

UNITED STATES DISTRICT COURT

for the

DISTRICT OF MASSACHUSETTS

.....

.

UNITED STATES OF AMERICA, .

.

Plaintiff, .

. CIVIL ACTION

v. . No. 85-0489-MA

.

METROPOLITAN DISTRICT COMMISSION, .

et al., .

.

Defendants. .

.

.....

.

CONSERVATION LAW FOUNDATION OF .

NEW ENGLAND, INC., .

.

Plaintiff, .

. CIVIL ACTION

v. . No. 83-1614-MA

.

METROPOLITAN DISTRICT COMMISSION, .

.

Defendants. .

.

.....

MWRA MONTHLY COMPLIANCE REPORT

FOR NOVEMBER 1999 AND

PROGRESS REPORT AS OF DECEMBER 15, 1999

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of November 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 November 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 Fox Point, Commercial Point, and Somerville Marginal Facility Upgrades.

On November 30, 1999, the Authority issued a Notice to Proceed on the construction contract for upgrades to the Fox Point, Commercial Point and Somerville Marginal combined sewer overflow ("CSO") treatment facilities, in compliance with Schedule Six. The Commercial Point and Fox Point facilities, located in Dorchester, treat CSOs prior to discharge to South Dorchester Bay. The Somerville Marginal facility, located in Somerville, treats CSOs prior to discharge to the Mystic River at Amelia Earhart Dam. The facility upgrades include the replacement and upgrade of existing chlorine disinfection systems and the construction of dechlorination systems and other process control and safety improvements.

The provision of dechlorination at these facilities is in accordance with the plans recommended in the 1999 Supplemental Environmental Impact Reports for the CSO Facility Upgrades.¹ For Commercial Point, the plans call for constructing a remote chemical building to house the dechlorination system (consisting of chemical tanks, pumps and controls) on Massachusetts Highway Department property adjacent to the Southeast Expressway. At Fox Point and Somerville Marginal, the plans include new chemical buildings to be constructed adjacent to the existing facilities, along with small-diameter underground force mains that will deliver the dechlorinating agent, sodium bisulfite, to injection points on the outfalls. The 2,700-foot Fox Point force main will cross beneath the Southeast Expressway, continue along the shoreline of Malibu Beach and terminate at Morrissey Boulevard, where a small (12' x 12') sampling building will be constructed. The 1,800-foot Somerville Marginal force main will run primarily along Middlesex Avenue in Somerville, terminating at the parking lot of the Assembly Square Mall, where a small sampling building will be located.

The Authority expects construction of the upgrades at all three facilities to be complete by March 2001.

B. Progress Report.

1. Fiscal Matters.

(a) State Budget.

On November 16, 1999, the Governor signed the Commonwealth's budget for Fiscal Year ("FY") 2000. As anticipated, the budget included funding for debt service assistance for statewide wastewater projects and the Authority's MetroWest Water Supply Tunnel, the State Revolving Fund for wastewater and drinking

water projects, the operation of the Clinton Wastewater Treatment Plant and the state's Low Income Sewer and Water Assistance Program.²

(b) Current Expense Budget.

Printed copies of the Authority's Current Expense Budget for FY 2000, approved on June 30, 1999, are now available.³ A copy is attached as Exhibit "B."

2. Harbor Management

(a) Construction of Effluent Outfall Tunnel.

When the Authority last reported, the National Institute of Occupational Safety and Health ("NIOSH") was reviewing the outfall tunnel contractor's proposed plan to recover the equipment left in the tunnel after the events that led to the deaths of two workers in July. NIOSH completed its health hazard evaluation and recommended that the contractor develop an alternative to the current plan, which would have depended upon bottled air for workers recovering the equipment and subsequent removal of the remaining diffuser plugs. NIOSH recommended that the contractor provide an air supply by other means, such as tunnel ventilation, and rely on bottled air or rebreathers only as a back-up measure. The Occupational Safety and Health Administration ("OSHA") informed the contractor that it concurs with the NIOSH recommendations. The contractor is currently evaluating the recommendations, and the Authority awaits the contractor's next proposal.

(b) Secondary Battery C.

The contractor's forecasted completion date for Secondary Battery C continued to slip during November, even though the contractor continued to work extended hours. Completion of the remaining electrical and mechanical work has required more time than anticipated in previous schedule projections. Problems encountered in testing also are taking time to resolve. The Authority now estimates that the contractor will not complete the work necessary for final testing and subsequent start up until at least February. The Authority, its construction manager and the contractor are meeting daily to review progress, address problems as they arise and attempt to move construction and testing along as quickly as possible.

In the reactor battery, electrical work is 79 percent complete, and mechanical installation is 90 percent complete. The contractor continues to run the four-hour tests of the aerators and mixers. Although vibration problems in the 50 and 150 horsepower mixer motors were solved, changes to the 100 horsepower motors were necessary, and testing of the modified motors is now underway. Preliminary results are promising. In addition, the contractor has filled the reactor trains with water and is conducting scum and sluice gate testing, to be followed by air and purge blower testing.

In the clarifier battery, electrical work is 81 percent complete, and mechanical work is 76 percent complete. Installation of the scum dip tubes has emerged as a significant issue because of misalignment with the openings in the clarifier walls. The contractor and vendor have investigated, and installation is now underway, although proceeding more slowly than anticipated. In addition, the contractor's progress in performing leak testing of the clarifier tanks has become increasingly critical. The static water test in the first tank failed, and the contractor is making grout repairs to the tank walls to seal the leaks. Filling other tanks for leakage testing is underway. Meanwhile, electrical work for all of the return sludge pumps is now complete, and logic testing is in progress. The contractor has completed dry run testing of the sludge collection equipment in three tanks and has started wet run testing.

As of the end of November, overall physical progress was 92 percent complete. Overall testing was 48 percent complete, with approximately 1,850 individual field and 750 functional tests remaining. "Inter-CP" testing to ensure that the new facility operates as intended in conjunction with other components of the treatment complex must follow and is expected to require up to seven weeks after completion of the contractor's work.

3. Residuals Management.

(a) Pelletizing Plant Expansion.

As anticipated last month, the contractor for the expansion of the pelletizing plant received and installed a new type of shaftless screw for the mixer conveyors in the new dryer trains. Preliminary operation of the system using the new equipment has been promising. The contractor is proceeding to adjust and calibrate other components of the dryer train, in preparation for running the train for a sustained period to demonstrate system reliability and to conduct the emissions testing necessary to meet air permit requirements.

(b) Management of Pelletizing Operations.

The consultant retained to assist in the re-bid of the pelletizing plant operating contract has completed an initial round of meetings with Authority staff, as well as others outside the Authority. The consultant is exploring how the current contract is working and what external factors may affect the re-bid. The Authority expects to receive an initial report early next year.

4. CSO Program.

(a) Cambridge Sewer Separation.

Various efforts are continuing in support of the reevaluation of the recommended approach to control CSOs affecting Alewife Brook in Cambridge.⁴ The temporary flow- monitoring equipment installed in October was removed after a sufficient number of storm events occurred. The Authority's CSO planning consultant is now using the monitoring data to verify and calibrate the sewer system model, which the consultant has updated to incorporate new field information from the City of Cambridge.

In addition, Cambridge engineers are using their own more detailed model to evaluate different options for the area tributary to CAM 002, in an effort to reduce the capital cost of the overall sewer separation project, while meeting CSO control goals. These options involve varying the level of sewer separation, increasing the size of the connection between the Cambridge system and the Authority's interceptor and applying various stormwater management strategies. The Authority is currently reviewing a draft technical memorandum prepared by Cambridge, which presents the results of these modeling efforts to date.

The Authority has also authorized Cambridge to conduct additional field investigations of the area tributary to CAM401, the CSO first identified by Cambridge early in 1998 and not included in the Authority's Final CSO Control Plan and Schedule Six.⁵ Agreement on the scope of the field work Cambridge will perform in this area (and the Authority will fund) was delayed while negotiations were in progress regarding the continued design of sewer separation for the CAM004 area, as authorized by the Authority's Board of Directors on September 29, 1999.⁶ However, on December 14, 1999 the Authority approved the scope of work for the CAM 401 investigations, so that the work could proceed. The delay in this work may affect the Authority's ability to complete its reconsideration of CSO control alternatives for the Alewife Brook area by February 2000. However the Authority is making every effort to move forward with the reevaluation on a timely basis.

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

As anticipated in last month's report, State Senator Stephen Lynch, State Representative John ("Jack") Hart, Boston City Council President James Kelly and City Councilor Peggy Davis-Mullen attended the Board of Directors meeting today, to present the South Boston neighborhood's opposition to the Authority's recommended site for the proposed Reserved Channel CSO Facility, designated "Site J." A number of South Boston residents attended as well. As articulated by the elected officials and one community representative, that opposition is based on the proximity of Site J to residences and a concern that the CSO facility will harm public health and the environment. The spokespeople at the Board meeting

believe that the Authority could avoid or minimize these concerns by locating the facility at Conley Terminal, Massport's container terminal. The officials made clear that they would not file and would unequivocally oppose any other avenue of enactment of the Article 97 legislation needed to construct the CSO facility at Site J. The Authority will report further once the Board has taken up the matter at a future meeting.⁷

Meanwhile, on December 6, 1999, the M Street Park and Neighborhood Association and 16 citizens filed suit in Suffolk Superior Court, challenging the Authority's plan for siting the Reserved Channel facility at Site J and the Secretary of Environmental Affairs' approval of that plan under the Massachusetts Environmental Policy Act. A copy of the complaint is attached as Exhibit "C."

In the meantime, the Authority has completed supplemental subsurface exploration at Site J, and archaeological field studies should be completed shortly.

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

As reported last month, the Authority and the communities of

Cambridge and Somerville coordinated efforts to conduct storm water sampling during a rain event in early November.⁸ The Authority's Deer Island laboratory has completed water quality analyses on all samples, and, in compliance with the Variance, the Authority submitted the results from its sampling at three Medford locations to the Department of Environmental Protection ("DEP").

In addition, the Authority received notification from DEP that the Authority's submissions with respect to the reevaluation of infiltration and inflow ("I/I") controls as a means to reduce CSO discharges meet the basic Variance requirement. However, DEP believes that it is not possible to conclude definitively at this time that further I/I work would not provide measurable additional mitigation of downstream CSO discharges.

(d) Hydraulic Relief for CAM 005.

The contractor implementing hydraulic relief at CAM 005 is proceeding with construction activities without further difficulty. Excavation of the site and installation of the earth support system are in progress.

(e) Cottage Farm CSO Facility Upgrade.

The contractor at the Cottage Farm facility is continuing activities necessary to replace the original influent flow meters and correct electrical problems discovered during performance testing.⁹ The Authority continues to expect that all work will be completed in January 2000.

5. Sewerage Division Management.

The Authority notes the pending departure of John F. Fitzgerald, who will leave his position as Director of the Authority's Sewerage Division at the end of the month.¹⁰ In that position, Mr. Fitzgerald has been responsible for overseeing the management of all of the Authority's wastewater collection and treatment operations, including the Deer Island Treatment Plant. In particular, he has played a significant role in managing the successful transitions as Sewerage Division staff accepted and began operating each phase of the new treatment facilities, upon the completion of construction under the Court-ordered schedule. His leadership will be missed.

6. Year 2000 Update.

On November 17, 1999, Authority staff updated the Board of Directors on the status of the Authority's Year 2000 preparations. The Authority has completed its internal preparations, such as updating essential systems, acquiring additional generators and arranging for sufficient supplies of fuel and chemicals.¹¹ In

addition, in conformance with state requirements and federal recommendations, the Authority has developed special plans for ensuring that services continue without interruption over the New Year's weekend. The Authority's Emergency Operations Center will be in operation, and various staff have been assigned to be on site or on call to respond to any needs that may arise.

By its attorneys,

John M. Stevens (BBO No. 480140)

Foley, Hoag & Eliot

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

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.

Dated: December 15, 1999

Notes:

1. See Compliance and Progress Reports for October 15, 1998 pp. 2-7 and January 15, 1999, pp. 7-10 for information regarding these reports.
2. See the November 15, 1999, Compliance and Progress Report, p. 3.
3. See Compliance and Progress Report for July 15, 1999, pp. 2-3 for a summary of the budget.

4. The Authority's Final CSO Plan recommended sewer separation in the areas tributary to outfalls CAM 002 and CAM 004. As previously reported, the City's Preliminary Design Report called for a project greatly exceeding the scope originally anticipated. See Compliance and Progress Report for February 12, 1999, pp. 10-16.
5. See the March 16, 1998 Compliance and Progress Report, pp. 8-9.
6. See October 15, 1999 Compliance and Progress Report, pp. 9-10. Continuing with design in this area has high priority because of concerns about the potential for CSO discharges affecting Fresh Pond and for backups into homes and businesses resulting from the partial sewer separation already underway in the CAM 004 area.
7. Several Board members had visited both sites prior to the meeting. The Board had previously received information from staff that relocating the facility to Conley Terminal would add approximately \$40 million to the project cost and that studies indicate that environmental impacts at Site J should not be significant. In addition, it is by no means certain that the CSO facility would be compatible with Massport's operations at Conley Terminal.
8. See the November 15, 1999, Compliance and Progress Report, p. 12.
9. See Compliance and Progress Reports for October 15, 1999, pp. 13-15, and November 15, 1999, p. 13.
10. Mr. Fitzgerald served as Deputy Director of the Sewerage Division from 1990 to 1993, when he became the Director.
11. See Compliance and Progress Report for February 12, 1999, pp. 25 -27, for a summary of the Authority's activities to identify potential problem areas and prepare various remediation and contingency plans.