

UNITED STATES DISTRICT COURT  
for the  
DISTRICT OF MASSACHUSETTS

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UNITED STATES OF AMERICA,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,  
et al.,

Defendants.

.....

CONSERVATION LAW FOUNDATION OF  
NEW ENGLAND, INC.,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,

Defendants.

.....

CIVIL ACTION  
No. 85-0489-MA

CIVIL ACTION  
No. 83-1614-MA

MWRA QUARTERLY COMPLIANCE AND  
PROGRESS REPORT AS OF SEPTEMBER 15, 2005

The Massachusetts Water Resources Authority (the "Authority") submits the following quarterly compliance report for the period from June 16, 2005 to September 15, 2005 and supplementary compliance information in accordance with the Court's order of December 23, 1985 and subsequent orders of the Court.

I. Schedule Six

There were no scheduled activities for the last quarter on the Court's Schedule Six.

A. Progress Report.

1. Combined Sewer Overflow Program.

(a) Long-Term CSO Control Plan.

The Authority recently reached an agreement in principle with the United States Department of Justice, the United States Environmental Protection Agency ("EPA"), and the Massachusetts Department of Environmental Protection ("DEP") on the appropriate level of combined sewer overflow ("CSO") control and recommended plans for the Charles River, the Alewife Brook/Upper Mystic River, and East Boston, and on its overall revised long-term CSO control plan.<sup>1</sup> The Authority briefed the Charles River Watershed Association and the Conservation Law Foundation on the new Charles River initiatives. A copy of the August 2, 2005 "Recommendations and Proposed Schedule for Long Term CSO Control for the Charles River, Alewife Brook and East Boston" is attached

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<sup>1</sup> The Authority's revised recommended Long-Term CSO Control Plan is as described in the Final CSO Facilities Plan and Environmental Impact Report, July 1997, and as supplemented or otherwise amended by the Final Variance Report for Alewife Brook and the Upper Mystic River, July, 2003; the Cottage Farm CSO Facility Assessment Report, January 2004; and various notices of project change and other related documentation filed between July 1997 and August 2005, including the August 2, 2005 letter report entitled "Recommendations and Proposed Schedule for Long-Term CSO Control for the Charles River, Alewife Brook and East Boston."

as Exhibit “A”.<sup>2</sup> As part of this agreement, the Authority understands that DEP is to issue five consecutive three-year variances which modify water quality standards through the year 2020 for the Charles River and Alewife Brook/Upper Mystic River that, as applied to the Authority, are consistent with and limited to the requirements in the Authority’s revised long-term CSO control plan, and the Regional Administrator of EPA Region I will approve the variances issued by DEP for the Charles River and Alewife Brook/Upper Mystic River in 2004 and approve periodic reissuance of the variances, as applied to the Authority, through the year 2020, subject to the public notice period required under 40 C.F.R. § 131.10 (e). For its part, EPA is to issue NPDES permits during this period that will authorize discharges from the Authority’s CSO outfalls in the Charles River and Alewife Brook/Upper Mystic River consistent with the variances. In addition, once this plan is embodied into a Scheduling Order by the Court, the United States and the Authority intend to

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<sup>2</sup> The details of the agreement in principle, prior to public comment, are set forth in a footnote proposed to be included in a requested amendment to the Court’s schedule as follows:

“The Massachusetts Department of Environmental Protection (“Mass DEP”) will reissue five (5) consecutive three-year variances through the year 2020 for the Charles River and Alewife Brook/Upper Mystic River that, as applied to MWRA, are consistent with and limited to the requirements in MWRA’s revised Long-Term CSO Control Plan (the “LTCP”) set forth in this Order. The Regional Administrator of EPA Region I has approved the variances issued by the Mass DEP for the Charles River and Alewife Brook/Upper Mystic River in 2004, and has approved periodic reissuance of the variances, as applied to MWRA, through the year 2020 upon the condition that the variances as reissued require MWRA to comply with this Order, including the CSO milestones and levels of control set forth herein. The above variance reissuances are contingent on MWRA's achievement of the level of CSO controls required in the LTCP and completion of the projects in the LTCP in accordance with the schedule in this Order. Any NPDES permits issued by EPA during this period will authorize discharges from MWRA’s CSO outfalls in the Charles River and Alewife Brook/Upper Mystic River consistent with the variances.”

withdraw the February 27, 1987 Stipulation of the United States and the Massachusetts Water Resources Authority on Responsibility and Legal Liability for Combined Sewer Overflow Control. Thereafter, except for the obligations imposed by Schedule Six, the Authority will be responsible only for the CSO outfalls it owns and operates.

With this agreement, the estimated cost to complete the Authority's revised long-term CSO control plan will be more than \$850 million including contingency and escalation of unawarded contracts. The Authority expects that the parties will recognize the immense impact of the cost of its revised long-term CSO control plan on its already heavily burdened ratepayers as the public process moves forward. To achieve this comprehensive agreement with the parties, the Authority made significant additional investment in South Boston, committed to approximately \$20 million in additional expenditures for the Charles River (significantly reducing combined sewer overflows at Cottage Farm) and made further major concessions.

On September 14, 2005, the Authority's Board of Directors authorized the Executive Director, on behalf of the Authority, to file a Motion To Amend Schedule Six with the Court conditioned upon completion of a 30-day public comment period and on the terms of the agreement with the United States and DEP remaining the same. The Board of Directors noted its disappointment and concern that a final agreement was not being jointly submitted to the Court with this filing and directed the Executive Director to accept no additional terms beyond those that were agreed to in principle. The Authority and the

United States intend to file a Joint Motion to Amend Schedule Six by deleting the milestones for completion of construction of sewer separation at CAM002 and CAM004 and completion of construction of interceptor relief for BOS003-014, by adding milestones related to the revised CSO control plan for Alewife Brook and Upper Mystic River, interceptor relief for BOS003-014, and the revised plan for the Charles River CSO controls after the public notice period, which is expected to be completed by the end of October.

(b) North Dorchester Bay and Reserved Channel Consolidation Conduits and CSO Facility.

During the last quarter, the Authority made substantial and meaningful progress in its efforts to implement the recommended CSO control plan for North Dorchester Bay and bring significant water quality improvements to the South Boston beaches. On September 8, the Authority issued the notice to proceed for the Pleasure Bay storm drain improvements construction contract, commencing the first of several planned contracts that together will virtually eliminate CSO discharges and provide a very high level of stormwater control to the beaches.

The Pleasure Bay work will eliminate the Department of Conservation and Recreation's ("DCR") stormwater system discharges to Pleasure Bay, an area popular for swimming. The construction contract is scheduled to be completed by May 2006, in compliance with Schedule Six, allowing the water quality and aesthetic benefits to be realized in time for the beginning of the 2006 swimming season.

The Authority also made substantial progress in its design work and related efforts to move the North Dorchester Bay CSO tunnel project toward construction. On August 19, the Authority received the 90-percent final design submission, the draft easement plans and the Geotechnical Baseline Report. In addition to reviewing these submissions itself, the Authority has distributed copies of these documents to its team of outside tunnel experts and to the various stakeholders and agencies from which the Authority will need some form of approvals, permits or easements, including the Massachusetts Port Authority (“Massport”), the City of Boston, DCR, Boston Water and Sewer Commission (“BWSC”), the Massachusetts State Police, the Bayside Exposition Center and the Boston Teacher’s Union Health and Welfare Fund. The Authority is scheduling meetings with these parties to gather comments for input to the 100-percent submission, due in January 2006, as well as to coordinate the work to obtain the necessary permits and easements.

The Authority also received the Final Preliminary Design Report (“PDR”) for the dewatering pumping station and related force main that will be designed and constructed under future Authority contracts. The PDR will serve as the basis for defining the final design services that the Authority plans to procure next year for these facilities.

In addition, on September 9 the Authority received proposals in response to the Request for Qualifications in May for construction management services contract for the North Dorchester Bay CSO Project. The Authority plans to award the contract for services in October, allowing the selected construction

manager (the “CM”) to review the 90-percent tunnel submission and have input to the 100-percent plans and specifications. The Authority plans to have the CM provide a comprehensive assessment of constructability and construction risk well before the final tunnel contract documents are completed and bid. The CM will then assume all construction management responsibility, first for the North Dorchester Bay tunnel and later for the related dewatering and odor control facilities.

The Authority was also able to achieve substantial completion of its negotiations with Massport for a Memorandum of Understanding (“MOU”) that will govern the Authority’s construction on land owned by Massport, including the tunnel mining shaft and the dewatering pumping station. On September 14, 2005, the Authority’s Board of Directors approved the MOU, and the Authority expects that the agreement will be executed soon.

The North Dorchester Bay and Reserved Channel project, with an estimated cost of \$372 million including contingency and escalation to mid-point of construction, is the single most expensive component of the Authority’s CSO control plan, accounting for almost half of the entire CSO program budget. At to the Court’s direction, the Authority continues to move forward expeditiously with the implementation of the CSO control plan for South Boston, even though the parties have yet to finalize an agreement on the appropriate level of CSO control and recommended control plans for the Charles River, Alewife Brook and East Boston.

(c) Cambridge Sewer Separation.

The City of Cambridge continues to finalize a Second Supplemental Preliminary Design Report for the revised recommended plan as presented in the Final Variance Report for the Alewife Brook and Upper Mystic River. However, Cambridge's progress to implement the revised sewer separation plan for Alewife Brook has been slowed, and the schedule for completing the work has been further delayed, by additional difficulties in obtaining wetlands-related approvals for Contract 12, which involves the new storm drain outfall and stormwater wetland detention basin necessary to support future sewer separation in the CAM004 area and the closing of the CAM004 regulator. Cambridge received a Superseding Order of Conditions for Contract 12 from DEP on March 31, 2005, and an appeal was filed by a group of citizens on April 13, 2005, seeking further consideration of an alternative location for the wetland basin. DEP held a hearing on this appeal on July 27, 2005. Contract 12 is critical because it must be constructed before the bulk of the remaining Alewife Brook plan can be implemented. Therefore, most of the work has been delayed pending a decision on the appeal of the Superseding Order of Conditions for Contract 12.<sup>3</sup>

The Authority is implementing a portion of the Cambridge/Alewife sewer separation project. The work involves installation of an overflow control gate and floatables control at outfall MWR003 and hydraulic relief of an Authority

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<sup>3</sup> See Compliance and Progress Reports dated June 15, 2005, pp. 10-11; December 15, 2004, pp. 10-12; and September 15, 2004, pp. 6-7 for previous reports on the wetlands issue.

siphon near Rindge Avenue. The Authority has scheduled this work to commence after Cambridge has completed sewer separation in the CAM004 tributary area. However, due to delays associated with Cambridge's Contract 12, the Authority has revised its schedule for the MWR003 improvements and Rindge Avenue Siphon, with design to commence in April 2009, construction to commence in November 2010, and construction to be complete by January 2012.

The Authority plans to continue discussions with Cambridge as to the reasons for Cambridge's increase in its cost estimate for the recommended CSO control plan from \$74 million to an estimated cost-to-complete of \$102 million (unawarded contracts escalated to the mid-point of construction) in an effort to reach consensus on project cost and an agreement on a new cost sharing arrangement once a decision is made on the appeal of the Superseding Order of Conditions for Contract 12.<sup>4</sup>

(d) Union Park Detention and Treatment Facility.

As of the end of August 2005, work on the construction project was approximately 80-percent complete. The contractor finished construction of the block wall for the new CSO treatment building, installing the roof trusses and roof decking, placing the structural steel for the celebration stack and installing 13 sluice gates, six overflow weir gates and six mechanical screens. The contractor continues to work on the detention basins by forming and

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<sup>4</sup> See Compliance and Progress Report for March 15, 2005, pp. 7-9.

placing reinforcing steel and concrete for the interior baffle, weir and effluent channel walls and basin roof slabs. The contractor also is continuing to work on the installation of the portable water lines, chemical feed lines and hydraulic lines; installation of air handling units and ductwork; installation of the fiberglass ductwork for odor control units, and installation of conduits and wiring, light fixtures, control panels and switches.

Over the next three months, the contractor will commence the interim startup of new pumps 5 and 6, which will allow the contractor to commence installation of new pump 1 and its associated turbine and interim startup of new bar screens 1 and 2, which in turn will allow the contractor to demolish the existing screens and construct new chemical feed areas and the new hydraulics room. At the same time, the contractor will continue to install mechanical equipment in the new building and work on completing the storage basins.

As previously reported, the Authority had extended the contract completion date from September 29, 2005 to March 9, 2006.<sup>5</sup> The Authority is currently evaluating the contractor's request for additional time extensions related to design changes associated with pump improvements to BWSC's electrical pumps 5 and 6 and delays associated with bringing new electric service to the site. These two time extensions could extend the current

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<sup>5</sup> See Compliance and Progress Report for December 15, 2004, pp. 9-10, Compliance and Progress Report for March 15, 2005, pp. 9-10, and Compliance and Progress Report for June 15, 2005, pp. 11-12.

contract completion from March 9, 2006 to the fall of 2006, beyond the September 2005 Schedule Six milestone for completion of construction.

(e) Interceptor Relief for BOS003-014.

As previously reported, the Authority temporarily suspended final design work in 2002 on two of the three construction contracts it proposed to undertake to reduce CSO discharges at outfalls BOS003-014 in East Boston in accordance with the 1997 Final CSO Facilities Plan and Environmental Impact Report (the “1997 plan”) and federal and state approvals of that plan.<sup>6</sup> Preliminary design information had indicated that the project would have lower CSO control performance than estimated in the 1997 plan and a much higher cost, and the Authority decided it would need to conduct a project reassessment to reevaluate cost effectiveness. Since that time, the Authority has completed both the construction of the first contract and the reassessment.

The 1997 plan called for replacing, relieving or rehabilitating a total of 24,750 feet of existing interceptor sewers using a combination of construction methods, including open cut, pipe bursting, micro-tunneling, and pipe repair or relining. The Authority issued a Notice to Proceed for design services in March 2000, in compliance with Schedule Six. Design plans called for three

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<sup>6</sup> For previous report, see CSO Annual Progress Report 2004, pp. 23-28 submitted March 15, 2005, Compliance and Progress Reports for March 15, 2004, pp. 4-5; and June 16, 2003, pp. 5-7; and the Special Report Concerning Construction of Interceptor for BOS 003-014 submitted April 26, 2002.

construction contracts to complete the project. The first contract involved rehabilitating and relining the main branch of the East Boston Branch Sewer, which would remain in long-term service, to improve its conveyance capacity and structural integrity. Most of the remaining portions of the East Boston Branch Sewer were to be replaced with larger pipe under the second and third contracts. The second contract called for installing a new sewer interceptor along Condor, East Eagle and Border Streets using micro-tunneling methods, and the third contract involved replacing and upgrading of the smaller interceptors in upstream areas using “pipe bursting” methods. The overall intent of the plan was to relieve the system and minimize overflows by conveying more wet weather flow to the Authority’s Caruso Pump Station, which the Authority replaced and upgraded in the late 1980’s.

In its April 26, 2002, “Special Report Concerning Construction of Interceptor Relief for BOS 003-014,” the Authority reported that it would move forward with the first construction contract, and that it could not move forward with final design of the remaining construction contracts pending a full project reassessment and, therefore, would not be able to meet the September 2005 milestone for completion of construction. The Authority believed that the reassessment was necessary to determine whether other engineering approaches might improve upon the cost effectiveness of the plan.

The Authority commenced the first construction contract in March 2003 in accordance with Schedule Six and completed the contract in June 2004, including the recent repair of portions of the new lining under warranty. The

Authority substantially completed the reassessment at the end of 2003 and has been refining the evaluations as new information becomes available. One conclusion of the reassessment was that CSO overflows in East Boston are slightly less than originally estimated. The number of CSO discharges at the most active outfall dropped from the previously estimated 37 per year in the 1997 Plan to 31 per year. The total annual volume of CSO discharge from all ten outfalls in East Boston dropped from 45 million gallons to 41 million gallons.

The results of the reassessment confirmed that the current interceptor relief project, at a total estimated capital cost of \$68 million, more than twice the cost estimate in the 1997 plan, would reduce CSO discharges from 31 to six in a typical year and reduce annual discharge volume from 41 million gallons to 8.6 million gallons (a nearly 80 percent reduction), compared to the 1997 plan goals of five activations and 4.0 million gallons. The Authority believes that the current interceptor relief plan, even at the updated, higher cost estimate of \$68 million, is cost-effective and will significantly reduce CSO discharges at all of the East Boston outfalls to greater than 95 percent compliance with Class B water quality standards, in keeping with the intent and benefits of the 1997 plan and the current Class B<sup>CSO</sup> water quality classification. Ongoing work by BWSC and others to separate sewers in East Boston will further reduce CSO discharges.

As part of the recent negotiations with EPA and DEP on its remaining CSO control obligations, the Authority has proposed revising the milestone for completion of construction from September 2005 to June 2010.

(f) Quarterly CSO Progress Report.

In accordance with Schedule Six, the Authority submits as Exhibit “B” its Quarterly CSO Progress Report (the “Report”). The Report summarizes progress made in design and construction on the CSO projects during the past quarter and identifies issues that affect or may affect compliance with Schedule Six.

2. Residuals Back Up Plan.

On September 9, 2005, the Authority filed a Motion To Vacate the Second Long-Term Residuals Management Scheduling Order dated October 8, 1993, as amended on December 3, 1993 and October 5, 2001. Allowance of the Motion would free the Authority of its obligation to reserve space for the Deer Island Wastewater Treatment Plant’s (“DITP”) entire production of sludge at the East Carbon Development Corporation (“ECDC”) landfill in Utah, which costs \$817,400 per year without compromising the Authority’s assurances to apply or dispose of its entire production of biosolids.

The Authority would like to terminate its contract with ECDC, which is required by the Second Long-Term Residuals Management Scheduling Order, because it believes that the reservation of space in a landfill is not necessary in

light of its contract with the New England Fertilizer Company (“NEFCO”), the biosolids processing facility operator since 1991, the success of its primary residuals program, the redundancy of its biosolids processing facility, and the availability of and access to other landfills. Per the contract notice provisions, the next opportunity for the Authority to provide ECDC with the required six-month prior notice of termination is October 1, 2005, and thereafter it is October 1, 2006.

For 12 years, the Authority has been in consistent compliance with the substantive provisions of the Second Long-Term Residuals Management Scheduling Order. The biosolids processing facility has been operating reliably since December 1991. Over the past 13 years, or 3,745 work days, the facility has been off line for a total of 15 work days, which translates into an on-line percentage of 99.6 percent. A single incident (fire in the dryer drum of train No. 2) at the biosolids processing facility in July of 1993,<sup>7</sup> shortly after it went on-line, accounted for the 15-day shut down of plant operations. During that 15-day period, the Authority had to use its primary residuals backup disposal plan and delivered 762 tons of biosolids to a landfill. Since that time, the biosolids processing facility has been on-line or available 100 percent of the time. In addition, the biosolids processing facility needs only three of the six biosolids processing trains to handle all of the sludge produced at DITP, providing 100 percent redundancy.

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<sup>7</sup> See Special Report of the Authority Concerning Fire at Residuals Pelletizing Facility dated July 20, 1993 and Compliance and Progress Report for August 16, 1993, pp. 12-15.

In the past 13 years, DITP has produced 328,500 tons of biosolids, of which only 15,524 tons or 4.7 percent had to be shipped to a landfill. Of the 15,524 tons landfilled, 1,817 tons were related to poor quality sludge from the decommissioning of the Nut Island Wastewater Treatment Facility, 762 tons were related to the 1993 incident, and the remaining 12,945 tons were related either to early problems meeting the federal standards for the use or disposal of sewage sludge or to the temporary lack of capacity at the biosolids processing facility.

On March 1, 2001, the Authority entered into a new contract with NEFCO, whereby NEFCO agreed, in part, to operate and maintain the pellet plant and to accept title to, transport, and dispose of all biosolids produced by the Authority. Under this contract, NEFCO also agreed, for the first time, to provide backup disposal for all biosolids that cannot be processed at the facility. Therefore, the Authority currently has a primary residuals backup disposal plan [NEFCO], a secondary residuals backup disposal plan [contract with ECDC for the reservation of landfill space], and a tertiary residuals backup disposal plan [Walpole landfill site], as well as a current roster of other available landfills. In addition, the Authority required NEFCO to provide a bond in the amount of \$20 million to ensure full contract performance. The Authority's contract with NEFCO is in effect until December 31, 2015.

The Authority is currently spending \$817,400 annually on the ECDC contract for the reservation of landfill space for 250,000 tons of biosolids annually and for a railroad accommodation fee, neither of which include the

cost of disposal of biosolids. Since 1999, the average annual amount of biosolids that is produced at DITP is approximately 33,800 tons, which is about 14 percent of what was originally projected. In fact, as referenced above, in the past 13 years, DITP has only produced 328,500 tons of biosolids. In addition, since 1991, the Authority has never had any difficulty identifying landfills with sufficient available capacity that will accept the Authority's biosolids.

Because of the deadline of October 1, 2005 for the Authority to give notice to terminate the ECDC contract, with its annual cost of \$817,400, if the Motion is to be granted, it would be of substantial benefit to the Authority's ratepayers if that action were taken at a time that would permit the Authority to give a timely notice of termination. Accordingly, the Authority respectfully requests that the Court schedule any further proceedings with respect to the Motion, including any hearing the Court wishes to conduct, so as to permit a decision of the Motion in advance of October 1, 2005. In that regard, all

parties assent to the Motion with the exception of the United States, which has yet to complete the procedures prerequisite to an assent, and the City of Quincy.

By its attorneys,

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Certificate of Service

I, John M. Stevens, attorney for the Massachusetts Water Resources Authority, do hereby certify that I have caused this document to be served by hand or mail to all counsel of record.

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John M. Stevens (BBO No. 480140)

Dated: September 15, 2005