

**MWRA ADVISORY BOARD MEETING  
NOVEMBER 18, 1999  
WILMINGTON TOWN HALL  
121 GLEN ROAD, WILMINGTON, MA**

**MINUTES APPROVED AT THE FEBRUARY 24, 2000 MEETING**

Twenty members were present: Syamal Chaudhuri, BURLINGTON; Timothy MacDonald, CAMBRIDGE; Ed Sullivan, CANTON; Al Renzi, FRAMINGHAM; Bill Hadley, LEXINGTON; Bruce Kenerson, LYNNFIELD; Joseph Peluso, MALDEN; Ed Bates, MAPC; Dana Snow, MARBLEHEAD; Gabriel Federico, MEDFORD; Peter Hersey, MELROSE; Katherine Haynes Dunphy, MILTON; Ed Nelson, QUINCY; Ted McIntire, READING; Joe Foti, SOMERVILLE; Stephen Casazza, WAKEFIELD; Walter Woods, WELLESLEY; Jean Thurston, WESTON; Brad Hayes, WEYMOUTH; Michael Woods, WILMINGTON.

Also present: Norman Jacques, MWRA Board of Directors; Pete Peters, BURLINGTON; Gary Peters, WEYMOUTH; Barbara Gottschalk, Ron Joseph, Steve Estes-Smargiassi, Kevin McManus, Nancy Etele and Lorraine Downey, MWRA STAFF; Joe Favaloro, Cornelia Potter, Ryan Ferrara and Mary Ann McClellan, MWRA ADVISORY BOARD STAFF.

**A. WELCOME**

The meeting was called to order by Chairman Joe Foti at 7:43 p.m.

**B. APPROVAL OF THE MINUTES FROM SEPTEMBER 16, 1999 AND OCTOBER 21, 1999**

A Motion was made **TO APPROVE THE MINUTES FROM THE SEPTEMBER 16, 1999 AND OCTOBER 21, 1999 ADVISORY BOARD MEETINGS.** It was seconded and passed by unanimous vote.

**C. REPORT OF THE EXECUTIVE DIRECTOR**

Joe Favaloro, Executive Director of the MWRA Advisory Board, reported that two community forums (under the direction of Boston and Massachusetts Historic with MWRA participation) were held regarding the disposition of the Chestnut Hill Pump Station and related buildings from the MWRA's control to the Commonwealth of Massachusetts. The sessions were well attended and the consensus developed at these meetings was that the Division of Capital Asset Management should have control of the disposition process.

**D. PRESENTATION: RATE AFFORDABILITY & MWRA FISCAL CAPABILITY -**  
Barbara Gottschalk, Director – Finance

Barbara Gottschalk, MWRA Director of Finance, gave a presentation in response to the Advisory Board's concerns regarding rate increases, and their comments explicitly about managing the CIP and a spending cap. The Board of Directors created a special committee comprised of MWRA and Advisory Board staff and members of the Board of Directors who discussed the CIP and limiting the CIP spending. From those discussions grew concern from Board members regarding rates. In November, the Board had a special session on the CIP and rates choices.

Over a 25-year time frame, the MWRA has spent \$4.8 billion, with \$2.4 billion of work remaining. Of the \$2.4 billion, \$1.1 billion is for contracts that have already been awarded and projects that are underway. The balance of \$1.3 billion is for contracts which have not yet been awarded, which is essentially what would be included in a CIP spending cap.

Ms. Gottschalk stated that the Budget Department reviews submitted projects. If an initiative meets at least one of five test criteria (to contribute to improved public health, provide environmental benefits, fulfill a regulatory requirement, extend current asset life or result in a net reduction in operating costs) it is included in the CIP. A schedule is then assigned to accepted projects, a timetable is developed and costs are forecast. The costs and schedule are updated every six months. The Boston Harbor Project, MetroWest Water Supply Tunnel and Norumbega Covered Storage are not included in the \$1.3 billion because these are active projects.

The MWRA's current financial obligations require a 4% rate increase. The Board of Directors could consider a CIP spending cap, which would require projects to be suspended or postponed; the acceleration of rate stabilization draw down, which the Authority currently plans to use over the next four to five years to smooth rate increases; or studying whether a reduction could be made in the insurance or other reserves, which the Authority is currently obligated to maintain.

Ed Nelson noted that the Authority did a tremendous amount of backloading/balloon payments for the future, which now automatically requires 4% increases. "What was the thought process in the enormous backloading, which appears to be a huge amount of debt?" Ms. Gottschalk replied, "Refundings began in 1992 and 1993 during the height of concern about rate increases. There was a rate revolt and people were delighted that the MWRA got the rate increases down. It was a rates management technique."

Katherine Haynes Dunphy stated, "After the meeting on November 3<sup>rd</sup> I asked if you would look at what combination of strategies would have to be applied to keep the rates down to 5%. The Advisory Board has recommended \$400 million next year. What would we have to do to accomplish that?" Ms. Gottschalk responded, "I need some weights as to how you value the various options. Do you want to delay the CIP or back-load debt? There are no easy solutions, but I would be happy to do examples."

Ms. Dunphy stated, "An additional concern is that there are some possible increases in cost for CSO's and water treatment decisions that are not built in and what might be added on to that. How can you manage that?" Ms. Gottschalk replied, "Speaking personally, I don't think the notion of a CIP cap is a bad idea after the Authority gets over the spending hump. There needs to be a planning process to begin to reschedule and think about progress in that context. I would appreciate thought back from the Advisory Board on what the priorities are."

Jean Thurston asked, “Does the MWRA continue to issue 40-year debt?” Ms. Gottschalk replied, “If any one issue is more than \$200 million, the Authority does a just-in-time borrowing over 40 years. If it is less than \$200 million, we don’t do a 40-year borrowing.”

Mr. Nelson asked, “Do you do 40-year borrowing regardless of the asset life?” Ms. Gottschalk responded, “We don’t do the analysis on an individual issue basis. Some of our longest life assets were paid for with a substantial amount of SRF funding, which was issued as 20-year and now is 30-year debt.”

Mr. Favaloro noted that the CIP doesn’t speak to the points that Katherine brought up about the uncertainties that no one has control over. With the potential for rising costs and claims, we need to start to manage those scenarios and concerns now. Between now and 2007 the communities will ante up another \$200 million, the amount that the Authority’s base budget goes up between 2000 and 2007, without the unknowns. The Authority is trying to work with communities to get the right answer.

Mr. Favaloro continued, “If Advisory Board members want to alter the upward direction of rates, it is time to put the brakes on now. Staff of the Advisory Board, members of the Executive Committee and members at large have never said that there is a single solution that will solve all the problems. A CIP spending cap is needed to begin to send a message. Maybe it doesn’t take hold in 2001 or 2002, but the message is there to guard against project creep. Perhaps when there is an overall MWRA plan, maybe the Commonwealth will add a few more dollars as well. That is the point that the Advisory Board staff and Executive Committee have been trying to make. Unless we, as an Advisory Board, begin to be a lot more aggressive on putting a plan together with the Authority, by the time we have an opportunity to say there really is a problem, it is going to be too late. The decision is: Are you going to be pro-active or re-active? The window of opportunity is small and this is the time to be heard.” Ms. Gottschalk stated, “I don’t disagree with very much that Joe said. All of his points are perfectly valid. It is going to require lots of effort.”

E. **COMMITTEE REPORTS**

**Executive Committee - Joe Foti**

◆ **ACTION ITEM:** Local Pipeline Improvement Program

Mr. Favaloro stated that a local system improvement program was a vital component of the vote of the MWRA Board of Directors many months ago to avoid a filtration plant, as part of their overall strategy. A Local Pipeline Task Force (LPTF) which included MWRA and Advisory Board staff, the state and Advisory Board members (Chaired by Steve Casazza) was created. The Commonwealth was to be a part of the program, and we are still hopeful it will be. As the Authority’s court date on December 6<sup>th</sup> on the water treatment decision neared, a plan needed to be in place.

The LPTF reconvened last week and discussed a new targeting plan. The Executive Committee reviewed the program this past Friday, and the Board of Directors approved a pipeline program this past Wednesday.

Ms. Gottschalk stated that the Board of Directors vote is convoluted because we wanted to keep the option of receiving funds from the Commonwealth and yet, prior to the court date, needed to demonstrate that a program was in place. Additionally, MWRA had to be ready to explain to the court the targeting component, which is quite general. There are a

fair number of issues which the Board didn't deal with, such as if a community doesn't spend their money in year one, what happens during year two. Those issues need to be clarified in further discussion with the Advisory Board.

A program needs to be in place so that communities can go to town meetings in March and begin to get approval for these loans.

All last spring the LPTF worked diligently to come up with a competitive program. Every year communities would put forth their worst pipes, and ask to get their work funded. There was concern about that, particularly from the Executive Committee, that it was administratively burdensome and the communities didn't have a sense of ongoing funding so that a multi-year program could be planned.

The LPTF was constrained partly because to get state funding the program has to be targeted. The recommended approach suggested the allocation of \$25 million per year based on their proportion of all of the unlined pipe within each community.

Steve Estes-Smargiassi stated that a member of his staff would be in touch with every community in the December/January time frame to ask questions about pipes to firm up the Authority's tentative list regarding the number of unlined miles in each community.

◆ Legislative Update

Mr. Favaloro reported that there is finally a new state budget for the fiscal year. Most importantly, debt service assistance at the levels that were necessary to assure the Authority between \$48 and \$49 million is part of the budget. The \$500,000 for the Clinton Wastewater Treatment Plant is also included. Unfortunately, any additional debt service assistance for the Walnut Hill Water Treatment Plant was not included.

The Advisory Board has been trying to have a role in what happens at the MDC Watershed Division for some time. This year the language that provides the Advisory Board with some level of review of the MDC Watershed Division is in the budget, and has been approved by the Governor.

**Finance Committee** - Phil Farrington/Katherine Dunphy

◆ **UPDATE:** CIP and CEB

Cornelia Potter reported that the Authority will submit their proposed CIP for Advisory Board review in January. The timing of the next significant bond issue (\$265 million) will effect how much debt service will be spent this year, and what will remain unspent and available for rate stabilization for subsequent years. Budget review season is approaching, which runs January through April.

This year, the Authority's capital spending for the year-to-date is down to 80% due to slowdowns in MetroWest project spending.

Mr. Nelson stated that there was an article in the Globe about the outfall pipe and the tragedy that occurred there. "Is there activity in the pipe?" Ms. Gottschalk replied that discussions were ongoing with the Contractors, State Police and OSHA about a plan to

remove the Humvee vehicle out of the tunnel so that the investigation into the accident could be concluded.

**Operations Committee** - Andy DeSantis

◆ Municipal Permits – Kevin McManus, Nancy Etele

Mr. Favaloro reported that at the Board of Directors meeting on Wednesday, there was substantial discussion related to problems in the system that are going to force the MWRA and the communities to take action as early as the next municipal permit regarding corrosion issues. Some of the language and concerns that are going to be part of the municipal permit for Ashland, Natick and Framingham may become a feature of some of the other permits.

Kevin McManus, Director of the MWRA's Toxics Reduction and Control Department, stated that the presentation would give an overview of why it is necessary to have municipal sulfide limits, why there is a particular problem in this area of the system and a discussion on the municipal permit itself. This is just one part of a large effort that the Authority has undertaken to try to address odor and corrosion control.

Nancy Etele, Program Manager in the Engineering and Construction Department, stated that the focus of the regulations in the permit is sulfide. There is a substance in all water called sulfate. Under conditions where there isn't enough oxygen, bacteria will snag oxygen out of the sulfate and turn it into sulfide. Sulfide is converted, by bacteria, into sulfide gas which creates odor problems. Bacteria converts sulfide gas into sulfuric acid that dissolves concrete in sewers.

The MWRA is focusing on the western stretch of the sewer system that goes to the Framingham/Natick town line. The sewer system crosses the Charles River. When a sewer system goes under a body of water, the pipe becomes full of sewage and there is no air space, providing a low oxygen environment for the whole chemical process. This is where you would expect to see sulfuric acid being formed. In 1997, MWRA began getting reports on corrosion in the new Wellesley Extension Sewer replacement at an accelerated rate. Inspection of the West Roxbury tunnel this summer showed severe corrosion in the tunnel as well. Levels of sulfide at the beginning of the Framingham Extension Sewer are much higher than typical values.

Walter Woods asked, "What would be the source of the sulfate?" Ms. Etele replied, "The sulfate is in industrial areas. One of the reasons the permit only speaks to sulfides is because sulfate only comes from industry, which will be approached separately."

Mr. McManus stated that the municipal permit is required each year to allow communities to discharge into the MWRA system to ensure that the wastewater coming into the system doesn't adversely effect the treatment processes. The permit is issued each December, effective for January and given to each of the 45 (including Clinton and Lancaster) sewer communities. There are regulations in place that allow for the municipal permit to set specific limits, which the MWRA has never exercised. The odor/corrosion issue necessitates a move in this direction to address the integrity of the system. Staff is proposing a sulfate limit of 0.3 milligrams per liter.

Staff proposes to build a chemical addition facility that will add a chemical called potassium permanganate, an extremely aggressive oxidizing chemical. It can reverse that reaction turning sulfide back into sulfate. That means if it is not available to turn into sulfide gas, which can turn into sulfuric acid. Staff is not sure of how much potassium permanganate will be required to reduce the levels of sulfide in the waste stream as far down as the high level sewer.

The hydrogen sulfide gas concentration will be monitored in thirteen places and wastewater samples will be collected to measure the sulfide in the waste stream. The feed system at the Framingham Pump Station will be temporary until the Authority can retrofit the facility. There is a chemical addition room in the pumping station but it was not designed to handle such an aggressive chemical. MWRA will start with 400 pounds of potassium permanganate per day and perhaps go up to as much as 500 or more pounds.

Bruce Kenerson asked, “If it is a local problem related to industry, why not have them repair the situation?” Ms. Etele responded, “It is not strictly an industrial problem. There is a flaw in our sewer system at the Framingham Extension Sewer and there are 50 pumping stations in Framingham.”

Mr. Nelson asked, “Is this the only large sewer system that has this problem?” Ms. Etele replied, “We have some evidence that there are certain isolated spots in other parts of the system where there may be a section with this type of corrosion. We do not see an entire length of sewer corroding like this any where else that we know of.”

Mr. Nelson asked, “Is there another material besides concrete or can pipes be lined?” Ms. Etele replied, “Yes, the Wellesley Extension Relief Sewer has been lined. The Framingham Extension Relief Sewer was put in with sheet lock liner inside the pipe. Every new pipe will be lined.”

Mr. Nelson noted that repairs to seven miles or more of pipe would result in an eight or nine figure project. Ms. Etele stated, “It is difficult, but we do have to protect this infrastructure to take care of the corrosion problems, but we will still have to take care of the odor problems. Manholes will have to be sealed or we can intentionally draw air in certain locations and put it through an air treatment facility to strip out the hydrogen sulfide gas so it is not available to turn to sulfuric acid further down stream.”

Cornelia Potter stated, “It is worth noting that part of the increase in next year’s CIP will have expanded contracts increasing eight figures.”

Walter Woods stated, “At the Framingham interceptor going into Elm Bank there is a siphon that goes under the Charles River. Many Wellesley neighbors have strong sewer odors. What are you doing about that?” Ms. Etele responded that the MWRA has discovered that when the pipeline at the Wellesley/Dover line is turned on, it converts sulfates to sulfide for five miles. Because of that problem, the Authority has not operated the new system unless it is absolutely necessary. Staff has sealed all of the structures around it. That is one location where the odor will be treated.

Dana Snow asked, “Why isn’t Wellesley included in the municipal permit regulations?” Ms. Etele answered, “We don’t have any data. The problem was recently discovered. That is why we are looking at all of the communities for the next round of permits. We

know there is a problem in three communities and feel secure about changes in those permits. Making a broad change in regulation may take another year.”

Al Renzi stated that Framingham has eliminated some pump stations over the last couple of years and plans to continue. “Is the Authority planning to help defray some of the costs?” Ms. Etele replied, “The MWRA doesn’t fund infrastructure improvements in communities other than through the I/I Program. There have been exceptions, but not typically. One thing we need to talk about is how much this is going to cost and what the alternatives are. If we just maintain it as sulfate, it ends up downstream in a treatment plant and becomes a problem someplace else. There are many problems.”

Mr. Renzi stated, “One point I would like to bring up is that the people of Framingham paid a lot of money to help the people in Boston and Cambridge get rid of CSO problems and I hope some of that will come back to us to help with this problem.”

Mr. McManus noted that draft municipal permits would be prepared for all the communities in less than a week. Meetings with the selectmen for the three communities have been scheduled, as well as a meeting with the Wastewater Advisory Committee on December 3. On December 15, a proposal will be submitted to the Board of Directors for their consideration to approve the inclusion of limits for the three communities. Additionally, staff is working with industry to develop industrial limits as well.

Mr. Favaloro asked, “Staff identified two firms that seem to be major contributors, Nyacol and Sealtest/Breyers. What is going on on that end to bring them into compliance?” Mr. McManus replied that as part of the local limits study, we are working to develop an amendment to the current contract because we hadn’t anticipated this when we initially started the local limits study. MWRA is moving as quickly as possible to develop an industrial discharge limit for both BOD and or sulfate. In the case of Nyacol, the issue will be sulfate. They would have to have a significant (90%) reduction in order to meet what the Authority is looking for in terms of removal. Sealtest/Breyers would have a BOD limit. It is a complex interaction of BOD and sulfate and the air space and physical design of the sewers that dictates what shows up when it gets to Framingham.

Mr. Favaloro asked, “When Framingham, Natick and Ashland get their permits in two weeks to be enforced for January 1, what about Breyers and Nyacol?” Mr. McManus stated that the provisions of the permit that applies to the 0.3 sulfide limit would be effective on January 1, but understand it will take time. MWRA needs to find good sampling locations. It will work in parallel during the first part of calendar year 2000.

Mr. Nelson expressed concern that Breyers would relocate. Mr. McManus stated that Breyer’s is moving some production from Philadelphia to Framingham to take advantage of economies of scale. They have already expressed concerns about the surcharge on BOD as well. The MWRA doesn’t want to be in a position of forcing people out of the district and is concerned about those jobs and the economic revenue it generates. It will be part of the economic analyses.

F. **QUESTIONS AND COMMENTS**

G. **ADJOURNMENT**

**A MOTION WAS MADE TO ADJOURN THE MEETING AT 9:45 P.M.** It was seconded and passed by unanimous vote.

Respectfully submitted,

Edward Sullivan, Secretary