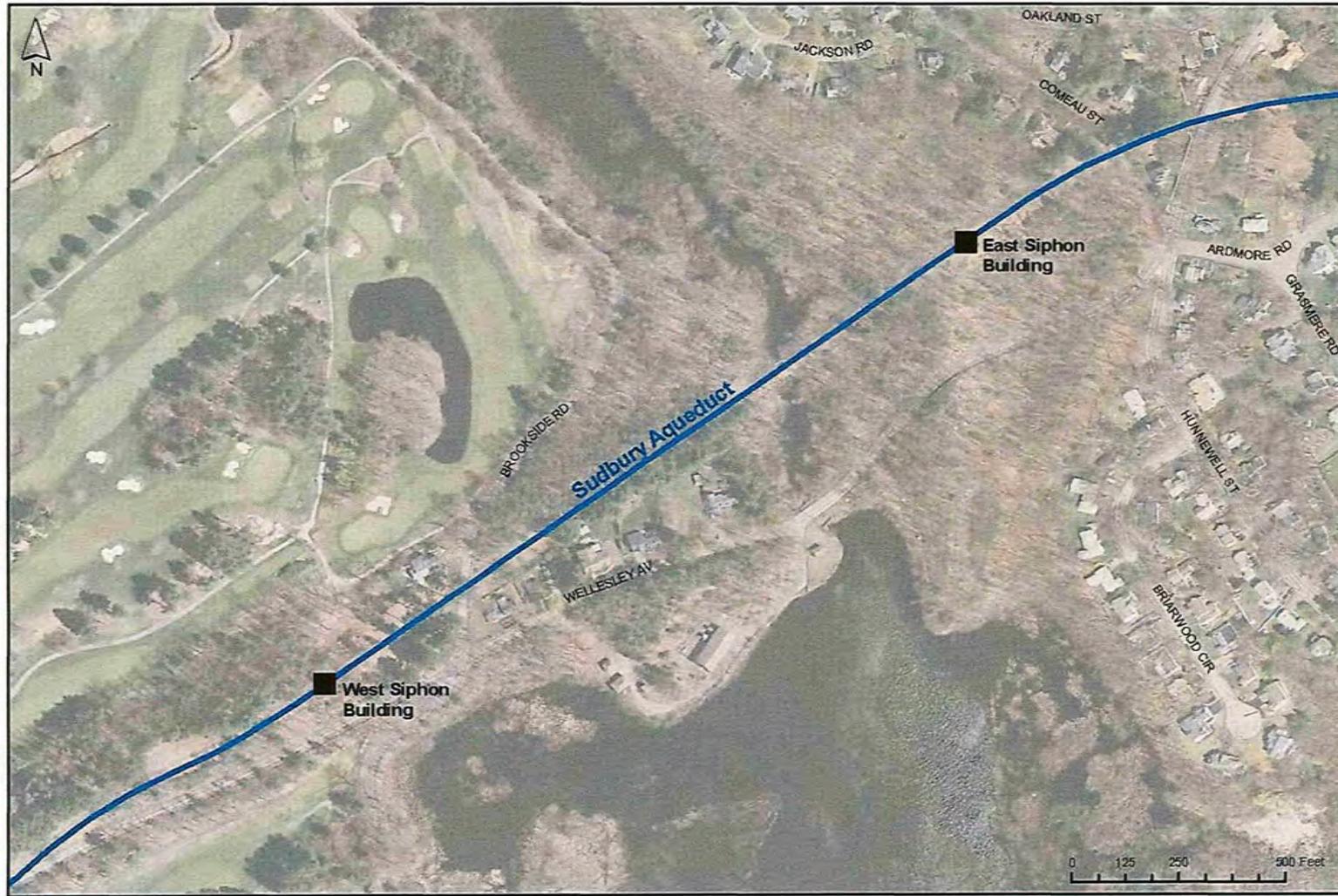
MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 17.1% and 5.77%, respectively. These contract requirements will remain unchanged by this amendment.

ATTACHMENT:

Figure 1 - Rosemary Brook Siphon Buildings Location

Figure 1 - Rosemary Brook Siphon Buildings Location



map1900-1

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Quabbin Ultraviolet Disinfection Facilities Design/CA/RI
AECOM Technical Services, Inc.
Contract 6775, Amendment 4



COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

A. Navanandan, P.E., Chief Engineer
Maureen K. McAvoy, P.E., Program Manager
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Amendment 4 to Contract 6775, Quabbin Ultraviolet Disinfection Facilities Design/CA/RI, with AECOM Technical Services, Inc., increasing the contract amount by \$305,000, from \$1,968,740 to \$2,273,740, and extending the contract term by nine months, from April 12, 2015 to January 11, 2016.

DISCUSSION:

On September 17, 2008, the Board approved the award of Contract 6775 to Earth Tech, Inc. (now AECOM) to provide design, construction administration, and resident engineering services needed to add ultraviolet (UV) disinfection at the William A. Brutsch Water Treatment Facility (shown on the right.)

AECOM completed the UV facilities design and on December 12, 2012, the Board approved the award of Contract 6776 to Daniel



O'Connell's Sons, Inc. for construction of the UV facilities for a contract term of 580 calendar days. The Notice to Proceed was issued on January 3, 2013 and Substantial Completion was reached on August 14, 2014. The facility was placed on line in advance of EPA's Long-Term 2 Enhanced Surface Water Treatment Rule deadline of October 1, 2014.

This Amendment

Amendment 4 is required to increase the contract amount as follows:

Increased Submittal and Requests for Information Review \$131,500

The contract's scope of services, as amended through Amendment 3, was based on an anticipated review of a total of 418 submittals/shop drawings and 95 requests for information (RFIs) from the construction contractor. During construction AECOM reviewed 115 additional submittals and 19 additional RFIs beyond what was in the adjusted contract and the basis for AECOM's contract costs.

Increased Proposed Change Order and Change Order Assistance \$92,784

MWRA significantly underestimated the original level of effort that would be required (150 hours) to provide design changes in response to field conditions. AECOM provided an additional 639 hours for Proposed Change Order and Change Order review beyond the specified 150 hours.

Increased Construction Administration Services \$53,600

The contract's original scope of services was based on a construction duration of 15 months. The actual construction duration was 21 months. In addition, AECOM required additional time to address punchlist items after Substantial Completion was reached. Therefore, Amendment 4 will increase the contract term by nine months, from April 12, 2015 to January 11, 2016.

Increased Resident Engineering Services \$27,116

The contract specified 3,200 hours for Resident Engineering services; the actual Resident Engineering hours provided exceeded the specified number by approximately 320 hours.

In order to cover the additional level of effort, AECOM requested an Amendment in the amount of \$350,000. In response, staff conducted extensive negotiations for the additional level of effort, which resulted in an agreed upon total amount of \$305,000 with a contract extension of nine months. AECOM has agreed to complete the remaining contractual work by January 11, 2016.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$ 1,740,740	56 Months	09/17/08
Amendment 1:	\$ 0	6 Months	07/24/13
Amendment 2:	\$ 0	14 Months	01/15/14
Amendment 3:	\$ 228,000	0 Months	06/03/14
Proposed Amendment 4:	<u>\$ 305,000</u>	<u>9 Months</u>	Pending
Adjusted Contract:	\$ 2,273,740	85 Months	

On July 24, 2013, Amendment 1, which was approved under delegated authority, extended the contract expiration date by six months from August 14, 2013 to February 13, 2014. Amendment 2, approved by the Board on January 15, 2014, extended the contract duration by 14 months and reallocated unused allowance funds from the Design Phase (Task 2) to the Construction Administration Task (Task 3). On June 3, 2014, Amendment 3, also approved under delegated authority, increased the contract amount by \$238,000 and reallocated unused allowance funds from the Resident Inspection budget (Subtask 3.11) to the Construction Advice, Interpretation and Clarification (Subtask 3.2).

The above time extensions under Amendments 1 and 2 were due to technical and administrative issues during design, which were beyond AECOM's control. These items included collection of water quality data by MWRA to confirm the treatment process, evaluation of alternative building layouts at the request of MWRA to reduce capital and operating costs, and incorporating lessons learned from recent projects into the contract specifications prior to bidding. These items resulted in issuing the construction Notice to Proceed approximately 20 months later than originally anticipated.

BUDGET/FISCAL IMPACT:

The FY16 CIP includes a budget of \$2,018,740 for Contract 6775. Including this Amendment for \$305,000, the adjusted sub-phase total will be \$2,273,740 or \$255,000 over budget. This amount will be covered within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract are 7.9% and 5.94%, respectively, and will remain unchanged by this amendment.



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. Carroll
P. Flanagan
J. Foti
A. Pappastergion
H. Vitale
J. Walsh

to be held on

Wednesday, June 24, 2015

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

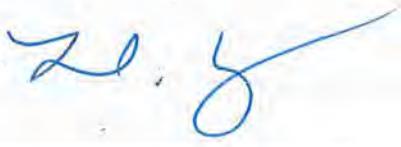
Time: Immediately following Water Comm.

A. Approvals

1. PCR Amendments – June 2015
2. Appointment of Project Manager, Engineering & Construction Department
3. Appointment of Program Manager, Trades Maintenance
4. Appointment of Manager, Electrical, Deer Island Maintenance

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: June PCR Amendment



COMMITTEE: Personnel and Compensation

 INFORMATION
 X VOTE

Karen Gay Valente
Karen Gay-Valente, Director of Human Resources
Joan C. Carroll, Manager Compensation
Preparer/Title

Michele S. Gillen
Michele S. Gillen
Director, Administration

RECOMMENDATION:

To approve the amendments to the Position Control Register (PCR) included in the attached chart.

DISCUSSION:

The Position Control Register lists all positions of the Authority, filled and vacant. It is updated as changes occur and it is published at the end of each month. Any changes to positions during the year are proposed as amendments to the PCR. All amendments to the PCR must be approved by the Personnel Committee of the Board of Directors. All amendments resulting in an upgrade of a position by more than one grade level, and/or an amendment which creates a position increasing annual cost by \$10,000 or more, must be approved by the Board of Directors after review by the Personnel Committee.

June PCR Amendments

There are four PCR amendments for this meeting, two for the Operations Division and two for the Administration Division.

One Operations Division amendment is necessary to address staffing needs at the Deer Island Treatment plant and the other is related to changes with instrumentation at the Carroll Water Treatment Plant

One Administration Division amendment is necessary to change a Human Resources position from non-union to union and to realign grade consistent with responsibilities. The other is related to changes in the organizational structure within the MIS Department as recommended in the MIS 5 Year Strategic Plan.

The amendments are:

1. Title and location change to a vacant position in the Meter Maintenance Department, Operations Division (OMC Laborer to B&G Worker).
2. Title and grade change to a vacant position in the Treatment and Transmission Department, Operations Division (Instrument Technician to a Senior Instrument Technician).

3. Grade change to a vacant position in the Human Resources Department, Administration Division (Assistant Manager, Workers Compensation & Labor Relations).
4. Title change to a vacant position in the MIS Department, Administration Division (Sr. CEB Analyst to Information Technology Financial Manager).

These amendments require approval by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments is a savings of between \$22,368 and \$71,288.

ATTACHMENTS:

New/Old Job Descriptions

MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2015

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - June 24, 2015

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
P23	Operations Meter Maintenance 5844028	V	T/L	OMC Labor	2	13	B&G Worker	2	13	N/A	N/A	N/A	To meet staffing needs at DIWWTP
P24	Operations Treatment & Transmissions 3392042	V	T/G	Instrument Tech	2	15	Sr Instrument Tech	2	16	\$63,355	\$48,221 - \$66,921	-\$15,134 - \$3,566	To address the work load at CWTP more efficiently
P25	Administration Labor Relations 8520013	V	G	Assistant Manager, Workers Comp & Labor Relations	NU	13	N/A	C6	11	\$118,336	\$62,182 - \$92,402	-\$56,154 - -\$25,934	To change from non-union to union and realign the grade consistent with responsibilities
P26	Administration MIS 8610031	V	T	Sr. CEB Analyst	6	10	Information Technology Financial Manager (ITFM)	6	10	N/A	N/A	N/A	To align title with organizational structure as recommended in the MIS 5 year strategic plan
PERSONNEL & COMP COMMITTEE TOTAL=					4						TOTAL:	-\$71,288 - -\$22,368	

PCR AMENDMENTS REQUIRING BOARD APPROVAL- June 2015

BOARD TOTAL =	0	SUBTOTAL:	\$0 - \$0
GRAND TOTAL =	4	TOTAL ESTIMATED COSTS:	-\$71,288 - -\$22,368



MWRA

POSITION DESCRIPTION

POSITION: OMC Laborer

PCR#:

DIVISION: Operations

DEPARTMENT: Wastewater Operations, Western Operations, Equipment Maintenance, Metro Pipe Maintenance

BASIC PURPOSE:

Performs routine and skilled manual tasks as assigned. Assists operations, maintenance and skilled trades staff as required. May be required for overtime in extended workday and emergency situations. May be required for regular, on-call rotations.

SUPERVISION RECEIVED:

Works under the general supervision of a foreman or supervisor.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Performs tasks requiring some specialized skill in the maintenance and operation of equipment such as pickup trucks, pump trucks, tractors, mowers, pumps, generators and pneumatic tools, cement mixers, air compressors, snow removal equipment, sewer maintenance equipment, etc.
- Performs manual tasks requiring some specialized skill or knowledge in assisting skilled tradesmen engaged in construction, maintenance and repair work, including minor adjustments and repair of equipment.
- Performs a variety of manual tasks in connection with valve operations, pipeline construction and maintenance such as cleaning culverts and drains, digging ditches, spreading asphalt, caulking lead joints, and assisting in valve installations, repair of valves and pipeline under pressure 6" to 72" in diameter and the chlorination of water mains.
- Gases, oils and greases trucks, automobiles and miscellaneous grounds maintenance equipment.
- Performs a variety of manual tasks in connection with building and grounds maintenance

work such as grass cutting, shoveling snow, repair of fences, disposing of trash and maintaining general building cleanliness.

- Assists personnel of a higher grade in all aspects of plant maintenance and repairs, including but not limited to diesel engine overhaul, positive displacement pump overhaul and repair, centrifugal pump overhaul and repair, re-chaining of grit channels and sedimentation tanks and building concrete structures.
- Assists in the repair of electrical and mechanical equipment.
- Assists in upkeep and cleaning of MWRA equipment, structures and facilities such as screen chambers, tidegates and regular chambers.
- Assists in the handling and storage of stock, loads, unloads, moves and transports material, equipment, freight and supplies.
- Works as a member of a multi-crew, as needed.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A high school diploma or GED; or
- (B) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Working knowledge of the use of common tools, construction and sewer maintenance equipment, and of one or more of the mechanical or building trades.
- (B) Ability to operate various types of vehicles and equipment including light automotive trucks and equipment, ten-wheel dump trucks, snow plows, pickup trucks, tractors and power-driven grounds maintenance equipment.
- (C) Ability to perform manual labor of semi-skilled nature, use/make minor repairs to small tools and simple mechanical equipment.
- (D) Basic knowledge of the operation and maintenance of facilities.
- (E) Ability to perform heavy manual labor for extended periods of time, under varying climatic conditions.
- (F) Ability to follow oral and written instructions.

SPECIAL REQUIREMENTS:

Must possess a current valid Class B Massachusetts Commercial Drivers License.

Will be subject to the MWRA Controlled Substance and Alcohol Testing Policy and the random drug-testing program.

TOOLS AND EQUIPMENT USED:

Motor vehicle, power and hand tools, mobile radio, telephone, beeper.

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 is occasionally required to stand, walk, talk or hear, sit, climb or balance. The employee is frequently required to stoop, kneel, crouch or crawl.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move more than 100 pounds. Specific vision abilities required by this job include close vision, distance and 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 outside weather conditions. The employee regularly works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in 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 very loud in field settings, and moderately loud at other work locations.

May, 2001



MWRA
POSITION DESCRIPTION

POSITION: Building and Grounds Worker

PCR#:

DIVISION: Operations

DEPARTMENT: Maintenance/Deer Island

BASIC PURPOSE:

Performs a variety of maintenance and repair tasks to roads, grounds, buildings, structures and associated appurtenances together with other light maintenance tasks as assigned.

SUPERVISION RECEIVED:

Works under the general supervision of the Building & Grounds Supervisor.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Cleans process tanks (including unbolting and securing of access covers), galleries, drains, culverts, and structures as required.
- Cleans process spills and upsets as required.
- Maintains roadways, walkways, fencing and gates as necessary.
- Performs clean-up and housekeeping tasks for work area to maintain a clean environment within designated area.
- Removes snow and ice from roadways, walkways, buildings and structures as necessary.
- Maintains the appearance of the plant grounds by cutting, trimming or weeding grass, shrubs, trees or ornamental beds.
- Digs and/or refills ditches and holes. Breaks, removes and repairs concrete as required.

- Collects and disposes of trash and other waste materials.
- Operates machinery, vehicles, material handling equipment, snow removal equipment, and tools as necessary to perform assigned work such as (but not limited to) tractors, mowers, cement mixers, cleaning machinery, etc.
- Operates motor vehicles such as vans and pick up trucks to transport materials and equipment to work sites, pick up and deliver materials, etc.
- Washes and cleans vehicles, tools and equipment.
- Moves material and supplies.
- Loads and unloads vehicles, carts, trailers, etc., as required.
- Performs work in a safe and professional manner.
- Reports and documents work being performed.
- Follows established safety, operating and emergency response procedures and policies as established by the MWRA.
- Trained in Confined Space Entry, CPR and First Aid, and be capable of entering, setting up, installing, disassembling confined space equipment and ability to work in a confined space.
- Perform work in compliance with Authority Integrated Contingency Plan.
- Ability to attain knowledge and work processes required to perform maintenance tasks required by Reliability Centered Maintenance or similar Maintenance Management Program.
- Performs light maintenance independently or as part of a team. Light maintenance shall include but not limited to:
 - Operates forklift or other light equipment not requiring a specific license.
 - Inspects and troubleshoots various systems and equipment.
 - With proper training sets up ladders, staging and rigging and utilizes hoists, jacks, dollies, lifts, etc. for proper access to job and to remove and install equipment.
 - Performs, documents and reports inspections and work performed.
 - Operates portable pumping, ventilation and other equipment necessary to support and accomplish assigned tasks.

- Assists other trades in the performance of their work, as required, or as assigned.
- Lockout/Tagout of equipment to facilitate maintenance.
- Installs safety rails, changes light bulbs and replaces HVAC filters.

SECONDARY DUTIES:

- Performs related duties as required.
- Promotes and participates in the cross-functional work practices.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Basic reading, writing, mathematical, scientific and oral communication skills as normally attained through a high school education or the equivalent; and
- (B) Requires from six (6) to twelve (12) months of related buildings and grounds experience.
- (C) Satisfactory completion of training in accordance with cross-functional training program established at the MWRA.
- (D) Any equivalent combination of education/training and experience.

Necessary Knowledge, Skills and Abilities:

- (A) A working knowledge of the methods and tools required to perform building and grounds maintenance functions, to include the operation of a wide variety of machinery, vehicles, material handling equipment, hand and power tools and specialized machinery for roads, grounds, galleries, structures and facilities care.
- (B) Ability to follow written and oral instructions.
- (C) Skill in the operation of the listed tools and equipment.

SPECIAL REQUIREMENTS:

- A valid Massachusetts Class D Motor Vehicle Operators License.

- Complete competency based training program related to **ESSENTIAL DUTIES AND RESPONSIBILITIES** as outlined above and successfully demonstrates required competencies.

TOOLS AND EQUIPMENT USED:

Motor vehicle, power and hand tools, mobile radio, telephone, beeper.

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 handle, finger, feel or operate objects, tools, or controls and reach with hands and arms. The employee frequently is required to stoop, kneel, crouch or crawl. The employee occasionally is required to stand, walk, talk or hear, sit, climb, or balance.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move more than 100 pounds. Specific vision abilities required by this job include close vision, distance and 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 outside weather conditions. The employee regularly works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in 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 very loud in field settings and moderately loud at other work locations.

December, 2001

MWRA
POSITION DESCRIPTION



POSITION: Instrument Technician
PCR#:
DIVISION: Operations
DEPARTMENT: Treatment & Transmission, J Carroll Water Treatment Plant

BASIC PURPOSE:

Installs, calibrates, troubleshoots, repairs and maintains electronic metering equipment and other instrumentation.

SUPERVISION RECEIVED:

Works under the general supervision of a Senior Instrument Technician.

SUPERVISION EXERCISED:

May provide general guidance and direction to Junior Instrument Technicians.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Performs precision calibrating, troubleshooting, installing, repairing and maintaining electronic metering equipment, gas monitors, differential pressure instruments, transmitters, recorders, etc.
- Monitors electronic equipment performance and recommends repair or replacement.
- Participates in a preventive maintenance program for metering equipment.
- Participates in the troubleshooting of malfunctioning instrumentation and recommends repair or replacement.
- Assists the field supervisor by keeping complete and accurate records.
- Assists the field supervisor with the maintenance and upkeep of all tools, materials,

equipment and vehicles ensuring a safe working condition.

- Follows all MWRA safety policies and procedures to ensure a safe work environment.
- Maintains a daily log of work performed.
- Maintains all tools, materials, equipment, vehicles and facilities in safe and orderly condition.
- Performs plumbing duties related to metering.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A high school education; or
- (B) A vocational certificate in electronics.

Necessary Knowledge, Skills and Abilities:

- (A) Understanding of principles and practices of electronic, hydraulic and mechanics.
- (B) Knowledge of tool methods, materials and techniques used in repairing, adjusting and testing all types of instrumentation.
- (C) Working knowledge of computers.
- (D) Ability to prepare and maintain records in a legible and orderly fashion.
- (E) Ability to read, interpret and work from blueprints, site drawings, schematics, wiring diagrams and other diagrams.
- (F) Familiarity with the care and use of electronic test equipment as well as various other hand and power tools.
- (G) Ability to understand and follow written and oral instructions.
- (H) Skill in the operation of the listed tools and equipment.

SPECIAL REQUIREMENTS:

A valid Massachusetts Motor Vehicle Operators License.

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

TOOLS AND EQUIPMENT USED:

Electronic test equipment, programmable logic computers, climbing and fall retrieval equipment, personal computer including word processing and other software, hand tools, mobile radio, copy and fax machines.

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 handle, finger, feel or operate objects, tools or controls and reach with hands and arms. The employee is regularly required to walk, sit, climb or balance, stoop, kneel, crouch or crawl.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move more than 50 pounds. Specific vision abilities, required by this job include close vision, distance vision, color 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 occasionally works in outside weather conditions. The employee frequently 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.

November, 2000



MWRA
POSITION DESCRIPTION

POSITION: Senior Instrument Technician
DIVISION: Operations
DEPARTMENT: Treatment & Transmission, J Carroll Water Treatment Plant

BASIC PURPOSE:

Supervises and participates in the installation, calibration, maintenance and repair of water instrumentation and equipment.

SUPERVISION RECEIVED:

Works under the supervision of Unit Supervisor, Instrumentation.

SUPERVISION EXERCISED:

May supervise individual Technicians or crews of Instrument Technicians.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Supervises and participates in precision shop and fieldwork calibrating, troubleshooting, installing, repairing and maintaining electronic equipment and instrumentation.
- Supervises a crew of technicians, records work completed, equipment and parts utilized, time spent on job and summarizes in daily and weekly reports.
- Utilizes Maximo to input and extract data.
- Examines malfunctioning instruments, tests sensors and circuitry for defects. Troubleshoots equipment and replaces or repairs defective parts, reassembles the instrument and adjusts all levels and signals to ensure accurate data.
- Supervises the safe and orderly maintenance of all tools, materials, equipment, vehicles and facilities.

- Works from blueprints and site drawings. Reads wiring diagrams, PID and schematic drawings to locate and troubleshoot circuit problems.
- Orders and maintains all necessary supplies.
- Follows all MWRA safety policies and procedures to ensure a safe work environment.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A two (2) year college program in electronics or related field; and
- (B) One (1) to three (3) years of experience in electronics, electricity, mechanics and hydraulics with at least one (1) year as a supervisor in a work order-driven environment; or
- (C) Three (3) years of experience in the electronics field may be substituted for supervisory experience; or
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Familiarity with the care and use of electronic test equipment as well as various other hand and power tools.
- (B) Understanding of the operation of water transmission and treatment systems is preferred.
- (C) Ability to read, interpret and work from schematics, wiring and P & I diagrams as well as detail record drawings.
- (D) Ability to plan and schedule crew activities.
- (E) Excellent oral and written communication skills. Ability to understand and follow written and oral instructions.

(F) Working knowledge of computers.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Complete competency based training program related to **ESSENTIAL DUTIES AND RESPONSIBILITIES** as outlined above and successfully demonstrates required competencies.

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

Must have the ability to raise a 180-pound co-worker from a metering sewer manhole in a reasonable amount of time using a DBI/SALA tripod/winch system.

TOOLS AND EQUIPMENT USED:

Electronic test equipment, programmable logic computers, climbing and fall retrieval equipment, personal computer including word processing and other software, hand tools, mobile radio, copy and fax machines.

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 100 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 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 other work locations.

February 2005



MWRA
POSITION DESCRIPTION

POSITION: Senior CEB Analyst

PCR#:

DIVISION: Administration & Finance

DEPARTMENT: Management Information Systems (MIS)

BASIC PURPOSE:

Manages the Department's CEB and CIP operations. Formulates, reviews and provides financial management reports on departmental CEB and CIP budgets. Develops procurement requisitions and compilations of technical specification documents, performs contract administration and produces staff summaries.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of MIS.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the department's CEB operations (requisition processing, PO notification, vendor payments, subsidiary ledger posting, reallocations, MBE/WBE reporting, accruals, end of year closeout, etc.) with accuracy, minimal errors in a timely manner and within agreed upon variances.
- Manages the department's CIP operations (requisition processing, PO notification, vendor payments, subsidiary ledger posting, reallocations, MBE/WBE reporting, accruals, end of year closeout, etc.) with accuracy, minimal errors in a timely manner and within agreed upon variances.
- Manages the annual CEB and CIP preparation(s), performing analysis research and by ensuring all required spending has been captured, all maintenance accounted for,

projections are accurate and accountability controls are in place with responsible program managers.

- Manages requisitions process with responsible senior program managers to ensure that no lapse between agreements occurs thereby creating risk and that long lead times on items which require competitive bidding are reduced.
- Formulates and reviews financial/management reports of the capital and operating expenses of the department including variance reports.
- Programs in MS-Access and develops queries against various A & F systems.
- Conducts special projects relative to the various planning and implementation efforts of the department, including testing of new features on the Financial Management System, Payroll/Human Resources System and/or Procurement System.
- Supervises support staff in weekly payroll processing and tracks departmental sick usage.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in business management or related field required; and
- (B) Two (2) to four (4) years of directly related experience in budgeting and/or contract compliance; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge and understanding of public procurement procedures, contract monitoring and compliance techniques, financial modeling and budgeting.
- (B) Proficiency with MS Office (including ACCESS), PSI, FMS, BEARS and CAPSTAN.
- (C) Product knowledge of a variety of MIS goods and services.
- (D) Excellent analytical, interpersonal, oral and written communication skills are required.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

Office machines as normally associated with the use of telephone, personal computer including word processing and other spreadsheet database 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 reach with hands and arms. The employee is frequently required to sit, talk or hear. The employee is occasionally required to stand and walk.

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision and color vision, 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 noise level in the work environment is usually a moderately quiet in office setting.

August, 1999

NEW

**MWRA
POSITION DESCRIPTION**

POSITION: Information Technology Financial Manager (ITFM)

PCR#

DIVISION: Administration

DEPARTMENT: Management Information Systems

BASIC PURPOSE:

The ITFM will prepare and maintain the departments Current Expense Budget (CEB) and Capital Improvement Plan along with key financial data related to weekly/monthly spend and provide IT leadership with timely and accurate key financial information. The ITFM serves as the key liaison between IT, Finance and Procurement. The ITFM will play an instrumental role in assessing the IT financial spend pertaining to various IT infrastructure and Application related activities, vendor spend, processing and recording of all procurement activity and track project related costs.

SUPERVISION RECEIVED:

Reports to the Director or MIS.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the department's CEB & CIP operations (requisition processing, PO notification, vendor payments, subsidiary ledger posting, accruals, end of year closeout, etc.) with accuracy, minimal errors in a timely manner and within agreed upon variances.
- Manages the annual CEB and CIP preparation(s), performing analysis research and by ensuring all required spending has been captured, all maintenance accounted for, projections are accurate and accountability controls are in place with responsible program managers.
- Formulates and reviews financial/management reports of the capital and operating expenses of the department including variance reports.
- Responsible to write and update budget narratives; also responsible to document, prepare, distribute and present semi-annual update on MIS Current Expense & Capital Improvement Program Budget to the MWRA's Advisory Board.
- Update, maintain and track MIS Training Budget
- Manages requisition process for all IT procurements including vendor maintenance and

support agreements to ensure that there is no lapse in support. Furthermore, to ensure that the lead time to procure is understood and is kept to a minimum.

- Track, review and follow up with Purchase Orders, vendors, delivery schedules and confirmations.
- Responsible for monitoring, tracking and maintaining record copies of staff summaries and sole source memos required for all MIS purchases and communicate with procurement to secure consensus on approvals.
- Manage Telecommunication accounts for the MWRA including Voice, Data, & Security Network accounts, including review, download and convert telecomm data to Accounts Payable for payment processing through the Lawson System, serve as the point of contact for all billing, changes and updates with associated Carrier to generate reports on calls, charges and/or services. In addition, manage all IT Department Carrier accounting issues through to resolution.
- Maintain, review, edit and research authority-wide wireless, cell and Smartphone accounts. Work with both vendor and users and distribute monthly invoice for review and reimbursement to comply with MWRA policy.
- Manage, document and track MIS Blanket contracts.
- Develop and Maintain relationship with various Commonwealth of Massachusetts Strategic Sourcing Leads of Multiple Information Technology contracts. Review, research and recommend the use of State Blanket & GSA Contracts, Cooperative Purchasing Program and Consortium of Northeast State Contracts for MIS Procurement Purchases and participate on yearly Commonwealth activities to maintain open communication and opportunities available to the MWRA.
- Conducts special projects relative to the various planning and implementation efforts of the department, including testing of new features on the Financial Management System, Payroll/Human Resources System and/or Procurement System.

SECONDARY DUTIES:

- Perform related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in management science, engineering management, computer science or related fields; and
- (B) Five (5) to seven (7) years experience developing and managing financial tasks such as generating and managing budgets, performing financial management analysis and expenditure forecasts, contract management, etc.

(C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge and understanding of public procurement procedures, contract monitoring and compliance techniques, financial modeling and budgeting.
- (B) Analytical and interpersonal skills
- (C) Written and oral communication skills.
- (D) Knowledge of the following is desirable: Proficiency with MS Office (including Word, Access and Excel, and Enterprise Resource Management (ERP) Budgeting, Purchasing, Contracts and Sourcing software. Financial applications for Budgeting, Contracts Management and Procurement preferred.
- (E) Product knowledge of a variety of MIS goods and services

SPECIAL REQUIREMENTS:

Information Technology Infrastructure Library (ITIL) Foundation Certification is required or the ability to obtain within 6 months.

TOOLS AND EQUIPMENT USED:

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

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 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 frequently is required to sit and talk or hear. The employee is occasionally required to walk and stand.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision and color vision, and the ability to adjust focus.

WORK ENVIRONMENT:

The work characteristics describes 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 works in various field settings and in an office environment. The employee is occasionally exposed to risk *of* electrical shock.

The noise level in the work environment is a moderately loud office setting.

June 2015

STAFF SUMMARY

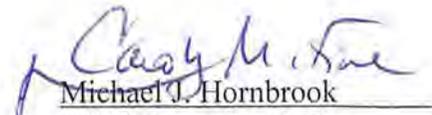
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Appointment of Project Manager
Engineering & Construction Department



COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Karen Gay-Valente, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Valerie Moran, P.E., Manager of Ops Eng.
Preparer/Title



Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Ms. Ling-Yu Chu to the position of Project Manager (Unit 9, Grade 25), at the recommended salary of \$96,795.45, commencing on a date to be determined by the Executive Director.

DISCUSSION:

This Project Manager position in Operations Engineering became vacant upon the promotion of the previous incumbent. Operations Engineering provides engineering services to the Operations Division's Wastewater, Metropolitan Operations, and Western Operations sections, with a particular emphasis on hydraulics and flow. The Project Manager position reports to the Manager of Operations Engineering and provides engineering support for all Field Operations activities. This includes: implementing operational changes that have service impacts; supporting emergency response events, including leak and wet-weather staffing; supporting maintenance planning; and supporting in-house design and construction activities.

Selection Process

This position was posted internally and externally. A total of six candidates were referred by Human Resources as having met the minimum qualifications for the position, two external and four internal. A committee that included the Director of Waterworks, the Manager of Operations Engineering, and a representative from MWRA's Affirmative Action and Compliance Unit interviewed all six candidates. Upon completion of the interviews, Ms. Ling-Yu Chu was selected as the recommended candidate for the position based upon her experience and knowledge of MWRA's water supply engineering and operations.

Ms. Chu has 23 years of professional engineering experience at MWRA working on water and wastewater engineering projects. During her career at MWRA, which began in 1992, she worked as a Staff Engineer on CSO Facility Planning and Master Planning, and as a Project Engineer on in-house water valve replacement and meter design projects from planning, utility information collection, design, and implementation. Currently, Ms. Chu holds the position of Senior Engineer in Operation Engineering.

Ms. Chu has experience working in the Emergency Operations Center as part of emergency response teams providing support for several emergency and significant wet-weather events. She has planned and supervised numerous pipeline isolations and has been the liaison for Operations on several construction projects, most recently, the Northern Intermediate High Improvements project. Ms. Chu has gained extensive knowledge of MWRA's water hydraulic system, pipeline and valve operations, wastewater system through her various positions at MWRA.

Ms. Chu earned a Bachelor of Science Degree in Civil Engineering from Northeastern University.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY16 CEB. The recommended salary is in accordance with Unit 9's current collective bargaining agreement.

ATTACHMENTS:

- Resume of Ling-Yu Chu
- Position Description
- Organization Chart

Ling-Yu Chu

Experience

Massachusetts Water Resources Authority

1992-Present

Senior Engineer

-Coordinated water and wastewater construction contracts for Field Operations, including pipeline shutdowns, scheduling, O&M manual review, testing, training and construction submittal review. These projects include Meter 70 Pipeline, Hingham Pump Station Isolation Gate, Phase VII Valve Replacement, NIH Emergency Pipeline, Weston Reservoir Disinfection Facility Aboveground Fuel Storage Tank System, Security Improvements at Various Facilities, and NIH West Street Transmission Main-Reading.

-Provided engineering support for in-house construction projects, including street opening permits, blow-off layout plans, meter 98 replacement plan and traffic management plans.

-Prepared Operation Plans for the shutdowns of Authority water distribution and coordinating the work, and performing hydraulic conditions monitoring at the OCC during the Operation.

-Assisted in development of specifications and oversight of Metropolitan Storage Tank inspection program.

-Prepared change orders for metropolitan operations paving construction contract.

-Reviewed inspection reports and performed routine dam and reservoir visual inspections.

-Prepared Emergency Operation Center monitoring wastewater hydraulics at all facilities and various locations during storm events.

Project Engineer

-Worked on the design of Spot Pond Covered Storage Facility, new 12" water main, and 60" overflow drain line.

-Finalized construction changes on detail records and record drawings for Contract 6382, CP3 Spot Pond Supply Mains, and Section 3, 4, 9, 10 and 11.

-Performed the regulatory inspection on Environmental Protection for the Blue Hills covered storage facility.

-Worked on the purchase of Mobile Pumping Units. The work included the review of the specification and submittals.

-Worked on the design for both in-house and contracted construction projects. Prepared design documents for construction. Provided construction phasing, traffic management plan, and permits to the other agencies (DOT, and MBTA).

Project Engineer & Staff Engineer

-Worked in the management of Master Planning and CSO Facility Planning. Performed technical review of consultant's and in-house work including development of sewer computer based maintenance system, hydraulic calculations, CIP budget preparation, budget tracking, tide gate replacement, set-up and performed water quality sampling plan.

Camp Dresser & McKee Inc.

1985-1991

-Worked on the design of the Zion Hill pumping station for City of Woburn, prepared the specifications, and quantity/cost estimate.

-Worked on the design of several water management projects for various local and state agencies. Responsibilities included preparation and calibration of water distribution system with use of computer modeling.

-Worked on the design of several cleaning and lining projects in Massachusetts and Rhode Island. Responsibilities included preparation of design plans and specifications.

-Worked on the development of the computer-based maintenance system for Boston Water Sewer Commission and Manchester Water Works in New Hampshire.

-Worked on the lateral sewer design for the city of Mansfield.

-Worked on water and wastewater facility shop drawings.

Education

University of Massachusetts at Amherst

Undergraduate studies in the Physics/Astronomy Department

Northeastern University

Bachelor of Science in Civil Engineering, 1988

Simmons Graduate School of Management

MWRA Leadership Program for Women, 1999

Other Skills

Arc Map, Pictometry, AutoCAD, Telog, and MAXIMO, Kentucky Program, and Municipal Hydraulic Program, H2O net and InfoWater.

Certifications

Grade 1D Drinking Water Distribution Operator in Training

MWRA Emergency Response Plan Training-Modules 1-4, 2013

Pump Systems Optimization Workshop

American Water Works Association

**MWRA
POSITION DESCRIPTION**

POSITION: Project Manager

PCR#

DIVISION: Operations

DEPARTMENT: Operations Engineering

BASIC PURPOSE:

Provides engineering support for all Field Operations Department activities including implementing operational changes that have service impact, supporting emergency response, supporting maintenance planning, supporting in-house design and construction activities, acting as liaison to design and construction projects, and supporting start-up of new/rehabilitated facilities.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Operations Engineering.

SUPERVISION EXERCISED:

Exercises close supervision of one Project Engineer and one Junior Civil Engineer.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Prepares Operations Plans for major Field Operations Department (FOD) activities that impact water service. Works with Engineering and Construction Department (BCD) and Capital Engineering Department (CED) as needed and Metropolitan and Western Operations and Maintenance staffs to develop plan steps and constraints. Works with GIS staff to develop mapping and detail notes. Coordinates review and execution of plans.
- Acts as Responsible Person for execution of Operations Plans including directing planned activities and monitoring for potential service impacts.
- Provides analysis of distribution system problems including hydraulic modeling. Provides analyses of planned or emergency shutdowns to identify service impacts.
- Oversees development of valve maintenance schedules. Assists in developing the mainline and blow-off valve replacement program strategies.
- Provides engineering support for in-house construction projects, including permitting and engineering calculations (e.g. thrust restraint).
- Develops plans and specifications for FOD maintenance/construction projects, including paving, line-stopping, and tank inspection/cleaning. Coordinates procurement of contractors and manages implementation of the related work.

- Acts as liaison to ECD and CED projects, including participation in preliminary design, coordinating FOD design reviews, review of construction submittals, coordination of necessary FOD support actions (e.g., valve operations, disinfection), coordination of start-up activities, coordination of turnover packages, warranties, record submittals, 1080 form maintenance submittals and other FOD requirements.
- Participates in emergency response to any/all FOD emergencies.
- Develops SOPs for emergency response protocols involving use of mobile disinfection units, temporary booster pumping or other emergency activities. Trains staff in SOPs and monitors the readiness of associated equipment.
- Develops, revises, and circulates SOPs for standard construction activities, including pipeline disinfection, LOTO for pipeline closures, dechlorination, and tank disinfection.
- Participates in preparation of FOD Facility Manuals to ensure accuracy and completeness of SOPs.
- Acts as liaison to MWRA communities during MWRA activities that affect water service and during local activities.
- Assists with updating and maintaining FOD databases, including the valve database, and GIS databases.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's Degree in mechanical, civil, sanitary or environmental engineering or a related field; and
- (B) Five (5) to seven (7) years of experience with maintenance and operations of mechanical equipment associated with waterworks or wastewater systems or with manufacturing facilities; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated knowledge of all phases of water supply engineering including hydraulics, distribution system modeling, hydraulic transient analysis, pipeline/pump/valve design, water disinfection and sampling, dechlorination, distribution system maintenance, SOP development and field safety procedures.
- (B) Demonstrated abilities to work as part of a project team, to develop and maintain productive working relationships with external parties, and to function independently with minimal supervision.
- (C) Proficiency in H2Onet water distribution modeling required. Experience in GIS, Arcmap, AutoCAD, Telog, SCADA, and MAXIMO preferred.

- (D) Proficiency with personal computers, handheld computer devices, and knowledge of Word, Excel, databases, and PowerPoint is required. Proficiency in project management software.
- (E) Availability for overnight planned operations and 24/7 emergency response.
- (F) Excellent interpersonal, verbal, and written communications skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operator's License.
Massachusetts Registered Professional Engineer's License preferred.
A valid Grade II Water Treatment Operator's License and/or Grade IV Distribution Operator's License 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 reach with hands and arms. The employee frequently is required to sit, talk, or hear. The employee is frequently required to stand and walk.

The employee must frequently lift and/or move up to 10 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

WORK ENVIRONMENT:

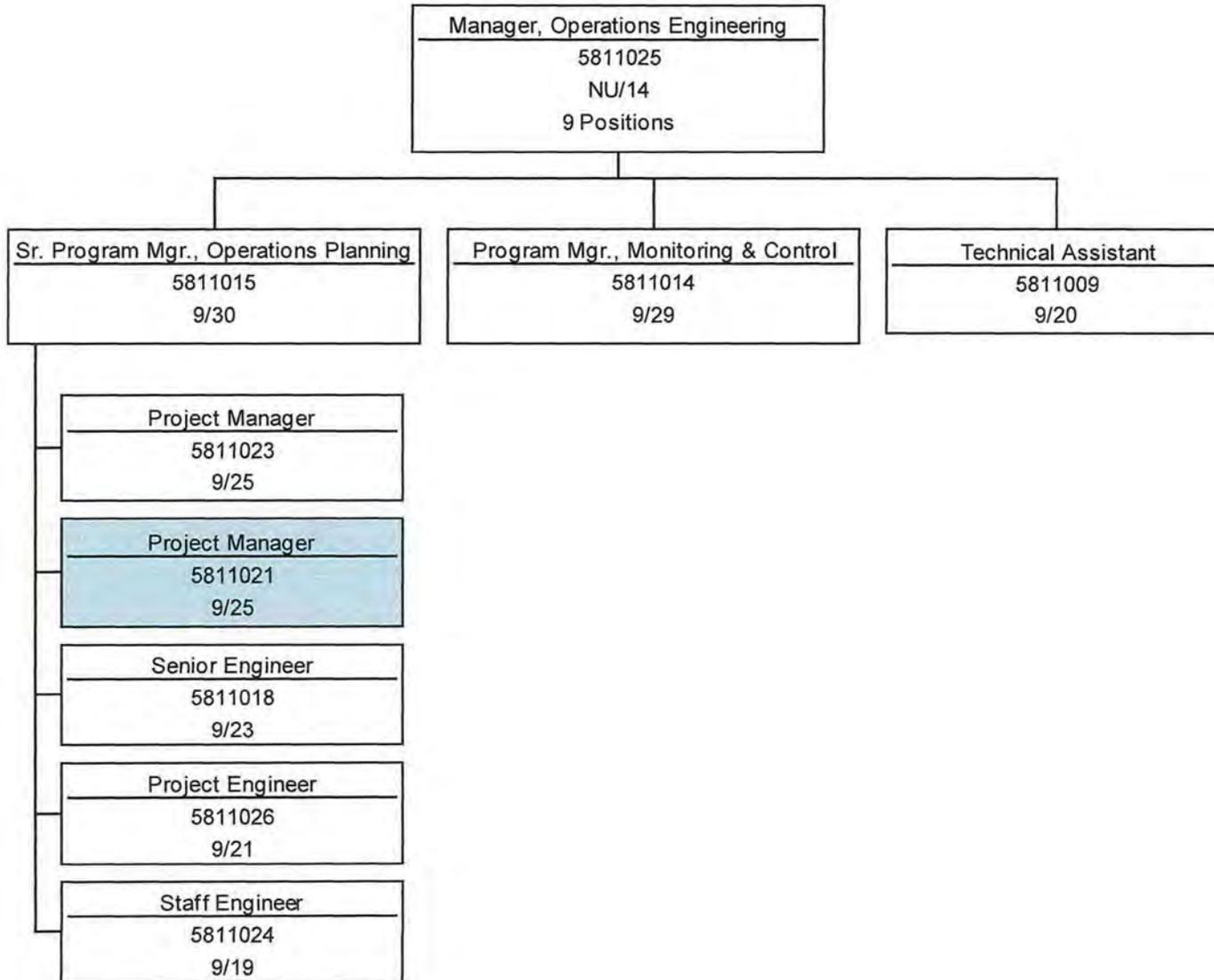
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in an office environment.

The noise level in the work environment is moderately quiet in an office setting.

Operations Engineering

June 2015



STAFF SUMMARY

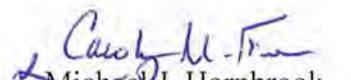
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Appointment of Program Manager, Trades Maintenance
Field Operations



COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Karen Gay-Valente, Director, Human Resources
Stephen D. Cullen, Director, Wastewater O&M
John P. Vetere, Deputy Chief Operating Officer
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Michael L. Costa to the position of Program Manager, Trades Maintenance (Unit 9, Grade 29), at the recommended salary of \$103,855.60, commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Program Manager, Trades Maintenance in Field Operations became vacant upon the recent promotion of the previous incumbent. This position, which reports to the Senior Program Manager, Metro Trades, supervises 31 staff comprised of M&O Specialists, Plumbers, Machinists, and Welders, and is responsible for all maintenance activities at MWRA's water and wastewater facilities in Field Operations' Metro East section.

The responsibilities of this position are to ensure preventive, corrective, predictive, and emergency maintenance of MWRA facilities, and implementation of maintenance efficiency improvements.

Selection Process

The Program Manager, Trades Maintenance was posted only internally and a total of 14 candidates applied for the position; seven candidates were determined to have met the minimum qualifications for the position and were recommended for interview. The Maintenance Manager, Metro East, the Senior Program Manager, Metro Trades, and a representative from MWRA's Affirmative Action and Compliance Unit interviewed all seven candidates. Upon completion of

the interview process, Mr. Michael L. Costa was selected as the most qualified candidate for the position based upon his education, knowledge, and experience.

Mr. Costa has been employed at MWRA since 1987. His demonstrated knowledge of planning and scheduling principles, his extensive knowledge and experience with MWRA's computerized maintenance management system, MAXIMO, his knowledge of plant and facility processes, his experience with condition monitoring, and his organizational skills, clearly set him apart from the other candidates. Since he began his employment at MWRA, Mr. Costa has held several positions of increasing responsibility. As a Planning and Scheduling Coordinator, from 2001 to 2004, he was instrumental in the QA/QC of MAXIMO's Equipment Module at Deer Island. He also has demonstrated a good understanding of the maintenance work flow (work orders) utilizing MAXIMO to electronically monitor maintenance activities.

Since 2004, Mr. Costa has held the position of Project Manager, Condition Monitoring at the Deer Island Treatment Plant. He has extensive knowledge of Condition Monitoring principals and practices, and as a certified Condition Monitoring Administrator, he has been trained to read and interpret vibration data, oil analysis data, thermal imaging data, and acoustic ultrasonic data provided to him. Mr. Costa will be a key and valuable member of Field Operations as his broad training and experience will help to expand Field Operations' condition monitoring program.

In addition to being a certified Condition Monitoring Administrator, Mr. Costa also is a certified as a Level 2 Vibration Analyst, a Level 2 Infrared Thermographer, a Level 1 Machine Lubrication Technician, an Alignment Specialist, and an Acoustic Ultrasonic Analyst. He also holds a Grade 4 Waste Water License.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the FY16 Current Expense Budget for this position. The recommended salary is in accordance with the Unit 9's current collective bargaining agreement.

ATTACHMENTS:

- Resume of Michael L. Costa
- Position Description
- Operations-Metro Maintenance, Field Operations Division Organizational Chart

Michael Costa

Objective To have a challenging and fulfilling career as a Program Manager.

Work Experience 2004-Present MWRA Deer Island

Project Manager, Condition Monitoring

- Develop, implement, and monitor condition based maintenance programs for a large scale plant. Including vibration analysis, oil sampling infrared thermography, and acoustic ultrasonic. Analyzing and interpreting data of all above mentioned techniques and create work orders to repair equipment from the results.
- Select equipment for Predictive Maintenance and implement the use.
- Develop and supporting the knowledge base that the technicians in the MWRA need to go forward in the field as well as keeping the MWRA staff current and moving toward the future with the newest PDM techniques.
- Write and manage contracts for support services in condition monitoring programs such as oil analysis lab support, Laser alignment training and service, and as needed vibration support contract.
- Manage and train technicians in all condition monitoring techniques including vibration analysis, oil sampling, infrared thermography, belt alignment, machine alignment, and acoustic ultrasonic.
- Manage Lubrication task team, Vibration task teams, and PDM task team to create a working relationship with the technicians for ease of implementation of condition based maintenance programs.
- Attend RCM analysis (Reliability Centered Maintenance) and implement the resultant recommendations.

2001-2004 MWRA Deer Island

Planner & Scheduling Coordinator

- Receives, plans, estimates. Schedule, coordinate, and supervise all maintenance work orders assigned.
- Ensures the timely and coordinated availability of facilities and equipment to be worked on, parts, materials, special tools and equipment, and skilled staff required for orderly and efficient work execution.
- Manage area when the Area Manager was out.
- Supervise crews when supervisors were not available.
- RCM implementation.

1987-2001 MWRA Deer Island

Mechanic Specialist

- Diagnose and repair malfunctioning equipment at the Deer Island treatment plant.
- Developed preventive and predictive maintenance schedules for equipment.

- Evaluate and correct design flaws in equipment.
- Maintain digesters, dual fuel engines, boilers, screens, pumps, compressors, stacked classifiers, cryogenics, steam turbine generators, combustion turbine generators, hydraulic units, grit removal systems, and all related support systems.
- Maintain a clean working environment.
- Member of the Deer Island start up team on contract packages 024, 103, 105, 301, 202 and 203. Made recommendations on critical plant Equipment.
- Designed, maintained and installed a wide variety of mechanical equipment.
- Proficient in blueprint reading, one line diagrams, and schematics- designed and installed pneumatic braking system on Jeffrey vertical screens.
- Worked with engineering and labor relations to develop the installation of the primary and secondary dip tubes.
- Assisted engineering in the modification of the pumping system in east and west odor control.
- Assisted in the development of the new pillar block bearing system in the grit removal system.

1983-1987 Energy Sciences, Woburn, MA

Lead Welder and Shop Forman

- Supervise the fabrication of electron beam machinery.
- Supervise a 3 to 4 man crew.
- Read and work from blue prints.
- Create progress reports.
- Supervise and maintain a budget.

Education

1993- present University of Mass., Lowell, MA

BA Mechanical Engineering

- Still ongoing to finish within 1 year. (class availability)
- Supervising and managing for results. (certificate)
- Negotiating skills. (certificate)
- Computer proficient, Maximo, Microsoft Office, Adobe, PDM Software Databases.
- Advanced Technology Diesel School
- Wastewater Certification level IV.
- RCM training.
- Alignment Specialist Laser Alignment.
- Supervisory Development.
- FLIR School
- M&B Vibration School
- Vibration Institute
- Acoustic Ultrasonic UE

Awards Received

Excellence in performance award for my ideas on the grit collection system.

Excellence in performance award for my work on the safety board.

Excellence in performance award for tip tube upgrades.

Excellence in performance award for Winthrop Facility modifications.

Accreditations and Licenses

Grade 4 wastewater license,
Vibration Analyst Level 2
Acoustic ultrasonic analyst from UE systems
Machine Lubrication Tech level 1
Infrared Thermographer level 2
Confined space entry committee
First response team
Apprentice trainer
Vice president of AFSCME local

**MWRA
POSITION DESCRIPTION**

Position: Program Manager, Trades Maintenance
PCR: 5470045
Division: Operations Division
Department: FOD/WW Operations & Maintenance

BASIC PURPOSE:

Oversee the equipment condition inspections, repair/replacement, planning, engineering, budgeting, priority setting, work scheduling and maintenance for Metro Area equipment and facilities.

SUPERVISION RECEIVED:

This position reports to the Senior Program Manager, Metro Trades.

SUPERVISION EXERCISED:

Exercises close supervision of the Staff assigned.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages a group of maintenance personnel who perform tasks related to maintenance and construction.
- Supports the efforts of the FAMP Program, RCM process, and any related Task Forces or Task Team initiatives.
- Generates inspection lists and maintenance reporting through the Computerized Maintenance Management System.
- Assists in the development and administration of condition monitoring programs such as vibration analysis, load bank testing, and Thermography.
- Attends O & M Meetings, project progress meeting, staff meetings, and FAMP development meetings as required.
- Coordinates with other managers, supervisors, work coordination staff and others for optimal functioning of assigned staff.

- Monitors “Work in Progress” by coordinating with Maintenance Supervisors, Operations Managers and Planner Schedulers, and also monitors backlog with object of minimization.
- Manages all aspects of the Maintenance Program relative to preventive, corrective, predictive, project, condition based maintenance, and emergency maintenance activities with special emphasis on the development of a formal preventive maintenance program.
- Prepares, manages, and oversees contracts and purchase orders for the repair and purchase of maintenance equipment.
- Develops the current expense budget for areas of responsibility including annual project work, training, and material purchases. Monitors budget performance and provides budget updates for the CEB as required. Approves and tracks spending, justifies variances from budget, and provides support documentation as required.
- Oversees the preparation of condition assessments and the establishment of engineering project priorities for the CEB and CIP.
- Coordinates with the Operations Unit to assure that maintenance work is properly coordinated and prioritized.
- Implements staffing redeployments, establishes work policies and procedures, defines work priorities and oversees training program.
- Oversees the expansion and proper utilization of a parts inventory system to support maintenance activities.
- Prepares reports on the status of the maintenance activities as necessary.
- Provides technical input for major maintenance projects and review construction proposals to insure maintainability.
- Reviews assigned employee performance according to MWRA procedures as established and maintained by the Human Resources Department.
- Provides technical input for major maintenance projects and reviews new construction proposals to insure maintainability.
- Recommends upgrades to plant equipment and facilities to ensure continued optimal operation. Includes tracking major projects and the coordination of outside contractors, as required.

- Promotes the MWRA Safety Policy and Program by participating in and supporting activities as detailed by the Authority Safety Group.
- Acts as liaison between and promotes harmonious relations with other Maintenance Managers, Operations Managers, vendors and MWRA departments.
- Coordinates shutdown and start-up of process equipment in support of maintenance activities.
- Ensures Facility cleanliness and makes rounds to ensure Facilities are maintained by staff.
- Schedules and works overtime as required.
- Needs to be available during any emergency.
- Provides training to assigned staff.
- Directs remedial action in all emergencies.
- Assists employee with procurement of tools, parts and materials.
- Operates motor vehicles, such as vans and pick-up trucks, to transport materials to work sites, pick up equipment, etc.
- Inspects and troubleshoots various systems and equipment
- Perform related duties as required.

SECONDARY DUTIES:

- Provides backup and support to the Program Manager, Operations during wet weather events.
- Conducts assigned field audits of Facilities, CSOs, SSOs, Tide gates and other structures in support of safe/efficient operation.
- Performs related duties as assigned.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of the principles and practices of maintenance attained through a four (4) year college program in mechanical or electrical engineering or related field .

- (B) Demonstrated practical understanding of all phases of maintenance engineering and management related to large mechanical and electrical equipment as normally acquired through seven (7) to nine (9) years of experience.
- (C) Three (3) years of experience in supervising staff and/or large projects.
- (D) Four (4) to six (6) years of equipment maintenance program management experience.
- (E) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Computer literacy in word processing and spreadsheets required.
- (B) Extensive experience utilizing computerized maintenance management and work order systems.
- (C) Excellent oral and written communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

A valid Grade 6 wastewater operator's license or 4D Drinking Water Supply Facilities Operators license preferred.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone and personal computer.

PHYSICAL DEMANDS:

The physical demands 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 fingers, handle, feel or operate objects, including office equipment or controls and reaches with hands and arms. The employee must frequently lift and or move up to 10 pounds, occasionally lift/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception and the ability to focus.

WORK ENVIRONMENT:

The work environment characteristics 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 will also be exposed to outdoor weather conditions. The employee is occasionally exposed to fumes and airborne particles.

The noise level in the work environment is a moderately quiet setting.

Operations-Wastewater O&M
Equipment Maintenance
 June 2015

Sr. Program Manager, Metro Trades
 5470071
 9/30
 53 Positions

Program Manager, Trades Maintenance
 5470045
 9/29

Program Manager, Trades Maintenance
 5470069
 9/29

Mechanics Shop

Machine/Fabrication Shop

Plumbing/Pipefitting Shop

HVAC Shop

Electrical Shop

Supv., Water/WW Mech Maintenance
 5470063
 2/21

Plumbing Operations Supervisor
 5470032
 3/21

Electrical Operations Supervisor
 5470050
 3/21

Water & Wastewater Facilities
 Unit Supv., Mech Maintenance
 5470044
 2/19

Headworks
 Unit Supervisor, Maintenance
 5470014
 2/19

Unit Supervisor, Machinist
 5470019
 3/19

Unit Supervisor, HVAC
 5470056
 2/19

Sr. Med. Voltage Elect Specialist
 5470070
 3/20

Unit Supervisor
 5470028
 5470038
 3/19

Equipment Repair Foreman
 5470058
 2/17

M & O Specialist
 5470002
 5470003
 5470004
 5470005
 5470006
 5470008
 5470009
 5470010
 5470011
 5470039
 5470040
 5470043
 5470060
 5470062
 2/16

Toolmaker
 5470067
 3/16

Master Welder
 5470020
 2/15

Metal Fabricator/Welder
 5470016
 3/15

Plumber/Pipefitter
 5470029
 5470030
 5470031
 5470033
 5470041
 5470042
 5470053
 5470074
 3/16

HVAC Specialist
 5470096
 5470057
 5470064
 5470066
 5470075
 2/16

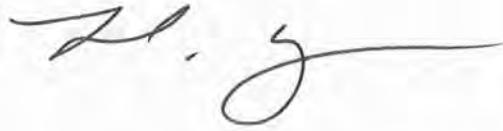
OMC Laborer
 5470059
 2/13

Med. Voltage Electrical Specialist
 5470055
 5470051
 3/19

Electrician
 5470023
 5470025
 5470026
 5470027
 5470047
 5470073
 3/16

STAFF SUMMARY

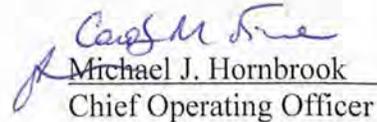
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: June 24, 2015
SUBJECT: Appointment of Manager, Electrical
Deer Island Maintenance



COMMITTEE: Personnel & Compensation

INFORMATION
 VOTE

Karen Gay-Valente, Director, Human Resources
John P. Vetere, Deputy Chief Operating Officer
Preparer/Title


Michael J. Hornbrook
Chief Operating Officer

RECOMMENDATION:

To approve the appointment of Mr. Paul F. Berry to the position of Area Manager, Electrical, Deer Island Maintenance (Unit 6, Grade 12), at an annual salary of \$93,896.98, commencing on a date to be determined by the Executive Director.

DISCUSSION:

The Area Manager, Electrical position at Deer Island became vacant upon the recent retirement of previous incumbent. The position reports to the Maintenance Manager, Deer Island Wastewater Treatment Plant, and is responsible for the core area maintenance programs for the treatment plant's facilities and equipment, directing the work of 25 staff in the Electrical, Instrumentation, HVAC, Machinist, and Welder trade groups.

A key responsibility of this position is to manage complex plant-wide interconnecting systems in all process areas, such as fire protection, heating and cooling, gas monitoring, and electrical distribution. This involves extensive communication with both internal staff and external agencies. All of these systems are typically undergoing improvements/upgrades, maintenance, repair, or functional testing to ensure reliability and to meet operational demands or system requirements. The position is also responsible for supervision of the machine shop, implementation of maintenance efficiency improvements, staff assignments and scheduling, staff training, monitoring service contracts, budget development and reporting requirements.

Selection Process

The position was posted only internally and three candidates applied. All three candidates met the minimum qualifications and the Deer Island Deputy Director of Maintenance, the Deer Island Maintenance of Manager, and the Workforce Development Coordinator from Human Resources interviewed all three candidates. Upon completion of the interviews, Mr. Paul F. Berry was

unanimously selected as the best candidate for the position based upon his education, past experience, and understanding of the position requirements and priorities, as demonstrated during the interview.

Mr. Berry has more than 22 years of wastewater systems operations and maintenance. He began his tenure at MWRA in 1993, and since that time he has been promoted to various positions with increasing levels of responsibility.

Mr. Berry has held the position of Electrical Operations Supervisor at Deer Island since 2006, where he is responsible for supervising a staff of six medium-voltage electricians that perform complex maintenance repairs and testing on substations, transformers, cable bus, relays, uninterrupted power supply units, and variable frequency drives. He is also responsible for monitoring, trouble-shooting and repairing Deer Island's plant-wide fire alarm system.

Because of the importance of the Area Manager position, Mr. Berry was identified as the best candidate to immediately assume the leadership responsibilities of the position on an acting basis, filling the void created by the retirement of the incumbent. He has continued to provide that leadership in a seamless fashion. Mr. Berry's strengths lie in the electrical area but his years of maintenance experience will enable him to successfully manage the trades within the core area. He has been in a supervisory role in a number of positions prior to MWRA, and has supervised staff at MWRA since 2004.

Mr. Berry has held many previous positions at large and multi-faceted companies throughout his long career. He has worked at General Electric, the Seabrook Station Nuclear Power Plant, and Peabody New England. He has extensive experience in the construction field, including the installation of intricate electrical projects on switchgear and electrical distribution systems.

Mr. Berry holds a Master Electrician license and a Fire Alarm Installer Supervisor license. He has extensive knowledge of MWRA's wastewater systems, facilities, and equipment. He has worked closely with wastewater maintenance, operations, and management staff throughout his tenure at MWRA and is well-respected by both management and line staff.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY16 Current Expense Budget. The recommended salary is in accordance with Unit 6's current collective bargaining agreement.

ATTACHMENTS:

- Resume of Paul F. Berry
- Position Description
- Organization Chart

Paul F. Berry

February 2006- Present
September 2004- February 2006
February 1993- September 2004

Electrical Operations Supervisor
Unit Supervisor- Electrical
S.T.P Electrician Specialist

- Supervise & perform installations, modifications, trouble shooting, repairing and testing of new and existing electrical substations, transformers, bus ducts, cable bus, relays, circuits, VFDs, power meter, UPS systems, fixtures, associated equipment and control for utility and industrial use, and other equipment/systems as required and/ or assigned.
- Assess and initiate corrective action of a complex electrical medium and low voltage distribution systems with multiple sources of power.
- Supervise subordinate personnel and may perform medium voltage substation switching while synchronizing multiple sources of power.
- Assist vendors in the maintenance and repair of MWRA electrical equipment.
- Conduct medium voltage phase testing in accordance with NETA, OSHA, and NEC guidelines.
- Assess and initiate corrective action for abnormal switching problems.
- Determine daily assignments for assigned staff and distribute work accordingly.
- Supervise others engaged in the preventative, predictive, and corrective maintenance on systems and equipment.
- Performs document and report results in Maximo database.
- Assist maintenance crews with troubleshooting assigned work orders and provide instruction on difficult work operations.
- Test and repair plant-wide fire alarm system.

1983-1993

Peabody of New England
Electrical General Foreman at various jobsites

1982-1983

Mass Electric Construction Co.
Journey man Electrician

1981-1982

Fishchback, Boulos, Manzi of NH (Seabrook station
Nuclear Power Plant)
Journeyman Electrician

1971-1981

Winthrop Electric Co, Inc. Winthrop, Mass.
Electrical Foreman

1966-1971

General Electric Co., Lynn, Mass.
Apprentice and Journeyman Electrician

Education:

General Electric Apprentice Program, Lynn, Mass.
Graduated June 1970, Electrical Program

Franklin Institute of Boston, Boston, Mass.
Completed night courses September 1966- May 1969

- Advanced Electrical Wiring
- Drafting
- National Electric Code

Don Bosco Technical High School, Boston, Mass.
Graduated June 1965, Electrical Program

Licenses:

Commonwealth of Massachusetts

- Master Electrician #A9218
- Journeyman Electrician #E17690

City of Boston

- Fire Alarm Installer Supervisor's License

**MWRA
POSITION DESCRIPTION**

POSTION: Area Manager (Electrical)
PCR#: 2988071
DIVISION: Operations
DEPARTMENT: Operations Division / Deer Island

BASIC PURPOSE:

Manages maintenance activities (labor, materials, services) and monitors performance against operational needs and requests.

SUPERVISION RECEIVED:

Works under general supervision of the Maintenance Manager.

SUPERVISION EXCERCISED:

Exercises close supervision of assigned operations/maintenance staff.

ESSENTIAL DUTIES AND RESPONSIBILITES:

- Manages a group of maintenance personnel who perform tasks related to maintenance and construction.
- Coordinates with other managers, supervisors, work coordination staff and others for optimal functioning of assigned staff.
- Monitors "Work-In-Progress" by coordinating with Maintenance Supervisors, Operations Managers and Planner Schedulers, and also monitors backlog with object of minimization.
- Prepares budget for assigned cost center and monitors performance against approved budget. Approves and tracks spending, justifies variances from budget, and provides support documentation as requested.
- Reviews, monitors, evaluates work performed, and recommends appropriate improvements on equipment, techniques, and procedures.
- Provides project management of outside contract services as assigned.
- Provides technical input for major maintenance projects and reviews new construction proposals to insure maintainability.
- Reviews assigned employee performance according to MWRA procedures as established and maintained by the Human Resources Department.
- Recommends upgrades to plant equipment and facilities to ensure continued optimal operation. Includes tracking major projects and the coordination of outside contractors, as required.
- Promotes the MWRA Safety Policy and Program by participating in and supporting activities as detailed by the Authority Safety Group.

- Acts as liaison between and promotes harmonious relations with other Maintenance Managers, Operations Managers, vendors and MWRA departments.
- Performs supervisory responsibilities of roving field crews and operational personnel located within an operational control center (OCC) as needed.
- Coordinates shutdown and start-up of process equipment in support of maintenance activities.
- Ensures plant cleanliness and makes rounds to ensure plant facility is maintained by staff.
- Schedules and works overtime as required.
- Needs to be available during any emergency.
- Provides training to assigned staff.
- Directs remedial action in all emergencies.
- Assists employee with procurement of tools, parts and materials.
- Operates motor vehicles, such as vans and pick-up trucks, to transport materials to work sites, pick up equipment, etc.
- Generates inspection lists and maintenance reporting through the Computerized Maintenance Management System.
- Inspects and troubleshoots various systems and equipment

SECONDARY DUTIES:

- Assists employees with the preparation of injury and illness reports, safety work orders, and maintenance work order requests, reviews requests for completeness and accuracy.
- Assists in maintaining harmonious labor management relations through proper application of collective bargaining agreement provisions and established personnel policies.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year degree in Electrical Engineering, or any related field; and
- (B) Seven (7) – nine (9) direct experience of principles, procedures, methods, equipment and materials used in the operation, repair and maintenance of a large municipal wastewater or water treatment facility; and
- (C) Two (2) must be in a supervisory capacity; or
- (D) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) A working knowledge of the methods, techniques, operations, systems, equipment, principles and practices of wastewater or water treatment.

- (B) Must have a working knowledge of High, Medium and Low voltage distribution systems, switchgear operation and inspection, control systems, VFDs, lighting systems, as well as applicable federal, state and local codes.
- (C) Proficient with personal computers (PCs) and PC programs Word & Excel. Experience using CMMS (Computerized Maintenance Management System). Experience with developing and managing contract services.
- (D) Ability to plan, organize, direct, train and assign duties to subordinates, as obtained through successful completion of supervisory training program or an approved substitution.
- (E) Extensive knowledge of safety practices and applications in wastewater treatment operations.
- (F) Ability to plan, organize, direct, train and assign duties to subordinates.

SPECIAL REQUIREMENTS:

- A valid Class D Massachusetts Motor Vehicle Operator License.
- A valid Massachusetts Master Electrician's license preferred.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, mobile radio, beeper, 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 reach with hands and arms. The employee frequently is required to stand and talk or hear. The employee is occasionally required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move more than 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, peripheral vision and the ability to adjust focus.

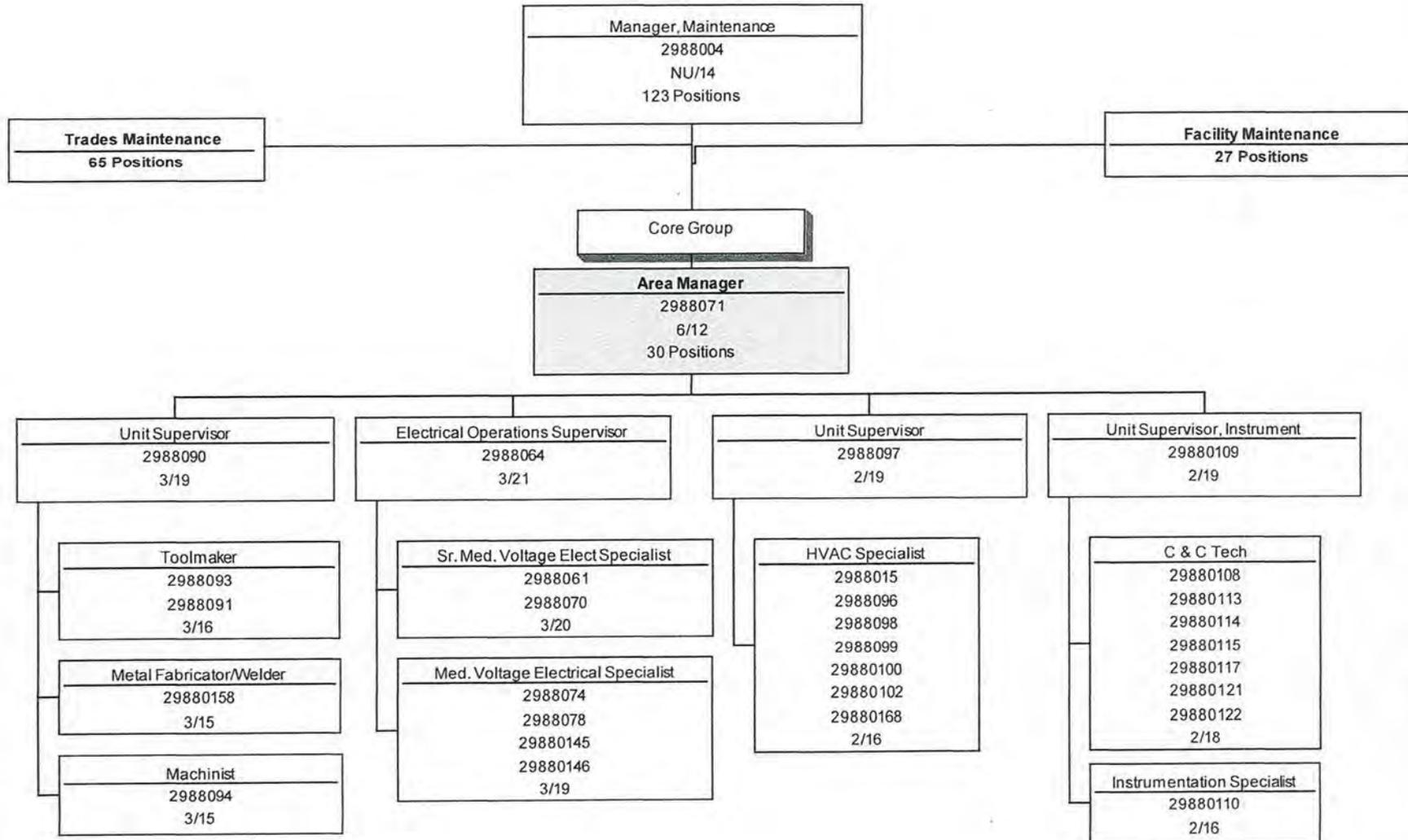
WORK ENVIRONMENT:

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 outside weather conditions. The employee occasionally works near moving mechanic 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.

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

Operations-Wastewater Treatment
Deer Island - Trades Maintenance
 June 2015





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

Chair: M. Beaton
Vice-Chair: J. Carroll
Secretary: J. Foti
Board Members:
A. Blackmon
K. Cotter
P. Flanagan
A. Pappastergion
B. Pena
H. Vitale
J. Walsh
J. Wolowicz

BOARD OF DIRECTORS' MEETING

to be held on

Wednesday, June 24, 2015

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 FY16 Capital Improvement Program (ref. AF&A B.1)
2. Final FY16 Current Expense Budget (ref. AF&A B.2)
3. Final FY16 Water and Sewer Assessments (ref. AF&A B.3)
4. Town of Stoneham Loan Amendment (ref. AF&A B.4)
5. Memorandum of Understanding with the Town of Winthrop (ref. AF&A B.5) (materials to follow)
6. Memorandum of Understanding with the City of Quincy (ref. AF&A B.6) (materials to follow)
7. Amendment 4 to Memorandum of Understanding with the Department of Public Safety for Electrical Inspections (ref. AF&A B.7)

8. PCR Amendments – June 2015 (ref. P&C A.1)
9. Appointment of Project Manager, Engineering & Construction Department (ref. P&C A.2)
10. Appointment of Program Manager, Trades Maintenance (ref. P&C A.3)
11. Appointment of Manager, Electrical, Deer Island Maintenance (ref. P&C A.4)

B. Contract Awards

1. Upgrades to Chelsea Screen House: WES Construction Corp., Contract 7431 (ref. WW A.1)
2. Supply and Delivery of Liquid Oxygen to the John J. Carroll Water Treatment Plant: Airgas USA, LLC, WRA-4040 (ref. W B.1)
3. Southborough Water Quality Laboratory Upgrades: Paul J. Rogan Co., Inc., Contract 6650A (ref. W B.2)

C. Contract Amendments/Change Orders

1. Sudbury Aqueduct Pressurization and Connections Alternatives Analysis and MEPA Review: CDM Smith, Inc., Contract 7352, Amendment 1 (ref. W C.1)
2. Quabbin Ultraviolet Disinfection Facilities Design/CA/RI: AECOM Technical Services, Inc., Contract 6775, Amendment 4 (ref. W C.2)

V. CORRESPONDENCE TO THE BOARD

VI. OTHER BUSINESS

VII. EXECUTIVE SESSION

A. Litigation:

1. Cost Recovery Settlement Proposal

VIII. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

June 3, 2015

A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on June 3, 2015 at the Authority headquarters in Charlestown. Vice-Chair Carroll presided. Present from the Board were Ms. Wolowicz and Messrs. Blackmon, Cotter, Flanagan, Foti, Pappastergion, Vitale, and Walsh; Mr. Beaton joined the meeting in progress. Among those present from the Authority staff were Frederick Laskey, Executive Director, Steven Remsberg, General Counsel, Michael Hornbrook, Chief Operating Officer, Thomas Durkin, Director of Finance, Stephen Estes-Smargiassi, Director of Planning and Sustainability, Pamela Heidell, Manager of Policy and Planning, 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 13, 2015, as presented and filed with the records of the meeting.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported on various matters, including: a one-year loan extension for the Town of Stoneham, assistance with a water main break provided to Brockton, a Boston Globe article and press conference on Boston area beaches being rated among the cleanest in the nation, awards given to the Deer Island and Clinton wastewater treatment plants, and a lecture focusing on a 30-year retrospective of MWRA projects which he would be presenting the following evening.

(Due to the length of the budget hearings in the morning, the Committee items were all referred to the full Board meeting for consideration.)

ADMINISTRATION, FINANCE & AUDIT COMMITTEE MEETING

APPROVALS

Appointment of Proxy for Fore River Railroad Corporation

Upon a motion duly made and seconded, it was

Voted that the MWRA Board of Directors, as holder of all voting rights of all the issued and outstanding shares of stock of the Fore River Railroad Corporation, appoint Kathy Soni, with the power of substitution, to vote as proxy at the next annual meeting and any special meeting of the stockholders for the Fore River Railroad Corporation in accordance with the form of proxy presented and filed with the records of this meeting. In addition, the MWRA Board of Directors directs the proxy to elect the following board members: Thomas Durkin, Godfrey O. Ezeigwe, Michele S. Gillen, Lisa R. Grollman, Michael J. Hornbrook, Frederick A. Laskey, Steven A. Remsberg, John P. Vetere and John J. Walsh.

MWRA FY16 Insurance Program Renewal

Upon a motion duly made and seconded, it was

Voted to approve awards to the lowest eligible and responsive proposers for insurance policies, bonds and related broker services for MWRA's FY16 Insurance Program, and to authorize the Executive Director, on behalf of the Authority, to execute contracts for broker services, for the terms, premiums and fees described below, and incorporated by reference for the record, resulting in a total program amount not to exceed \$1,612,731 for FY16:

(1) Workers' Compensation Excess Policy with New York Marine Insurance Co., submitted by broker Willis of Massachusetts, for the period beginning July 1, 2015, through June 30, 2016, with a \$25 million limit and a \$500,000 self-insured retention, for a premium of \$159,161;

- (2) Property Policy (including Boiler & Machinery coverage) with FM Global Insurance Co., for the period beginning July 1, 2015, through June 30, 2017, with various limits of coverage, a \$2.5 million self-insured retention, and a fixed rate two-year term, resulting in a FY16 premium of \$713,577, and an amount to be determined for FY17, based upon the established fixed rate;
- (3) General Liability Policies (including Automobile Liability, Marine Liability, Wharfingers, and Employment Practice Liability) with Lexington Insurance Company submitted by broker Richards Robinson Sheppard, for the period beginning July 1, 2015 through June 30, 2016, with a \$25 million limit and a \$2.5 million self-insured retention, for a premium of \$325,000;
- (4) Excess Liability Policies with insurance companies to be determined and submitted by broker Richards Robinson Sheppard, for the period beginning July 1, 2015 through June 30, 2016, providing a combined total of \$75 million of excess liability coverage for a total combined premium not to exceed \$290,000;
- (5) Public Official's Liability Policy with ACE USA Insurance Co., submitted by broker William Gallagher Associates, for the period beginning July 1, 2015 through June 30, 2016, 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, for the period beginning July 1, 2015 through June 30, 2016, with a \$5 million limit and a \$1 million deductible, for a premium of \$10,902;
- (7) Public Official's/Crime Bond with Great American Insurance Co., submitted by broker Richards Robinson Sheppard, for the period beginning July 1, 2015 through June 30, 2016, with a \$1 million limit and a \$25,000 deductible for a premium of \$5,154;
- (8) Treasurer's Bond with a \$1 million limit with a vendor to be determined in an amount not to exceed \$2,500, with a one-year term beginning January 2016; and
- (9) Broker contracts with Richards Robinson Sheppard for an amount of \$44,000, Willis of Massachusetts for an amount of \$15,250, and William Gallagher Associates for various commissions included within policy premiums, from notice of award through June 30, 2016.

Delegation of Authority to Execute Contracts for the Purchase and Supply of Electric Power for the Deer Island Treatment Plant and MWRA Interval Accounts

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute contracts for the supply of electric power to the Deer Island Treatment Plant and the Interval Accounts, consisting of the John J. Carroll Water Treatment Plant and larger Field Operations and Facility Management Accounts, with the lowest responsive and responsible bidders, for the period and pricing structure selected, as determined by staff to be in MWRA's best interest, and for a contract supply term not to exceed 36 months for the Deer Island account, and not to exceed 43 months for

the Interval Accounts. This delegation of authority is necessary because MWRA will be required to notify the selected bidders within a few hours of bid submittal to lock in the bid prices in a constantly changing market.

Approval of Memoranda of Understanding with the Town of Winthrop and the City of Quincy

A one-page hand-out listing proposed ten-year mitigation payments to Winthrop and Quincy was distributed to Board members. There was detailed discussion and question and answer. Board members requested additional supporting information, including the language of the actual agreements, how the communities would use the funds, more detail on the parameters of a referenced MWRA traffic study to determine the safety of the Deer Island truck route, and the history of the mitigation agreements. Mr. Laskey stated that at the next meeting the draft MOUs would be provided, along with additional information regarding the traffic study. Consideration was postponed until the June 24, 2015 meeting.

(Mr. Beaton joined the meeting.)

INFORMATION

MWRA Retirement System Update

The written report was received without discussion.

WASTEWATER POLICY & OVERSIGHT COMMITTEE MEETING

APPROVALS

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, 2015 to June 30, 2016, for a total contract cost of \$67,332.

WATER POLICY AND OVERSIGHT COMMITTEE MEETING

INFORMATION

2014 Annual Water Quality Report (Consumer Confidence Report)

Staff provided a brief overview of the annual water quality report provided to each customer in accordance with EPA's Consumer Confidence Report rule.

APPROVALS

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, 2015, with a total contract cost of \$100,120.

Approval of Memorandum of Agreement for McLaughlin Fish Hatchery Project

Staff described the proposed agreement and there was general discussion and question and answer.

Upon a motion duly made and seconded, it was

Voted to authorize the Executive Director, on behalf of the Authority, to execute a Memorandum of Agreement, substantially in the form presented and filed with the records of the meeting, between the Massachusetts Division of Fisheries and Wildlife, the Massachusetts Department of Fish and Game, and the Massachusetts Water Resources Authority relating to the construction and operation of the McLaughlin Fish Hatchery Pipeline and Hydropower Project, at the Chicopee Valley Aqueduct.

PERSONNEL & COMPENSATION COMMITTEE MEETING

APPROVALS

PCR Amendment – June 2015

Upon a motion duly made and seconded, it was

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

Appointment of Payroll Manager

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Sothea Chhung to the position of Payroll Manager (Unit 6, Grade 13) at an annual salary of \$103,020, to be effective on the date designated by the Executive Director.

Appointment of Manager, Benefits and HRIS

Upon a motion duly made and seconded, it was

Voted to approve the Executive Director's recommendation to appoint Emily J. Dallman to the position of Manager, Benefits and HRIS, Human Resources (Non-Union Grade 14) at an annual salary of \$118,336.70 to be effective on the date designated by the Executive Director.

OTHER BUSINESS

Performance Review and Extension of Contract for Executive Director

Board members praised Mr. Laskey's performance and proposed both a rating of excellent for FY15 and a 4% salary increase, noting that he hadn't taken a raise the previous year.

Upon a motion duly made and seconded, it was

Voted to rate the performance of the Executive Director for fiscal year 2015 as excellent and to extend the term of the Executive Director's employment agreement

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EXECUTIVE SESSION

* * * *

The meeting returned to open session at approximately 2:10 p.m. and adjourned.

DRAFT