

**MWRA ADVISORY BOARD MEETING
NOVEMBER 19, 1998
BRADLEY ESTATE
ROUTE 138 (TURNPIKE STREET), CANTON, MA**

MINUTES APPROVED AT THE FEBRUARY 24, 2000 MEETING

Twenty members were present: Peter Churchill, BEDFORD; John Sullivan, BOSTON; Edward Sullivan, CANTON; Al Renzi, FRAMINGHAM; Bill Hadley, LEXINGTON; Bruce Kenerson, LYNNFIELD; Dana Snow, MARBLEHEAD; Peter Hersey, MELROSE; Stanley Stanzin, NEEDHAM; Bernard Cooper, NORWOOD; Ed Nelson, QUINCY; Ted McIntire, READING; Joe Foti, SOMERVILLE; Michael Hirsch, STOUGHTON; Steve Casazza, WAKEFIELD; Walter Woods, WELLESLEY; Jean Thurston, WESTON; Gary Peters, WEYMOUTH; Robert Antico, WILMINGTON; Bob Simonds, WOBURN.

Also present: Norman Jacques, MWRA BOARD OF DIRECTORS; Fred Russell, WOBURN; Tom Powers, John Fitzgerald, Ralph Wallace, Tim Popejoy and Rick Trubiano, MWRA STAFF; Joe Favaloro, Cornelia Potter, Ryan Ferrara, Ann Chamberlin LaBelle and Mary Ann McClellan, MWRA ADVISORY BOARD STAFF.

A. WELCOME

The meeting was called to order at 7:44 p.m. by Chairman Joe Foti who introduced Ed Sullivan of Canton. Mr. Sullivan welcomed everyone to the Town of Canton on behalf of the Board of Selectmen.

B. APPROVAL OF THE MINUTES FROM SEPTEMBER 17 AND OCTOBER 15, 1998

A MOTION WAS MADE TO APPROVE THE MINUTES FROM THE SEPTEMBER 17, 1998 AND OCTOBER 15, 1998 ADVISORY BOARD MEETINGS. It was seconded and passed by unanimous vote.

C. REPORT OF THE EXECUTIVE DIRECTOR

Joe Favaloro reported that the Massachusetts Department of Environmental Protection (DEP) supports the request for a waiver of filtration. He also noted on November 30th, from 10:00 a.m. to 2:00 p.m., at Framingham Town Hall, DEP will accept testimony on the waiver of filtration issue. Written testimony will be accepted until December 15th.

Mr. Favaloro reported that there will be a stakeholders meeting on Inflow and Infiltration (I/I) on December 2nd in Norwood. Representatives from DEP, EPA, the communities and other interested parties will be in attendance for discussion and an exchange of ideas on the I/I problem. Tom Powers mentioned that the goal of this meeting is to get the best strategy or common approach for I/I reduction.

Tom Powers, Deputy Director of the MWRA, stated that consumer confidence reports, required by the Safe Drinking Water Act (SDWA), must be issued to customers by September 1999. He requested community input on the best method of reporting this information in the most efficient and economical way. Mr. Powers said that MWRA will be speaking with the Operations Committee about forming a special committee to complete this report.

Mr. Favaloro stated that the MWRA has unofficially notified the Advisory Board that they will be requesting a meeting of the Construction Impact Review Board (CIRB) to deal with community concerns about the Americans with Disabilities Act (ADA) requirements relating to MWRA construction in roadways. Three members from the Advisory Board and two members from the Authority serve on CIRB. Currently, Joe Foti, Chairman of the Advisory Board and Andrew DeSantis, Chair of Operations, serve on the committee. If a designee is interested in becoming the third Advisory Board member on this committee, please notify Mr. DeSantis or Mr. Foti. The meeting will tentatively be scheduled for shortly after the first of the year.

Mr. Favaloro noted that this coming May, the Advisory Board will be reaching a milestone -- the **150th Advisory Board Meeting**. Staff is working on ideas to recognize this momentous event. The meeting coincides with the May/June election for the MWRA Board of Directors seat currently held by John Carroll.

On November 18th, Trudy Coxe, Secretary of Environmental Affairs and Chairman of the MWRA Board of Directors, attended her final Board meeting. At the meeting, Joe Favaloro expressed the Advisory Board's appreciation for her years of service and wished her well in her future endeavors, providing her with a framed picture of the White Oak tree at Elm Bank as a remembrance, [as well as a set of pearl earrings to commemorate Board Member Spinney's observation regarding the Advisory Board's role: "It takes an irritant to make a pearl."]

D. PRESENTATION - UPDATE: DEER ISLAND CONSTRUCTION/WASTEWATER SYSTEM - John Fitzgerald, Director - Sewerage Division, and Ralph Wallace, Manager, Coordination/Control - Program Management Division

Joe Foti introduced John Fitzgerald, Director of the Sewerage Division, who spoke about the operations and maintenance of the Deer Island Treatment Plant. He noted that funds spent on the maintenance and upgrading of equipment for the Deer Island Treatment Plant are essential to keep one of the Authority's most sizeable investments in good working order. The Authority spent

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tremendous amount of time, and more than \$15 million, to train the personnel working at the Deer Island facility to prepare them to maintain this \$3.5 to \$4 billion asset. Approximately \$400 million of work remains. Over the next ten to twenty years, an equipment replacement program of \$50 to \$100 million will be put in place to maintain the plant.

Mr. Fitzgerald also reported that this past summer MWRA began transferring flows from Nut Island to Deer Island via the headworks in Quincy. Testing has been done with 290 million gallons of flow, but the volume can go as high as 400 million gallons per day. Ninety-eight percent of the flow received secondary treatment in August and September. All areas of Deer Island have done very well except for pH (acid in the water) levels for FY98 and FY99. Eleven pH violations in FY98 and four in FY99 were resolved through secondary treatment.

MWRA has a total of 14 tanks on Deer Island, 12 digesters that hold approximately two million gallons each and two storage tanks. Following a 22 to 30-day period in the digesters, sludge is barged to the pelletizing plant in Quincy. When the Braintree/Weymouth Tunnel Project is completed, sludge will be transported through the tunnel, saving money on barging. The thickness of the sludge started at 2.5 percent and is now at the thickest possible point of 5 percent. For every percent above 2.5, the Authority saves about \$1 million per year. The Authority went from 45 tons of sludge per day to 103 tons per day, resulting in 58 more tons of sludge not being discharged into the ocean. Ed Nelson asked: "Are you able to sell the sludge?" Mr. Fitzgerald responded that "the MWRA is at 100 percent reuse of the sludge, which is moved to Florida. We sell, but not at a profit." An Advisory Board member asked: "How much are you saving by not burying it?" Mr. Fitzgerald replied "the price is the same to ship it or pelletize it. Transportation and burial costs equal the pelletizing cost." Ed Nelson stated that Philadelphia's system of pelletizing and caking were not even a close contest. Transportation and burial costs were about the same as pelletizing. At this point in time in Philadelphia cake is \$300, MWRA has a cost of \$600 minimum per ton. Mr. Nelson asked: "How do we have a 50 percent difference than Philadelphia?" John Fitzgerald said he would contact Philadelphia to find out more about this apparent difference.

Mr. Fitzgerald reported that a study determined that a staff of approximately 350 people would keep the plant running efficiently. The support staff budget is about \$40 million. In addition, the MWRA is working on the Year 2000 issue and is well prepared.

Ralph Wallace, Deputy Director of the Program Management Division of the MWRA, reported that the Authority has met 15 of the 17 milestones in the court order. Two key issues still remain: 1) The completion of the Effluent Outfall Tunnel, which was most recently scheduled for completion in November 1998, will be completed in July 1999 at the earliest. 2) The completion of Secondary Battery C.

Mr. Wallace reported that repairs to the prefabricated concrete lining of the Effluent Outfall Tunnel are being made. When that is complete, the contractor will go back and remove 55 safety plugs that were installed in the last 300 feet of the tunnel. Assessing conditions at the end of the tunnel remains the most important challenge. As the contractor backs out of the tunnel, all of the utilities will be removed. Lights, electricity, communication and ventilation will no longer be available in the tunnel. A self-contained crew, ultimately five workers with their equipment in a boat, will travel to the end of the tunnel in specially configured all-terrain vehicles to pull the diffuser plugs. Outer plugs will remain until workers leave the tunnel. The tunnel will fill with ground water and then the outer plugs

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will be pulled. The crew will have diving equipment and be completely self contained. When they get out to the end of the diffuser region at the end of the tunnel, they will have to crawl through a 48-inch diameter concrete conduit for the last 300 feet of the tunnel. Then a worker will have to crawl, breathing bottled air, through a 30-foot length of the 30-inch diameter pipe and unbolt the 55-pound plug, tilt it on its side and pull it off. This will be repeated 55 times.

Mr. Wallace stated the contract for Secondary Battery C is 57 percent complete, with a completion date of late October 1999. The on-site thermal/power plant is a considerable challenge to the Program Management Division. The \$53 million contract had \$33 million in change orders. CTGs have been available to support the plant since August 1995. Rick Trubiano stated when it rains, flows build up. In order to save money, the Authority turns the generators on to help reduce the electricity demand by using CTGs and diesel fuel. Mr. Wallace reported modifications required for the delivery systems have been completed. MWRA has begun testing digester gas systems, burning digester gas in the generators that were at the pump stations and will start working digester gas into the power plant. The plan now is to have the entire thermal/power plant facility turned over to the treatment plant on January 7th.

E. COMMITTEE REPORTS

Executive Committee - Joe Foti

• ACTION ITEM: FY99 LEGISLATIVE AGENDA

Joe Favaloro stated that all bills need to be filed by December 2nd to begin the process for the next legislative year. The Executive Committee, working with staff, came up with a legislative agenda for 1999. Mr. Favaloro highlighted some of the new initiatives for the coming session. Number one on that list is the expansion of debt service assistance to include the water treat plant.

Legislation must be filed for the local water infrastructure program that staff is working on with the Cellucci Administration. The Governor will file this legislation with his budget.

Item E. MDC Division of Watershed Management - A new initiative this year is to procure funding from the Commonwealth of Massachusetts for the MDC Watershed Division. When DWM began, funding was 50 percent MWRA and 50 percent MDC. It is now 100 percent MWRA, 0 percent MDC. Staff will attempt to explore having the Commonwealth pick up some of the cost of the budget. Additional items include:

Item K. MWRA Surplus Property - This initiative will create legislation that removes the ambiguity as it relates to transferring properties back to the Commonwealth of Massachusetts, who are the rightful owners. Draft language for relinquishing property back to the Division of Capital Assets Management (DCAM) for the Commonwealth of Massachusetts is now being prepared.

Item L. Advertising on MWRA Property - This legislation will allow the MWRA to use their property for advertisements, with community approval, creating a new revenue source. Legislation is needed for that to occur.

On November 30th the Advisory Board will participate in the MWRA Legislative Caucus bill signing. Advisory Board legislation will be available for caucus legislators to co-sponsor. **A**

MOTION WAS MADE TO APPROVE THE FY99 LEGISLATIVE AGENDA. It was seconded and passed by unanimous vote.

Operations Committee - Andy De Santis

• **ACTION ITEM: SYSTEM EXPANSION REQUEST - DENTAL OFFICE BUILDING - 450 N. MAIN STREET, SHARON**

Joe Favaloro reported that a Dr. Heinberg, who has a small office building with a dental office on the Sharon/Canton line, has requested a connection into the Canton sewerage system. After some discussion within the Operations Committee, as well as the Executive Committee, a motion was made to approve the application with conditions. A follow up discussion with the Town of Canton resulted in additional concerns. Subject to conditions between Canton and the applicant, Canton has final sign-off on this request. Ed Sullivan stated that the conditions aren't new. The process proceeded according to plan, with all the proper meetings and agencies being involved, when they discovered that the conditions that were established had not been approved in writing by the petitioner and the Town of Canton. The Selectmen and the town have no difficulty in accepting an approval with conditions.

Ed Nelson asked, "Is there anything in the town stipulation as to total amalgam recapture?" Ed Sullivan said that was discussed and it has not been overlooked. Joe Favaloro said the Toxic Reduction and Control (TRAC) Program will include their requirements relating to dental office operations as a condition to the Authority's approval of the application.

Gary Peters stated that there is a ten to one ratio for I/I removal in Weymouth, and this addition to the sewer system is a four to one ratio, "If we are going to have continuity, should there be some other way to measure? Can that be changed?" Mr. Favaloro stated that the ratios clearly indicate that they are arbitrarily set. In a sampling of communities, the norm is closer to four to one. When capturing the 1,200 gallons a day for Dr. Heinberg, Mr. Favaloro took the future 300 gallons, as opposed to the current 120, that they are projected to be using on a daily basis. Using that calculation it is actually closer to being a ten to one reduction than it is a four to one.

Joe Favaloro reported that the TRAC Program was working with the entire dental industry to ensure that materials placed into sewer systems by dentists are in compliance with the MWRA's permits, and said that staff would contact TRAC relative to this connection.

Bernie Cooper made **A MOTION TO APPROVE THE SYSTEM EXPANSION REQUEST OF DR. HEINBERG OF 450 N. MAIN STREET, SHARON, MA WITH CONDITIONS AND AT THE PREROGATIVE OF THE TOWN OF CANTON.** It was seconded and passed by unanimous vote.

• **ADVISORY BOARD ROLE IN DEVELOPMENT OF THE LOCAL PIPELINE ASSISTANCE PROGRAM**

The Commonwealth of Massachusetts intends to support the appropriation of \$75 million for a Local Water Pipeline Assistance Program, based upon the current state water SRF. The MWRA will contribute \$60 million, in three \$20 million increments, over the first seven years of the program, with a potential of about \$500+ million in interest free loans available for communities. Through discussions with the Operations and Executive Committees, it was decided that a special ad hoc committee be created. Mr. Favaloro asked the Advisory Board members who

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would be interested in being part of this committee to notify Andy DeSantis or the Advisory Board office. A meeting has been tentatively scheduled for early December.

Finance Committee - Phil Farrington/Katherine Haynes Dunphy

• **PRESENTATION: PREVIEW FY2000-2002 MWRA CAPITAL IMPROVEMENT PLAN - Tim Popejoy, Manager - Capital Planning and Budget**

Tim Popejoy, Manager - Capital Planning and Budget, thanked the Advisory Board for the opportunity to speak about the proposed CIP, which will be presented to the Board of Directors for their transmittal to the Advisory Board next month. He stated that the ten-year CIP is more than \$6 billion and is made up of more than 100 projects and over 1,000 contracts. The total budget increase for the CIP is \$353 million, or an increase of 5 percent. This includes \$109 million for the Wastewater Program, about half of that is for CSOs, in particular \$50 million for the North Dorchester Bay Project. Almost two-thirds of the increase is for Waterworks. The decision by the Board to adopt the ozonation treatment alternative at Walnut Hill has increased the budget for that project by \$40 million. In addition, the budget for the revolving loan program is \$60 million, in three \$20 million payments.

Mr. Popejoy said there is over \$76 million in new pipeline projects and approximately \$30 million in additional costs in expansion of the existing waterworks pipeline projects. There is a relatively small increase in the business operations and support program, primarily for the business systems plan (computer technology improvements).

The first 12 to 15 years of the MWRA's capital spending has largely been on the Boston Harbor Project. For the current fiscal year there is no change in project spending, which is good news in the sense that the project is proceeding relatively according to schedule. In FY2000, however, there will be a \$72 million increase compared to the last CIP projections due to MetroWest and the first \$20 million increment of the pipeline assistance program. The \$20 million increments are scheduled for FY2000, 2003, 2005.

Included in the CIP are the water quality/distribution initiative, the completion of the Boston Harbor Project and optimizing and maintaining the Deer Island Plant. Some of the staff system improvements in the wastewater program include using technology effectively to increase efficiency. MWRA is consolidating some of its operations into the North Maintenance Facility. The Quabbin Disinfection Facility construction contract was awarded by the Board at their last meeting and construction is proceeding. MWRA is building a \$7 million chlorination water treatment plant for the western service area.

In terms of water transmission, the MetroWest tunnel is probably the largest project. MetroWest is \$635 million and will be completed in 2003, in time to coincide with the completion of the Walnut Hill Water Treatment Plant. Construction of the covered storage facilities is underway. The Fells Reservoir Covered Storage Project is running ten months ahead of schedule, Nash Hill will be completed in 2000 and Norumbega will be completed in 2004.

Mr. Popejoy reported that there is a group of projects that are beginning to take their own focus and organization in terms of optimizing the efficiency of the Deer Island Plant, making improvements related to start up and transition from the Boston Harbor Project to a fully operating plant by the Sewerage Division. Another project is the Facilities Asset Management Program (FAMP) which is a combination of the wastewater facilities rehabilitation project and Deer Island Equipment Replacement initiative.

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Mr. Popejoy said the most recent life cycle cost analysis of the construction of the Sodium Hypochlorite Facility continues to indicate that it would save the Authority money to build a plant and produce this chemical on site, rather than purchase it from a vendor and transport it to Deer Island. Design for this facility should begin next spring.

The Deer Island maintenance warehouse is also proceeding. It is a relatively small addition to the warehouse facilities at Deer Island and is meant to improve efficiency and provide space for vehicle maintenance and some specialized storage at the island to make sure the operations are safe.

The Facilities Asset Management Program includes all wastewater facilities, including the transport facilities. The first stage of the project, which is just over \$1 million, will be to have a consultant assess what maintenance strategies are available. The consultant will work with MWRA staff to assess what strategy makes the most sense and do a pilot for Primary Battery A. The program will be developed to see how effective it is and fine tune it. It is likely to be a combination of strategies that are most effective in terms of keeping the plant operating, avoiding unnecessary shut downs and improving efficiency. This will also set the stage for the larger Deer Island equipment replacement program. The total budget is \$40 million, \$37 million is for Deer Island equipment replacement for the next ten years. MWRA will not know the full magnitude of this investment until the consultant work is completed.

Transport facilities are included in the scope of this project and one of the first steps will be putting that equipment on the Authority's maintenance database, Maximo. This summer both Waterworks and Sewerage Operations adopted Maximo as the standard maintenance database for the Authority. This is a positive step forward in a prudent use of technology Authority wide. Stanley Stanzin stated: "It seems to me the first three bullets would be an expense that you would want to capitalize." Mr. Popejoy responded that these are ongoing maintenance costs that will be consistent over time and the Authority chooses to use current revenues rather than bonding.

In terms of South System improvements, two projects that have been in the CIP for a long time are getting off the ground. Quincy Pump Station is in construction and will be completed in the summer of 2001. The Braintree/Weymouth Tunnel Contract is to go out for bid in January.

In the proposed CIP, the Neponset Valley and the Upper Neponset Valley Project have been separated. MWRA has accelerated the Upper Neponset Valley Project and will be starting design next spring or summer. The Archdale Road Diversion Structure is still in the CIP and the Authority intends to draft emergency conditions relating to wet weather conditions. However, staff, working with Boston Water and Sewer Commission, determined that there is a greater level of effort needed in assessing the high level sewer. There are two components of inventory and evaluation and structural and hydraulic analyses that have been added to the scope. In addition, the largest dollar cost that has been added to this project is the cleaning of Outfall 023. It's been determined that cleaning this outfall will improve the capacity of the Stony Brook System.

The overall CSO program increased \$60 million in the proposed CIP. Most of the increases are for the North Dorchester Bay Project. The scope for North Dorchester Bay has not expanded, and the increased costs are related to revised cost estimates and some refinement from the design element associated with the project. By the year 2000, 12 of 15 of the CSO projects will be in construction, which means that CSO spending will begin to increase in the next couple of years.

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One cost factor that still impacts the budget is the Charles River Variance issue and whether or not there will be associated work around the Charles River.

There are two Central Monitoring Projects in the CIP, one in the wastewater program and one in the waterworks program. The goal is to bring real time monitoring control to the Authority's transport facilities, pump stations, and waterworks facilities so that they can all be tied to a central Operations Control Center (OCC). Currently, it takes a person to go to a pump station to turn a valve to change the flow. With the OCC, it can be done automatically. The wastewater central monitoring project includes an increase to the proposed budget for design and construction. The initial plan will be available in March of next year.

There are plans to build an additional 30,000 square foot North Maintenance Facility. As a result of this project, the Authority intends to vacate its current facility at Building 36 at the Charlestown Navy Yard.

• **STATUS OF THE CEB AND CIP BUDGETS**

Cornelia Potter reported that staff continue to monitor the Current Expense Budget (CEB) for FY99. The Authority needs a good handle on residuals costs for the next 24 months. The CEB is currently over budget for the year to date by \$3 million, primarily due to greater than budgeted spending associated with residuals processing. Ms. Potter reminded the Advisory Board members that budget review period begins in January and encouraged all in attendance to participate in future Finance Committee meetings.

F. QUESTIONS AND COMMENTS

No questions or comments.

G. ADJOURNMENT

A MOTION WAS MADE TO ADJOURN THE MEETING AT 9:55 P.M. It was seconded and passed by unanimous vote.

Respectfully submitted,

Edward Sullivan, Secretary