

UNITED STATES DISTRICT COURT  
for the  
DISTRICT OF MASSACHUSETTS

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.  
UNITED STATES OF AMERICA, .

.  
Plaintiff, .  
. CIVIL ACTION  
v. . No. 85-0489-MA

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METROPOLITAN DISTRICT COMMISSION, .  
et al., .

.  
Defendants. .  
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CONSERVATION LAW FOUNDATION OF .  
NEW ENGLAND, INC., .

.  
Plaintiff, .  
. CIVIL ACTION  
v. . No. 83-1614-MA

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METROPOLITAN DISTRICT COMMISSION, .

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Defendants. .  
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MWRA MONTHLY COMPLIANCE REPORT  
FOR MARCH 2000 AND  
PROGRESS REPORT AS OF APRIL 14, 2000

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of March 2000 and supplementary compliance information in accordance with the Court's order of December 23, 1985, subsequent orders of the Court and undertakings of the Authority.

I. Schedule Six.

A status report for the scheduled activities for the month of March 2000 on the Court's Schedule Six, certified by Douglas B. MacDonald, Executive Director of the Authority, is attached hereto as Exhibit "A."

A. Activities Completed.

1. Interceptor Relief for BOS 003-014.

As reported last month, the Authority issued the Notice to Proceed on the contract for design of the East Boston Branch Sewer Relief project on March 15, 2000, in compliance with Schedule Six.1 The project will minimize combined sewer overflow ("CSO") discharges to Boston Harbor and the Chelsea Creek through outfalls BOS 003-014 by providing relief to the Authority's interceptor system serving most of East Boston. The Authority expects to issue the Notice to Proceed with construction by March 2003, in accordance with Schedule Six.

## B. Progress Report.

### 1. Fiscal Matters.

#### (a) State Budget.

On March 29, 2000, the Massachusetts House of Representatives Committee on Ways and Means released its budget recommendation (House Bill 5100) for Fiscal Year 2001. Like the Governor's proposed budget,<sup>2</sup> the House Committee budget includes \$53.914 million for statewide debt service assistance, both for wastewater projects and for the Authority's MetroWest Water Supply Tunnel, of which the Authority would be eligible to receive approximately \$48.4 million. The House Committee proposal also contains \$500,000 for the operation and maintenance of the Clinton Wastewater Treatment Plant, \$41.87 million for a state contribution to the Clean Water Act State Revolving Fund and \$10.63 million for the Safe Drinking Water Act State Revolving Fund. As in the Governor's budget recommendation, the House Committee included language proposing changes to the two State Revolving Fund programs that would require communities to contribute two percent toward the interest costs on the loans.<sup>3</sup>

### 2. Harbor Management.

#### (a) Construction of Effluent Outfall Tunnel.

The Authority continues to work with the contractor in an effort to develop a plan for removal of the remaining plugs at the end of the outfall tunnel. As reported to the Court during the hearing on March 30, 2000, a number of factors complicate this task. Among them are the findings and citations issued by the Occupational Safety and Health Administration regarding the use of self-contained breathing apparatus in the initial effort to remove the plugs, as well as the complex contractual, regulatory and engineering issues that remain to be resolved.

Development of a plan for re-ventilation of the tunnel using an offshore platform is moving forward.<sup>4</sup> Authority and contractor engineers have held three technical review meetings to discuss the plan and are making progress. However, key engineering issues remain to be addressed, such as details of seal and bearing plate design for the caisson to be installed on one of the diffusers. In the meantime, on March 30, 2000, the Authority advanced \$750,000 to the contractor to reserve the specialized "jack-up" barge that will be needed to execute the offshore ventilation option, to ensure its availability.

In addition, as anticipated, on April 3, 2000 the Authority and the contractor met in mediation to address two large claims filed by the contractor related to prior phases of the work. Although the parties did not reach a resolution and continue to differ greatly in their valuation of the claims, they continue to work together on developing the offshore ventilation plan.

In regard to the plan, the Authority met with representatives of federal and state environmental regulatory agencies on April 5, 2000 to provide preliminary information about the plan, including construction methodology. The meeting appeared to be very productive, and all in attendance seemed to gain a good understanding of the key elements of the plan and its time-sensitive nature. As a follow-up, the Authority is preparing a written description of the plan to submit to the U.S. Army Corps of Engineers and to the Massachusetts Executive Office of Environmental Affairs.

As the Authority noted on March 30, 2000 at the hearing, the matter of plan ownership and responsibility remains an unresolved but critical issue. The Authority continues to work with the contractor on this matter, including a full-day issues review scheduled for April 18, 2000. The Authority looks forward to updating the Court on this and other issues at the informational conference scheduled for April 27, 2000.

#### (b) Construction of Secondary Battery C.

Over the past month, the contractor has continued to make substantial progress in completing Secondary Battery C. However, the contractor will be unable to meet its April 15 schedule for delivering a facility ready for inter-CP testing. Various wiring and other electrical work remain, as well as about 20 percent of

functional testing. In addition, the contractor has been unable to resolve continuing problems with the mixer motors in the reactor battery. After a number of attempts to modify the existing motor mounts to solve the problem, it has become necessary to replace the motor mounts with a style used in Batteries A and B. The contractor expects that this work will take an additional two to three weeks. In an effort to minimize the impact of this delay on the overall completion schedule, the Construction Manager will begin inter-CP testing of smaller systems concurrently with the contractor's continuing activities.

In the meantime, walkthroughs by Deer Island Treatment Plant staff are now in progress. Barring any new problems, the Authority now expects that the contractor will complete its work in early May. Inter-CP testing should be underway by the end of April and should continue for four to six weeks. Deer Island Treatment Plant staff should be able to begin test operations of Battery C with water in June.

### 3. Residuals Management.

#### (a) Management of Pelletizing Operations.

Following review of the consultant's reports regarding the re-bid of pelletizing plant operations and a number of internal meetings with interested stakeholders, Authority staff are preparing a presentation for the Board of Directors at their meeting on April 19, 2000. The presentation will include a recommended re-bid approach and proposed schedule.

#### (b) Report on Backup Disposal Plan.

Pursuant to Schedule Six, the Authority attaches as Exhibit "C" its report on actions taken during the past six months regarding its backup residuals disposal plan. The Authority is also filing jointly with the Commonwealth a progress report on the implementation of their Memorandum of Understanding regarding beneficial use of biosolids.

### 4. CSO Program.

#### (a) Cambridge Sewer Separation.

As reported last month, the Authority's CSO planning consultant submitted a draft report summarizing the consultant's efforts to update and recalibrate the CSO planning model for the Alewife Brook area and presenting the results of the reevaluation of CSO controls for Alewife Brook.<sup>6</sup> The Authority and the City of Cambridge have reviewed the draft report and have agreed on a revised recommendation for the control of CSOs to Alewife Brook, which will be the subject of a briefing to the Authority's Board of Directors at its meeting on April 19, 2000. The Authority and Cambridge have also begun negotiations on cost sharing and a proposed implementation schedule. Authority staff anticipate seeking Board of Directors' approval of the revised control plan and a proposed approach and schedule next month. Thereafter, the Authority will discuss the recommended plan and schedule with the Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("DEP") and, among other matters, determine what additional regulatory review and approvals of the proposed plan may be necessary prior to implementation.

#### (b) Cottage Farm CSO Facility Upgrade.

Over the past month, the Authority continued to work on the problems with the flow meters and automatic sampling in the new control system at the Cottage Farm CSO facility. During a wet weather activation on March 28, the newly-calibrated flow meters measured the flows across a range of conditions. Although the new meters appeared to measure the flows within an acceptable level of accuracy, the Authority recorded flows manually as well, in order to verify the accuracy of the new meters. The Authority is currently reviewing the results of the measurements.

In addition, in March the design consultant completed a redesign of the automatic sampling systems, where plugging has interrupted continuous flow. The Authority has since ordered the new duplex straining devices that are the primary components to be added to the system under the redesign. The Authority continues to expect implementation of the redesigned automatic sampling system by the end of the month.

Meanwhile, the Authority continues to provide manual control of the disinfection and dechlorination systems, with good results. The Authority plans to continue this mode of operation until the redesigned automatic sampling system is installed, tested and accepted.

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

On April 7, 2000, as expected, the Authority met with representatives of EPA, the U.S. Department of Justice ("DOJ"), and DEP to discuss the North Dorchester Bay/Reserved Channel CSO control projects. At the meeting, the Authority reviewed a chronology of the siting process for the CSO treatment facility and described the current opposition to the selected site, in spite of extensive efforts to work with concerned citizens. The Authority also presented the Board of Directors' position that the best way to move forward with the project is to reopen the process of environmental review under MEPA (the Massachusetts Environmental Policy Act).<sup>7</sup>

On April 10, at EPA's invitation, Authority staff attended a second meeting on the projects that included representatives of several environmental advocacy groups, including the Conservation Law Foundation. At both meetings, a thorough discussion of the alternatives available for responding to the current impasse took place. The Authority expects its discussions with EPA, DOJ and DEP on this matter to continue in the coming weeks and will report further next month.

(d) Fox Point CSO Facility Upgrade.

As reported last month, the Authority and the Metropolitan District Commission ("MDC") entered into an agreement whereby the MDC will install a portion of the dechlorination force main associated with the Fox Point CSO Facility upgrade along Savin Hill/Malibu Beach.<sup>8</sup> Following execution of the Memorandum of Agreement on March 16, 2000, the MDC issued the Work Order to enable its contractor to commence this work. The MDC contractor has ordered the necessary materials, and the MDC expects the contractor to begin installing the force main in four to six weeks.

Meanwhile, construction of the Fox Point CSO upgrade is proceeding on schedule. The contractor has installed all of the pile foundation supports for the new chemical building.

(e) Outfall Closing Projects.

The Authority is continuing to evaluate possible options for installing underflow baffles for floatables control at seven regulators tributary to CSO outfalls MWR 018, MWR 019 and MWR 020, which discharge to the Lower Charles River Basin.<sup>9</sup> Currently, the Authority is reviewing metering and modeling information developed by the Boston Water and Sewer Commission ("BWSC") as part of recent studies of the upstream Stony Brook sewer system. This information will be useful for updating the hydraulic conditions and floatables control needs at the seven regulators. Early indications are that several of the regulators overflow only in storms greater than the two-year design storm. If verified, the Authority may recommend that floatables control at those locations involve Best Management Practices only, consistent with the Authority's original recommended plan.<sup>10</sup>

At one of the regulators, BWSC has eliminated overflows by separating combined sewers in the upstream system. At the remaining locations, the Authority is reevaluating the potential for additional system optimization measures to eliminate overflows up through a two-year design storm. At regulators where this approach will not be feasible, the Authority may have to reconstruct regulator structures to allow the installation of underflow baffles.

## 5. State of the Harbor Report.

The Authority recently published its most recent "State of the Harbor" report, a copy of which is attached as Exhibit "D." *The State of Boston Harbor 1997-1998: Beyond the Boston Harbor Project* (the "Report") describes improvements in Harbor and tributary water quality in response to upgrading the Deer Island Treatment Plant and transferring South System flows to Deer Island.

The Report documents continued decreases in pollutant loadings from Authority treatment facilities and downward trends in fish and shellfish contamination, beach postings and bacteria contamination. Fecal coliform levels in Boston Harbor and its tributaries decreased substantially, mainly because of improved pumping capacity at Deer Island and reduction in CSOs. Also, the Report indicates dramatic improvements in water quality in the South Harbor after the transfer of flows from Nut Island to Deer Island. During the first six months after the transfer, water clarity at the sites of the previous Nut Island outfalls doubled, and the already low fecal coliform levels decreased by 66 percent.

Much of the Report focuses on ongoing CSO and interceptor projects. In addition, it identifies future challenges to achieving further improvements in water quality.

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.

John M. Stevens (BBO No. 480140)

Dated: April 14, 2000

Notes:

1. See March 15, 2000 Compliance and Progress Report, p. 19.
2. See February 15, 2000 Compliance and Progress Report, pp. 6-7.
3. Currently, loans are available under the two funds at zero interest. The proposed change is intended to allow more communities to receive financial assistance for long overdue drinking water and sewer construction projects. If approved, the change will result in some increase in the Authority's anticipated future debt service obligations.
4. For now, as long as the offshore option remains viable, the efforts of both the contractor and the Authority are focused primarily on developing that alternative.
5. By way of illustration, see pictures of the motor mounts attached as Exhibit "B." The contract specifications for Secondary Battery C required the contractor to supply motor mounts identical to those used in Secondary Batteries A and B or to substitute mounts of higher quality. The vender (who also supplied the motors and mounts in Batteries A and B) proposed a different mount it asserted would be superior. However, after repeated testing and several modifications, the new mounts have been unable to meet the design specifications.
6. See March 15, 2000 Compliance and Progress Report, pp. 14-15.
7. See March 15, 2000 Compliance and Progress Report, pp. 16-19.
8. See March 15, 2000 Compliance and Progress Report, pp. 21-22.
9. As reported last month, preliminary design results indicate that the work and cost to install baffles would be much greater than originally estimated, and the installations may be difficult enough to be infeasible at certain locations.
10. In the *Final CSO Facilities Plan and Environmental Impact Report* (July 1997), the Authority recommended not installing floatables control devices at locations where a two-year design storm does not trigger CSO overflows.