



*Summary of:*  
**MWRA Board of Directors' Meeting**  
**June 10, 1998**

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A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on June 10, 1998 at the Authority Headquarters in Charlestown. **Present:** Chair Trudy Coxe, Gubernatorial Representative; John Carroll, Andrew Pappastergion, Advisory Board Representatives; Joseph MacRitchie, City of Quincy Representative; Robert Spinney, Andrea d'Amato, Vincent Mannering, City of Boston Representatives; Marie Turner, Town of Winthrop Representative; Lucile Hicks, Gubernatorial Representative. **Absent:** Donald Mitchell, Gubernatorial Representative; Norman Jacques, Advisory Board Representative.

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**AGENDA**

***Report of the Chair***

No report.

***Report of the Executive Director***

Mr. MacDonald presented Employee Recognition Awards to a number of MWRA employees for Long Term Service and Excellence in Performance. In addition, he announced the dedication of the Lydia Goodhue Pump Station to be held on June 12 on Deer Island.

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## **APPROVALS**

### **Response to Advisory Board Comments and Recommendations on Proposed FY1999 Current Expense Budget**

The Board vote to approve the *Response to the Advisory Board's Comments and Recommendations on the Proposed FY99 Current Expense Budget*, including changes to the budget approved by the Board of Directors on May 20, 1998.

After Advisory Board review and Board hearings, staff proposed an FY99 CEB totaling \$405.3 million, including direct expenses of \$178.3 million, capital financing expenses of \$192.9 million, and indirect expenses of \$34 million. With the application of \$8 million from the Rate Stabilization fund, the aggregate increase in the rate revenue requirement to be assessed to customer communities will be 2.5%, meeting the Advisory Board recommendation. The Authority's original CEB proposal required a rate increase of 5.2%. Staff will present the final budget and community charges for approval on June 24. Staff noted that the average annual increases over the next five years are projected to be approximately 7%.

Mr. Pappastergion mentioned that the Advisory Board recommended that the MWRA request information from the MDC Division of Watershed Management. He asked staff to report back to the Board on the status of that request. Staff agreed to report back.

### **CIP Update and Response to the Advisory Board**

The Board approved the *Response to the Advisory Board Comments and Recommendations on the MWRA's Proposed FY99-01 Capital Improvement Program and Budget*. The *Response* is the basis for the Final FY99-01 CIP. Staff will present the final budget for Board approval on June 24.

For the three year budget period FY99-01, the recommended final CIP projects \$1.49 billion in expenditures. The CIP reflects \$51.5 million in reductions related to Advisory Board recommendations. Mr. Mannering asked the Advisory Board to review the I/I assistance program and comment on what percentage of grant would be required to make the program revenue neutral for communities. Joe Favaloro, Advisory Board Executive Director, agreed to report back to the Board after discussing the matter with the full Advisory Board.

### **Appointment and Extensions for Nine Contract Employees in the Sewerage Division**

The Board voted to approve the appointment of one contract employee, Johan Herrlin, Database Specialist, SFD for one year from July 1, 1998 to June 30, 1999, at an hourly rate of \$13, for an annual compensation not to exceed \$23,400; and further, to approve amendments to the following employment contracts:

Leslie Zenack, Source Reduction Engineer, TRAC, extending the contract for one year and two weeks from June 15, 1998 to June 30, 1999, at an hourly rate of \$35 increasing to \$36.05 in January 1999 for an annual compensation not to exceed \$42,000;

Donna Skayne, Laboratory Technician, ENQUAD, extending the contract for one year from June 17, 1998 to June 16, 1999, at an hourly rate of \$13, for an annual compensation not to exceed \$27,040;

Edward Boyajian, Project Engineer, Deer Island, extending the contract for one year from July 1, 1998 to June 30, 1999, increasing his hourly rate from \$29 to \$29.87, for an annual compensation not to exceed \$72,850;

Nicholas Zachello, Project Engineer, Deer Island, extending the contract for one year from July 1, 1998 to June 30, 1999, increasing his hourly rate from \$18 to \$18.54 for an annual compensation not to exceed \$35,100;

Frank Ward, Painter, Deer Island, extending the contract for three months from July 1, 1998 to September 30, 1998, increasing his hourly rate from \$15 to \$15.45, not to exceed \$7,540;

James Tgibedes, Operator, Nut Island, two month extension from June 25, 1998 to August 25, 1998, hourly rate of \$20.50, not to exceed \$7,700;

Lesley Serret, Engineering Information Technician, Engineering & Construction, one year extension from July 1, 1998 to June 30, 1999, hourly rate of \$16.80 increasing to \$17.05 in January 1999, annual compensation not to exceed \$33,005.

### **June PCR Amendments - Fiscal Year 1998**

The Board approved amendments to the Position Control Register. The changes include a title change in the Sewerage Division to improve consistency between workload and job titles in the Process Control Section of the Deer Island Treatment Plant; and two vacant position reclassifications in Waterworks Operations to provide maintenance resources for the rehabilitated pumping facilities.

### **Reorganization of the Program Management Division**

The Board voted to approve the following actions necessary to implement the reorganization and consolidation of the Program Management Division (PMD):

1. Promotion of William Hodgson from Senior Construction Manager to Deputy Director for Construction and Engineering Services at no increase in salary but with the restoration of certain annual leave benefits;
1. Promotion of Ralph Wallace from Manager of Coordination and Control to Deputy Director for Management and Administrative Services, with a salary increase from \$89,652 to \$92,786;
2. Promotion of Anandan Navanandan from Construction Coordinator to Senior Construction Manager, with a salary increase from \$66,686 to \$75,255;
3. Promotion of Charles Scott from Construction Manager to Construction Coordinator, with a salary increase from \$68,970 to \$71,883.

This reorganization will consolidate PMD into two departments by eliminating the Department of Engineering Services. Remaining staff and staff functions will be merged into two departments: Construction and Engineering Services and Management and Administrative Services. This is part of the ongoing effort to phase-down PMD as the Boston Harbor Project nears completion. This reorganization will enable PMD to eliminate five PCR positions in FY98 and eliminate an additional four positions by mid- FY99.

### **Reclassification of Manager, Engineering Services, PMD to Manager, Deer Island Capital Program and Transition Planning, Sewerage Division**

The Board voted to approve the reclassification of Daniel K. O'Brien as Manager, engineering Services, PMD to Manager, Deer Island Capital Program and Transition Planning, Sewerage Division, effective July 1, 1998.

Mr. O'Brien will be responsible for establishing a master plan for executing capital program requirements, directing the orderly transition of PMD programs to the Sewerage Division, and directing Deer Island involvement in Sewerage Division and agency-wide initiatives.

### **Restructuring of Somerville's Payback Schedule for Extraordinary Service Charge Increases**

The Board approved a revised schedule for Somerville's payback of its deferred FY98 extraordinary sewer charge increase which defers \$832,783 with additional interest to FY00, FY01 and FY02.

Last year, the Board approved a request from Somerville to phase in its FY98 extraordinary sewer charge increase of \$1,826,285. The increase was the result of MWRA's prior under-estimation and subsequent correction of Somerville's wastewater flows. Somerville's sewer rate increase for FY99 would be 26.5% as a result of this phase-in plan. In response to this significant increase, Somerville has requested approval to restructure the five-year payment schedule. The schedule assumes interest charges to Somerville for the funds it is effectively borrowing from other communities until payback is complete. The Advisory Board approved the new payback schedule at the May meeting.

### **Use of Projected FY98 Surplus**

The Board voted to approve the transfer of FY98 surplus funds, projected to be \$18.5 million, to the Bond Redemption Fund to be used to make escrow deposits to reduce MWRA debt service obligations in future years.

Staff explained that transferring the surplus to the Bond Redemption Fund provides increased flexibility for when the funds are used to reduce rates and enhances the ability to manage the rate increase curve over the next several years.

**Extension of Tunnel Rescue and Emergency Response Memorandum of Understanding with the City of Boston**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve an amendment to the existing Memorandum of Understanding (MOU) with the City of Boston for Tunnel Rescue Services to extend the term for six months to January 31, 1999 with a six-month option to extend to July 31, 1999, and to increase the MOU by an amount not to exceed \$212,136.

The Boston Fire Department has provided back-up tunnel rescue response for the Effluent Outfall and Inter- Island Tunnels since November, 1991. The services provided in this amendment are consistent with those that have been provided through the existing MOU.

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**CONTRACT AWARDS**

**Title Examiner: A. David Webster**

The Board voted to authorize the Executive Director, on behalf of the Authority, to renew Task Order Contract 5383A with A. David Webster, and extend the term by 12 months to January 13, 1999. Mr. Webster has provided title examination services to the Law Division since 1992 at a rate of \$25 per hour for a total not to exceed \$50,000.

**Quincy Pumping Station Force Main Rehabilitation: P. Gioioso & Sons, Inc.**

The Board approved the award of Contract No. 6103, Quincy Pumping Station Force Main Rehabilitation, to the lowest responsive bidder, P. Gioioso and Sons, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the amount of \$1,289,362 for a term of 345 calendar days, subject to DEP approval. A contingency transfer of \$451,362 is required.

This construction contract will rehabilitate the existing 30-inch cast iron Quincy Pumping Station Force Main and abandon the existing 24-inch cast iron Quincy Pumping Station Force Main. This contract is part of the Quincy Pump Facilities capital improvement project which involves the replacement of the Quincy, Squantum and Hough's Neck Pump Stations as well as the rehabilitation of the Quincy and Squantum Force Mains.

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**CONTRACT AMENDMENTS/CHANGE ORDERS**

**Fells Reservoir Covered Storage Project, Barletta Engineering Corporation**

The Board authorized the Executive Director, on behalf of the Authority, to approve Change Order 6 to Contract 5088, Fells Reservoir Covered Storage, with Barletta Engineering Corporation, increasing the contract by an amount not to exceed \$725,000 (all from the contingency fund) from \$13,218,587 to \$13,943,587, with no extension to the contract time. The original contract price was \$13,157,276. Change orders now total \$786,311.

Staff explained that the design of the Fells Covered Storage Project utilizes the existing Gate House to provide the connection between the new storage tanks, the distribution system and the open reservoir. During the first shutdown of the Gate House in December 1997, it became apparent that reservoir water was leaking freely through a series of

cracks in the lower elevations of the Gate House and that this leakage would be considered a cross-connection, per DEP regulations, once Basin 1 and 2 are taken off-line. As a result, work must now be resequenced in a manner that will allow additional work to repair and seal the Gate House structure to proceed and the original Contract work be performed while still meeting the Consent Order date (December 31, 1998). This change order will include draining of Basin 1, the lowering of Basin 2 and sealing the cracks and joints from inside the chambers and along the outside perimeter Gate House walls with a polymer based grout and a new six inch layer of shotcrete.

**Spot Pond Pipeline Improvement Project, Weston & Sampson Engineers, Inc.**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment No. 7 to increase the contract price on Contract No. 5071/5072, Spot Pond Pipeline Improvement, with Weston & Sampson Engineers, Inc. in the amount of \$102,658 and to extend the time for completion by 24 months to April 30, 2001. The original contract price was \$1,464,777. Amendments now amount to \$501,042.

This amendment will increase the scope of services for engineering services related to repairs of parkways damaged by MWRA projects in the MDC Fells Reservation area. Due to heavy truck traffic, serious deterioration has occurred on MDC roadways outside of the strict limits of each construction contract which can be directly attributed to MWRA construction activity. An agreement has been negotiated with the MDC to repair the cumulative damage. The estimated cost of roadway repairs is \$700,000. This amendment covers survey, design, and services during construction for a roadway repair contract.

Mr. Carroll and Mr. Pappastergion expressed concern over the high cost of design for what should be a simple task. Staff explained that approximately \$40,000 is for design and \$60,000 is for resident inspection. Both Board members still felt that the price was high.

**Concrete Coating; Carlin Contracting Co., Inc.**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order 10 to Contract 6172, Concrete Coating/Repair and Upgrade, with Carlin Contracting Co., Inc. increasing the contract amount by \$140,107 from \$9,653,451 to \$9,793,558. Further, the Board authorized the Executive Director to approve additional change orders to Contract 6172 in amounts not to exceed the aggregate of \$50,000. The original contract price was \$9,091,184. Change orders now total \$702,374.

Extensive studies of hydrogen sulfide gas (H<sub>2</sub>S) throughout Deer Island and Nut Island resulted in a recommendation that protective coatings be upgraded on concrete and metallic surfaces in the areas expected to be subjected to the highest H<sub>2</sub>S concentrations. This contract consists of applying coatings to 193,000 square feet of surface area. Due to the difficulty of removing the Ceva Deck coating from some concrete surfaces at Nut Island, a deeper surface profile was created. This change order will compensate the contractor for furnishing and installing mastic greater than the specified thickness.

**Nut Island Headworks, Modern Continental Construction Co., Inc.**

The Board voted to approve Change Order 96 to increase the contract price on Contract 5850A, Nut Island Headworks, with Modern Continental Construction Co., Inc., in the amount of \$4,531,000 (all from the contingency fund); with the condition that the Board receive monthly reports from staff on the progress of this change order. Further, the Board authorized the Executive Director to approve additional change orders as may be needed to Contract No. 5850A in amounts not to exceed the aggregate of \$250,000. The original contract price was \$62,864,000. Change orders now total \$17,497,903, or 28% of the original contract amount.

Staff explained that this contract includes the cleaning and demolition of the existing Nut Island Treatment Plant. The Contract Documents instructed the Contractor to anticipate in its lump sum bid price that the digesters would contain approximately 349 dry cubic yards of grit and other settled solids. To obtain a better estimate of the amount of settled solids which would be remaining in the digesters after they were drained of sludge, Nut Island Treatment Plant staff utilized a more refined estimating technique which involved heating one of the digesters and then calculating the energy consumption required to raise the temperature within the digester by a specified amount. These calculations

result in an estimate that the four digesters contain a total of about 10,821 dry cubic yards of grit and other settled solids, or 10,472 cubic yards more than the 349 cubic yards specified in the contract documents. The unit price for removal, processing, transportation and disposal of this additional material is approximately \$433 per dry cubic yard, for a total cost of \$4.5 million.

Mr. Carroll asked how the estimate for solids was so far off. Staff said that it was a poor estimate and that the contractor was not required to actually measure the solids. Mr. Carroll moved to amend the vote to direct staff to provide the Board with monthly reports on this change order.

Mr. MacRitchie requested an update on Nut Island and the transfer of South System flows. Staff said that the Authority will start testing the headworks on June 22. Mr. MacDonald told the Board that they have encountered two problems relative to Nut Island. One is a harmonic distortion problem at the South System Pump station which prevents the operation of all eight pumps simultaneously. They are able to run the pump station on a contingency mode using four pumps at a time. This allows the facility to pump 99% of flows and would result in overflows approximately three days per year. Walter Armstrong, PMD Director, said that a solution will be designed as soon as possible, possibly within six months. He noted that there will be no overflows when six pumps can operate simultaneously.

The other problem relates to the transformers located on the roof of the facility. A fire in one of the eight transformers has lead to an extensive testing program to determine if they are the right transformers and if they should be located on the roof. Staff stated that the maximum cost to fix this problem is \$1 million.

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## **INFORMATION REPORTS/DISCUSSIONS**

### **MetroWest Water Supply Tunnel Project Update**

Staff updated the Board on the status of the MetroWest Water Supply Tunnel Project. The Project consists of nine construction contracts. Overall MetroWest construction physical progress is now 11% complete. The Middle Tunnel Segment contract is at 12.8% complete, representing the completion of the excavation of the shaft and starter tunnels at Shaft L in Framingham, installation of the Tunnel Boring Machines and 4,584' mined in the West Heading and 2,463' mined in the East Heading. The Western Tunnel Segment contract is 4.8% complete, representing the excavation of Shaft E and the Starter Tunnel in Southborough, installation of its Tunnel Boring Machine and 1,142' mined in its heading. Shaft 5A at the eastern end of the MetroWest Tunnel is now 120' below surface.

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