

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

.
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, .

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Defendants. .
.
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MWRA MONTHLY COMPLIANCE REPORT
FOR FEBRUARY 1999 AND
PROGRESS REPORT AS OF MARCH 15, 1999

The Massachusetts Water Resources Authority (the "Authority") submits the following monthly compliance report for the month of February 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 February 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. Combined Sewer Overflow Annual Report.

On March 1, 1999, the Authority submitted its Annual Progress Report on the Combined Sewer Overflow Control Plan in accordance with Schedule Six. As required, the report reviews the progress made in planning, design and construction of each combined sewer overflow ("CSO") project over the last year and identifies issues that have affected or may affect the schedule for several projects.

2. Supplemental Environmental Impact Report for Fox Point CSO Facility Upgrade.

On February 16, 1999, the Secretary of Environmental Affairs issued a Certificate on the Authority's Supplemental Environmental Impact Report ("SEIR") for the Fox Point CSO facility upgrade. A copy of the Certificate is attached as Exhibit "B." The Certificate found that the SEIR adequately and properly complies with the Massachusetts Environmental Policy Act.

The Secretary directed the Authority to coordinate its permitting and construction activities for Fox Point with the Metropolitan District Commission's ("MDC's") Malibu Beach improvement project. The Authority met with the MDC and the Department of Environmental Protection ("DEP") in early March to continue discussions relative to the projects.

Preliminary design work on the Fox Point upgrade is progressing on schedule, and the Authority continues to work with the neighboring community on key design issues. An initial meeting took place on March 4, and there will be additional workshops in the Spring to discuss the design of the remote sampling and controls building to be located near Morrissey Boulevard. Construction is expected to begin in November 1999 in compliance with Schedule Six.

B. Progress Report.

1. Harbor Management.

(a) Construction of Effluent Outfall Tunnel.

In the Effluent Outfall Tunnel, the contractor completed all work associated with forming the starter tunnel and disassembled and removed the east dam car used to retain groundwater while work on the starter tunnel was in progress. In addition, the contractor has installed a new pump station in the starter tunnel, to replace the one in the tail tunnel used during earlier phases of construction. With the new pump station in operation, the contractor is removing the former pump station to allow other construction to proceed. This work includes placing the supports for the concrete pour to form the bulkhead of the tail tunnel, adjacent to what will become the elbow connecting the shaft and starter tunnel. The contractor is also performing work connecting the tunnel shaft to the disinfection basins and for installation of lines for sodium bisulfite (a dechlorination agent), which will extend 850 feet inside the tunnel.

On March 3, 1999, the Authority's Board of Directors approved the award of an additional contract to support full activation and initial operation of the tunnel.¹ Under the contract, after the commissioning of the tunnel, the startup contractor will remove sufficient port caps from the diffusers to balance wastewater flow throughout the entire treatment system and to achieve optimum effluent dilution upon discharge into Massachusetts Bay. An effective flow regime will prevent seawater intrusion into the outfall and ensure compliance with effluent quality and dilution estimates used in establishing NPDES permit requirements. During the period of startup and initial operation, the contractor will take effluent samples near the diffusers for testing by the Authority to determine what adjustments in the number of port openings are appropriate.² Other tasks to be performed by the new contractor include installing identification plates on each diffuser and surveying the existing condition of the diffusers to determine whether the diffusers have sustained any damage or significant marine growth since the last inspection performed in 1996.

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

Installation of the new harmonic filters acquired to address excess electrical distortion is complete in both the North Main and Lydia Goodhue Pump Stations. Deer Island Treatment Plant staff expect to perform final testing of the filters with multiple pumps during the next period of sustained high flows.

(c) Demolition and Construction on Nut Island.

At the Nut Island Headworks facility, work on the construction of a new surge containment area in the old effluent channel is continuing. The contractor has completed the demolition of an old weir and is continuing with demolition of the old concrete sandcatcher structure. Placement of concrete for new openings at the east side of the emergency storage area is complete.

3. Residuals Program.

(a) Pelletizing Plant Operations and Construction.

As anticipated, the pelletizing plant returned fully to normal pelletizing operations on February 15, 1999, with all four existing dryer trains available for use after the contractor completed additional bracing of ductwork on dryer train #1.3 The transition to routine operations took place without incident, and no further landfilling of sludge cake has been necessary.

The contractor for plant expansion is continuing to work on the safety-related items to be completed for the two new dryer trains, prior to the resumption of performance testing. The Authority met with the contractor on February 25, 1999, and, among other matters, discussed means available to speed the completion of work on dryers #5 and #6. Based upon the current status of the work, the Authority is hopeful that testing of the new trains can resume in early May. The Authority expects that performance testing and "shakedown" operations will require several weeks thereafter before it accepts the new dryers.

(b) Residuals Backup Disposal Plan.

On February 26, 1999, as expected, the Authority met with the Environmental Protection Agency ("EPA") and DEP to discuss the Town of Walpole's request to seek elimination of the requirement for an in-state backup sludge disposal site. A number of questions remain unresolved. The Authority plans to continue its discussions with EPA and DEP over the next month.

4. Combined Sewer Overflow Program.

(a) Cambridge Sewer Separation.

As reported last month, the Authority is undertaking an intensive review of new information provided by the City of Cambridge since the City began design of the sewer separation project planned to address CSO discharges at CAM 002 and CAM 004.4 The new information indicates that the potential scope and cost of the project greatly exceed earlier expectations. In the past month the Authority has met with Cambridge representatives to discuss the next steps necessary to review the new information and to re-evaluate appropriate CSO control technologies for meeting the CSO control goal for Alewife Brook.

With regard to the construction for this project begun in July 1998, Cambridge has now completed two construction contracts, the cleaning of the upstream portion of the outfall pipe leading to CAM 004 and the separation of combined sewers from one area tributary to CAM 004. A third contract to separate an area of combined sewers tributary to CAM 002 is approximately 60 percent complete.

(b) Cottage Farm Facility Upgrade.

The contractor for the Cottage Farm facility upgrade completed the construction of the interim control system (for chlorination and dechlorination), and the Authority expects that construction for the upgrade project overall will be substantially complete by the end of March, with the exception of the permanent control room and control systems.5 The upgraded facility will then be fully operational, using the interim control system. The Authority and its consultant are working now with equipment and instrument manufacturers to field test and certify all newly installed equipment, including chemical storage tanks, pumps and process control instrumentation. Once the field testing is complete, Authority staff will receive training on the use of the interim control system.

The Authority has completed the construction documents for the floor repairs to be performed prior to installation of the permanent automated controls. Work on the repairs is expected to begin in April.

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

On March 5, 1999, DEP issued the final Variance for CSO discharges to the Alewife Brook and the Upper Mystic River. A copy of the Variance is attached as Exhibit "C."

The general framework and substance of the Variance conditions remain similar to those in the draft Variance described in the Authority's January 15, 1999 Compliance and Progress Report (pp. 22-25). Issued for a 36-month period, the Variance allows temporary exceedances of existing water quality standards, due to CSO discharges, while additional water quality investigations are underway. A major focus of those investigations will be the collection of additional data regarding stormwater and other non-CSO sources of pollution in the Alewife/Upper Mystic water basin. At the end of the Variance term, the additional information will be used to assess whether further CSO control measures may be appropriate. The most significant change in the final Variance from the draft version is a new requirement for the Authority to prepare a report by January 1, 2002, summarizing and assessing the information obtained during the variance process in order to reassess the recommended CSO control plan for the Alewife/Upper Mystic areas in the Final CSO Facilities Plan.

During the term of the Variance, while the studies and preparation of the new report are in progress, the Authority is required to proceed with implementing the CSO projects for Alewife Brook and the Upper Mystic River contained in the Final Facilities Plan. In addition to the Authority, the Cities of Cambridge and Somerville are subject to the Variance and have various responsibilities thereunder.

5. Management of Infiltration and Inflow.

As anticipated, on February 25, 1999, the Authority convened a second workshop to address operation of the sewer collection system in wet weather and strategies for reducing infiltration and inflow ("I/I"), this time with representatives of communities of the North System, as well as other interested stakeholders.⁶ Following the workshop, six representatives of the northern communities were added to the I/I task force, which is meeting monthly to continue the collaborative process begun at the workshops.

In the meantime, in February the Authority distributed another \$5.1 million through its Local I/I Financial Assistance Program to five of its sewer communities (Cambridge, Malden, Quincy, Reading and Stoneham) for local sewer rehabilitation projects expected to result in reduced I/I.⁷ To date, the Authority has distributed a total of \$52 million (out of a total budget of \$100.75 million) in grants and interest free loans to 42 of the 43 local communities.

By its attorneys,

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Notes:

1. The contractor constructing the tunnel will be responsible for filling the tunnel with seepage water and removing a small number of the caps from the diffuser ports on the diffuser heads to purge the brackish groundwater from the tunnel in preparation for startup.
2. The contract provides for the startup contractor to be available for a number of months after the current anticipated date for filling the tunnel to provide assistance and fine tuning of tunnel operations, as needed.
3. As previously reported, a fire at the pelletizing plant in December 1998 halted all pelletizing operations temporarily and required activation of the Authority's backup residuals disposal plan, which relies on use of commercial landfilling.
4. See February 12, 1999 Compliance and Progress Report, pp. 10-16.
5. See November 16, 1998 Compliance and Progress Report, pp. 10-13, for the initial report on the construction problem encountered at the Cottage Farm facility that led to the need for the interim controls.
6. See December 15, 1998 Compliance and Progress Report, pp. 15-16, for a report on the first workshop.
7. The Authority allocates the funds based on each community's respective share of the Authority's overall wholesale sewer charges.