



*Summary of:*

**MWRA BOARD OF DIRECTORS' MEETING**

**March 5, 1997**

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A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on **March 5, 1997** at the Authority Headquarters in Charlestown. Present: Chair Trudy Coxe, Gubernatorial Representative; Norman Jacques, John Carroll, Advisory Board Representatives; Joseph MacRitchie, City of Quincy Representative; Marie Turner, Town of Winthrop Representative; Vincent Mannering, Lorraine Downey, City of Boston Representatives; Sam Mygatt, Donald Mitchell, Gubernatorial Representatives. Absent: Charles Lyons, Advisory Board Representative; Michael Benullo, City of Boston Representative.

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**Agenda**

Report of the Chair

No report.

Report of the Executive Director

Mr. MacDonald notified Board members that they were invited to a ground breaking ceremony to be held on the following Monday, March 10, at the Fore River Shipyard. Board members were also invited to a two-day conference at Deer Island as part of the peer review.

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**Approvals**

*Approval of Capital Budget Amendment for the BHP Contingency Fund*

The Board voted to approve an amendment to the FY97-99 Capital Improvement Program budget to increase the contingency fund for the Boston Harbor Project by \$28.1 million from \$26.8 million to \$54.9 million.

Staff explained that since the amendment was submitted to the Advisory Board on January 15, some estimated costs have been adjusted based upon further review and recent negotiations. These adjustments result in projected contingency needs which are \$1.3 million greater than the original \$28.1 million request. However, consistent with the Advisory Board's recommendation, staff will manage within the original \$28.1 million through the continuing refinement of cost estimates and the monitoring and review of the timing of each contingency item through the end of the fiscal year.

*Transmittal of Capital Budget Amendment for Other Capital Projects Contingency Fund to Advisory Board*

The Board voted to approve transmittal to the MWRA Advisory Board, for its review and comment, of a proposed amendment to the FY97-99 Capital Improvement Program budget to increase the contingency fund by \$7.6 million from \$15.1 million to \$22.7 million for Wastewater (non-BHP), Waterworks and Administration projects.

Staff estimate that the contingency fund, which provides budget authorization for unforeseeable or unpredictable capital obligations, is expected to require an additional \$7.6 million for the remainder of the fiscal year to provide sufficient budget authorization for anticipated awards, design amendments, and change orders for the Wastewater and Waterworks capital programs. The largest projected contingency need is \$4.2 million for the potential costs of MOAs and land acquisition with the towns of Weston and Southborough in support of construction activities for the MetroWest Water Supply Tunnel and the Norumbega Reservoir Covered Storage Facility. The contingency budget amendment will be reviewed by the Advisory Board prior to going before the Board for final approval.

*Approval and Amendment of Policies Related to Requests for Service to Locations Outside the MWRA Service Area*

The Board voted to take the following actions with regard to a set of interrelated policies for handling requests for service from MWRA to locations outside the MWRA sewer service area, consistent with the policies developed by the Advisory Board and submitted to the legislature:

- (1) Adopt the policy entitled "Requests for Sewer Service to Locations Outside the MWRA Sewer Service Area"; and
- (2) Amend the policy entitled "Sewer Connections Serving Property Partially Located in a Non- MWRA Community".

Staff explained that in response to a growing number of requests for special legislation to obtain service from MWRA, the legislature directed the Advisory Board to develop policies and criteria for evaluating such requests. The Advisory Board formed a System Expansion Committee, which included representatives from the Advisory Board, Wastewater Advisory Committee, Water Supply Citizens Advisory Committee, Metropolitan Area Planning Council, and the MWRA. The Committee developed a policy which establishes criteria, procedures and a payment structure for applicants.

This vote provides the necessary Board approval to incorporate the proposed policy for sewer system expansion into MWRA policy through the development of new policies and the revision of existing policies. Under the new policy, no new community or significant portion of a community will be permitted to join the MWRA sewer system during the next five years. The policy also states that any expansion of the sewer system shall strive for no negative impacts on current MWRA communities, the MWRA system and the environment, and shall strive for recovery of capital and operating costs. Each connection would require approval of the communities involved, the Advisory Board, the MWRA Board of Directors, the legislature and the Governor.

The Board decided to postpone action on water system expansion in order to further evaluate the impacts of the policy on communities with existing emergency agreements.

*Boston Harbor Project Change Order Management Plan - Report No. 37*

The Board voted (Mr. Mygatt abstained) to authorize the Executive Director to approve change orders as may be needed to the following contracts up to the following amounts:

<b>Contract</b>	<b>Description</b>	<b>Contractor</b>	<b>Amount</b>
5492	2ndry Clarif. Batt. A&B	J.F. White/PKF-Mark III, JV	\$400,000
5493	Resid. Trtmt. Fac., Phase I	Hyman Construction Co.	\$400,000
5546	Process Info. & Control Sys	Bailey Controls Corp.	\$250,000

*Approval of Program Guidelines for Local Water Infrastructure Rehabilitation Assistance Program*

The Board voted (with Mr. Mannering opposed) to approve the Program Guidelines for the MWRA Local Water Infrastructure Rehabilitation Assistance Program.

This program was initiated by Advisory Board members and will assist MWRA Waterworks System communities in financing local water infrastructure projects, such as pipeline rehabilitation and metering programs. The program goal is to encourage communities to realize as much benefit as possible from MWRA's planned waterworks capital program which includes the MetroWest Water Supply Tunnel, Walnut Hill Treatment Plant, Fells and Norumbega Covered Storage Facilities, and various other treatment, storage and pipeline rehabilitation projects.

Due to a strong interest by communities to use the money this coming construction season, funding has been moved up to the beginning of FY98. The program will be funded at \$30 million over two years and is structured as a 25% grant/75% loan financing package.

Mr. Carroll praised the program and said that it is important for every community in the MWRA water system to clean up their pipes.

*FY97 Current Expense Budget Reallocations Requiring Approval by the Board of Directors*

The Board approved Current Expense Budget reallocations in order to adjust the Authority's budget to account for changes in plans and expenses which have taken place during the fiscal year.

This approval includes 51 reallocations totaling \$4,439,000. Categories for the reallocations include Utilities, Overtime, Professional Services, Maintenance, Other Services, Wages and Salaries, Other Materials, and Fringe, Training and Meetings. Board members questioned the need for an additional \$59,000 for tuition reimbursements. Staff explained that the original budgeted amount was \$40,000. The most recent figures, obtained after this allocation was drafted, indicate that expenditures for tuition reimbursements are expected to be \$64,000 through the end of the year. Therefore, the additional amount to cover tuition expenses should be revised downward from \$59,000 to \$24,000. The Board requested a presentation on the Authority's tuition reimbursement policy.

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## **Contract Awards**

*Design/ESDC for Rehabilitation of Water Pipeline Sections 41, 42 and 74: SEA Consultants, Inc., Award of Engineering Services Contract*

The Board authorized the Executive Director, on behalf of the Authority, to execute Contract 6107 with SEA Consultants, Inc. for an amount not to exceed \$1,590,857 and for a contract term through June 30, 2003.

This contract will provide engineering services for the design and construction of replacement pipeline for Sections 41/42 and replacement of certain lower elevation portions of Section 74 in Southern Extra High Service area of the water system. Where appropriate, existing valves and blowoffs along the remaining portion of Section 74 will also be replaced. The existing pipelines, which are between 50 and 80 years old, limit the pressures which can be supplied. This constraint not only causes periodic supply and pressure problems in the summer months, but also prevents the Hyde Park Pump Station from operating at capacity in the event there are operational problems at Newton Street Pump Station.

*Chlorination Equipment Service Contract, Bailey-Fischer & Porter Company*

The Board voted to approve the award of a sole source contract for Chlorination Equipment Service to Bailey-Fischer & Porter Company, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$43,400 and for a contract time of 514 calendar days.

This contract will provide preventive maintenance, emergency and non-emergency service for the chlorination equipment at the Nut Island Treatment Plant, which is used to disinfect the plant effluent, until the plant is permanently decommissioned.

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## **Contract Ammendments/Change Orders**

*North Metropolitan Trunk Sewer Rehabilitation Phase II, United Gunite Construction, Inc.*

The Board voted to authorize the Executive Director to approve Change Order 1 to Contract 5339, North Metropolitan Trunk Sewer (NMTS) Rehabilitation Phase II, with United Gunite Construction, Inc., increasing the contract amount by \$1,695,000 from \$13,469,949 to an adjusted contract amount of \$15,164,949. Further, the Board authorized the Executive Director to execute additional change orders as may be needed in amounts not-to-exceed the aggregate of \$250,000.

The trunk sewer rehabilitation consists of cleaning the sewer, drilling holes through the brick and injecting a cement grout from inside the sewer to eliminate infiltration in specified areas, and applying a reinforced shotcrete collar inside the sewer to provide structural integrity. During the first application of the cement grouting, the first and second courses of brick became loose in some locations and fell out of place despite the low pumping pressure being used. Continued drilling and pressure grouting may cause the sewer to fail and could possibly result in injury to persons working inside the sewer. An alternative method has been identified that will require the application of a one half inch flash coating of an accelerated dry mix shotcrete to the two thirds of the interior of the sewer in areas where infiltration cannot be stopped using the present grouting procedures. This work will be performed at a unit price of \$150 per linear foot for an estimated 11,300 feet, which represents the approximate remaining length of the NMTS that will require flash coating.

*Site Assessment, Dedham Street, Canton, Normandeu Associates, Inc.*

The Board authorized the Executive Director, on behalf of the Authority, to execute Amendment 8 to Contract 5386 with Normandeu Associates, Inc., extending the contract completion date by one year, from December 30, 1996 to December 30, 1997, amending the contract scope, and increasing the contract cost by \$5,000 from \$497,587 to \$502,587, to provide site assessment services related to the Dedham Street, Canton site. The original contract price was \$171,221. Amendments now amount to \$331,766.

The Phase IIB Comprehensive Site Assessment Report concluded that the New Neponset Valley Sewer (NNVS) was not the source of industrial solvent contamination found in groundwater at Dedham Street, but was simply in a downgradient pathway of contamination originating offsite. Therefore, in accordance with provisions of the Massachusetts Contingency Plan, MWRA asserted "Downgradient Property Status" for the NNVS, preserving the non-Responsible Party stance put forth in the Phase IIB Report. The Downgradient Property Status Opinion was submitted

to DEP in November.

In response, DEP requested additional information in the form of an addendum responding to third party opinions which had been submitted to DEP following the MWRA's Phase IIB Report. This amendment will extend the contract in order to allow for the preparation of the Downgradient Property Status addendum and coordinate with DEP as needed to achieve closure on the Dedham Street site.

*Ancillary Design Modifications Phase I, Modern Continental Construction Co., Inc.*

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 21 to Contract 5454, Deer Island Ancillary Design Modification Phase 1, with Modern Continental Construction Co., in an amount not to exceed \$259,837 from \$12,363,247 to \$12,623,084 and extend the Contract Time by 221 calendar days from March 9, 1997 to October 17, 1997. Further, the Board authorized the Executive Director to approve additional change orders as may be needed to Contract 5454 in amounts not to exceed the aggregate of \$100,000. The original price of this contract was \$11,757,723. Change orders now total \$865,361. A contingency transfer is required.

This contract requires the Contractor to furnish and install ten Modular Remote Terminal Units (MRTUs) to replace the existing tone telemetry system at the North Main Pump Station three electrical substations (Chelsea Creek Headworks, Ward Street Headworks, Columbus Park Headworks, Winthrop Terminal Facility, Chelsea Screen House and Caruso Pump Station). The existing tone telemetry system between Deer Island and the three remote Headworks facilities include both telemetry and a leased telephone line so that two separate signals continuously communicate changes in influent flow, providing instantaneous backup in the event that one of the communication lines fails. However, the replacement MRTUs as specified were limited to a single line signal. This change order will provide for six additional MRTUs to provide instant backup. This change order also includes other omissions from the contract documents.

*Secondary Reactor Batteries A&B, J.F. White/PKF-Mark III, Joint Venture*

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 62 to Contract 5484, Secondary Reactor Batteries A & B with J.F. White/PKF-Mark III, Joint Venture, in an amount of \$291,385, increasing the contract amount from \$117,783,963 to \$118,075,348, and extend the contract time by 69 calendar days from March 13, 1997 to May 21, 1997. The original contract price was \$110,549,000. Change orders now total \$7,526,348. A contingency transfer in the amount of \$291,385 is required.

Staff explained that in order for Secondary Reactor Batteries A & B to receive Boston Fire Department approval the following modifications must be completed: install a bypass line and valve to allow manual regulation of water flow; install an identification number at each carbon absorber unit and bypass valve; and install a test connection, consisting of a valve, piping and a switch to test each solenoid. The additional work will extend the milestone for start-up of secondary treatment and contract completion dates. The CM has completed a schedule analysis which indicates an extension of 106 calendar days to milestone J2, from November 25, 1996 to March 11, 1997, and 69 calendar days to the contract time from March 13, 1997 to May 21, 1997. During the time extension covered by this change order, the contractor will also perform additional change order work.

*Secondary Treatment Facilities Battery C, Modern Continental Construction Company, Inc.*

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 1 to Contract 6159, Secondary Treatment Facilities Battery C with Modern Continental Construction Company, Inc., increasing the contract by an amount not to exceed \$695,483 from \$157,774,257 to \$158,469,740. Further, the Board authorized the Executive Director to approve additional change orders to Contract 6159 in amounts not to exceed the aggregate of \$250,000. A contingency transfer is required.

Staff explained that the Authority had to rebid three sub-bid categories, Metal Windows, HVAC and Electrical Work, because the original sub-bids were determined to be invalid by procurement. Although the general contractor was instructed to include specified allowance for the three trade categories, the actual bid prices received exceeded the allowances provided in the general bids.

*Project Design Engineering Services for Secondary Treatment Facilities, Phase 4, Battery C and Related Facilities, Metcalf & Eddy, Inc.*

The Board authorized the Executive Director, on behalf of the Authority, to approve Amendment No. 1 to Contract No. 5686, DP-40, Project Design Engineering Services for Secondary Treatment Facilities, Phase 4, with Metcalf & Eddy, Inc., increasing the contract by \$1,203,913, from \$11,954,822 to \$13,158,735. A contingency transfer in the amount of \$233,735 is required.

The scope of work for DP-40 includes the design and ESDC for three construction packages: Secondary Battery C, Ancillary Deer Island Modifications - Phase III, and Final Paving and Landscaping. The primary reasons for this amendment include: additions to the scope and an extended bid period for Secondary Treatment Facilities Battery C; additions to the scope and extension of the design phase for Ancillary Deer Island Modifications - Phase III; extension of the design phase for Final Paving and Landscaping due to an extended concept finalization period; and CADD management needs.

*North Main Pump Station - Deer Island, J.F. White/PKF-Mark III J.V.*

The Board authorized the Executive Director, on behalf of the Authority, to approve Change Order 119 to Contract 5722, North Main Pump Station at Deer Island, with J.F. White/PKF-Mark III, increasing the contract by an amount not to exceed \$850,000 from \$84,040,127 to \$84,890,127. The original price of this contract was \$59,240,000. Change orders now total \$25,650,127 or 43% of the original contract amount.

This change order will compensate the Contractor for replacing the existing Chelsea-side 60" butterfly valve for Pump No. 7, spool piece, gaskets, bolts, and associated appurtenances. Staff explained that the inspections of odd-side and even-side butterfly valves ultimately resulted in the replacement of 19 of the 20 valves, leaving one valve which did not exhibit visible damage under Pump No. 7. Pressure testing of the installed piping under Pump No. 7 has indicated leakage through the valve's seat.

*South System Pump Station, Dick Corporation*

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 47 to Contract 5733, South System Pump Station, with Dick Corporation, Co., increasing the contract by an amount not to exceed \$200,138 from \$41,682,604 to \$41,882,743. Further, the Board authorized the Executive Director to approve additional change orders to Contract 5733 in amounts not to exceed the aggregate of \$250,000. The original contract price was \$39,499,000. Change orders now total \$2,383,743 or 6% of the original contract price. A contingency transfer is required to fund this change order.

The South System Pump Station located on Deer Island will receive raw wastewater from the Nut Island Headworks via the Inter-Island Tunnel. Final testing and start-up of the pump station cannot be done until the Inter-Island Tunnel is completed and operational. Due to delays in completion of the Inter-Island Tunnel, a Preventive Maintenance Program (PMP) was implemented last March to prevent the equipment from deteriorating and becoming unsuitable for use. The present scheduled completion date for the tunnel is November 18, 1997. This change order will continue maintenance and inspection to coincide with tunnel completion.

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## **Information Reports/Discussions**

*South System Emergency Overflow Update*

Staff presented a progress report on the implementation of sanitary system overflows to relieve MWRA's Southern Sewerage System during extreme storm events. Staff explained that they have reviewed the Southern System to

identify potential relief points to local rivers, streams or manmade drainage systems and locations for the possible diversion of flows to MWRA's Northern System. Ten relief points have been identified, of which four are considered major relief points and six are considered minor relief points. In addition, four possible locations for diverting Southern System flows to the Northern System have also been identified.

Staff is currently performing a technical review of each site to determine site feasibility. While the technical reviews are in progress, staff is making efforts to reach out to regulatory agencies, elected and municipal officials, and environmental interest groups.

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