

**MWRA ADVISORY BOARD MEETING
FEBRUARY 24, 2005
NATIONAL HERITAGE MUSEUM
33 MARRETT RD. (ROUTE 2A), LEXINGTON, MA
MINUTES APPROVED AT THE APRIL 28, 2005 MEETING**

Forty-one people were in attendance, including twenty-two voting members: John Sanchez, ARLINGTON; Peter Castanino, BELMONT; Ed Sullivan, CANTON; Andrew DeSantis, CHELSEA; Jon Norton, EVERETT; William Hadley, LEXINGTON; Jay Fink, LYNN; Bruce Kenerson, LYNNFIELD; Ed Bates, MAPC; Dana Snow, MARBLEHEAD; Donald Ouellette, MEDFORD; Katherine Haynes Dunphy, MILTON; Lou Taverna, NEWTON; Peter Smyrnios, PEABODY; Joseph Delaney, READING; Sam MacDonald, REVERE; Barbara Stevens, SOMERVILLE; Lawrence J. Barrett, STOUGHTON; Richard Stinson, WAKEFIELD; Walter Woods, WELLESLEY; Robert Angelo, WESTWOOD; Rob Antico, WILMINGTON.

Also present: Andrew Pappastergion, MWRA BOARD OF DIRECTORS; James Moran, CANTON; Ray Gelinis, CHELSEA; Glenn Garbati, EVERETT; Ana Singleton, STOUGHTON; Bill Elliott, WSCAC; Ed Bretschneider, WAC; Phil Jasset and Matt Boger, UCANE; Jae Kim, Fred Brandon, Joshua Das, Stephen Estes Smargiassi and Pamela Heidell, MWRA STAFF; Joe Favaloro, Cornelia Potter, Ryan Ferrara, Andrea Briggs and Mary Ann McClellan, MWRA ADVISORY BOARD STAFF.

A. WELCOME

Chairman Katherine Haynes Dunphy called the meeting to order at 11:40 a.m.

B. REPORT OF THE EXECUTIVE DIRECTOR

MWRA Advisory Board Executive Director Joseph Favaloro stated that revised MWRA preliminary water assessments have been mailed to communities. There is an allocation formula for MWRA water communities and a different allocation formula for the Chicopee Valley Aqueduct (CVA) communities. In the calculation of the CVA community assessments, an error was made, adding too much capital costs to those communities. Staff had to recalculate the assessment and an additional \$540,000 had to be reallocated to the rest of the water communities.

A public hearing on the components of the Authority's proposed \$549.8 million FY06 Current Expense Budget will be held at the State House on March 24. The Authority must adopt the proposed budget on or before June 30, 2005, as set forth in Chapter 372 of the Acts of 1984.

John Carroll's three-year term as an appointee to the MWRA Board of Directors will expire on June 30. April 15, 2005 is the deadline for candidates to submit a letter of intent to seek election to the MWRA Board of Directors. The Executive Committee will interview all candidates and nominate a candidate to the full Advisory Board on April 22 and on April 28, at the Advisory Board meeting at the Newton Free Library, nominations will be accepted and an election will be held. Please note that election for the Board of Directors is one vote for each community. It is not a weighted vote. A quorum of 33 voting members is necessary to validate the election.

C. **PRESENTATION: LONG RANGE WATER SUPPLY PROGRAM** – Jae Kim, Director, Capital Engineering and Construction and Fred Brandon, Design Manager

MWRA Director of Capital Engineering and Construction Jae Kim stated MWRA's Water Program consists of four sub-programs: 1) treatment 2) transmission 3) distribution and 4) covered storage.

Currently, MWRA has two areas where treatment is provided: 1) CVA area with a pre-chlorine treatment; and 2) the metropolitan Boston area where chlorine, chloramines and pH adjustment are provided.

MWRA is requiring the Contractor to do five different types of testing: 1) Factory testing – the manufacturer tests each device/part at the factory to ensure it is working; 2) Field testing – once the item is installed at the plant, each individual pump, generator, etc. is tested to ensure it works; 3) Functional testing – each system is tested as a whole, such as the ozone system, the liquid oxygen system, pH adjustment system; 4) Demonstration testing – the treatment process from beginning to end is tested, with the treated water being discharged into the Forebay and eventually to the Sudbury Reservoir; 5) Reliability testing – the whole plant is in operation and treated water flows directly to the Boston area.

Functional testing of the pH and alkalinity adjustment sections of the plant have been completed, with fluoride and chlorination functional testing nearing completion. Commencing next week, functional testing of the ozone system will be ongoing for four to five weeks. Upon completion, demonstration testing will begin. The plant can run 405 MGD; however, staff will run 200 MGD, which is half capacity, testing each half of the plant at a time. Testing should run from mid-April through the end of May. Reliability testing will begin June 2.

In the future for the Walnut Hill area, Ultra Violet (UV) treatment will be provided to meet future regulations. The current plan is to procure a consultant by 2007, with a UV plant by 2012 added to Walnut Hill. The Interim Corrosion Control facility will be modified to a maintenance facility to provide maintenance functions for the WHWTP.

The Authority plans to proceed with procurement for a consultant for design of an Algae Treatment Facility. Diffusers/circulators will be installed within the reservoir so copper sulfate water can be pumped into the reservoir, rather than applying treatment from a boat from the surface down.

MWRA has spent a lot of money on the transmission system, mostly on the MetroWest Tunnel. The Wachusett Aqueduct was rehabilitated, spending \$25 million to provide some redundancy to the Cosgrove Tunnel. In the near future, procurement will begin for a consultant to design and rehabilitate the Hultman Aqueduct to develop connections between the MetroWest and Hultman Aqueduct with construction projected in the next five to six years and total project cost at \$60 to \$75 million.

Sudbury Aqueduct rehabilitation is in the beginning of design phase and will provide system redundancy. A consultant has been selected and the contract is currently being negotiated. MWRA's aqueducts date from 1958 to 1976, with the MetroWest Water Supply Tunnel completed in 2003. It makes sense for the Authority to spend the next few years doing inspections on the condition of these tunnels to see if repairs are needed.

While the Cosgrove Tunnel was down, it provided an opportunity to inspect the inside of the tunnel via a remotely operated vehicle (ROV). The ROV inspected all eight miles of the tunnel and did not show anything urgent or drastically wrong; some small repairs are needed for cracks that come with age. The Consultant recommended that MWRA repair the cracks in the near future, defined between ten to twenty years.

MWRA has defined a solid plan to rehabilitate the distribution system pipelines. A lot of work is scheduled on the southern spine mains in the next five to ten years.

Fred Brandon, MWRA Design Manager, reported that the Authority is constructing several new covered storage tanks to replace the open distribution storage reservoirs throughout the metropolitan Boston and CVA areas. Most of the open distribution storage reservoirs were constructed between 1900 through 1950. The DEP drinking water regulations prohibit the use of open distribution storage reservoirs because of the pathways for contamination into the drinking water system.

The primary purpose of having distribution storage in the water system is to have potable water stored at locations close to the water users. It is preferable to have the storage closest to the center of command. By having water stored in the system, staff is able to stabilize the water pressure in the service area and can supply peak demands during periods of high use.

Additionally, the distribution storage reservoirs provide short term supply during emergencies, such as pipeline breaks, fire protection or even planned maintenance while pipelines are repaired. The cover protects the water from contamination. DEP guidelines require that water systems maintain at least one day of storage in the distribution system.

MWRA has been studying its storage needs since the early 1990s, when staff prepared the 20-year Master Plan for the water system. In that plan, numerous locations were recommended where covered storage should be constructed. In addition, a consultant study prepared by Rizzo Associates in 1993 further refined the locations where distribution storage should be located in the system. In general, MWRA is moving from 2.4 billion gallons (a one to two week supply) of open storage in the system to about 310 million gallons (close to one maximum day of use) of covered storage. There are some benefits to this dramatic reduction; the Authority will be able to preserve the water quality in the distribution storage reservoirs better by reducing the amount of time the water stays in the distribution system. Further, environmental impacts are minimized and costs are reduced by building less covered storage.

Building less covered storage means that MWRA must be sure to locate these reservoirs at critical locations and proper elevations to provide adequate pressure to the water system.

Prior to 1999, MWRA had about 43 million gallons of covered storage, primarily smaller tanks such as Bear Hill tank in Stoneham, Arlington Covered Storage, Bellevue tanks and numerous other smaller water tanks in the system. Between 1999 and 2004, the Authority added about 180 million gallons of covered storage to the system (Fells, Nash Hill, Loring Road and Norumbega).

A 45 million gallon storage tank is currently being built at Walnut Hill as part of the WHWTP. Once the Blue Hills project is completed, MWRA will have a total of 288 million gallons of covered storage in the system. That is still less than the goal of having one day of storage, but it will come a long way to improve the operation of the water system.

In addition to those water projects, several others were recommended in earlier plans, but are not currently included in the CIP. Those are future projects at Spot Pond for the low system; the Northern Intermediate High system, which would serve the towns of Wakefield, Woburn and Stoneham; and the Southern Extra High System. Those projects will be evaluated over the coming years and recommendations will be made for covered storage in those areas.

The Norumbega tank is located at the end of the aqueduct system and sets the hydraulic grade line for the rest of the metropolitan Boston area. Having storage located at that location enables staff to maintain a steady flow rate in the aqueduct system and stabilizes the pressures in the metropolitan Boston area.

The Loring Road tank is fed from the MetroWest Tunnel and the Hultman Aqueduct through a pressure reducing station. The Loring Road tank serves the low service area that is at a much lower elevation than Norumbega. At the extremities of the system is the existing Fells Reservoir to the north and the proposed Blue Hills Reservoir to the south. These reservoirs were constructed originally to be ten or fifteen feet lower than Norumbega and are meant to operate together with Norumbega to provide hydraulic control for the whole distribution system area. By providing peak flows, these storage tanks take some of the demands off the main Aqueduct system and improve pressures throughout the service area.

The Blue Hills project would provide emergency short term storage to the Southern High Service Area. For example, last spring a pipeline broke that supplies the City of Quincy. The 48" pipeline had a leak under Interstate 93 and MWRA had to shut down the pipe overnight while repairs were made. The entire City of Quincy and portions of Milton had to be served by an alternate means through a single 24" pipe. If the Blue Hills tank existed at that time, MWRA would have been much better off in repairing that leak and would have had more time to make those repairs. The Blue Hills tank will also improve and stabilize pressures throughout the water service area. It serves Quincy, parts of Milton, Mattapan and South Dorchester.

The 10' diameter Dorchester Tunnel supplies the southern high service area. Along that tunnel alignment there is a number of surface mains called the southern spine mains (a series of 36" and 48" pipes). They are interconnected with the tunnel at various locations. Another benefit of having covered storage at Blue Hills is it will enable staff to make necessary repairs to those interconnections between the southern spine mains and the Dorchester Tunnel. In the current situation, if there were a leak or pipeline break on those interconnections, MWRA would have a serious problem not being able to supply the Southern High Service Area if the Dorchester Tunnel were taken out of service.

The sequence of events for construction of the Blue Hills Covered Storage Project as proposed is to drain the entire reservoir and build a new dam down the center of the reservoir, building the tanks in the eastern side. The purpose of building the dam is to allow MWRA to refill the open reservoir and restore it. It would be turned over to DCR for parks purposes in the Blue Hills Reservation. The water tanks will be planted underground and a meadow will be planted on top. There will be a fair amount of landscaping at the site.

The project has been held up in the wetlands permitting process. Staff spent about seven years planning the project and came up with this concept of building the tanks within the footprint of the existing reservoir based on environmental concerns. The reservoir, located within the Blue Hills Reservation, is surrounded by endangered species habitat. The idea is to locate this project within the footprint of the existing reservoir to avoid impacts to the rest of the park.

MWRA was able to work with DEP, EPA and the Army Corps of Engineers, from whom all wetlands permits were obtained to build the project; however, the DEP wetlands permit variance has been appealed by the Friends of the Blue Hills (FBH). FBH thinks MWRA should provide one to one replication of that portion of the reservoir that will be filled in with covered tanks. An adjudicatory hearing for that project is ongoing. The live portion of the hearing closed in January and the parties are preparing their final briefs now; the briefs are due next week. MWRA hopes to get a favorable answer from the Judge in the near term so the project can move forward.

The schedule for the Blue Hills Project started in 2002 when the wetlands permitting process began; that was after the seven years of environmental review through the MEPA process. Staff spent about eighteen months getting wetlands permits right through receiving the wetlands variance in November 2003. Shortly after that, the wetlands variance was appealed. If the project is approved in the short

term, MWRA will be able to award the design/build contract for the project in late 2005. Construction would begin in 2006 with the final facility completed in 2008.

Chairman Dunphy noted that she is a member of the Friends of the Blue Hills, but she believes MWRA has chosen the right location and she hopes the project will proceed.

Mr. Favaloro asked how much of the project is for mitigation. After the site visit, what happens if the Judge says to buy more land for FBH? Mr. Brandon said 25% of the total project cost right now is earmarked for mitigation. Most of that is for construction of the dam in the middle of the reservoir and for burying the tanks. MWRA has told the Judge and the parties in the case that it has added as much mitigation as the Authority can afford for the project. Additionally, the Authority told the Judge that if additional mitigation is required for the project, some of the other mitigation that has already been included would have to be reduced so as not to increase the overall price of the project.

E. COMMITTEE REPORTS

Executive Committee – Katherine Haynes Dunphy

❖ ACTION ITEM: APPROVAL OF MWRA'S FIVE-YEAR PROGRESS REPORT CITIZENS PANEL

Pam Heidell, MWRA Policy and Planning Manager, stated every five years the MWRA has to prepare a progress report on its accomplishments in the last five years. The report is prepared with the assistance of a Citizen Panel that must be approved by the Advisory Board. The panelists are Mabray Adams, Charles Button, Katherine Haynes Dunphy, Lauren Liss and Robert Ruddock.

A Motion was made **TO APPROVE MWRA'S FIVE-YEAR PROGRESS REPORT CITIZEN PANEL**. It was seconded and passed by unanimous vote.

❖ LEGISLATIVE UPDATE

Mr. Favaloro stated the Governor's House 1 Budget did not include Debt Service Assistance. Since then, the Chairman of the MWRA Legislative Caucus, Robert DeLeo, has been named the new Chairman of House Ways and Means. The whole leadership team on the House side also includes active members of the Caucus – the former Chairman of House Ways and Means, John Rogers, is now the Majority Leader; Lida Harkins, Assistant Majority Leader; Speaker of the House Sal DiMasi; and Byron Rushing, the Second Assistant Majority Leader. With supportive members of the Caucus in leadership positions, staff hopes discussion on DSA will focus on how much the \$10 million number can be appreciated. Preliminary discussions are in the \$20 million range.

Currently, there is a regular stream of double digit water assessment increases. The Capital Program on the water side has increased significantly. Unfortunately, the only project that is eligible for DSA on the water side is the MetroWest Tunnel and eligibility cannot be expanded because many communities have water projects that would have to be eligible as well.

One approach staff is working on to reduce MWRA costs for water communities is to increase the state's contribution to the Clinton Wastewater Treatment Plant (allocated to the water side) to \$1 million. Additionally, as part of the Department of Conservation and Recreation watershed reimbursement to the Commonwealth under the Trust, MWRA pays about \$2.5 million in a fringe rate assessment. Changing that formula could reduce that \$2.5 million. Those two changes could provide upwards of \$2 million in relief to water communities.

Finance Committee – Bernard Cooper

❖ UPDATE: FY06 CIP REVIEW

Cornelia Potter stated staff is in the midst of capital budget review, which has been extended into the month of March because the budget document was distributed to members of the Advisory Board in early February.

The Authority has dropped its overall budget for future capital spending from nearly \$1.8 billion to \$1.4 billion, a reduction of nearly \$400 million. New projects and increases to project spending of \$150 million have been added to the budget. At the same time, \$550 million of projects that had been in the last budget were eliminated from this proposed budget. In addition, Authority staff pointed out that another \$150 million of new projects did not get into this proposed budget. It is important to remember the overall dimension of capital project needs that are on the horizon. In the past, the capital budget has served as a planning document, an indication of the shape of things to come; this time it is much closer to a budget as compared to a Capital Improvement *Program* and Budget.

The Authority has remained within the capital budget cap that was set in June 2003, capping capital spending as adjusted for inflation and other factors at \$1.134 billion. While the Authority is within the cap period, FY08 is over the 20% above or below spending that was set by the rules of the cap. The Authority, at this time, is not requesting a change in that 20% because there are many opportunities to reshape and rethink the last year of the current five-year cap period.

Spending in the next five-year period, FY09-13, is sharply reduced from previous estimates. The Authority is planning to spend \$265 million.

This means that Master Planning is that much more important. The Advisory Board has expressed concerns, since 1988, on the importance of an overall Comprehensive Master Planning Process. That document can be the place for identifying potential future needs now that so many projects have been removed from the Capital Budget and now that there are additional capital projects that never were in, but have been identified by Authority staff.

The CSO Program dominates the Capital Program and is the primary reason for sharply increased capital spending in the next several years. The overall CSO program has increased by over \$100 million in just the last year. Further, for the North Dorchester Bay/Reserved Channel Project, the Authority's response to the Secretary's Certificate of last summer has included ways to accelerate or advance the schedule for construction of that project since the earlier agreements in the late 1990s had expected that project to be done by now. The Authority has looked at different ways of completing the design work and getting the construction under way. This has added \$100 million to the last three years of the current cap period, 06-08.

The CSO program dominates the capital picture, with 40% of overall spending in the current cap period; by FY08, it will be 50% of all proposed spending in the capital budget. Recognizing this and some other budget pressures lurking at the edges of the budget, particularly from the CSO program, were plans to have what was termed a holistic discussion on several parts of the CSO program that are still under discussion.

There are four major CSO projects: 1) the North Dorchester Bay project; 2) the eventual designation of a water quality standard in the Charles River and the potential for additional capital spending, most notably \$100 million for additional storage under Magazine Beach, next to the Cottage Farm CSO Treatment Facility; 3) the Alewife project, also in Cambridge, has been undergoing sharp cost revisions. The Authority, in the last month, has received a supplemental report suggesting that at least \$20 million more may be added to the estimated cost of this project. Cambridge has indicated that they may not be able to add more dollars on their side of the budget; 4) the East Boston project, where estimates of costs have doubled over the last several years and cost estimates are now over \$60 million. Still at issue is the level of CSO control that the Authority will have to meet. The revised project as it moves through design results in slightly lower levels of CSO capture and control than what had been agreed to with EPA when they revised the CSO program in 1997.

These four major projects were to have been considered and discussed with the regulatory agencies in combination and, if the Authority were to expand and accelerate the South Boston project, the understanding was that there would be some limit on the other three projects. Because that discussion hasn't reached fruition yet, a potential recommendation staff is considering is to freeze spending on all four of those projects until the holistic discussion achieves results that all the parties can agree to.

Further, formal written assurances from regulatory agencies must be sought that as a policy, stormwater control is not the responsibility of the Authority. The Authority agreed in 1997 to take some stormwater control as part of the South Boston project, particularly from Pleasant Bay. This aspect of that project has grown to over \$30 million with the addition of the so called Morrissey Boulevard project, which will transfer stormwater from below Carson Beach to near the University of Massachusetts – Boston. Staff wants to ensure that stormwater control as part of that project does not set a precedent for any other CSO areas or for other Authority wastewater projects.

Another recommendation will put more emphasis again on the Affordability Study. The rules of this analysis were reviewed and reported on by a consultant, Dr. Stavins, for the Authority who reported to us last spring. He led the working group that advised EPA on how to conduct these analyses. The results of Dr. Stavins and his team demonstrated not only would rates be unaffordable as had been earlier concluded in 1997, but in fact they were unaffordable now.

All of this is happening just as the schedule for debt service repayment is rising rapidly over the next five to six years. This is where the real rate pressure is coming from. Debt service is in the area of 60 to 65% of the rates even now and will grow. To this point, the Authority had carried out a rates management strategy, which treated new debt as though it were the first ten years of a longer term 40-year borrowing thereby backend loading the debt service schedule of repayments. This has also been the case for repayment schedules for SRF loans. The Authority has also used commercial paper, which is a way of controlling rates.

Dr. Stavins pointed out that the basis for making commitments to capital spending should be whether the benefits outweigh the costs, not whether it is affordable or not. Staff wants to emphasize that should be the standard by which proposed projects should be analyzed and not the unusual and rarely used approach of the affordability analysis.

The EPA's approach to scoping the CSO Control Program creates virtually a forced prioritization of the Authority's Capital Program. This has the effect of pushing aside all other system maintenance and rehabilitation projects, which in turn increases the risk of maintenance and operational problems in the future.

Even with the significant reduction in capital spending, the Authority is projecting rate increases over the next five years that are in fact another \$26 million higher than the Final FY05 CIP. Because of that accelerated spending in the CSO program, by FY07 rates will have crossed the \$500 million mark according to the Authority's projections and will cross the \$600 million mark just two years later.

The *Advisory Board's Comments and Recommendations* will be before the full Advisory Board for consideration and vote at the March meeting.

❖ **UPDATE: FY05 CEB**

Ms. Potter noted through January, the Authority has spent \$268 million in this year alone. About \$114 million is for Direct and Indirect expenses and \$154 million is for Debt Service. Even now debt service repayments are one and one-half times new capital spending.

The Authority has approximately \$8.5 million in lower spending, made up by \$4 million in lower Direct Expense spending for nearly every category; \$3 million in lower Debt Service payments and \$1.5 million for higher than budgeted Investment Income.

Operations Committee – Jay Fink

❖ **2004 CONSUMER CONFIDENCE REPORT SCHEDULE** – Joshua Das, Project Manager, Public Health

Joshua Das, Project Manager for Public Health, gave an update on the scheduling for the 2004 Consumer Confidence Reports (CCR). This year's CCR will include information on the new Walnut Hill Water Treatment Plant and community insert letters will once again be included.

Draft insert letters from communities should be one side of a page giving information on the community's local water system. Any community doing a Lead Replacement Program should provide details for residents within the insert as well. Draft community insert letters are due March 18 and the final version will be due April 4.

At the end of March, another round of lead testing will be done. MWRA wants to emphasize that communities need to pay particular attention that homeowners follow directions and take proper samples for a smooth testing cycle. If everything goes well, the lead language required in last year's CCR will not need to be included this year.

❖ **COMMUNITY MEETING REPORT**

Jay Fink reported that at the February 16 Wastewater Meter Replacement meeting in Wakefield, MWRA was on hand to update communities on this program. As of that date, there were 12 meters left to be installed and tested. The original plan was to be online March 1 to use these flow rates for billing purposes; however, the date was changed to April 1 with no objections.

Mr. Favaloro noted 28 of the 43 wastewater communities were in attendance. Communities that were unable to attend can get information packages through Rick Trubiano.

F. QUESTIONS AND COMMENTS

Andrew DeSantis, Assistant Director of Public Works for the City of Chelsea, noted that Chelsea has an opening for an Operations Manager.

Chairman Dunphy stated the Water Supply Protection Trust met in Boston on Tuesday. All five members of the Board of Trustees were present. A presentation was made on some changes to this year's budget, which were approved; further, a presentation was made on the proposed budget for next year. It was a very positive meeting.

G. ADJOURNMENT

A MOTION WAS MADE TO ADJOURN THE MEETING AT 1:00 P.M. It was seconded and passed by unanimous vote.

Respectfully submitted,

Edward Sullivan, Secretary