

UNITED STATES DISTRICT COURT

for the

DISTRICT OF MASSACHUSETTS

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UNITED STATES OF AMERICA,;.

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Plaintiff,;.

.CIVIL ACTION

No. 85-0489-MA

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METROPOLITAN DISTRICT COMMISSION,.

et al.,.

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Defendants.;.

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CONSERVATION LAW FOUNDATION OF&;.

NEW ENGLAND, INC.,;.

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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 MAY 2000 AND

PROGRESS REPORT AS OF JUNE 15, 2000

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of May 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.

There were no scheduled activities for the month of May 2000 on the Court's Schedule Six.

A. Progress Report.

1. Fiscal Matters.

(a) Current Expense Budget.

On June 14, the Authority's Board of Directors approved a \$497.6 million current expense spending plan for Fiscal Year ("FY") 2001. After offsets for Commonwealth debt service assistance, various reserves and \$59 million in non-rate revenues, the Current Expense Budget ("CEB") will require \$376.3million in rate revenues from member cities and towns. The rate revenue requirement necessitates a combined 3.5percent increase in community assessments based on a .6percent increase in sewer assessments and a 13.5percent increase in water assessments. The very small sewer assessment increase reflects use of \$9.1million from various reserves established from prior year sewer revenue surpluses to offset a larger rate increase.

Fifty-five percent of the total budget is allocated for interest and principal payments on the debt that the Authority must issue to finance the ongoing capital program. The significant water assessment increase reflects primarily new debt service costs as a result of the ongoing improvements to the water system, as well as a new program to provide interest-free loans for local community drinking water distribution pipe improvements.

Planned spending was reduced by \$4.4 million from the proposed CEB sent to the Authority's Advisory Board in February for review and comment. The largest component of this reduction was a \$3.3 million decrease in direct expenses as the result of an aggressive review of Authority operations to identify efficiencies and savings opportunities. The final budget will also reflect the consolidation of water and sewer operations into a single new Operations Division.

For the average household in the 21 communities that receive both Authority water and sewer services, the rate revenue increase translates into an approximate combined annual household bill increase for Authority costs of

\$11. However, FY 2001 Authority assessments to individual communities will vary considerably depending on local water and sewer use. Water assessments to specific communities are based on each community's share of water use in calendar year ("CY") 1999. Sewer rates are based on a community's share of average CY 1998 and CY 1999 wastewater flow, high strength user volume and loading contributions and census and sewer population.

On May 24 the Board of Directors approved a \$1.2 billion FY2001-2003 Capital Improvement Program ("CIP") and a \$2.2 billion, ten-year capital spending plan. The approved CIP reflects the proposed program transmitted to the Advisory Board in December adjusted for less than anticipated spending in FY 2000 that is rolled forward into FY 2001, a revision to the funding mechanism for the new Local Water Pipeline Improvement Program and adjustments in cash flow to reflect the status of the North Dorchester combined sewer overflow ("CSO") project.

On June 14, the Board voted to establish an Authority CIP spending cap. The spending cap will set both a ten-year spending limit and annual spending limits for each of the first three years of the ten-year period. In future years, the ten-year total will be reduced by actual spending in the current year and increased to add \$100 million (in FY 2000 dollars) in the new tenth year, as well as to reflect inflation in construction costs. The spending cap approved by the Board on June 14 is consistent with the spending plan in the approved FY2001-2003 CIP and includes sufficient funds for all Court-ordered projects.

(b) State Funding.

On May 25, 2000, the Massachusetts State Senate approved its FY2001 budget. The Senate budget provisions for statewide debt service assistance (including for the Authority's MetroWest water supply tunnel), the Clean Water Act and Safe Drinking Water Act State Revolving Funds and the Clinton Wastewater Treatment Plant were identical to the recommendations adopted by the House on April 14, 2000.¹ Unlike the House budget, the Senate budget did not propose to change to the Massachusetts Water Pollution Abatement Trust and State Revolving Fund programs by asking communities to contribute two percent toward the interest costs on the loans rather than the existing zero percent loan. A Conference Committee will address the differences in the House and Senate budgets.

(c) Federal Funding.

Although the Authority requested additional federal funding to support its CSO program in FY2001, the United States House of Representatives Appropriations Subcommittee on VA, HUD and Independent Agencies did not include funding for any water or sewer projects across the country in its FY2001 bill. The subcommittee's refusal to include such projects was a strategic decision based on inadequate funding and may be revisited before final enactment of the bill. The United States Senate Subcommittee is expected to report out its FY2001 bill by the end of June.

2. Harbor Management.

(a) Construction of Effluent Outfall Tunnel.

The Authority and the outfall tunnel contractor are continuing to make significant and encouraging progress in developing and implementing the plan for resuming the work in the Effluent Outfall Tunnel.² Since last reporting, the Authority and the contractor, Kiewit/Atkinson/Kenny ("KAK"), reviewed the technical aspects of the plan at a joint meeting on May 22, 2000. In addition, in response to a recommendation by the Occupational Safety and Health Administration ("OSHA"), KAK engaged a panel of distinguished health and safety experts to provide a thorough review of the plan. On June 1, 2000, KAK and its experts provided a briefing on the work scheme and plug removal sequence to representatives from OSHA and the various trades that will perform the work, and a follow-up meeting with trade representatives occurred on June 14, 2000. The discussions appeared to be informative and productive.

In the meantime, fabrication of the materials necessary to complete the work, which include the steel casing and vent pipe, the bearing pad and the seals, is underway. The jack-up barge arrived in Boston via a transport vessel on June 6, 2000. Work is in progress to fit out the barge and ready it to begin the work on-site during July. Following consultation with environmental review and permitting agencies, the Authority has received either written or verbal assurances from all relevant state and federal agencies that existing permits issued for Deer Island construction are sufficient for the off-shore work and that no further environmental review is required.

In response to the Court's recommendation in Compliance Order Number 173, the contractor has engaged experts to review further the feasibility of developing an alternative plan for conducting the plug removal operation under existing conditions, as a back-up in the event the contractor is unable to execute the off-shore ventilation plan.

In addition, the Authority has remobilized its separate tunnel start-up contractor so that inspection and tagging of the diffusers can commence prior to the offshore ventilation work by KAK from the jack-up barge. The start-up contractor's diving and inspection work began on June 13.³

(b) Construction of Secondary Battery C.

Intensive efforts are continuing to conduct the checkout, testing and essential punch list work required to complete Secondary Battery C. The contractor is currently focusing its efforts on completing the leak tests in the clarifiers. To date, two additional clarifier tanks have passed leak tests, leaving three remaining to be tested successfully.⁴ The contractor has performed minor repairs on all three tanks and is injecting grout into one tank, repairing a leak in the scum tip tube in another and repairing the influent gate in the third. Once the repairs are complete, the contractor will coordinate leak testing with other ongoing activities, including correction of punch list items in the clarifiers, in order to ready the clarifiers for inter-CP testing as early as possible.⁵

The Construction Manager ("CM") has successfully completed inter-CP testing of the chlorine solution system, air low-pressure system and the "pig launch" to the residuals facility.⁶ Following completion of work in the scum wells and testing of control strategies, inter-CP testing of the reactor scum pumping system started today. Inter-CP testing of all 18 RSL

pumps operating concurrently is the primary critical path for turnover to Deer Island Treatment Plant ("DITP") staff. Inter-CP testing of the 18 RSLs is dependent on the completion of the leak tests and punch list items in all of the clarifiers.⁷

Much of the testing of the pumps, grinders and associated instrumentation in the scum system has been successful. However, a new problem has arisen as a result of testing the foam spray water in the scum collection system. The contractor must replace 40 electrical surge suppressors associated with valves that open and close when the foam spray water systems are in operation, because the existing suppressors shut off the power supply unnecessarily. Only nine of the surge suppressors are in stock; the remaining 31 are on order and expected to arrive within two weeks. After their installation, checking the scum collection system for its tie-in to the process instrumentation and control system can proceed.

Walkthroughs by the CM and DITP staff are ongoing. Since last month's report, joint staffs have completed an additional eight walkthroughs, and the CM has completed an additional five preliminary walkthroughs. Through June 11, 2000, the punch list included a total of 10,418 open items, of which 5,755 are critical for turnover to DITP to start its testing ("T" items) and 4,663 are required before start-up of operations ("S" items). The contractor is working to complete all essential corrective work identified to date as soon as possible. However, because walkthroughs are adding new items to the list more quickly than the contractor can address the old ones, the list is growing.

The Authority is continuing its program of paying for extended hours to supplement the contractor's extra efforts with the hope of improving upon the current completion date and minimizing any further delays. However, until all walkthroughs are complete and the full list of "T" items is available, it is difficult for the Authority to assess the status of the August completion date projected last month.

3. Settlement of NPDES Permit Appeal.

As previously reported, the Authority and several other interested parties appealed certain sections of the final NPDES permit issued jointly by the Environmental Protection Agency ("EPA") and the Massachusetts Department of Environmental Protection ("DEP") on May 20, 1999 for the Authority's Deer Island Treatment Plant and related facilities, and negotiations to settle the appeals ensued.⁸ The negotiations eventually resulted in all appellants entering into a Settlement Agreement with EPA and DEP regarding proposed modifications to the permit to address the Authority's objections, as well as those of other parties.⁹ On May 23, 2000, EPA and DEP issued the draft permit modifications for public comment. Unless substantial new questions are raised during the 30-day comment period, EPA and DEP expect thereafter to reissue the new permit, as modified by the Settlement Agreement.

4. Combined Sewer Overflow Program.

(a) Cambridge Sewer Separation.

On May 24, 2000, the Authority's Board of Directors approved the revised recommended plan and funding approach for CSO control in Alewife Brook.¹⁰

The Board also authorized Authority staff to submit the revised plan to federal and state regulatory agencies for approval and to enter into discussions with EPA and DEP regarding the plan and potential schedule.

Meanwhile, Authority and Cambridge staff continue to negotiate specific cost sharing terms and a proposed implementation schedule. The Authority and Cambridge will discuss the recommended plan and schedule with EPA and DEP at a meeting scheduled for July 14, 2000. The Authority anticipates that it will be necessary to prepare a Notice of Project Change ("NPC") to submit for MEPA11 review and expects to conduct a public meeting in the Alewife Brook area during the NPC comment period.

(b)Cottage Farm CSO Facility Upgrade.

The Authority continues to work on problems encountered with the flow meters and automatic sampling systems at the newly upgraded Cottage Farm CSO Facility. Cottage Farm activated for several hours on May 24, and longer on June 6. The recently installed, redesigned automatic influent sampling system operated with good results during both events. The new sampling system was able to deliver continuous flow to the chlorine residual analyzer with only a small amount of debris build-up in the new strainers. The strainers ran continuously for more than 12 hours during the June 6 activation. The influent chlorine residual analyzer accurately measured the strained sample per manual testing of samples taken at the chlorine analyzer.

The Authority completed review of the physical instrument loop and wiring connections and signal stability between instrumentation devices and the control system and revised certain standard facility operations, such as wet well level control and screen cleaning cycles. With the installation of additional temporary velocity sensors completed in May, the collection of flow meter calibration and performance data took place during the June 6 activation for subsequent evaluation. While the influent flow meters seemed to perform reasonably well, the effluent flow meter experienced problems that appeared to be related to adverse hydraulic conditions in the facility effluent channel. The Authority and its consultant are reviewing the problems to determine what further adjustments may be appropriate.

(c)North Dorchester Bay and Reserved

Channel Consolidation Conduits and
CSO Facility.

In response to the Court's request in Compliance Order Number173, the Authority made arrangements for the Court to visit the preferred and alternative sites identified for the new CSO treatment facility that is part of the Authority's current plan for controlling North Dorchester Bay and Reserved Channel CSOs. On May 31, 2000, representatives of the United States, EPA and DEP took part in the visit to the area of Massport's Conley Terminal proposed by residents of the neighborhood as an alternative to the site along the Reserved Channel selected by the Authority (SiteJ).

The Authority is continuing its efforts to find ways to work with all concerned parties to develop a constructive approach toward resolving the

current impasse. In the meantime, staff are working toward preparing a Notice of Project Change for filing with the Massachusetts MEPA Office to initiate the reopening of the process of environmental review, which the Authority believes would provide a useful forum for continued exploration and evaluation of alternatives and efforts to reach consensus. As this report was in preparation, the Authority received formal notice (via a letter to counsel) that the United States is opposed to further MEPA review. The Authority is disappointed in the United States' position, which it will take into consideration as it continues both internal and external discussions in the coming weeks.

5.Toxic Reduction and Control.

The Toxic Reduction and Control Department ("TRAC") recently completed its initial round of review of proposed changes to local discharge limits for permitted sewer users in the metropolitan Boston service area and submitted its recommended changes to EPA.¹² Based upon technical review of recent plant operating data and relevant regulatory criteria, the Authority's proposals include placing more stringent limits on eight pollutants and relaxing or removing limits on six pollutants. The Authority also proposes to replace petroleum hydrocarbon limits with a combination of other limits, including limits on toxic organics, fats, oil and grease, along with new and existing narrative restrictions.

During a public comment period, TRAC held a hearing on the proposed changes. Most comments focused upon the proposed retention of Authority's prohibition on the discharge of mercury. Several industry groups spoke in opposition to maintaining the prohibition, due to the small percentage of mercury contributed by permitted users, the expected costs of compliance and the results of the Authority's analysis of mercury loadings at headworks.

EPA is currently reviewing the Authority's local limits report. EPA will hold its own public comment period in the next few months.

6.Outfall 002.

During May, visual observations by staff on Deer Island suggested a possible breach in Outfall 002, one of the old Deer Island outfalls currently in use. Based on a subsequent inspection of the external condition of Outfall 002 conducted by a diver, it appears that the crown of Outfall 002 has a three-inch crack approximately 60 feet long beginning about 100 yards from the shoreline. Outfall 002 is the same outfall that was repaired several years ago, although the crack is in a different location.¹³ The Authority is currently evaluating the seriousness of the crack and what measures are appropriate for addressing it.

7.Chief Operating Officer.

At its May 24, 2000 meeting, the Authority's Board of Directors approved the appointment of Michael J. Hornbrook as the Authority's new Chief Operating Officer. The position of Chief Operating Officer is a new one, created to centralize the day-to-day leadership of important operating, construction and engineering functions of the Authority.

Mr.Hornbrook's selection followed a process of recruitment of candidates both nationally and locally. Over an 11-year tenure at the Authority, Mr.Hornbrook has made his mark as both an engineer and a manager. Most recently, his responsibilities have included management of the CSO, Infiltration and Inflow, and Wastewater Planning programs. He has worked extensively not only with many aspects of the Authority's organization, but also with regulatory agencies, customer communities and associations of water professionals. His extensive experience and knowledge of the current operating conditions of the Authority provide Mr.Hornbrook with a solid grounding for helping the Authority to address the opportunities and challenges it now faces. A copy of Mr.Hornbrook's resume is attached as Exhibit"A."

By its attorneys,

John M. Stevens (BBO No. 480140)

Dated:June 15, 2000

Notes:

1. See Compliance and Progress Report for May 15, 2000, pp. 2-3.
2. See Compliance and Progress Report for May 15, 2000, pp.3-5, for a description of the plan, which relies on a jack-up barge for staging the installation of ventilation in the tunnel via a pipe attached to a diffuser.
3. See Compliance and Progress Report for March15, 1999, pp.4-5 for a report on the award of this contract.
4. As the Authority reported on May 19, 2000, 13clarifiers had already passed the leak test. MWRA Supplemental Compliance Report Regarding Secondary BatteryC, p.3.
5. The contractor is currently working on completing punch list items in six clarifiers, the number required to start the first phase of return sludge line ("RSL") inter-CP testing.
6. The "pig launch" involves sending a solid form through the waste sludge and scum piping system to the residuals facility. The pig launches are used to clean the piping system.
7. In the meantime, the contractor has completed individual testing of all 54RSL pumps.
8. See Compliance and Progress Reports for June15, 1999, pp.8-14; July15, 1999, pp.8-10; and September15, 1999, p.5 for reports regarding the particular permit provisions appealed by the Authority and the initiation of settlement discussions, which continued periodically throughout the winter and spring. All of the permit has been stayed while the appeals were pending.
9. In summary, EPA and DEP agreed to change the 1.4million gallon per day limit on new connections from outside the Authority's service area, so that

it will take effect only if the average dry day flow at the Deer Island Treatment plant exceeds a certain number; to substitute an annual reporting obligation for requirements to develop and implement a water conservation plan; to revise sections addressing sanitary sewer overflows and infiltration/inflow to allow the Authority more latitude to work cooperatively with its member communities to address these problems; and to cure certain procedural issues.

10. As previously reported, the revised plan recommends completion of sewer separation in the CAM 004 tributary area, separation of the CAM400 tributary area, relief of dry weather connections to the interceptor system at CAM002, CAM401B and SOM001A and relief of an existing siphon at MWR003. It further recommends that Cambridge not pursue additional sewer separation in the CAM002 tributary area.

11. Massachusetts Environmental Policy Act.

12. See Compliance and Progress Reports for February12, 1999, p.24 and March15, 2000, pp.22-23 for previous reports on this matter.

13. See Compliance and Progress Reports for September15, 1995, p.15 and January16, 1996, p.10 for reports on the previous repair to Outfall002.