



*Summary of:*

## **MWRA BOARD OF DIRECTORS' MEETING**

**January 14, 2004**

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A meeting of the Board of Directors of the Massachusetts Water Resources Authority was held on **January 14, 2004** at the Charlestown Navy Yard. **Present:** John Carroll, Andrew Pappastergion, and Joseph Foti, Advisory Board Representatives; Chair Ellen Roy Herzfelder and Lucile Hicks, Gubernatorial Appointees; Vincent Mannering, Kevin Cotter and Antonia Pollak, City of Boston Representatives; Joseph MacRitchie, City of Quincy Representative. **Absent:** Marie Turner, Town of Winthrop Representative and Donald Mitchell, Gubernatorial Appointee.

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### **AGENDA**

#### **Report of the Executive Director**

Fred Laskey, MWRA Executive Director, reported the Deer Island plant finished out 2003 in complete compliance with its permit with zero violations. For the first time, the plant is eligible for the Association of Metropolitan Sewerage Agency's (AMSA) Gold Award.

Mr. Laskey said discussions on the Watershed MOU continue to progress in a "cooperative fashion" with drafts going back and forth between the interested parties. He hopes to bring the matter before the Board in April for a vote.

Mr. Laskey reported the spring closing of the Norumbega open reservoir is on schedule. This will be a historic moment, as the Authority will be brought into compliance with the Safe Drinking Water Act.

Mr. Laskey reported the extreme cold weather has led to several local breaks in the system, though none were the responsibility of the Authority.

The FY05 budget will be brought before the Board at the February Board Meeting. It will include staff's proposed rate increase. The budget will also be transmitted to the Advisory Board. Mr. Laskey reported FY04 continues to run a positive variance.

Board Member Joseph MacRitchie announced former/founding Board Member Charles Lyons, who is Superintendent of Schools at Shawsheen Tech, was recently elected President of the National League of Cities and Towns. Mr. Laskey suggested recognizing him at a future Board Meeting. Board Member John Carroll announced the recent appointment of Board Member Joseph Foti as Director of Public Works for the City of Chelsea. Advisory Board Executive Director Joseph Favaloro announced the Advisory Board is in the process of hiring the firm of Durand and Anastas, belonging to former Board Chair, State Senator and Secretary of Environmental Affairs Bob Durand. The firm will work with the Advisory Board, the legislature and all other stakeholders to help find common ground in order to move the DCR Division of Water Supply Protection (formerly MDC Division of Watershed Management) out of the General Fund.

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## APPROVALS

### **Joint funded cooperative Research Agreement between MWRA and USGS for Studies of Circulation and Contaminant Transport in Massachusetts Coastal Waters**

The Board voted to approve the award of a jointly funded Cooperative Research Agreement between the Authority and the U.S. Geological Survey (USGS) and to authorize the Executive Director, on behalf of the Authority, to execute the agreement in the amount of \$1,032,539 for the period February 1, 2004 to January 31, 2007.

Staff Member Andrea Rex explained the Authority has had an arrangement for the past 14 years with USGS's branch of Atlantic Marine Geology at Woods Hole whereby they conduct studies to determine if contaminants from the outfall affect the marine environment. She said the USGS has secured the use of a Coast Guard vessel for its research and is required only to pay the cost of fuel.

USGS staffer Michael Bothner presented the Board with a slide show summarizing results of their study of circulation and contaminant transport in coastal waters. The study looked at the concentrations of toxic metals and how they changed over time, how the various contaminants are transported through the system, if scientists can predict how contaminated sediment in Massachusetts Bay will be transported, and what effect storms have on the system. Mr. Bothner explained the study of sediment is important because it eventually buries the contaminants.

The studies generated long-term baseline measures of silver concentrations that provide valuable comparisons when studying the outfall affects. Mr. Bothner explained silver is the best inorganic tracer of sewage particulate they know of.

Mr. Bothner told the Board long-term moorings in Mass. Bay (positioned 4.3 meters off the ocean floor) can measure the effects of big storms on sediment. Results confirm storm waves produce bottom currents that distribute sediment along the bottom.

Mr. Carroll asked how many other contracts are currently underway for similar research. Ms. Rex stated there is a \$50,000 contract with UMass to run modeling programs and a \$3 million per year contract with Battelle Ocean Sciences which carries out water column monitoring at the outfall to look at contaminant in the sediment. She explained this monitoring is an outfall permit requirement of the EPA and thus, the contract expires with the permit in 2005.

Mr. Carroll asked who monitors the Battelle contract. Ms. Rex said she monitors their progress, reviews their invoices and reports and manages the contract in general.

### **Amendment to Indenture of Lease between MWRA and Fore River Railroad Corporation**

The Board voted to authorize the Executive Director, on behalf of the Authority, to execute a fourth Supplemental Indenture of Lease with the Fore River Railroad Corporation, to remove Lots 7A (the Museum parcel) and 7B (the Cashman parcel) from the original Indenture of Lease.

**East Boston Pump Station: Grant of Access Easement**

The Board voted to authorize staff to file legislation granting a permanent access easement over 276 square feet of MWRA property for the benefit of the future owner of the former East Boston Pump Station and to authorize the Executive Director, on behalf of the Authority, to execute all documents necessary to effectuate this grant of easement.

**New Easements at Shaft L, Framingham: Riverpath Associates Limited Partnership**

The Board voted to authorize the Executive Director, on behalf of the Authority, to execute two four-year temporary easement agreements and one six-month temporary easement agreement with Riverpath Associates Limited Partnership, at the Shaft L site in Framingham for the period March 28, 2004 to March 27, 2008. Total compensation for all easements will be \$242,833.

**Appointment of Assistant Director, Internal Audit**

The Board voted to approve the Executive Director's recommendation to appoint Brian Rozowsky to the position of Assistant Director, Internal Audit at an annual salary of \$83,500 effective January 17, 2004. Staff explained this appointment combines the responsibilities of the Assistant Director, Project Audits position that was vacated on January 16, 2001 and the Assistant Director, Internal Audit and Management Systems that was vacated on June 30, 2002. Mr. Rozowsky has been in the acting Assistant Director, Project Audits since February 3, 2001.

**January PCR Amendments – FY04**

The Board voted to approve the amendments to the Position Control Register. The annualized budget impact of these changes would theoretically range from savings of -\$10,405 to a cost of \$19,625, and will likely be in the middle of this range. Those that make up the financial impact are as follows:

<b>Current Title</b>	<b>Amended Title</b>	<b>Financial Impact</b>
Field Supervisor	Supervisor, Water/Wastewater Meter Maintenance	-\$1,960 - \$14,935
Unit Supervisor	M&O Specialist	-\$10,983 - \$2,151
Secretary I	Administrative Coordinator	\$2,538 - \$2,538

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**CONTRACT AMENDMENTS/CHANGE ORDERS****North Maintenance Facility Design Review Consultant: STV Incorporated, Contract 6510, Amendment 1**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment No. 1 to increase the amount of Contract No. 6510 with STV, Inc., North Maintenance Facility Design Review Consultant, in an amount not to exceed \$40,000, and to extend the time for completion 30 months to March 14, 2005.

STV's original contract included design review for all structural, electrical, mechanical and civil engineering requirements as well as air quality testing for the North Maintenance Facility in Chelsea.

STV's contract expired on September 14, 2002 with an unused balance of \$19,000. This amendment adds an additional \$40,000 for a total of \$59,000 for STV to complete design, review shop drawings and ensure installation of a paint booth and sandblasting booth. The MWRA is responsible for installing the booths as a result of a settlement agreement with the Developer, Griffin Way. This work was not included in STV's original contract.

The original contract was \$338,890. The proposed amendment is for \$40,000 rendering the adjusted subphase value \$379,000 or \$40,000 over budget. The FY04-06 CIP includes \$339,000 for subphase 6510, Design Review.

**Facilities Asset Management Program: New Dimensions Solutions, Inc., Contract 6421, Amendment 3**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment No. 3 to extend the time for completion of Contract No. 6421 with New Dimensions Solutions, Inc., Facilities Asset Management Program – Equipment Replacement, Phase 1, by 17 months to June 19, 2005. There was no increase in the contract amount.

The original contract was to provide facilities asset management consulting services during the development of an expanded permanent condition monitoring system for major pieces of rotating equipment at multiple water and wastewater facilities. It was awarded based on an estimated contract schedule. Amendment 3 extends the contract term to coincide with the current anticipated construction schedule. Because the scope and cost of this work was included in the original contract and subsequent amendments, Amendment 3 is for time only with no budgetary impact.

The original amount of this contract was \$1,604,211. Previous amendments total \$1,010,417, bringing the adjusted contact amount to \$2,614,628.

**Walnut Hill Water Treatment Plant – Ozonation Treatment Facilities: Barletta-Shea, J.V., Contract 6489, Change Order 63**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Change Order No. 63 to increase the amount of Contract No. 6489 with Barletta-Shea, JV, Walnut Hill Water Treatment Plant – Ozonation Treatment Facilities, in an amount not to exceed \$351,540.

The Board also voted to authorize the Executive Director to approve additional change orders as may be needed to Contract No. 6489 in amounts not to exceed the aggregate of \$250,000.

This change order includes security monitoring at the Norumbega Covered Storage facility, which was not included in the original contract scope for the Walnut Hill security system. Due to increased security concerns, staff recommends this change order to provide additional monitoring points, intrusion alarms, controller, interface relay equipment and communication ports. This security component totals \$144,000 of the \$351,540 change order.

The second component of the Change Order is for Extended Dechlorination Operations. The Change Order will provide chemicals and labor to operate the Temporary Dechlorination Facility at the Hultman Weir to dechlorinate flow into the Forebay Channel while the Cosgrove Tunnel is out of service for construction of the Shaft C connection. This will be followed by flushing and reactivation of the Cosgrove Tunnel.

The original amount of this contract was \$116,844,000. Including Change Order 63, in the amount of \$351,540, the cumulative value of Change Orders to this Contract is \$11,579,027, or 9.91% of the original Contract amount. Work on this Contract is approximately 83% complete.

The FY04-06 CIP includes a budget of \$128,003,000 for Contract 6489. Including this Change Order, the adjusted subphase total is \$128,423,027, or \$420,027 over budget.

**Safe Lifting/Back Safety and Staging/Ladders/Safety Rails Training: Phillip Blye, Contract A439, Amendment 2**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment No. 2 to increase the amount of Contract No. A439 with Phillip Blye, Safe Lifting/Back Safety and Staging/Ladder/Safety Rails Training, in the amount of \$2,650 and to extend the time for completion 18 months to May 4, 2005.

The original contract amount was \$10,000. The proposed amendment is for \$2,650 rendering the cumulative amendment total \$5,150 and the adjusted subphase value \$15,150. Sufficient funds for this contract are included in the FY04 Human Resources CEB and will be included in the FY05 CEB.

**Equipment Installation and Alignment Training: Industrial Trainers of America, Inc., Contract A438, Amendment 2**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment No. 2 to increase the amount of Contract No. A438 with Industrial Trainers of America, Inc., Equipment Installation and Alignment Training, in the amount of \$5,074 and to extend the time for completion by 18 months to May 20, 2005.

The original contract amount was \$32,750. The proposed amendment is for \$5,074 rendering the cumulative amendment total \$5,074 and the adjusted subphase value \$37,824. Sufficient funds for this contract are included in the FY04 Human Resources CEB and will be included in the FY05 CEB.

**Basics of Lubrication Training: National Tribology Services, Inc., Contract A436, Amendment 3**

The Board voted to authorize the Executive Director, on behalf of the Authority, to approve Amendment No. 3 to increase the amount of Contract No. A436 with National Tribology Services, Inc., Basics of Lubrication Training, in the amount of \$3,350 and to extend the time for completion by 16 months to May 10, 2005.

The original contract amount was \$25,000. The proposed amendment is for \$3,350 rendering the cumulative amendment total \$3,350 and the adjusted subphase value \$28,350. Sufficient funds for this contract are included in the FY04 Human Resources CEB and will be included in the FY05 CEB.

The previous three amendments were necessary to keep these training programs available for new employees at Walnut Hill as well as those hired to backfill vacancies caused by early retirement. The three classes are used to meet training requirements for the Productivity Improvement Program (PIP) required by the American Federation of State, County and Municipal Employees and the National Association of Government Employees.

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## **INFORMATION**

**FY2004 Financial Update and Summary as of November 2003**

Ken Wissman informed the Board that although revenues through November were below budget, there was a very favorable trend overall. There may even be a surplus at year's end in which case the Board

may want to look at prepaying some FY05 expenses.

Mr. Pappastergion inquired about the debt service assistance money. Carl Erickson said once the MWRA receives the money, staff will reduce the next assessment to cities and towns. For example, if the MWRA receives the funds on February 15, the April assessment will be reduced by the entire amount as opposed to spreading it out.

**MWRA Insurance Program Renewal**

Paul Whelan updated the Board on the MWRA's overall insurance program. Mr. Whelan explained the current program includes self-insurance components, insurance policies and some bonds. Of the various components, some are required by state law, some by the Authority's enabling statute and others were elected by the Board.

Traditionally, policies were written annually until 1998 when a 'soft' insurance market enabled the Authority to purchase a combined, integrated insurance program covering both liability and property with a three-year term. This policy was renewed for an additional three years, which expire in July of 2004.

Mr. Whelan said staff is currently reviewing its options and has brought an insurance advisor on board to prepare a preliminary report of market conditions. However, because the insurance market is now 'hard' (not favorable for consumers), such integrated programs are no longer available, nor are three year terms. Mr. Whelan explained to

replace the Authority's current insurance program as-is would cost an estimated \$3-4 million, as compared to the current rate of \$825,000. Staff's objective is to keep costs down with a new policy without exposing the MWRA to unmanageable risks.

Mr. Wissman added there have been some good discussions among staff – some want catastrophic coverage while others think this is a waste of money. Ms. Hicks asked, "Would we have the resources to cover a catastrophe?" Mr. Laskey explained that if an incident were to reach such proportions, disaster assistance then becomes available, further complicating the decision of what level of coverage to select.

Mr. MacRitchie urged staff to avoid bringing the matter before the Board for a last-minute decision saying, "We don't want to be forced into a decision." Ms. Hicks agreed staff is cutting it close and requested a progress report next month. Mr. Laskey agreed to give the Board monthly updates as the situation unfolds.

Mr. Whelan said staff needs pricing from the insurance carriers in order to make a decision. Insurers are unwilling to provide pricing this far in advance because of the extraordinary market uncertainty.

### **Braintree-Weymouth Relief Facilities Update**

Michael McBride reported there is now access to the site and work has begun. A change order approved by the Board in December put the IPS into protective maintenance mode as that facility is waiting for flow from the siphons expected to begin in July of 2004. Work on other contracts is continuing to close out.

Mr. McBride also reported the area on the Exelon side of the property has been cleared, but there are problems with the easements that do not correspond to what was built. Consequently, the new power plant encroaches on the MWRA's easement.

### **Update on Walnut Hill Water Treatment Technology Re-Evaluation**

Steve Estes-Smargiassi reported the Authority is currently meeting all the necessary criteria for the filtration waiver. He also reported that bird harassment is now on hold for the winter since the reservoir froze over the previous day.

On the public health front, Mr. Estes-Smargiassi reported there is active disease surveillance being conducted in cooperation with the Department of Public Health, Boston Public Health Department and Tufts University. Disease surveillance is required by the waiver and also helps develop a baseline to evaluate system performance after the new plant is on line.

As to the question of whether or not ozone would add food for bacteria in the system, Mr. Estes-Smargiassi said disinfectant improvements so far have greatly improved water quality in the distribution system. The systems that are in place detect outbreaks very quickly, as was demonstrated by the Norovirus outbreak from October of 2002 to January of 2003. This disease was flagged and later determined to not be MWRA related.

Mr. Mannering asked what ozone protects us from. Staff replied the Authority is required to have two primary disinfectants, ozone and UV. The ozone guards against cryptosporidium, though we only see very small amounts of it. UV will kill both giardia and cryptosporidium, enabling the Authority to reduce the amount of ozone used.

Mr. Estes-Smargiassi said staff sent comments to the EPA recently in response to directives issued in the fall. Comments included staff's opinion that the EPA has overestimated the benefits and underestimated the costs of disinfection since there are fewer diseases out there than they thought. Staff comments also suggested the EPA should be more flexible so states and municipalities can make site-specific decisions.

### **Integrated Water Supply Capital Improvement Program: Performance Oversight**

In response to Board concerns over the Walnut Hill contracts, Mr. McBride gave an update on change orders to contracts within the Integrated Water Supply Improvement Program.

There has been a total of \$23 million in change orders totaling 2.86% of the award. Though a significant amount of money, Mr. McBride labeled the percentage "very favorable" overall. Specifically, change orders for Walnut Hill were 9.79% of the original award, while Norumbega change orders were 4.3%.

Mr. McBride said the first three contracts at Walnut Hill have been completed. One contract, to rehab the Wachusett intakes at the reservoir, required a change order totaling 39.47% of its original award (contract: \$10,930,100, change order: \$4,313,849). Mr. McBride said this percentage is really 16.85% when you subtract the items out of the control of the contractor. A discussion on cost recovery possibilities was deferred to Executive Session. Mr. McBride added the contractor's eligible profit on this contract has been reduced to \$500,000, though it has kept its employees busy for years.

Ms. Hicks asked what the Authority's land acquisition goal is at Wachusett. Staff replied since there are still a number of high priority parcels, such as those near tributaries, the effort is expected to continue for at least a few more years. Ms. Hicks said she is concerned about DCR slowing down their sanitary surveys due to staffing limitations. Staff assured her there is no public health threat.

### **Walnut Hill Water Treatment Plant, Ozonation Treatment Facilities, Shaft B & C: Construction Update**

Staff reported the project is slightly ahead of schedule, approximately ten days, in spite of bitterly cold weather. All of the large steel components of the Shaft C connection are in place and the joints are now being welded. The goal is to be ready to meet increased demand on the system in April by having the Cosgrove Tunnel back on line mid-March.

### **South Boston CSO Alternatives**

Staff updated the Board on options for CSO control along North Dorchester Bay in South Boston. The Authority is required to file a notice of project change with MEPA by the end of March and will bring their recommended option to the Board soon.

At present, there are two options being considered: Interceptor Relief and Soft Ground Tunnels.

The Interceptor Relief option would require construction of an 8-foot diameter interceptor along Day Boulevard, with flow ending up at the Columbus Park Headworks. The first phase would require no above ground facilities.

Staff explained this option would provide a 2 to 5 year level of CSO control with the ability to expand to a storage system providing up to a 25-year level of CSO control. The first phase is estimated to cost \$219 million including contingencies for construction and design. The second phase would cost \$106 million.

The second option, Soft Ground Tunnels, would require construction of tunnels 13 feet in diameter from Columbus Park and Marine Park to the Boston Maine Interceptor or the Conley Terminal south to the Bayside Exposition Center. This option would provide a 5-year level of CSO control and would require modest aboveground facilities.

Staff explained expanding the diameter of the soft ground tunnels from 13 feet to 17 feet (which carries a 10% increase in expense) would increase the level of control to 25 years, or "virtual elimination." This option would necessitate a dewatering pump station above ground as well as a small odor control facility. These facilities are expected to be less than 1/10 the size of the old pump stations.

Staff estimated the cost of this option to be \$232 million for construction, staging, and permanent facilities, not including site acquisition. This plan would avoid construction of a pump station that ultimately would only run once every two or three years.

Staff said this proposal would not pick up storm water because doing so would drop the level of control from 25 years to two. In order to achieve a 25-year level of control and pick up stormwater, the tunnel would need to be double the diameter, which is not possible since there is only room for a tunnel 17 feet wide between the rock ledge and the surface.

Mr. Carroll asked if borings had been taken. Staff said they had, except at Conley Terminal, and more will be taken at Columbus Park Headworks.

Staff further explained during a storm, flow would enter the tunnel at the outfalls and gradually fill it until it reaches capacity. After the storm, the dewatering pump station would be activated, sending water through South Boston pipes and delivering it into the existing system through the Columbus Park Headworks and on to Deer Island for treatment and discharge.

When asked by Mr. Carroll what effect, if any, this would have on the beaches, staff explained this would eliminate any point source of sewage from the south and catch all CSO for a 25-year storm, but no stormwater discharge.

Ms. Pollak asked staff to highlight construction impacts. Staff said there would be microtunneling and jacking pits associated with the interceptor relief option as well as 24/7 road closings for three to four months at each location. For the soft ground tunnels, there would be small excavations at shaft sites for three to six months each and 24/7 truck traffic on First Avenue. The tunnel drive would progress 33 feet per day for approximately 16 months. Staff estimated the four-year construction schedule would begin the second half of 2006, given the necessary regulatory approvals.

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*This Summary does not include every item discussed by the Board, nor the full extent of the discussions. Please contact Tracy Wadsworth at the Advisory Board office with questions, comments or requests for additional information.*