

**MWRA ADVISORY BOARD MEETING  
FEBRUARY 18, 2010  
WELLESLEY FREE LIBRARY  
530 WASHINGTON STREET, WELLESLEY, MA 02482 – 11:30 A.M.  
MINUTES APPROVED AT THE APRIL 15, 2010 MEETING**

Fifty-five people were in attendance, including twenty-five voting members: Ed Maguire, ASHLAND; Peter Castanino, BELMONT; John Sullivan, BOSTON; John Sanchez, BURLINGTON; Andrew DeSantis, CHELSEA; David Field, DEDHAM; Barbara Wyatt, GUBERNATORIAL APPOINTEE; Edmund Demko, HINGHAM; Bill Hadley, LEXINGTON; Jay Fink, LYNN; Bruce Kenerson, LYNNFIELD; Doran Crouse, MARLBOROUGH; Katherine Haynes Dunphy, MILTON; John Cosgrove, NEEDHAM; Lou Taverna, NEWTON; Bernie Cooper, NORWOOD; Jeff Zager, READING; Carol Antonelli, SOMERVILLE; John DeAmicis, STONEHAM; Ana Singleton, STOUGHTON; Michael Collins, WAKEFIELD; Earl Forman, WESTON; Zig Peret, WILBRAHAM; Michael Woods, WILMINGTON; Anthony Blazejowski, WOBURN.

Also present: John Carroll and Andrew Pappastergion, MWRA BOARD OF DIRECTORS; Michael Bishop, BELMONT; R. Frymire, CAMBRIDGE; Diane Stokes, Lisa Hartman and Stanton Bigelow, FRAMINGHAM; David Paulik, LEXINGTON; Dave Proctor, MEDFORD; William Hammel, Jr., STOUGHTON; William Shaughnessy, WELLESLEY; F. Curran, MA DEP; David Webster, EPA; Phil Jasset, UCANE; Ed Bretschneider and Larry Schafer, WAC; Lexi Dewey, WSCAC; Michael Hornbrook, John Vetere, Rachel Madden, Kathy Soni, Elaine Donahue, Kristen Hall, Carl Leone, and Mike Morris, MWRA STAFF; Joe Favaloro, Cornelia Potter, Matthew Romero, Christine Hevelone-Byler and Mary Ann McClellan, MWRA ADVISORY BOARD STAFF.

**A. WELCOME**

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

**B. PRESENTATION: NEW STORM WATER PERMIT DESIGNED TO IMPROVE WATER QUALITY IN EASTERN MASSACHUSETTS** – David M. Webster, Chief, Industrial Permits Branch, EPA Region 1

David Webster, Chief of the Industrial Permits Branch at the Environmental Protection Agency (EPA) Region 1, stated that EPA has a draft storm water permit that is presently out for public comment through March 31 and a public hearing will be held on March 18, 2010 at the Tip O'Neil Building on this draft permit.

Under the Clean Water Act, EPA, the state, municipalities, ratepayers and businesses have made tremendous strides in controlling traditional points of source pollution from factories and wastewater treatment plants.

Storm water is one of the largest water quality impacts remaining; about 60% of the pollutants that impair waters in Massachusetts are from storm water, including toxic algae blooms, scum and discoloration, limiting recreational opportunities, restricting boating and swimming.

Since 2003, when the last MS4 permit was issued, EPA has learned a lot. The 2003 permit, by an EPA permit standard, was fairly non-prescriptive and open-ended on having a storm water management plan to address the six minimum controls and different topics.

EPA has learned a lot from the Illicit Discharge Detections and Elimination (IDDE) Program and what has worked to get rid of that key part of the problem. The goal for the National Pollutant Discharge Elimination System (NPDES) program is to develop clear, defensible, sound and timely permits that make incremental improvements in environmental quality.

The 2003 permit had a variety of level of effort that was all over the map for different communities; with the new permit, there is a leveling of the playing field. If a community was doing the minimum, there is probably going to be a jolt; if a community was doing the maximum and being proactive, there will be a lot less.

In the 1990s the Storm Water Program became folded into the NPDES Program, which up until that time had regulated more traditional point sources. The program started in two phases to take on four different types of storm water. It created regulations for municipal storm water, construction storm water, storm water associated with industrial activities and residual designations, a catch all for others that don't fit into the previous three categories.

Phase I of the municipal storm water regulations began with large cities and towns; Phase II dealt with smaller cities and towns. The urban area that is covered is defined by an algorithm from the Census Bureau that comes up with a map of designated urban areas, which unfortunately do not follow the lines of municipalities nor watersheds. Therefore, there are three different boundaries all working together in this permit; one is municipal boundaries, second is the urbanized area boundaries and the third is the watershed boundaries. Some of those complications may be resolved in this draft permit.

A Municipal Separate Storm Sewer System (MS4) is basically the gutters, catch basins, pipes and drains or anything that is publicly owned that is used to convey storm water from private areas and publicly owned areas and conveying it to water in the United States.

Since the last permit there has been an acceleration of the watershed-based approach to environmental protection. The state looks at the impaired water bodies and based on the Clean Water Act comes up with a plan by trying to figure out how much of the pollution comes from all of the different sources. EPA is required to incorporate the load allocations that were in those watershed plans into the permit. The North Coastal permit that is out for public comment now has approved Total Maximum Daily Loads (TMDL) for the Charles for phosphorous and bacteria; in the Neponset for bacteria and a TMDL for the Shawsheen also. Beyond this draft permit, EPA will come out in the future with between one and three other watershed-based permits for public comment.

By regulation there are six minimum controls for MS4's; they are public education, public participation, IDDE, construction controls, post construction controls and housekeeping (which is a community's own municipal operation, whether it is the DPW yard, street sweeping or catch basin cleaning).

As in the last permit, the new draft permit has provisions to protect water quality standards. The IDDE requirements have changed, being more specific; also associated with the IDDE is water quality monitoring for storm water for the first time, although many towns have been doing it.

Another component is a Storm Water Management Program that communities all have from the last permit, but it must be updated and enhanced according to the new requirements.

As in the past, EPA is not regulating storm water by end-of-pipe numbers as it would for a wastewater treatment plant, industrial facility or power plant. The effluent limits are being set based on best management practices in this next generation of general permits.

Another type of standard is the Maximum Extent Practical (MEP), which is a standard that is unique to municipal storm water and is the standard that municipalities need to meet. Two of the known controls have remained the same – public participation and construction. The other four have changed for the draft permit that is out for public comment.

On the public education and outreach, in the 2003 version it says “have a program” and list some of the things that your community is doing. In the 2010 draft permit, EPA wants some specific targets for residential, business and commercial areas. Is the target pet waste, fertilizer, or making sure that vegetation doesn’t go into the storm drains? It must detail whatever that education is and have specific measures.

In the last permit, the IDDE Program had a requirement to have a map containing at least the outfalls. Some communities mapped the pipes, catch basins and other things. In this permit, EPA is proposing a more complete map detailing more components of the system. EPA believes the map is vital for the IDDE Program to help find where sewage or other materials that shouldn’t be in the storm drains are coming from.

A more systematic procedure for locating and removing illicit discharges has also been added based on the experience of some of the communities in identifying key junction manholes, going through the system starting from the top and going down (or some systematic way to isolate where the problem is coming from).

Massachusetts is contemplating that the next TMDLs will not be regulating how much phosphorous but regulating how much impervious cover or directly connected impervious cover goes to the waterway based on the correlation between that and the quality.

On “good housekeeping”, there are requirements for community facilities, meaning DPW yards or other facilities and standards as far as the streets. It is more prescriptive than it was in the last permit on street sweeping, requiring sweeping twice a year (spring and fall) and catch basin cleaning as far as the standard of not letting the catch basins get more than 50% full based on the industrial standard.

The monitoring program is tied to the IDDE Program. The permit includes one-time dry and one-time wet weather monitoring for each of the outfalls in your community during the course of the five-year permit; this is where the financial burden is greatest. EPA believes the sampling and monitoring are valuable components of the IDDE Program.

John Sanchez asked how many outfalls the communities have in total. Mr. Webster said it varies; there are some communities with as low as 20 and other communities that have hundreds. Mr. Sanchez asked how much the sampling and testing will cost. Mr. Webster said from the previous permit, EPA estimated that the communities averaged out at \$94,000 annually on the program, although one-quarter of the communities indicated they were spending less than \$20,000. With the sampling, EPA estimated that 20 outfalls would probably be an additional \$20,000 per year; 250 outfalls would cost about \$70,000 per year extra for the sampling.

Mr. Sanchez noted that his community spent \$50,000 to chase a source on one outfall. Who has the money to do this type of work with the potential of thousands of outfalls that have to be chased

to find out what the source may be? Mr. Webster said that is a good comment and if someone can think of a less expensive way to find and eliminate those discharges, they should put that into the comments. EPA believes it is better to go systematically than to find and chase up the stream. Mr. Sanchez said in his community the budget is less than the year before and now EPA is talking about the potential of hundreds of thousands of dollars a year.

Andrew DeSantis said there is some concern about the use of fluorides in the draft permit. The City of Chelsea had done a lot of the things that are now required in this permit so we thought that Chelsea would have “a leg up”; however, there is so much more in this permit. The City of Chelsea plans to testify at the public hearing on March 18.

Mr. DeSantis said he is also concerned about the “impervious surface.” Chelsea is classified by EPA’s maps as impervious. Old marsh land has been filled and doesn’t percolate. The only place that additional monies can come from is with development; if these new restrictions are put in place, Chelsea cannot develop and will not have any money coming in to do the things that are necessary in this permit. There is no question that communities should comply with the Clean Water Act in the Mystic and Chelsea Rivers and certainly additional controls are needed on what is going in there. Mr. Webster said on the impervious surface, that is a struggle and we tried to broaden it in the plan. EPA understands there are a lot of challenges out there.

Michael Hornbrook asked if there is a cost-benefit provision in the storm water regulations. Mr. Webster said there is not a cost-benefit provision unless it is encompassed into the definition of “maximum extent practicable”, where EPA staff believes something is impracticable and will cost too much.

Mr. Hornbrook asked if EPA has looked into the future at when a community has followed its best management practices (BMP) and is only effective to a certain degree. Will the next step be some sort of end of pipe treatment, the cost of which would be significant? Is that in the determination of what is practicable? Mr. Webster said staff thought that putting end of pipe effluent limits would be not be “maximum extent practicable”, that it would be impracticable at this point. EPA is hoping that the best management practices will result in meeting the water quality standards for discharge and, at least for these five years, unless the permit is changed based on comments received, that is what EPA is going to try. If, down the road, that doesn’t work or despite the best effort it is still causing a problem with water quality standards, staff may have to make another determination.

Mr. Hornbrook noted that the water quality standards could be changed and could be called “wet weather water quality standards.”

Chairman Dunphy said most of the communities here do not have storm water enterprise funds. That means that the cost of storm water management or record keeping comes from a tax levy. Massachusetts is under proposition 2½ and as a former selectman it is very hard to make decisions to cut police, fire, DPW and other essential services, not to mention the schools. Any additional costs are going to have an enormous impact on public safety, education and other services in the towns. Mr. Webster said he understood. He urged members to review the draft permit and make suggestions on ways to improve it. EPA will seriously consider the comments.

Mr. Favaloro said though at this point this is not an MWRA issue, it is more importantly an MWRA community issue. Of the 84 communities that were identified, 46 communities are either MWRA water or wastewater communities.

## C. COMMITTEE REPORTS

### Finance Committee – Bernard Cooper

#### ➤ **STATUS: FY11 RATE REVENUE REQUIREMENT**

MWRA Advisory Board Executive Director Joseph Favaloro said with last year's CEB comments, Advisory Board staff put on the table reductions of \$100 million from the CEB and \$100 million from the CIP over the course of four years. This recommendation was based on an overall approach on how to address MWRA rate revenue requirements in FY11 and beyond.

Staff provided presentations over the fall on ways to get to a modest, if not a 0%, rate revenue increase for FY11 and still provide for lower than previously estimated increases for fiscal years 2012 and 2013. Staff engaged MWRA staff and the Board of Directors in a proactive way and the three parties, through a dialogue, came up with an FY11 rate revenue increase for cities and towns of 1.49%, the smallest rate revenue increase since 1996.

Through the Authority's use of reserves, defeasance and restructuring of some debt, both FY12 and FY13 rate revenue increases will remain under 4% as of now, significantly lower than the MWRA's original planning projections. Advisory Board staff does not intend to reduce the increase below 1.49% during its review process.

#### ➤ **UPDATE: ADVISORY BOARD CIP REVIEW PROCESS**

Advisory Board staff's comments and approach for the CIP review process continue to evolve. As a starting point, staff will begin with its FY10 recommendation to manage and or reduce the cap. Staff will fully utilize its comment period to come up with further recommendations.

### Operations Committee – Jay Fink

#### ➤ **IMPACTS / POTENTIAL CHANGES TO CLINTON'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT** – Michael Hornbrook, MWRA Chief Operating Officer

MWRA Chief Operating Officer Michael Hornbrook said the Authority owns and operates the Clinton Wastewater Treatment Plant due to some special legislation that was undertaken in 1987. The treatment plant serves the Town of Clinton and the Lancaster Sewer District.

Currently the plant operates an average flow of 3.5 million gallons per day (MGD) and peaks up to 8 MGD during intensive storms. It is an advanced treatment plant and the current permit already has some nutrient removal as far as phosphorous goes and the plant is now at the point of getting a new National Pollutant Discharge Elimination System (NPDES) permit on the discharges.

The Town of Clinton, which is the major tributary area to this plant, is capped on its contribution for payment of the plant at \$500,000. This fiscal year the MWRA's budget for total operation of the plant, including the sludge landfill, is about \$2.4 million, of which the Authority gets back a total of about \$848,000 to \$850,000, from a combination of \$500,000 from Clinton, \$180,000 from the Lancaster Sewer District and \$120,000 to \$130,000 from the City of Worcester, since this is part of the watershed for Worcester's drinking water supply. In all, the Authority currently gets back about one-third of the cost of operating and maintaining this plant.

The current permit expired in 2005 and staff applied for a new one at that time but a new permit has yet to be received; therefore, the current permit stays in existence. Staff has had preliminary discussions with EPA permit writing staff and thus far it appears that at least three points can be highlighted as potentially being included in the draft permit.

The first is a new permit limit for phosphorous removal, which is basically a technology-based effluent limit to meet water quality standards. Currently the plant uses a combination of filters and alum to do phosphorous removal; the new permit limit is much stricter and the current process

cannot meet those strict requirements. Additionally, there will be an aluminum limit in the permit for the first time, which will prohibit the current use of alum as it exists.

The current limit for phosphorous is 1 mg/L; staff has been told verbally that the new limit will be 0.2 mg/L, which is consistent with other wastewater treatment plants in the basin. Phosphorous is difficult to remove in the plant and the plant's current ability, with the alum issue aside, can get down to about 0.5 mg/L. To meet 0.2 mg/L, another advanced treatment process will be needed.

Staff has been exploring, in a feasibility level study, the types of additional treatment and their costs, both on a capital and Operations and Maintenance (O&M) basis. In the early process of this evaluation, a two-step disc filtration process that can get to the 0.2 mg/L stands out. In addition to the capital and O&M costs, solids capture will increase by 30% under this process, which has an impact not only on the plant but on the sludge landfill as well.

There is room at the Clinton Plant for a disc filtration system right after the secondary clarifiers. An additional pump for this phosphorous removal process will be required.

The preliminary estimated cost for this treatment process to cover some small buildings, installation of equipment and pump is about \$3.5 million; additionally, an annual O&M cost of \$130,000 will also be required. Clinton will not have to pay additional monies; the Lancaster and Worcester bills will go up slightly.

➤ **OPERATIONS UPDATE**

Jay Fink, Chairman of the Operations Committee, noted that an Operations Committee meeting was held prior to the Advisory Board meeting to discuss the expansion of the Local Water System Assistance Program, creating a new ten-year program to begin July 1, 2010 that would expand the types of projects that would be eligible for that program. The Operations Committee added some new elements to the program, which will be discussed and voted by the Executive Committee next month, followed by a vote of the full Advisory Board.

**Executive Committee** – Katherine Haynes Dunphy

➤ **LEGISLATIVE UPDATE**

Mr. Favaloro said after meeting with Representative Charles, Murphy, the Chairman of House Ways & Means, it is clear that Debt Service Assistance (DSA) is not going to occur in the next fiscal year.

Last year, as part of the budget, the Governor allocated some of the expanded bottle bill receipts to go toward DSA. This year the Governor still utilizes the expanded bottle bill but none of those receipts come to DSA.

**D. ADJOURNMENT**

**A MOTION WAS MADE TO ADJOURN THE MEETING AT 1:05 P.M.** It was seconded and passed by unanimous vote.

Respectfully submitted,

Edward Sullivan, Secretary