

UNITED STATES DISTRICT COURT
for the
DISTRICT OF MASSACHUSETTS

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.
UNITED STATES OF AMERICA, .

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

.
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

.
METROPOLITAN DISTRICT COMMISSION, .

.
Defendants. .

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MWRA MONTHLY COMPLIANCE REPORT
FOR APRIL 1999 AND
PROGRESS REPORT AS OF MAY 17, 1999

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of April 1999 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 April 1999 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. Commence Construction of South Dorchester
Bay Sewer Separation.

In compliance with Schedule Six, the Boston Water and Sewer Commission ("BWSC") issued Notices to Proceed, effective April 26, 1999, on the first two construction contracts for South Dorchester Bay Sewer Separation. The two contracts involve work in downstream portions of the combined sewer system, with most of the work of these contracts occurring in the Savin Hill neighborhood and other areas near the Bay. Together,

these first contracts represent about 23 percent of the total sewer separation work recommended in the Authority's final combined sewer overflow ("CSO") plan to eliminate CSO discharges to South Dorchester Bay. The projected construction duration for each contract may be as long as two years.

BWSC has scheduled the commencement of as many as eight additional contracts over the next several years to complete the project. It expects to complete all work by November 2008, on schedule.

2. Commence Construction of Constitution Beach Sewer Separation.

As previously reported, BWSC issued a Notice To Proceed in June 1998 on the first construction contract for separation of sewers tributary to the Constitution Beach CSO facility, well in advance of the April 1999 milestone for commencement of construction.¹ In April 1999, BWSC advertised a second construction contract for bids, and BWSC expects to issue a Notice To Proceed for this contract during the Summer. This project will prevent CSO discharges at outfall MWR 207, thereby eliminating CSO impacts to Constitution Beach, a popular swimming beach, and allowing the Authority to decommission its Constitution Beach CSO treatment facility. BWSC expects to complete construction by October 2000, in compliance with Schedule Six.

3. Backup Residuals Disposal Plan.

As required by Schedule Six, on April 15, 1999, the Authority submitted to the Court its report on actions taken pursuant to its backup residuals disposal plan, attached as Exhibit "B" to the Authority's Monthly Compliance and Progress Report of that date. In addition, the Authority and the Commonwealth submitted their Joint Report concerning the Memorandum of Understanding on beneficial use of biosolids.

B. Progress Report.

1. Fiscal Matters.

(a) State Funding.

On May 8, 1999, the Massachusetts House of Representatives adopted its proposed budget for Fiscal Year 2000. The House budget includes \$53.9 million for debt service assistance, both for statewide wastewater projects and for the Authority's MetroWest Water Supply Tunnel. The Authority would be eligible to receive \$43.1 million of this amount for debt service related to sewer projects and \$4.2 million for the Water Supply Tunnel. Furthermore, the House adopted an amendment that would include another of the Authority's drinking water projects, the Walnut Hill Treatment Facility, on the list of projects eligible for debt service assistance.

The House budget also includes \$38 million for the Clean Water Act State Revolving Fund and \$9.9 million for the Safe Drinking Water Act State Revolving Fund, which should provide a low-cost source of additional funds to support Authority projects. In addition, the budget contains \$500,000 for the operation and maintenance of the Clinton Wastewater Treatment Plant. The House budget has been referred to the Senate Ways and Means Committee for consideration.

2. Harbor Management.

(a) Construction of Effluent Outfall Tunnel.

The contractor for the Effluent Outfall Tunnel has completed the placement of concrete in the tunnel shaft and the installation of a work platform to support the placement of concrete to connect the tunnel shaft to the disinfection basins. The contractor has also removed a portion of the utility lines in the shaft and must complete this work before making the connection to the disinfection basins. Currently, the contractor is in the process of breaking through the shaft slurry wall, and no other work can take place in the tunnel until the contractor achieves further progress on this task.

With regard to the sodium bisulfite lines, the pipe to be installed in the tunnel is onsite, and specialized hangar supports are being manufactured. The contractor must grout the drop shafts and also install piping on the surface.

The precast concrete collar and cover for the shaft have been delivered to the site. They will be installed once all work inside the tunnel is completed.

(b) Electrical System Modifications for Deer Island Pump Stations.

Because of the extended period of dry weather, Deer Island Treatment Plant staff have been unable to perform full-scale testing of the additional harmonic filters at the Lydia Goodhue and North Main Pump Stations, using multiple pumps over an extended period of high flows. Staff expect to perform the testing during the next period of sustained high flow. In the meantime, the previous restrictions on multiple pump operation are no longer in effect.

(c) Demolition and Construction on Nut Island.

At the Nut Island Headworks facility, the contractor is nearing completion of the cover slabs and installation of new gates in the surge containment area. Following that work, the contractor will place concrete to block outfall No. 104, which is not part of the surge structure. In addition, the Authority recently began preparations to inspect the other Nut Island outfalls to evaluate their condition for emergency use.

3. Residuals Program.

(a) Pelletizing Plant Expansion.

During the past month, the contractor for expansion of the pelletizing plant has completed only a portion of the work remaining before testing of the two new dryer trains can resume. The additional safety work items required by the Authority following the December 1998 fire at the plant, difficulty in obtaining shop drawings for duct work and other items and changes in the contractor's project management at the site have contributed to delays. The Authority's previous reports anticipating that the work would be completed by the end of April were based on assurances provided by the contractor that have not been fulfilled. Another meeting with the contractor's senior management is scheduled to take place on May 20. The Authority has retained outside counsel to assist it in negotiations with the contractor in an effort to achieve the completion of the contract work in an amicable and expeditious manner. The Authority is hopeful that significant progress will take place in the coming weeks and will report further next month.

(b) Residuals Backup Disposal Plan.

Discussion with the Environmental Protection Agency ("EPA") is continuing regarding the Town of Walpole's request that the Authority seek relief from the requirement to retain the residuals landfill site in Walpole.

(c) Beneficial Use of Biosolids.

During the past year, the quality of the Authority's biosolids (the end product of sludge processing) has improved. Significant operational changes made by the Authority during this period have most likely played a role. These changes included transferring South System flows to Deer Island, doubling the capacity of secondary treatment and refinements to the Authority's drinking water treatment procedures.² Although it is difficult to attribute specific impacts to each of these changes, some of which may offset others, biosolids quality improved overall. The nitrogen content is higher, while the peak and average concentrations of copper and molybdenum have declined noticeably as compared to the previous year.³

During 1998, the Authority achieved beneficial use of 100 percent of the pelletized biosolids, despite a substantial increase in the tonnages produced.⁴ Most of the biosolids, approximately 99 percent, went to

commercial markets in 12 states. The Authority also continues to market Bay State Fertilizer locally and to donate it to its customer communities for use on public property.⁵

4. CSO Program.

(a) Cambridge Sewer Separation.

During the past month, the Authority and the City of Cambridge continued to meet regarding the Cambridge sewer separation project. Significant disagreement remains concerning how to proceed with the project, in view of the new information about existing conditions developed by Cambridge and the resulting changes in the scope of work that may be required to achieve CSO control goals. The parties recently met with representatives of EPA and the Department of Environmental Protection ("DEP") to inform them of the issues and to discuss alternative approaches. The Authority continues to meet with Cambridge, and another meeting with EPA and DEP is scheduled for May 27, 1999 to continue to work toward agreement on a course of action. The Authority will report next month on its progress in resolving this matter.

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

The Authority's long-term plan for CSO control includes three projects intended to eliminate CSO discharges to South Boston beaches and to minimize CSO impacts to the Reserved Channel. Design of the North Dorchester Bay and Reserved Channel consolidation conduits and the Reserved Channel CSO facility⁶ has been underway for some time,⁷ and the Authority expects to receive 90 percent design plans from its design consultant by the end of this month.

As reported in the 1998 Annual Progress Report, the Authority was reviewing revised construction schedules for the projects proposed by its consultant.⁸ Based on a careful evaluation of new information not available at the time the original schedule for these projects was proposed and accepted, the Authority has concluded that it will have to request changes in Schedule Six milestones for these projects. In particular, the Authority finds that it will be unable to meet the current milestone of March 2003 for completion of the North Dorchester conduit and the Reserved Channel facility.

The existing construction milestones in Schedule Six were based on the recommended projects and proposed schedules presented in the December 1994 Final CSO Conceptual Plan. They were added to Schedule Six well before completion of the July 1997 Final CSO Facilities Plan/Environmental Impact Report and commencement of design. Since that time, information developed during design has affected the recommended facilities themselves, the locations of certain facilities and the methods of construction. This new information has been generated primarily from field reconnaissance efforts, including topographic and utility surveys and subsurface exploration programs, as well as the extensive efforts the Authority has undertaken during design to coordinate closely with the South Boston community, elected officials and affected property owners. In addition, the Authority has changed its original plans to construct the two conduits and the CSO facility under three separate contracts, with construction of the North Dorchester conduit and the CSO facility to take place simultaneously, followed by construction of the Reserved Channel conduit.

The original schedule assumptions have been adjusted to reflect three factors: the Authority has determined that longer construction durations are necessary for the North Dorchester Bay conduit and the CSO facility; the Authority now recommends that construction of the North Dorchester Bay conduit and the Reserved Channel conduit occur under one contract for cost and schedule savings; and the Authority is recommending that all facilities start up at one time, to avoid conflicts between operations and construction on the tight construction site surrounding the Reserved Channel CSO facility. All of these new recommendations are intended to reduce construction risk, control costs and improve startup efficiencies and operational reliability.

The Authority now finds that the longer construction schedule required for the North Dorchester Bay conduit and the Reserved Channel CSO facility will prevent it from meeting the March 2003 milestone for their completion.

However, it does expect to be able to begin construction in advance of the current date of September 2000 and to complete the Reserved Channel conduit well in advance of the current milestone of March 2005.⁹

On May 6, 1999, the Authority met with EPA and DEP to discuss the changes in its approach to the projects, the reasons for those changes and proposed changes in the schedule. Following further discussion with the regulatory agencies, the Authority expects to prepare a motion to amend Schedule Six for the consideration of other parties and the Court.

The Authority also expects to submit a Notice of Project Change to the Massachusetts Environmental Policy Act ("MEPA") Unit of the Executive Office of Environmental Affairs ("EOEA") by the end of this month, describing the schedule changes and other significant project adjustments that have been made since the Final Facilities Plan/EIR and addressing community issues that have arisen during design.¹⁰ The recommendations include a revised level of separate storm water control along the South Boston beaches (from total elimination to elimination up to a 5-year storm), new storm drain construction, diversion of separate storm water away from Pleasure Bay beaches, modified pipeline alignments, relocation of a proposed odor control facility at the upstream end of the Reserved Channel conduit and an increase in the diameter of the North Dorchester Bay and Reserved Channel conduits to improve the level of CSO control at Reserved Channel.

The Authority continues to meet regularly with representatives from the neighborhood working group established for this project, as well as elected officials, property owners and the community at large, to work toward consensus and a level of public support for the recommended plan. At the request of the working group, the Authority will conduct a community-wide meeting on the project in South Boston on June 2, 1999.

(c) Variance for Alewife Brook and Upper Mystic River CSO Discharges.

Concurrent with its reassessment of the Cambridge Sewer Separation project, the Authority has initiated work on the early milestones associated with the 36-month Alewife Brook/Upper Mystic River CSO Variance. Among the tasks to be performed during the remainder of 1999 is development of a plan and methodology for estimating actual CSO discharges to these receiving waters. Water quality-related efforts will include the annual review of the previous year's sampling data and development of the scope for the storm water sampling the Authority is required to undertake semiannually as part of the Variance. These efforts will create an information base for future decision-making, in concert with the watershed planning activities of the EOEA and other participants in EOEA's Boston Harbor Basin Team. The Authority will report on its related activities conducted during 1999 in its Annual Progress Report on the CSO Control Plan due in February 2000.

(d) Chelsea Relief Sewers.

On April 15, 1999, the Secretary of Environmental Affairs issued a Certificate on the Notice of Project Change related to the Chelsea relief sewer projects in the Authority's CSO plan.¹¹ In the certificate, the Secretary allows the projects and proposed changes to move forward without further environmental review.

(e) Prison Point Facility Upgrade.

On May 5, 1999, the Authority's Board of Directors approved award of the construction contract for the Prison Point CSO Facility Upgrade. The Authority expects to issue a Notice To Proceed to the contractor by the end of May, in compliance with Schedule Six.

Similar to the construction now nearing completion at the Cottage Farm CSO facility, the Prison Point contract includes replacing and upgrading the existing sodium hypochlorite disinfection system and installing a dechlorination system, to bring facility discharges into compliance with related NPDES permit limits. The Prison Point upgrade also includes extensive improvements related to worker safety and operational reliability.

(f) Floatables Control.

As anticipated last month, the Authority issued a Notice To Proceed in April on the contract to install underflow baffles at four regulator structures associated with two CSO outfalls along the Authority's Boston Marginal Conduit, outfalls MWR 019 and MWR 020. This contract is the second construction activity associated with the Region-wide Floatables Controls and Outfall Closing projects.¹² The work is scheduled to be completed by August 1999.

Final design for the Authority's second underflow baffle contract, which will address the remaining seven regulator locations associated with outfall MWR 018, is progressing. The Authority continues to expect to award that contract by late Summer.

By its attorneys,

John M. Stevens (BBO No. 480140)

Foley, Hoag & Eliot LLP

One Post Office Square

Boston, Massachusetts 02109

(617) 832-1000

Of Counsel:

Mary R. Jeka,
General Counsel

Virginia S. Renick,
Associate General Counsel

Massachusetts Water Resources
Authority

100 First Avenue

Boston, Massachusetts 02109

(617) 242-6000

Notes:

1. See Compliance and Progress Report for September 15, 1998, p. 13.
2. Modifications at the Interim Corrosion Control facility in Marlboro have contributed to lowering copper leaching from water service lines and plumbing fixtures.
3. See previous reports regarding elevated levels of copper and molybdenum in Compliance and Progress Reports for September 15, 1993 (pp. 9-11), October 16, 1995 (pp. 12-14) and December 16, 1996 (pp. 13-15) among others.

4. The quantity of pellets produced increased from 14,000 tons in 1997 to 21,000 tons in 1998. The Authority landfilled sludge cake not dried into fertilizer.
5. A list of retail outlets carrying Bay State Fertilizer is attached as Exhibit "B."
6. Schedule Six currently identifies the North Dorchester Bay consolidation conduit and Reserved Channel CSO facility as "CSO relocation to Reserved Channel and associated treatment facility" and the Reserved Channel consolidation conduit as "consolidation facilities for CSO outfalls BOS 076-080." See the 1998 Annual Progress Report on the CSO Control Plan (pp. 9-12), filed by the Authority on March 1, 1999 for a description of these projects.
7. The Schedule Six milestone for design of the North Dorchester Consolidation conduit and the Reserved Channel CSO facility was July 1997, and the milestone for design of the Reserved Channel consolidation conduit is December 1999. After the new CSO schedule was added to Schedule Six in June 1996, the Authority made the decision to combine the three projects into a single design contract begun in August 1997.
8. See 1998 Annual Progress Report on CSO Control Plan, p. 10.
9. The Authority notes that the Advisory Board, in its comments on the proposed Fiscal Year 2000-2002 Capital Improvement Program, has recommended that the Board of Directors review the implications of all of its planned capital projects, including the North Dorchester Bay/Reserved Channel CSO projects, on projected rate increases over the next several years.
10. See 1998 Annual Progress Report on the CSO Control Plan, pp. 11-12.
11. See Compliance and Progress Report dated April 15, 1999 pp. 11-12, for a description of the project changes.
12. See Compliance and Progress Report for April 15, 1999, pp. 2-3.