

MWRA ADVISORY BOARD MEETING
JUNE 16, 2011
BRADLEY ESTATE
2468B WASHINGTON STREET, CANTON, MA – 11:30 A.M.
MINUTES APPROVED AT THE SEPTEMBER 15, 2011 MEETING

Forty-five people were in attendance, including twenty-two voting members: Mike Rademacher, ARLINGTON; E. A. Maguire, ASHLAND; Michael Bishop, BELMONT; John Sullivan, BOSTON; John Sanchez, BURLINGTON; Andrew DeSantis, CHELSEA; Bill Hadley, LEXINGTON; Katherine Haynes Dunphy, MILTON; Wiff Peterson, NATICK; Lou Taverna, NEWTON; Bernie Cooper, NORWOOD; Peter Smyrnios, PEABODY; Peter Tassi, READING; John DeAmicis, STONEHAM; Frank Crimmins, STOUGHTON; Patrick Fasanello, WALPOLE; Walter Woods, WELLESLEY; Earl Forman, WESTON; Bob Angelo, WESTWOOD; Zig Peret, WILBRAHAM; Michael Woods, WILMINGTON; Anthony Blazejowski, WOBURN.

Also present: John Carroll, Andrew Pappastergion and Joseph Foti, MWRA BOARD OF DIRECTORS; Ed Sullivan and Avril Elkort, CANTON; George Burnell, LEXINGTON; John Batchelder, STOUGHTON; Rick Mattson, WALPOLE; Bill Shaughnessy, WELLESLEY; Joe Lobao, WILMINGTON; Lexi Dewey, WSCAC; Phil Jasset, UCANE; Fred Laskey, Michael Hornbrook, Rachel Madden, Ria Convery, Kathy Soni and Mike Morris, MWRA STAFF; Joe Favaloro, Matthew Romero, Maggie Atanasov and Mary Ann McClellan, MWRA ADVISORY BOARD STAFF; Cornelia Potter, MWRA ADVISORY BOARD CONSULTANT.

A. APPROVAL OF THE APRIL 21, 2011 MINUTES OF THE ADVISORY BOARD

Chairman Katherine Haynes Dunphy called the meeting to order at 11:41 a.m. and introduced Selectwoman Avril Elkort who welcomed everyone to Canton. A Motion was made **TO APPROVE THE APRIL 21, 2011 MINUTES OF THE ADVISORY BOARD**. It was seconded and passed by unanimous vote.

MWRA. Advisory Board Executive Director Joseph Favaloro noted that this meeting may be the last to be held at the Bradley Estate. It has been a wonderful location; however, economic times dictate what the Advisory Board can afford to pay for the meeting locations. Thanks to our friends in Canton, we are looking at utilizing a facility (Pequitside Farm) that is approximately two to three miles away from the Bradley Estate.

The Advisory Board's field trip is scheduled for August 18, which will be a cruise from Deer Island throughout Boston Harbor to see the improvements made by the MWRA.

A committee has met to try to develop funding mechanisms for water and sewer infrastructure and we will try to have a member of the committee come before the Advisory Board.

The September meeting will be a joint meeting with WAC and WSCAC.

B. PRESENTATION: FY11 IN REVIEW – Fred Laskey, MWRA Executive Director

MWRA Executive Director Fred Laskey stated the capital programs continue to be critically important. The MWRA now has redundancy from the Carroll Water Treatment Plant into the Norumbega Covered Storage Tank. The current work is to create redundancy from the Norumbega Tank into the City Tunnel up to Loring Road. That process is moving along well. We have the connections done up toward Norumbega and the challenge that we face over the next eighteen months is that we will be taking out some critical pieces of the Hultman and the interconnections up to Loring Road to allow for the rehabilitation and the interconnection of both systems. During that time, the Authority will be vulnerable. If something were to go wrong with the MetroWest Tunnel, MWRA would be in a poor position to even provide the services that were provided during the last water main breaks. The work has been sequenced and will occur later in the summer. A substantial change order will be coming forward in June to add a valve to enhance the project.

The Federal Court has been notified that the MWRA has met the court-ordered milestone for the South Boston CSO Tunnel earlier this week. The Pump Station will be officially opened next week.

The East Boston Sewer Relief projects have been functioning well. This was a complicated project that cost \$87 million but it is working well and has met the court deadline. Micro-tunneling and pipe bursting were used.

Brookline Sewer Separation is one of the final pieces of the court-ordered CSO program and this is a combination of sewer separation and micro-tunneling and the last piece of it will be the cleaning of a storm drain that MWRA owns out into the Charles River to take the storm water. The project is well underway.

Parts of the Deer Island Treatment Plant have been running for about 15 to 20 years and they operate in a harsh environment so it is time to rehabilitate parts of the plant. The heat-loop project was completed this year and there is a clarifier project that is underway. As we move away from the CSO projects on the wastewater side, the single biggest source of spending for the next five to ten years will be at Deer Island.

There is a substantial lack of redundancy and capacity down into Quincy. A pipeline will run from Dorchester Lower Mills through East Milton Square into Quincy. It is part of a multi-phase project and is one of the final large pieces of the project and will provide great redundancy.

The Lynnfield-Saugus pipeline is a serious challenge for the MWRA. There is a lack of capacity to Lynnfield. MWRA will be working with Saugus to complete this project; however, there are still issues with Saugus' remaining pipes on Route 1, which regularly develop leaks. Staff has been in discussions with legislative leadership from the Saugus area, as well as other state officials, on whether the MWRA could accelerate its pipeline assistance program allocation to Saugus.

Stoneham, in the next several years, is going to become the focal point of a lot of work with different projects on the water side. The first is related to the building of the covered storage tank and there will be a pipeline across DCR land to the site that the MWRA purchased; the second is an emergency connection to allow for increased capacity for Reading if there were a

failure; third is a master pipeline that is going to run through the Town of Stoneham to the MWRA's meter on the Reading/Woburn line. This is a critically important project to the MWRA to provide covered storage in that area. A pump station will be buried within the tank that will provide redundancy on numerous fronts and will provide a lot of flexibility to the north of the city.

The UltraViolet (UV) project at the Carroll Water Treatment Plant has been awarded and is on schedule to meet the federal requirement that MWRA have two methods of disinfection other than chlorine. The secondary piece to this project is that UV will be added to the Ware Disinfection Facility as well.

The MWRA's renewable energy projects have gained the Authority a lot of notoriety in a positive way. Most of the projects have been completely funded or subsidized by the American Recovery and Reinvestment Act funding. Solar panels have been installed and wind turbines are working well. Testing has been completed on the steam-topping turbine, which captures wasted steam to provide more energy and has been working well also.

The Flo-Design Turbine at Deer Island has been in the testing process and all energy provided will be free to the Authority.

C. COMMITTEE REPORTS

Finance Committee – Bernard Cooper

- **STATUS: FY12 CIP/CEB BUDGET DELIBERATIONS**

Matthew Romero said we have made our presentation at the first June Board of Directors meeting to recommend a 3.49% rate increase.

There was a significant amount of discussion around a few different points. One was a discussion on how to use additional FY11 surplus funds of \$5 million beyond what they had already planned to use and the discussion centered around whether to use those funds toward Other Post-Employment Benefits (OPEB) or to defease debt. The decision was made to defease future debt, particularly focusing on FY15. Staff believes, given the tenor of that discussion, that the \$1.9 million in OPEB will be a significant source of discussion at the second Board meeting in June.

Currently the MWRA is proposing a 3.89% rate increase and there will be some back and forth between the Advisory Board and MWRA and at the Board level to discuss what in fact the rate increase for FY12 will be.

Operations Committee – Jay Fink

- **PRESENTATION: MWRA METROWEST WATER SUPPLY TUNNEL SHAFT 5A PIPE BREAK PANEL REPORT** – Michael Hornbrook, MWRA Chief Operating Office

MWRA Chief Operating Officer Michael Hornbrook presented the findings of the Independent Panel on the water main break at Shaft 5A. The full report can be found on the MWRA's home page at www.mwra.com; it also has all of the backup documentation.

The independent panel was formed to look at the causes of the break and report back to Fred Laskey on what the causes of the break were and they have done so. This was a very distinguished panel that included President Zorica Pantic from the Wentworth Institute of Technology; Ronald Ballinger, Professor of Nuclear Science and Engineering and Materials Science and Engineering at MIT and the Director of the H.H. Uhlig Corrosion Laboratory; and John H. Bambei, Jr., Chief of Engineering for Denver Water and Chairman of the American Waterworks Associations' Committee on Steel Pipe.

Information that the panel considered in developing their report and their conclusions were documents supplied by MWRA staff (i.e. construction and design documents, submittals for the various pieces of equipment used, vendor information, test results during construction, etc.). In the report they refer to Protocols 1 and 2 and that is simply materials analysis that were performed by an independent lab, that the independent panel had developed various protocols for testing the materials that were recovered. The protocols were shared with parties that may come under any potential lawsuits for the protection of evidence and that the parties see what is being done. These parties had input into the test procedures and they came to the lab while the test procedures were done.

The coupling that broke was installed eight years before the break occurred. Initially a "type 1" coupling had been installed in the field; however, it did not pass the pressure tests so a "type 2" was put in on the initial construction.

The pieces of the pipe were extremely close together and were very well aligned. The coupling was missing.

Upon further excavation after the leak was repaired, half of the coupling was found to the side of the pipe and the other half was below the pipe. Three of the potential eight bolts were recovered. One was a full bolt with the washers connecting the two halves. The other two were broken bolts – one was discovered on the surface and the other discovered in the hole.

After reviewing all the evidence, the panel determined that there were two scenarios that are potential explanations for this failure. One is a vertical displacement scenario and the other is a progressive stud failure.

Vertical displacement could be caused by differential settlement or it could be a wash out of the soil beneath the pipe. The pipe becomes buoyant and it wants to lift up; however, the panel felt vertical displacement was not consistent with the evidence. The second thing the panel looked at was a progressive stud failure. Through their analysis of the studs, the panel concluded that there were initial cracks in the studs in both the crown and the root of the threads. Either upon installation of the coupling, or shortly after, pressurizing of the pipe may have caused this. Additionally, the panel saw fractures and cracks in the studs in the manufacturing process.

The conclusion was that the studs were excessively loaded – that they were not big enough or there were not enough studs.

The panel believes that there was an initial crack in the root of the studs and that was enhanced over time by the wet environment.

Executive Committee – Katherine Haynes Dunphy

- **LEGISLATIVE UPDATE**

Mr. Favaloro said for most of this fiscal year when we had a legislative discussion, it would usually end with an expectation of zero for Debt Service Assistance (DSA). As of today, both the House and Senate Budgets include \$500,000 for DSA. The significance of this is truly not the amount of DSA included but rather that both budgets included something for DSA and that it is being recognized as a priority. As times get better, we will be in a better position to grow that line item.

The \$500,000 for the Clinton Wastewater Treatment Plant has been included in both House and Senate Budgets.

D. ADJOURNMENT

A MOTION WAS MADE TO ADJOURN THE MEETING AT 1:02 P.M. It was seconded and passed by unanimous vote.

Respectfully submitted,

Lou Taverna, Secretary