

UNITED STATES DISTRICT COURT
for the
DISTRICT OF MASSACHUSETTS

.....
UNITED STATES OF AMERICA,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,
et al.,

Defendants.
.....

CIVIL ACTION
No. 85-0489-RGS

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

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,

Defendants.
.....

CIVIL ACTION
No. 83-1614-RGS

MWRA QUARTERLY COMPLIANCE AND
PROGRESS REPORT AS OF SEPTEMBER 15, 2011

The Massachusetts Water Resources Authority (the "Authority") submits the following quarterly compliance report for the period from June 16, 2011 to September 15, 2011 and supplementary compliance information in accordance with the Court's order of December 23, 1985 and subsequent orders of the Court.

I. Schedule Seven.

There were no scheduled activities for the last quarter on the Court's Schedule Seven.

A. Progress Report.

1. Combined Sewer Overflow Program.

The Authority is pleased to report that the North Dorchester Bay combined sewer overflow ("CSO") storage tunnel, the associated dewatering pumping station, and the tunnel ventilation building have consistently performed as intended and met their full environmental function since May 4, 2011, when the Authority brought the tunnel and facilities into start-up service. Since then, in all dry weather periods and through all of more than 40 rainfall events, with the sole exception of Hurricane Irene, the Authority has maintained the eleven CSO and stormwater diversion gates in the open position, thereby directing all flows to the tunnel and preventing any discharge of CSO, stormwater or dry weather flow (e.g., groundwater infiltration) from the outfalls along the South Boston beaches. Nearly 100 million gallons of potential outfall discharge have been captured in the tunnel and dewatered to the interceptor system for treatment at Deer Island.

On Saturday, August 27, during Hurricane Irene, the Authority closed the six stormwater diversion gates to the tunnel by 9:00 PM after initial heavy rains that fell that afternoon and early evening, in accordance with tunnel operating procedures. The decision to close the gates was based on forecasts of an additional 5 inches of hurricane-force rains during the following 24 hours.

The forecasted rainfall significantly exceeded the 4.0 inches of rain in 24 hours that is the trigger for closing the stormwater gates in order to preserve the storage capacity of the tunnel to capture all of the expected high CSO flows. Full capture of CSO flows during Hurricane Irene was accomplished. During the entire event, the Authority was able to maintain all CSO diversion gates in their fully open positions and prevent CSO discharge to the beaches.

While the stormwater gates were closed, stormwater was successfully discharged over the stormwater diversion structure weirs to North Dorchester Bay with no report of any upstream flooding. The Authority was able to reopen the stormwater gates to the beaches by noon on Sunday, August 28, when forecasts indicated diminishing rain. The Authority closed the stormwater gate at BOS087, which discharges to Savin Hill Cove, again late Sunday night and reopened this gate in the early morning hours of Monday, August 29, in response to observed high tide with storm surge conditions that were affecting the water levels in this outfall. Since then, all of the CSO and stormwater gates have been maintained in a fully open position.

In addition, Boston Water and Sewer Commission ("BWSC") completed work to remove the decommissioned above-grade structures at the end of the outfall pipe at Outfall BOS087 that previously discharged to North Dorchester Bay near the former Bayside Exposition Center, permanently eliminating the possibility of CSO or stormwater discharge to the South Boston beaches from this outfall.

To date, the Authority and its CSO communities have completed 29 of the 35 CSO control projects in the Authority's long-term CSO control plan. Four of the remaining six projects are in the construction phase. Construction is well underway and progressing as scheduled on the Reserved Channel sewer separation project being implemented by BWSC, the Brookline sewer separation project being implemented by the Town of Brookline, and the CAM004 stormwater outfall and detention basin project being implemented by the City of Cambridge.

The City of Cambridge completed early construction contracts for the CAM004 sewer separation project several years ago and is now in the process of completing the design of the three additional contracts Cambridge has planned to complete the project. Cambridge intends to begin construction of the first of the additional CAM004 sewer separation contracts in September 2012. The Authority plans to commence design of the remaining two projects — the control gate and floatables control at Outfall MWR003 gate controls and Rindge Avenue siphon relief project and the interceptor connection relief and floatables control at Outfall SOM01A project — in April 2012.

In addition, BWSC continues to make progress with construction of its \$6.0 million contract for CSO Regulator Relocation and Sewer Separation for Lower Dorchester Brook Sewer Relief, which is partially funded by the Authority. The contract is intended to bring CSO discharges to BWSC's Dorchester Brook Conduit and the Fort Point Channel into conformance with

the Authority's long-term CSO control plan. BWSC has installed 340 linear feet of 15-inch and 18-inch-diameter storm drain and has completed construction of special structures and particle separators at Massachusetts Avenue. BWSC has also completed the 25 acres of sewer separation in the contract. The benefits of this separation, along with those from the removal of stormwater from an adjacent area of approximately 125 acres separated by BWSC many years ago, will be realized when the CSO regulator is relocated. BWSC has issued change orders to repair and line portions of its interceptors found to be in need of structural repair. Relocation of the CSO regulator is pending completion of the interceptor repairs. BWSC has extended the contract term by three months, to November 2011, due to the change orders.

Detailed descriptions of the CSO projects and identification of Court milestones for design and construction can be found in the Authority's *CSO Annual Progress Report 2010*, dated March 2011 (the "Annual Report"). The Annual Report is available on the Authority's website at www.mwra.com.

a. Cambridge Sewer Separation.

The City of Cambridge continues to make progress with the construction of the CAM004 stormwater outfall and detention basin and the design of the remaining three construction contracts for CAM004 sewer separation project. As reported last quarter, Cambridge was able to issue a full Notice to Proceed with construction of the \$15.5 million CAM004 stormwater outfall and detention basin (Contract 12) on May 23, 2011, after having issued a partial

Notice To Proceed in April, in accordance with the newly revised milestone in Schedule Seven.

One of the first completed construction activities was the creation of a temporary pedestrian and bicycle path detour associated with a new pedestrian/bicycle path currently being constructed by the Massachusetts Department of Transportation, part of which passes through the Contract 12 project area. The detour is necessary to allow the path to become active for public recreational use while construction of the stormwater wetland basin is underway. Cambridge will move the detoured section of the pedestrian/bicycle path to its permanent alignment when the Contract 12 construction is nearing completion.

The next major construction activity involved relocating gas, electric and communications conduits that were in conflict with the planned stormwater wetland basin. The contractor has completed micro-tunneling work by the Pilot Tube Auger Boring method to install an 8-inch gas main, a 36-inch electric line, and an 8-inch communications conduit below the area of the planned wetland basin near Cambridge Park Drive, Cambridge, and under the Little River to an area north of the river near Acorn Park Drive, Cambridge. A new utility manhole and duct banks in Acorn Park Drive and thermal grouting of an electric duct bank beneath the Little River are complete, and the contractor has connected new electric conduits to an existing electric manhole in Acorn Park Drive. The contractor has backfilled the receiving pit and restored property adjacent to Acorn Park Drive. The contractor has

commenced work to connect the relocated electric, gas and communications lines from the launching pit to the utilities within the Alewife Reservation.

At another location, beyond the end of Wheeler Street, Cambridge, and adjacent to railroad tracks, the construction of a large diversion structure that will house a bending weir is nearly complete, and the contractor is now forming the roof slab. A first section of the box culvert that will carry stormwater flows from the structure to the wetland basin is also complete. Adjacent to the bending weir structure, the contractor has commenced construction of a special structure that will allow the new CAM004 storm drain to cross over an Authority interceptor. The contractor has also commenced relocating an 18-inch sewer behind 70 Fawcett Street.

In addition, the contractor is making preparations for installation of the CAM004 storm drain culvert across MBTA high speed commuter rail tracks, a portion of which will be temporarily removed. This work is scheduled to be performed on a 24-hour basis beginning September 23 and ending September 26.

Finally, the contractor has flagged wetlands and surveyed the limit of work lines in preparation for wildlife assessments prior to beginning excavation for the wetland basin in the Alewife Reservation, which the contractor expects to begin next month. The City of Cambridge held a public meeting on September 7, 2011, to inform the public of the imminent clearing and excavation work and other planned construction in the Reservation. The

contractor plans to begin clearing the site on October 1 and excavating the basin after installing water barriers, berms and French drains.

The design work for the remaining three construction contracts for CAM004 sewer separation project (Contracts 8A, 8B and 9) is on schedule. Cambridge's design consultant is scheduled to submit a report on its past several months of field investigations for these contracts later this month. Cambridge expects to be able to commence construction of Contract 8A by September 2012, in compliance with Schedule Seven. The City plans to begin the other two contracts sequentially thereafter, and complete all work by December 2015, in compliance with Schedule Seven.

b. Control Gate and Floatables Control at Outfall MWR003 and MWRA Rindge Avenue Siphon Relief.

The Authority is preparing to procure engineering services to commence design of the last two projects in its long-term CSO control plan — the control gate and floatables control at Outfall MWR003 and MWRA Rindge Avenue siphon relief project and the interceptor connection relief and floatables control at outfall SOM01A project. The Authority plans to award one design contract that will include both projects by April 2012, in compliance with Schedule Seven. The Authority has drafted the scope of services and plans to advertise the Request for Qualifications/Request for Proposals later this year.

c. Brookline Sewer Separation.

The Town of Brookline continues to make substantial progress on the second of the two construction projects that comprise the \$25.9 million Brookline sewer separation project. As previously reported, Brookline completed the \$1.4 million first construction contract (Contract 1), which involved the installation of 5,658 linear feet of storm drain in secondary streets on the north and south sides of Beacon Street, in January 2010. Brookline commenced construction on the second \$16.6 million contract (Contract 2) in January 2011.

Contract 2 includes the installation of 3,790 linear feet of storm drain and 1,290 linear feet of sanitary sewer by open trench method and 4,550 linear feet of sanitary sewer by micro-tunneling. The contract involves micro-tunneling large diameter sewers at significant depths along Beacon and Monmouth Streets; installing and/or rehabilitating smaller-diameter sewers along Beacon, Monmouth and St. Mary's Streets; installing storm drains along those streets; and converting a large-diameter combined sewer along St. Mary's Street to a storm drain. As part of this project, Brookline will construct several large, special structures that will connect the new town sewers to existing town laterals and to the Authority's interceptor system, including the Charles River Valley Sewer and the South Charles Relief Sewer.

The contractor has completed micro-tunneling a 670-foot-long 57-inch-diameter sewer on Monmouth Street and a 1,375-foot-long, 18-inch-diameter sewer on St. Mary's Street and has installed the earth support system

on Beacon Street to construct a structure that will provide a connection to the Authority's South Charles Relief Sewer. The contractor also completed entry and exit pits for a 48-inch-diameter micro-tunneling operation across Beacon Street near Carlton Street. The Town of Brookline expects to complete Contract 2 in advance of the July 2013 milestone.

In the meantime, the Authority is continuing with final design of its plan to clean CSO Outfall MWR010 to ensure that the outfall has adequate capacity to convey Brookline's separated stormwater, as well as existing BWSC stormwater and infrequent CSO discharges from the Authority's Charles River Valley Sewer, to the Charles River. The Authority plans to begin the cleaning work in June 2012 and complete the work by August 2012, in advance of the completion of the Brookline sewer separation project.

d. Reserved Channel Sewer Separation.

BWSC continues to make scheduled progress with the nine planned construction contracts for the \$62.3 million Reserved Channel Sewer Separation project. As previously reported, BWSC attained substantial completion of the first construction contract (Contract 2) in December 2010. That contract involved the installation of 8,379 linear feet of storm drain, approximately 3,961 linear feet of minor drain (8-inch-diameter or less), and 3,372 linear feet of sanitary sewer to separate combined sewers in an area of South Boston bounded by East First Street, Farragut Road, Broadway and M Street. The work removed stormwater from local sewers tributary to the

upstream end of BWSC's South Boston Interceptor, South Branch, reducing CSO overflows to the Reserved Channel at Outfall BOS080.

BWSC issued the Notice To Proceed for the \$4.0 million second construction contract (Contract 1) in November 2010. Contract 1 includes rehabilitation of the four Reserved Channel CSO outfalls to accommodate the stormwater flows removed from the sewer system and provide long-term structural integrity. BWSC's contractor has completed all work at Outfall BOS079, installation of a section of 84-inch-diameter outfall pipe, a special structure necessary to avoid a major gas line, and a new tide gate at Outfall BOS076, and excavation for a new headwall at Outfall BOS080. The contractor has also completed dredging and commenced construction for a new headwall and tide gate structure at Outfall BOS078. Contract 1 has a completion date of November 20, 2011.

BWSC issued the Notice To Proceed for the \$9.9 million third construction contract (Contract 3A) in December 2010. Contract 3A involves the installation of 8,900 linear feet of storm drain and 2,900 linear feet of sanitary sewer to separate combined sewers in an area tributary to Outfall BOS076, as well as 7,300 linear feet of replacement water main to remove conflicts with the planned storm drains. The contract also includes the installation of 22 new catch basins and the disconnection of 76 existing catch basins from the sewer system and reconnection to the new drains.

The contractor has completed installation of 84-inch diameter drain in Pappas Way, as well as sanitary sewer construction and water main

replacement on West First Street between E Street and F Street. The contractor has also begun construction of a 42-inch diameter sewer in West First Street and a 16-inch diameter water main between D Street and E Street. Contract 3A has a completion date of August 15, 2013.

BWSC issued the Notice To Proceed for the \$10.9 million fourth construction contract (Contract 3B) in March 2011. This contract involves the installation of approximately 10,000 linear feet of storm drain, 3,800 linear feet of sanitary sewer to separate the combined sewers in a 66-acre area tributary to outfalls BOS078 and BOS079, as well as 10,800 linear feet of replacement water main to remove conflicts with the planned storm drains. Fourteen new catch basins will be installed and 120 existing catch basins will be disconnected from the sewer system and reconnected to new storm drains. This contract also includes the decommissioning of Outfall BOS087 that formerly discharged to North Dorchester Bay near the former Bayside Exposition Center.

The contractor has completed placement of temporary water line bypass pipe and commenced installation of new water mains in East First Street and adjacent streets. The contractor continues with test pits and underground utilities investigations and has commenced the installation of new storm drain pipe at East First Street and M Street. This contract has a completion date of December 30, 2014.

The \$1.2 million fifth construction contract (Contract 7), which commenced in November 2010, involves pavement restoration of affected

streets. To date, the contractor has laid approximately 18,800 square yards of permanent trench repair in areas affected by the work of the completed Contract 2. Contract 7 runs through April 19, 2012, and the work will follow the phased completion of the various sewer separation contracts.

BWSC also continues to make progress with remaining project design activities. It recently received the 50 percent design submission for Contract 4, which includes sewer separation in a large area west of Reserved Channel that is tributary to Outfall BOS076 and in a large area south of Reserved Channel, along and near East Broadway. Contract 4 is the last of the large sewer separation contracts for the project. BWSC plans to issue notices to proceed with Contract 4 and the remaining three construction contracts (Contract 5 – sewer cleaning and relining, Contract 6 – downspout disconnections, and Contract 8 – additional final paving) sequentially through April 2013 and complete all work by December 2015, in compliance with Schedule Seven.

2. Revisions to Schedule Seven.

The Authority submits a proposed revision to the Court's long-term schedule, which is entitled Schedule Seven. A copy of the revised Schedule Seven is attached as Exhibit "A." The revised Schedule Seven incorporates changes to the Schedule that were made as a result of the Court's April 14, 2011 and July 14, 2011 Orders allowing the Authority's March 24, 2011 and July 13, 2011 Motions To Amend Schedule Seven. The Authority forwarded a

draft of the proposed revision to the parties in early August 2011 for their review and received no comments as to the substance of the proposed revisions.

Respectfully submitted,

/s/ John M. Stevens
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CERTIFICATE OF SERVICE

I hereby certify that a true and accurate copy of this document, which was filed via the Court's ECF system, will be sent electronically by the ECF system to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants on September 15, 2011.

/s/ John M. Stevens
John M. Stevens (BBO No. 480140)
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Dated: September 15, 2011

EXHIBIT "A"

(Part I)

SCHEDULE SEVEN

(Incorporates Orders through July 14, 2011)

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
Dec. 1985		<p>(1) MWRA to initiate evaluation of interim scum removal options.</p> <p>(2) MWRA to continue to operate Deer Island composting pilot project so as to treat at least [3 dry tons per day]¹ of Deer Island facilities' sludge, and shall not terminate or reduce its operations without the approval of the court.</p>	<p>(1) MWRA to complete draft Phase I report identifying selected alternatives for detailed facilities plan analysis.</p> <p>(2) MWRA to file Environmental Notification Form (ENF) on long-term residuals management facilities plan.</p>	<p>(1) MWRA to select consultant for facilities plan for shore-side access facility.</p>
Jan. 1986	<p>(1) EPA/DEQE to have acted on MWRA request for approval to advertise for construction bids for Deer Island electrical upgrade contract.</p> <p>(2) MWRA to advertise for construction bids for Deer Island electrical upgrade contract.</p>		<p>(1) MWRA to complete final Phase I facilities plan and publish notice of availability of Phase I facilities plan report in Environmental Monitor.</p> <p>(2) MWRA to seek environmental scoping by the EOE, including identification of environmental monitoring requirements.</p>	<p>(1) MWRA to receive action by the EOE on its request for certification of FEIR.</p> <p>(2) MWRA to award contract and begin facilities planning for shore-side pier and staging facilities.</p>

¹ At the request of the MWRA, the Court changed this to a production requirement of 15 dry tons per week.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

**Short-Term Sludge and
Scum Management; Possible
Ocean Dumping**

**Deer Island Primary
Treatment Plant Upgrading**

Month/Year

<p>March 1986</p>	<p>(1) MWRRA to execute construction contract for Deer Island power and pump station improvements.</p>	<p>(1) MWRRA to submit detailed implementation plan and schedule for construction of all facilities necessary to enable it to dewater all sludge from existing Deer Island and Nut Island facilities, including facilities enabling it to transport liquid sludge to the dewatering site no later than September, 1991, or the end of the currently defined Period of Use⁴ for the Deepwater Municipal Dump Site Region 11 (the "106" Site), whichever is sooner.</p> <p>(2) MWRRA to report to Court by March 14, 1986 on interim limits for existing treatment plants, long-term and further intermediate schedules for construction of sludge management facilities, and a schedule for implementation of a program to terminate discharge of scum.</p>	<p>(1) MWRRA to begin facilities planning for on-site pier and staging facilities.</p>
<p>April 1986</p>	<p>(1) DEQE to issue decision regarding certification of grant application for Deer Island disinfection system rehabilitation.</p>	<p>(1) [MWRRA to file a non-compliance report by April 30 if it has *not submitted its implementation plan for scum removal.]⁵</p> <p>(2) [MWRRA to submit *its final Phase I long-term residuals management plan by April 30.]⁶</p>	<p>(1) MWRRA to file implementation plan concerning scum management.</p> <p>(2) MWRRA to issue Request for Qualifications to commence consultant selection process for consultant to perform Phase II facilities plan.</p>
<p>(1) MWRRA to report to Court by [April 1, 1986]⁷ on allocation of responsibility for accomplishing CSO projects.</p> <p>(2) MWRRA to award *contract to initiate further facilities planning, including site preparation for the treatment facilities, the plant's outfall(s), and the under-harbor tunnel.</p>			

⁴ Earliest end date currently anticipated is March, 1991, as defined in 49 Fed. Reg. at 19,012 (May 4, 1984).

⁵ Schedule One Compliance Order Number 3 (April 8, 1986), p. 2.

⁶ Schedule One Compliance Order Number 3 (April 8, 1986), p. 3.

⁷ The Court allowed the parties until April 30, 1986 in Schedule One Compliance Order Number 3 (April 8, 1986). p. 6.

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
May 1986	<p>(1) MWRA to complete design and submit final plans and specifications and a final step 3 grant application to DEQE for Deer Island remote headworks improvements.</p> <p>(2) [MWRA to report by May 30 on status of construction contract for Deer Island Power and Pump Station improvements.]⁸</p>	<p>(1) MWRA to complete report on Deer Island composting pilot program.</p> <p>(2) [MWRA to report by *May 15 on operating procedures for Nut Island designed to minimize discharges of sewage into the harbor.]⁹</p> <p>(3) [MWRA to submit by May 15 *its first quarterly report on staffing and pretreatment.]¹⁰</p> <p>(4) MWRA to develop, in consultation with DEQE, field testing program to define scum screening, chemical pilation, and scum transportation, handling, and storage issues.</p>		<p>(1) MWRA to report to Court by May 30, 1986 on implementation of additional CSO projects and a detailed schedule for installation of dewatering facilities.</p>
June 1986	<p>(1) MWRA to complete design and submit final plans and specifications and a final step 3 grant application to DEQE for Deer Island sedimentation system improvements.</p>	<p>(1) MWRA to complete *final report on composting marketing studies.</p>		<p>(1) MWRA to file ENF regarding any further environmental review needed under MEPA, including any further environmental review needed for site preparation, the treatment facilities, the plant's outfall(s), and the under-harbor tunnel.</p> <p>(2) [MWRA has proposed that the Court provide for a further report on prison relocation in June 1986.]¹¹</p>

⁸ Schedule One Compliance Order Number 4, March 1986.

⁹ MWRA Proposed Form of Second Interim Order, Attachment A (April 30, 1986), p.3.

¹⁰ Report of the MWRA on Scheduling and Compliance and Memorandum in Support of Adoption of Proposed Second Interim Order (February 18, 1986), p.17.

¹¹ Report of the MWRA on Scheduling and Compliance and Memorandum in Support of Adoption of Proposed Second Interim Order (February 18, 1986), p.16.

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
July 1986	<p>(1) MWRA to execute construction contract for Deer Island electrical upgrade.</p> <p>(2) EPA/DEQE to have acted on MWRA request for approval to advertise for bids for construction of Deer Island disinfection system rehabilitation.</p> <p>(3) MWRA to advertise for bids for construction of Deer Island disinfection system rehabilitation.</p>	<p>(1) MWRA to complete draft Environmental Impact Report (DEIR) regarding treatment plant modifications and sludge handling facilities needed to prepare for possible ocean dumping.</p> <p>(2) MWRA to complete design of treatment plant modifications and sludge handling facilities needed to prepare for possible ocean dumping.</p> <p>(3) MWRA to complete preparation of hauling contract documents.</p> <p>(4) MWRA to determine feasibility of continuing or expanding Deer Island composting pilot program.</p> <p>(5) [MWRA to report by July 15 on *operating procedures for Deer Island designed to minimize discharges of sewage into the harbor.]¹²</p> <p>(6) MWRA to file comprehensive project change with MEPA to include mid-term residuals management program, of which dewatering facilities are a part, under RMFP Special Procedure.</p> <p>(7) MWRA to conduct field testing program for Scum management.</p> <p>(8) MWRA to complete design of scum grinding facilities for Deer Island.</p>		<p>(1) MWRA to report to Court by July 3, 1986 on implementation of additional CSO Projects.</p>

¹² MWRA Proposed Form of Second Interim Order, Attachment A (April 30, 1986), p.3.

**New Boston Harbor
Secondary
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**Long-Term
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**Short-Term Sludge and
Scum Management; Possible
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**Deer Island Primary
Treatment Plant Upgrading**

Month/Year

<p>Aug. 1986</p>	<p>(1) MWRA to complete construction of rebuilt Deer Island sludge thickeners and attain operational level of facilities.</p>	<p>(1) MWRA to commence dewatering facilities plan. (2) MWRA to complete field test program for Scum management.</p>	<p>(1) MWRA to complete the in-vessel composting study. (2) MWRA to award contract for consultant to prepare Phase II long-term residuals management facilities plan.</p>	<p>(1) MWRA to complete draft facilities plan for shore-side and on-site piers and staging facilities.</p>
<p>Sept. 1986</p>	<p>(1) DEQE to issue decisions regarding certification of grant applications for Deer Island remote headworks improvement and sedimentation system improvement. (2) EPA to act on step 3 grant applications for Deer Island remote headworks improvements and sedimentation system improvement.</p>	<p>(1) MWRA to receive review of ocean dumping DEIR by EOEa. (2) MWRA to submit to Court implementation plan and schedule for additional planning and environmental review activities necessary to implement mid-term residuals management plan by December, 1991. (3) MWRA to make final decisions on scum technologies and report to Court on Decision and its basis. (4) MWRA to file ENF on Scum removal facilities option.</p>		<p>(1) MWRA to complete DEIR for shore-side and on-site pier and staging facilities.</p>
<p>Oct. 1986</p>	<p>(1) DEQE/EPA to have acted on MWRA request for approval to advertise for bids for construction of Deer Island remote headwork improvements and sedimentation system improvement. (2) MWRA to execute construction contract for Deer Island disinfection system improvements.</p>			<p>(1) MWRA to complete final facilities plan for shore-side and on-site pier and staging facilities.</p>
<p>Nov. 1986</p>	<p>(1) MWRA to advertise for bids for construction of Deer Island remote headworks. (2) MWRA to advertise for bids for construction of Deer Island primary sedimentation system improvements.</p>			<p>(1) MWRA to receive EOEa's completed review of DEIR for shore-side and on-site pier and staging facilities.</p>

**New Boston Harbor
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**Long-Term
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**Short-Term Sludge and
Scum Management; Possible
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**Deer Island Primary
Treatment Plant Upgrading**

Month/Year

Dec. 1986	<p>(1) MWRA to complete draft facilities plan and DEIR.¹³ (2) MWRA to complete Draft Environmental Impact Report ("DEIR") for treatment plant modifications and sludge handling facilities needed to prepare for liquid sludge removal from Deer and Nut Island. (3) MWRA to submit Report on the progress of its assessment of the feasibility of particular alternative sludge disposal programs for implementation during the 1988-1991 period, including any implementation schedules that have been developed for each potentially feasible program, and any other conclusions that have been drawn.</p>	
Jan. 1987	<p>(1) MWRA to complete DEIR on proposed scum removal facilities option.</p>	<p>(1) MWRA to complete FEIR for shore-side on-site staging facilities and shall request certification of its FEIR by the EOE.A.</p>
Feb. 1987	<p>(1) MWRA to execute construction contract for remote headworks.</p>	
March 1987	<p>(1) MWRA to execute construction contract for Deer Island sedimentation system improvements.</p>	<p>(1) MWRA to receive action by the EOE.A on its request for certification for shore-side and on-site pier and staging facilities. (2) EPA to issue finding of no significant impact for pier and staging facilities.</p>

¹³ MWRA to submit to EOE.A the DEIR for dewatering in time to ensure that the June 1987 date for completing the FEIR is met.

**New Boston Harbor
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**Long-Term
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**Short-Term Sludge and
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**Deer Island Primary
Treatment Plant Upgrading**

Month/Year

<p>April 1987</p>	<p>(1) MWRA to report on shortlisted private and public sector proposals for mid-term and any interim sludge disposal programs, including complete schedules for any remaining environmental review and permitting requirements.</p>	<p>(1) MWRA to make final decisions and accept facilities plan for shore-side and on-site access facilities.</p>
<p>May 1987</p>	<p>(1) MWRA to complete FEJR and request certification of FEJR by EOEa. (2) MWRA to award design engineering consultant contract and initiate design of scum removal facilities. (3) MWRA to make final decision on its program(s) for eliminating existing sludge discharges by no later than December 1991, and to make final choice of dewatering site if dewatering is part of the selected program.</p>	<p>(1) MWRA to begin site-specific environmental monitoring and field investigations for long-term sludge disposal programs.</p>
<p>June 1987</p>	<p>(1) MWRA to complete final facilities plan and FEJR for dewatering facility; request EOEa certificate of findings on adequacy of FEJR.¹⁴ (2) MWRA to complete draft facilities plan and site layouts for public sector facilities for the mid-term and any interim sludge disposal program, unless the Court determines that such a facilities plan is not needed.</p>	<p>(1) MWRA to complete Draft Candidate Options Evaluation Report for long-term sludge disposal.</p>

¹⁴ MWRA to receive completed EPA environmental review (if EIS is required) no later than November, 1988.

**New Boston Harbor
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**Long-Term
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Treatment Plant Upgrading**

Month/Year

July 1987

(1) MWRA to receive action from EOEa on request for certification of the FEIR for scum removal plan.

Aug. 1987

(1) MWRA to submit an implementation plan and schedule for design and construction of all facilities necessary to enable it to prepare all of the sludge from its existing Deer and Nut Island facilities for disposal at land based facilities which either exist or are reasonably anticipated to be available on an interim basis, without the need to wait for the construction of long term sludge management facilities.

(2) MWRA to receive EOEa action on request for certification of FEIR for dewatering facility.

(3) MWRA to complete all planning (including any necessary facilities planning) and all Commonwealth of Massachusetts environmental reviews necessary to allow the implementation of the mid-term land-based sludge disposal program (to commence by December 1991, at the latest) and any interim land-based sludge disposal programs (for the period 1988-1991).¹⁵

Sept. 1987

(1) MWRA to complete design of scum removal facilities.

(1) MWRA to complete draft facilities plan for secondary treatment plant.

¹⁵ MWRA may seek to extend this date by establishing that such an extension is necessary to allow the implementation of the earliest possible land-based sludge disposal program.

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
<u>Oct. 1987</u>				(1) MWRA to complete DEIR for secondary treatment plant.
<u>Nov. 1987</u>		(1) MWRA to commence design of dewatering facility.	(1) MWRA to complete draft long-term residuals management facilities plan and DEIR.	
<u>Dec. 1987</u>			(1) MWRA to receive EOE certificate on Candidates Options and Siting Reports on or before December 2, 1987. (2) MWRA to complete inventory of and initial contact with all record owners of twelve residuals sites nominated for further review.	(1) MWRA to receive review [from EOE] of DEIR for secondary treatment plant. (2) MWRA to complete final facilities plan for secondary treatment plant, concluding all facilities planning necessary to site preparation, the treatment facilities, the plant's outfall(s), and the under-harbor tunnel. (3) MWRA to complete design of on-island pier and staging facilities.
<u>Jan. 1988</u>	(1) MWRA to complete construction of Deer Island electrical upgrade and attain operational level of facilities.	(1) MWRA to award construction contract scum removal facilities.	(1) MWRA to complete review of EOE certificate and public comments on siting Reports and Candidates Options and make determinations of any necessary revisions to program and schedule, and report the substance of these determinations to the Court, parties, and EOE. (2) MWRA to commence off-site field study program and report to the Court, parties and EOE on whether it has obtained access rights to all its sites for the detailed on-site field study and on how it proposes to address in that study any sites to which it has not obtained access rights. Also MWRA to submit proposed Candidate Options evaluation criteria to EOE, the parties and the Court.	(1) MWRA to complete design of on-shore pier and staging facilities.

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
Feb. 1988			(1) MWRA to complete written Response to comments on Siting Reports and Candidate Options and submit it to EOE, the parties and the Court.	(1) MWRA to complete FEIR concluding all MWRA environmental review necessary under MEPA for site preparation, the treatment facilities, the plant's outfall(s), and the under-harbor tunnel. (2) MWRA to request certification of the FEIR by the EOE.
March 1988		MWRA to submit ENF for short-term sludge processing and transportation facilities to EOE.	(1) MWRA to commence detailed on-site field study in accordance with approved scope of work for such study. (2) MWRA to commence alternative off-site field study for any sites to which it has not gained access. (3) MWRA to provide all field program data developed to date to EPA, MA-DWPC and EOE.	
April 1988				(1) MWRA to receive action by EOE on its request for certification of FEIR.
May 1988			(1) MWRA to complete and submit to EOE, the parties, and the Court its final Candidate Options evaluation criteria.	(1) MWRA to make final decisions and accept facilities plan for secondary treatment plant. (2) MWRA to accept bids for construction contract for on-island pier and staging facilities. (3) EPA to issue FNSI or SEIS regarding any matters not within the scope of the December 1985 EIS.
June 1988	(1) MWRA to complete construction of Deer Island disinfection system rehabilitation.			(1) MWRA to accept bids for construction contract for on-shore pier and staging facilities.
July 1988		(1) MWRA to provide all field program data developed to date to EPA, MA-DWPC and EOE.		DCPO to issue RFP for new Suffolk County House of Correction.

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
Aug. 1988	(1) MWRRA to attain operational level of facilities for Deer Island disinfection system rehabilitation.			(1) MWRRA to award construction contract for on-island pier and staging facilities.
Sept. 1988	(1) MWRRA to complete construction of Deer Island remote headworks improvements.			(1) MWRRA to award construction contract for on-shore pier and staging facilities.
Oct. 1988				
Nov. 1988	(1) MWRRA to attain operational level of facilities for Deer Island remote headwork improvements.			Design/Build Selection Board to make recommendation to Deputy Commissioner.
Dec. 1988		(1) MWRRA to complete construction of all scum removal facilities and commerce operation of facilities.		Design/Build Team for Suffolk County House of Correction to be selected and letter of intent issued by DCPO.
Jan. 1989		MWRRA to submit draft EIR for short-term sludge processing and transportation facilities to EOE, Court and parties.		
Feb. 1989			MWRRA to submit Draft EIR and Draft Facilities Plan on Long-Term Residuals Management to EOE on or before February 15, 1989. ¹⁶	
March 1989	(1) MWRRA to complete construction of Deer Island sedimentation system improvements.	Parties to complete their review of the draft EIR for short-term sludge processing and transportation facilities and submit comments to MWRRA on or before March 15, 1989.		Ground breaking for New Suffolk County House of Correction.
April 1989		MWRRA to submit final EIR for short-term sludge processing and transportation facilities to EOE, Court and parties.		

¹⁶ EPA to complete DEIS three months after MWRRA completes its DEIR.

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
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May 1989	(1) MWRA to attain operational level of facilities for Deer Island sedimentation system improvements.		MWRA to receive MEPA Certificate on Draft EIR and Draft Facilities Plan on Long-Term Residuals Management on or before May 19, 1989.	
June 1989		MWRA to obtain EOEa certification on FEIR for short-term sludge processing and transportation facilities.		
July 1989				
Aug. 1989		MWRA to complete design of all short-term sludge related facilities at Nut Island, Deer Island and the Fore River Staging Area.	MWRA to complete FEIR and Final Facilities Plan for Long-Term Residuals Management and to request certification of the FEIR by EOEa. ¹⁷	
Sept. 1989				(1) MWRA to complete construction of on-island pier and staging facilities.
Oct. 1989	(1) MWRA to complete construction of Deer Island power and pump improvements and attain operational level of facilities.			(1) MWRA to attain operational status of on-island pier and staging facilities.
Nov. 1989		Commence demolition, Fore River Staging Area.	MWRA to receive EOEa's certificate on FEIR/Final Facilities Plan on Long-Term Residuals Management on or before November 6, 1989. ¹⁸	
Dec. 1989		Commence pile driving and construction of foundation, Fore River Staging Area.	MWRA to make final decision and accept Long-Term Residuals Management Facilities Plan.	

¹⁷ EPA to complete FEIS three months after MWRA completes its FEIR.

¹⁸ EPA to complete its Record of Decision three months following EOEa's certification on the FEIR.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

**Short-Term Sludge and
Scum Management; Possible
Ocean Dumping**

**Deer Island Primary
Treatment Plant Upgrading**

Month/Year

Jan. 1990			
Feb. 1990	Commence construction of processing facility, Fore River Staging Area. Commence Pier Three rehabilitation.		
March 1990			
April 1990			
May 1990		(1) Complete construction of on-shore piers and staging areas.	
June 1990	Commence construction, Deer Island and Nut Island facilities.	(1) On-shore piers and staging areas attain operational status.	
July 1990			
Aug. 1990			
Sept. 1990			
Oct. 1990		MWRA to have electrical power available on Deer Island sufficient to commence construction of the new tunnels and the primary plant.	
Nov. 1990			
Dec. 1990		MWRA to commence construction of primary treatment facilities (primary phase 1).	
Jan. 1991		MWRA to commence construction of new effluent outfall tunnel.	
Feb. 1991			

<u>Month/Year</u>	<u>Deer Island Primary Treatment Plant Upgrading</u>	<u>Short-Term Sludge and Scum Management; Possible Ocean Dumping</u>	<u>Long-Term Sludge Management</u>	<u>New Boston Harbor Secondary Treatment Plant</u>
March 1991				
April 1991				MWRA to commence construction of inter-island wastewater transmission tunnel.
May 1991				
June 1991				
July 1991				
Aug. 1991				MWRA to commence construction of residuals facilities at Deer Island to support primary clarifier batteries.
Sept. 1991		MWRA to complete construction of all short-term sludge processing and transportation facilities. ¹⁹		
Oct. 1991				
Nov. 1991			MWRA to submit 100% design of the landfill to DEP for approval.	
Dec. 1991		MWRA will commence land-based disposal of all discharges from existing Deer Island and Nut Island facilities.		Suffolk County House of Correction to be decommissioned for purposes of demolition to build the new wastewater treatment plant. MWRA to receive permission to enter that property. The House of Correction shall be decommissioned earlier if reasonably possible.

¹⁹ Completion of construction of all facilities means operational completion of two sludge process trains and all ancillary facilities necessary to support two trains at Fore River Staging Area and all facilities at Deer Island and Nut Island. Two additional process trains for redundancy purposes will be operationally complete by December 1991.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Jan. 1992		
Feb. 1992		
March 1992	(1) MWRA to commence CSO flow measurement, sewer system inspections and data collection, and any other work necessary to update and refine the CSO facilities plan. (2) MWRA to commence SOP data collection and evaluation. ²⁰	
April 1992		MWRA to obtain DEP determination on request for approval of final design plans for residuals landfill.
May 1992		
June 1992		MWRA to submit plan and schedule for monitoring the impact of the new effluent outfall tunnel on water quality in Massachusetts Bay.
July 1992		

²⁰ SOP data collection shall include: (a) collection of data on interceptors, regulators, and pumping facilities needed for use in developing an optimization plan; (b) development of a hydraulic model for evaluation of the capacity of the interceptor system under various flow conditions, in order to estimate wet-weather intercept capacity available at each regulator or interconnected group of regulators within the system; and (c) determination of the intercept capacity of each regulator which is required to pass all system flows through to Deer Island, and comparison of that capacity to the intercept capacity of the regulator under future "No Action" conditions as defined in the CSO facilities plan (i.e., with the availability of the new outfall and primary treatment capacity at Deer Island) to identify those regulators or regulator groups which will cause surcharging and CSO overflows.

SOP data evaluation shall include: (a) for each inadequate interceptor segment and combined sewer regulator, develop alternatives (at the planning level) which might improve the hydraulic capacity; (b) review each alternative based on cost, constructability, and other factors, and choose those which should proceed to preliminary design; and (c) develop the selected solutions for each identified problem area to the preliminary design stage through the development of plan and profile drawings of each proposed improvement showing major dimensions and elevations and development of pre-design level construction cost estimates for each.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Aug. 1992	
Sept. 1992	
Oct. 1992	
Nov. 1992	
Dec. 1992	
Jan. 1993	(1) MWRRA to commence construction of the first battery of secondary treatment (battery A).
Feb. 1993	MWRA to submit report to EPA and CLF on results of CSO flow measurement, sewer system inspections and data collection, and any other CSO-related work completed or in progress. Such report shall include revised CSO flow projections resulting from upgrades and refinements to the CSO sewer system model, and an analysis of the impact of such revised flow projections on the recommendations of the CSO facilities plan.
March 1993	MWRA to complete SOP data collection.
April 1993	
May 1993	

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

June 1993	MWRA to complete SOP data evaluation, and submit final SOP report to EPA.
July 1993	
Aug. 1993	
Sept. 1993	
Oct. 1993	
Nov. 1993	MWRA to give notice to proceed for contract for backup residuals disposal and implement Emergency Preparedness Plan according to Plan schedule.
Dec. 1993	MWRA to complete the collection and analysis of all data necessary to determine baseline CSO flows, and transmit in writing its results and conclusions to the parties. Parties to review need for exigency plan for use of existing outfalls for South System flows. ²¹
Jan. 1994	(1) MWRA to commence construction of secondary residuals facilities at Deer Island to support the first two batteries of secondary treatment (batteries A and B).
Feb. 1994	

²¹ The water quality data to be used in this review shall be based upon findings, programs, protocols and data developed pursuant to the Statement of Agreement among the parties with respect to Water Quality Data Applicable to Operation of Inter-Island Tunnel dated April 14, 1989.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

March 1994
 MWRA to complete the collection and analysis of all data necessary to determine baseline CSO water quality impacts, and transmit in writing its results and conclusions to the parties.

April 1994
 4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

May 1994

June 1994
 MWRA to submit to parties a report evaluating alternative methods of CSO control, including, without limitation, a deep tunnel storage system modified (if appropriate) based on revised estimates of CSO flows, as well as any additional control methods deemed appropriate by MWRA. The report shall include a preliminary estimate of the cost and performance of each alternative, including the number, location, and volume of overflows which would remain after implementation of the alternative, and the water quality impacts of the remaining overflows.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

July 1994
M/WRA to complete construction and commence operation²² of first two primary clarifier batteries (batteries A and B) and related facilities at Deer Island necessary for the operation of the first two primary clarifier batteries, including necessary facilities for the processing of residuals.²³

Aug. 1994

Sept. 1994
M/WRA to submit to parties a draft conceptual plan for CSO control.²⁴ The plan shall identify and shall include a preliminary evaluation of potential sites for any recommended facilities, in order to demonstrate that the plan can be feasibly implemented, and shall include a proposed schedule and a description of the process for obtaining those sites. The plan shall also include a proposed schedule for completion of the facilities planning process, and for design and construction of the facilities.

²² "Complete construction and commence operation" means substantial completion of these primary facilities, with these facilities accepting flows for treatment. Substantial completion will be followed by a period of start-up which will culminate in the consistent achievement of primary treatment for flows within six months of the above date.

²³ The Authority shall propose a date for the commencement of construction of Deer Island facilities for the processing of residuals upon the completion of planning and final approvals of those facilities in December 1989 and, thereafter, in consultation with the parties, shall develop and propose a schedule for the construction of long-term residuals management facilities. If the parties are unable to agree on the date for the commencement of construction of Deer Island facilities for the processing of residuals and/or on the schedule for construction of long-term residuals management facilities, then any party may move the Court to order that a proposed date or schedule be adopted.

²⁴ If the plan includes proposals to downgrade water quality standards (including the establishment of "partial use" designations) or bypasses of treatment facilities, it shall set forth the regulatory criteria for approval of such downgrades or bypasses, and shall present the data and analysis which establish that those criteria can be met.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Oct. 1994	<p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>	
Nov. 1994		
Dec. 1994	<p>MWRA to submit to parties a final conceptual plan for CSO control, including proposed schedules for site acquisition, for completion of the facilities planning process, and for design and construction of the facilities. The parties shall attempt to reach agreement on the nature of the facilities and a schedule for their construction, to be incorporated into an order of the Court. In the event that such agreement is not reached, each party reserves the right to propose its own plan and/or schedule to the Court.</p>	<p>MWRA to complete construction of inter-island wastewater transmission tunnel.</p>
Jan. 1995		<p>MWRA to commence construction of facility modifications at Fore River Staging Area necessary for processing sludge produced by secondary treatment.</p>
Feb. 1995		
March 1995		

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

April 1995

4/15: MWRRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

May 1995

June 1995

July 1995

- (1) MWRRA to complete construction and commence operation²² of second two primary clarifier batteries (batteries C and D) and related facilities at Deer Island necessary for the operation of the second two primary clarifier batteries, including facilities for the processing of residuals.
- (2) MWRRA to complete construction and commence operation of new effluent outfall tunnel.
- (3) MWRRA to complete all other facilities necessary to permit acceptance of South System flows through the new primary facilities.²⁵

Aug. 1995

²⁵ The new primary facilities are to begin accepting South System flows at this time for discharge through the new outfall tunnel. In the event of the unavailability of the new outfall tunnel at this time, the new primary facilities shall begin accepting South System flows if, after completion of the water quality data review procedure referenced in the December 1993 milestone, the parties agree that accepting such discharges is desirable, or in the event the parties cannot reach such an agreement, then any party may move the Court for appropriate relief. The MWRRA will cease operation of the Nut Island treatment facility within six months following initiation of treatment of all South System flows at the new Deer Island primary facilities.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Sept. 1995	
Oct. 1995	<p>MWRA to report on progress toward completion of Memoranda of Understanding or other formal agreements with Boston Water & Sewer Commission (BWSC), Cambridge, Chelsea, and Somerville to define roles, responsibilities and schedules for implementing the CSO projects.</p> <p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>
Nov. 1995	
Dec. 1995	<p>MWRA to complete a Siting Report evaluating potential CSO facility sites, designating preferred site alternatives, and identifying any site specific acquisition issues.</p> <p>MWRA to commence construction of second secondary battery (battery B).</p>
Jan. 1996	
Feb. 1996	
March 1996	

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

April 1996 MWRRA, in cooperation with BWSC, to assure commencement of construction of Neponset River sewer separation.²⁶ MWRRA, in cooperation with Somerville, to assure commencement of construction of baffle manhole separation at SOM 001 and SOM 006-007.²⁶

4/15: MWRRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

May 1996 MWRRA to submit a report to EPA identifying preferred sites, including critical sites, and also including a process and schedule for acquisition of critical sites. Any party may move to incorporate into this Order a schedule for the acquisition of critical sites.

²⁶ This work will be financed by the MWRRA, but the parties contemplate that designated projects located in Boston, Cambridge, and Somerville will be actually performed by BWSC, the City of Cambridge, and the City of Somerville, respectively. Projects located in Chelsea will be performed by the MWRRA, with support from the City of Chelsea. The March 15, 2006 Second Stipulation of the United States and the Massachusetts Water Resources Authority on Responsibility and Legal Liability for Combined Sewer Overflows shall remain in full force and effect.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

<p>June 1996</p>	<p>MWRA to commence design of Fox Point, Commercial Point, Cottage Farm, Prison Point and Somerville Marginal facility upgrades.²⁷</p> <p>MWRA to execute Memoranda of Understanding or other formal agreements with BWSC, Cambridge, Chelsea and Somerville (the "CSO Communities") to define roles, responsibilities and schedules for implementing the CSO projects.</p> <p>MWRA, in cooperation with BWSC, to assure commencement of design of South Dorchester Bay sewer separation.²⁶</p>
<p>July 1996</p>	
<p>Aug. 1996</p>	
<p>Sept. 1996</p>	<p>MWRA, in cooperation with the CSO communities, to assure commencement of design for region-wide floatables controls²⁸ and outfall closing projects.²⁶</p>

²⁷ The parties recognize that there may be a need to coordinate the design and construction of certain projects, for example the Somerville Marginal upgrade, with the Central Artery and I-93 projects. The MWRA reserves the right to seek adjustment of this schedule if necessary to achieve such coordination.

²⁸ Floatables control projects may include measures other than those recommended in the December 1994 Final CSO Conceptual Plan. Measures appropriate for individual outfalls will be selected following completion of the design phase for each outfall.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Oct. 1996	<p>10/15: MWRA to submit draft Facilities Plan/EIR for those projects for which an EIR was required by EOE's July 14, 1995 Record of Decision.</p>	<p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>	<p>MWRA to complete construction and commence operation²⁹ of first secondary battery (battery A), and related facilities at Deer Island necessary for the operation of the first secondary battery, including facilities for processing of residuals.</p>
Nov. 1996			
Dec. 1996	<p>Parties to complete review and provide any comments to MWRA on draft Facilities Plan.</p> <p>MWRA, in cooperation with Somerville, to assure completion of construction of baffle manhole separation at SOM 001 and SOM 006-007.²⁶</p>		

²⁹ "Complete construction and commence operation" means substantial completion of the secondary treatment facility, with the facility accepting flow. Substantial completion is expected to be followed by a period of start-up which will culminate in the consistent achievement of secondary treatment within six months of the above date.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Jan. 1997

1/1: MWRA to implement "nine minimum controls" required by EPA's April 1994 CSO Policy for MWRA owned or operated system, and to continue such implementation thereafter.³⁰

MWRA, in cooperation with the CSO communities, to assure completion of SOP projects recommended in MWRA's June 1993 report titled "System Optimization Plans for CSO Control" and its November 1994 report titled "Supplemental Report on System Optimization Plans for CSO Control."²⁶

MWRA, in cooperation with BWSC, to assure commencement of design of Constitution Beach sewer separation.²⁶

MWRA, in cooperation with Cambridge, to assure commencement of design for sewer separation at CAM 002 and 004.²⁶

³⁰ The "nine minimum controls" are: (1) proper operation and regular maintenance programs for the sewer system and the CSOs, (2) maximum use of the collection system for storage, (3) review and modification of pretreatment requirements to assure CSO impacts are minimized, (4) maximization of flow to the POTW for treatment, (5) prohibition of CSOs during dry weather, (6) control of solid and floatable materials in CSOs, (7) pollution prevention, (8) public notification to ensure that the public receives adequate notification of CSO occurrences and CSO impacts, and (9) monitoring to effectively characterize CSO impacts and the efficacy of CSO controls.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Feb. 1997	<p>MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹</p>
March 1997	
April 1997	<p>4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>
May 1997	
June 1997	

³¹ For purposes of this schedule, all references to CSO projects are to the projects described in the MWRA's 1997 Final CSO Facilities Plan unless otherwise noted. The projects related to the long-term CSO control plan for North Dorchester Bay and Reserved Channel are described in MWRA's April 27, 2004 Supplemental Facilities Plan and Environmental Impact Report. The projects related to the Long-Term CSO Control Plan for Alewife Brook are described in MWRA's July 2003 Final Variance Report for Alewife Brook and the Upper Mystic River. The projects related to the Long-Term CSO Control Plan for the Charles River are described in MWRA's August 2, 2005 Recommendations and Proposed Schedule for Long-Term CSO Control for the Charles River, Alewife Brook and East Boston.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

<p>July 1997</p>	<p>MWRA to submit Final Facilities Plan/EIR for those projects for which an EIR was required by EOEAs July 14, 1995 Record of Decision.</p> <p>MWRA to commence design of Chelsea Branch Relief Sewer; hydraulic relief for CAM 005; and, in cooperation with Chelsea, to commence design of trunk sewer relief for CHE 002-004.²⁶</p>	
<p>Aug. 1997</p>		<p>MWRA to complete construction and commence operation of facility modifications at Fore River Staging Area necessary for processing sludge produced by secondary treatment.</p>
<p>Sept. 1997</p>		
<p>Oct. 1997</p>	<p>MWRA to obtain MEPA certification for Final EIR for those projects for which an EIR was required by EOEAs July 14, 1995 Record of Decision, and obtain DEP action on Final Facilities Plan.</p>	<p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>
<p>Nov. 1997</p>	<p>Parties to review the need for interceptor connection relief for BOS 032 based upon post-sewer-separation metering results. If the parties are unable to reach agreement on the need for interceptor connection relief, any party may thereafter move the Court for relief.²⁶</p>	

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Dec. 1997
 MWRRA to complete construction and commence operation²⁹ of second secondary battery (battery B) and related facilities at Deer Island necessary for the operation of the second secondary battery, including facilities necessary for the processing of residuals.

Based upon the results and Certificate by MEPA of the Final EIR/Facilities Plan, DEP to make formal administrative determinations for all CSO-impacted water bodies (or segments thereof) regarding the appropriate regulatory designations, and for any partial use determinations DEP will initiate the process of revising its Water Quality Standards to formally incorporate that determination into the Commonwealth's Water Quality Standards. These formal determinations will be filed with EPA³² and MWRRA. If the regulatory determinations affecting water quality standards in CSO-impacted receiving waters anticipated by the MWRRA's December 1994 Final CSO Conceptual Plan (including requisite EPA approvals) are not made pursuant to this milestone, any party may move the Court for appropriate relief.

Parties to review the need for additional CSO facilities and/or studies for the Charles River. If the parties are unable to reach agreement on the need for additional facilities and studies, the nature of such facilities and studies, or a schedule for implementation of such facilities and studies, any party may thereafter move the Court for relief.³³

³² This milestone is not intended to prejudice the question of what modifications to water quality standards or appropriate administrative determinations may be appropriate based on the MWRRA CSO plan. It is anticipated that EPA will act on any modifications or determinations proposed by DEP within the time provided by 40 C.F.R. § 131.21.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Jan. 1998		
Feb. 1998	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹	
March 1998	MWRA to commence construction of Cottage Farm facility upgrade.	
April 1998		4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.
May 1998		
June 1998		

³³ If the parties agree or the Court orders that additional CSO facilities shall be constructed for the Charles River, the parties shall review whether the CSO facilities for the Charles River otherwise required by this Order continue to be appropriate, either as part of the ultimate CSO control plan or as interim steps until the additional facilities are constructed. Following this review, any party may move the Court for appropriate relief.

EXHIBIT "A"

(Part II)

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

July 1998

Except for CSO facilities discharging to the Charles River, Alewife Brook, and the Mystic River above the Earhart Dam, MWRA to evaluate and report to EPA and DEP on whether the CSO facilities required by this Order will result in compliance with then-existing water quality standards. Within four (4) months after the expiration of any water quality standards variance for the Charles River, Alewife Brook, and the Mystic River above the Earhart Dam, MWRA to evaluate and report to EPA and DEP on whether CSO facilities required by this Order discharging to those receiving waters will result in compliance with then-existing water quality standards. If CSO facilities will not result in compliance with such standards, any party may move for appropriate relief.

MWRA, in cooperation with Cambridge, to assure commencement of construction of sewer separation at CAM 002 and 004.²⁶

MWRA, in cooperation with BWSC, to commence design of Stony Brook sewer separation.²⁶

Aug. 1998

Sept. 1998

MWRA to submit SEIR for Commercial Point, Somerville Marginal, and Prison Point facility upgrades.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Oct. 1998	<p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>
Nov. 1998	<p>MWRA to obtain MEPA certification for SEIR for Commercial Point, Somerville Marginal, and Prison Point facility upgrades.</p>
Dec. 1998	<p>MWRA, in cooperation with Chelsea, to commence design of outfall repairs and floatables control at CHE 008. MWRA to submit interim report to the parties on progress of its field testing program for floatables control.³⁴</p>
Jan. 1999	<p>MWRA to submit SEIR for Fox Point facility upgrade.</p>

³⁴ The field testing program shall be conducted as described in MWRA's "Proposed Monitoring Plan, Field Testing Program for Underflow Baffles," dated March 7, 1997 and EPA's letter dated March 19, 1997, as amended by "MWRA Interim Report on Field Testing Program for Underflow Baffles" dated January 30, 1998.

**New Boston Harbor
Secondary
Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

Feb. 1999	MWRA to obtain MEPA certification for SEIR for Fox Point facility upgrade.	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹	
March 1999	MWRA to complete construction of Cottage Farm facility upgrade. ³⁵	MWRA, in cooperation with CSO communities, to assure commencement of construction of regionwide floatables controls and outfall closing projects. ²⁶	
April 1999	MWRA, in cooperation with BWSC, to assure commencement of construction of South Dorchester Bay sewer separation. At least ten percent of this construction shall take place each year, in order to ensure that the project is completed by November, 2008. ²⁶	MWRA, in cooperation with BWSC, to assure commencement of construction of Constitution Beach sewer separation. ²⁶	4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

³⁵ Completion of construction will be followed by a period of start-up and systems optimization consisting of five activations of at least four hours duration each, which is to culminate in the consistent achievement of effective treatment of flows, as defined by NPDES permit requirements.

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Treatment Plant**

**Long-Term
Sludge Management**

CSO Control

Month/Year

May 1999	MWRA to commence construction of Prison Point facility upgrade.
June 1999	
July 1999	
Aug. 1999	MWRA to commence construction of hydraulic relief for CAM 005.
Sept. 1999	MWRA, in cooperation with Chelsea, to commence construction of trunk sewer relief for CHE 002-004. ²⁶
Oct. 1999	10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.
Nov. 1999	MWRA to commence construction of Fox Point, Commercial Point, and Somerville Marginal facility upgrades.
Dec. 1999	MWRA to commence design of detention/treatment facility at Union Park Pump Station. MWRA to commence construction of Chelsea Branch Relief Sewer.

MWRA to complete construction and commence operation²⁹ of final secondary battery (battery C) and related facilities at Deer Island necessary for the operation of the third secondary battery,³⁶ including facilities for the processing of residuals.³⁷ The MWRA shall preserve sufficient space for a fourth secondary battery until further order of the Court.

³⁶ Related facilities will include a polymer addition facility to be connected to all secondary batteries.

³⁷ MWRA is to achieve full operation of the secondary wastewater treatment facilities in compliance with effluent limitations and other requirements of the Act and all applicable regulations and permits within six months of the above date.

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Secondary
Treatment Plant**

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CSO Control

Month/Year

Jan. 2000

Feb. 2000

MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹

MWRA to submit a final report on the results of its field testing program for floatables control.³⁴ If the parties are not in agreement on the use of underflow baffles for floatables control, they shall review the need to revise the plans and schedule for projects including baffles. If the parties are unable to reach agreement on alternative technology or dates, any party may move the Court for relief.

March 2000

MWRA to commence design of interceptor relief for BOS 003-014.

April 2000

4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

May 2000

June 2000

MWRA, in cooperation with BWSC, to assure completion of construction of Neponset River sewer separation.²⁶

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**New Boston Harbor
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Sludge Management**

CSO Control

Month/Year

July 2000

MWRA, in cooperation with Chelsea, to commence construction of outfall repairs and floatables control at CHE 008.²⁶

MWRA, in cooperation with BWSC, to commence construction of Stony Brook sewer separation. At least 15 percent of this construction shall take place each year, in order to ensure that the project is completed by September, 2006.²⁶

Aug. 2000

MWRA, in cooperation with Chelsea, to complete construction of trunk sewer relief for CHE 002-004.²⁶

MWRA to complete construction of hydraulic relief for CAM 005.

Sept. 2000

Oct. 2000

MWRA, in cooperation with BWSC, to assure completion of construction of Constitution Beach sewer separation.²⁶

MWRA to complete construction of Prison Point facility upgrade.³⁵

10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

Nov. 2000

Dec. 2000

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Sludge Management**

CSO Control

Month/Year

Jan. 2001
MWARA to submit to EPA and DEP a report on results of additional flow metering and system hydraulic modeling to evaluate CSO discharge activations and volumes to the Dorchester Brook Conduit.

Feb. 2001
MWARA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹

March 2001
MWARA to complete construction of Fox Point, Commercial Point and Somerville Marginal facility upgrades.³⁵

April 2001
4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

May 2001
MWARA, in cooperation with CSO communities, to assure completion of construction of region-wide floatables controls and outfall closing projects.²⁶

June 2001
MWARA to complete construction of Chelsea Branch Relief Sewer and, in cooperation with Chelsea, outfall repairs and floatables control at CHE 008.²⁶

July 2001

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**Long-Term
Sludge Management**

CSO Control

Month/Year

Aug. 2001	
Sept. 2001	
Oct. 2001	<p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>
Nov. 2001	
Dec. 2001	
Jan. 2002	
Feb. 2002	
March 2002	<p>MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹</p>

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**Long-Term
Sludge Management**

CSO Control

Month/Year

April 2002	<p>4/15: MWRRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>	
May 2002		
June 2002		
July 2002	<p>MWRRA, in cooperation with BWSC, to commence design of sewer separation and system optimization for BOS 072 and BOS 073.</p>	
Aug. 2002		
Sept. 2002		
Oct. 2002	<p>10/15: MWRRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>	
Nov. 2002		
Dec. 2002		

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CSO Control

Month/Year

Jan. 2003	MWRRA to commence design of hydraulic relief for BOS 017 and storage conduit for BOS 019.
Feb. 2003	
March 2003	MWRRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹
April 2003	MWRRA to commence construction of detention/treatment facility at Union Park Pump Station; and interceptor relief for BOS 003-014.
May 2003	4/15: MWRRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.
June 2003	
July 2003	
Aug. 2003	

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CSO Control

Month/Year

Sept. 2003

Oct. 2003

10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

Nov. 2003

Dec. 2003

Jan. 2004

Feb. 2004

March 2004

MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹

April 2004

4/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

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CSO Control

Month/Year

May 2004	
June 2004	
July 2004	
Aug. 2004	
Sept. 2004	
Oct. 2004	<p>10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.</p>
Nov. 2004	
Dec. 2004	
Jan. 2005	
Feb. 2005	

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**Long-Term
Sludge Management**

CSO Control

Month/Year

March 2005
MWARA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹

MWARA to commence construction of hydraulic relief for BOS 017; and storage conduit for BOS 019.

MWARA, in cooperation with BWSC, to commence construction of sewer separation and system optimization for BOS 072 and BOS 073.

April 2005
4/15: MWARA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWARA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.

May 2005
MWARA, in cooperation with BWSC, to commence design of Morrissey Boulevard storm drain.

June 2005

July 2005

Aug. 2005

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CSO Control

Month/Year

Sept. 2005	MWRA to complete construction of detention and treatment facility at Union Park Pump Station. ³⁵
Oct. 2005	10/15: MWRA to report to Court and parties on actions taken pursuant to backup residuals disposal plan during preceding six months. MWRA and Commonwealth to report jointly on implementation of the Memorandum of Understanding regarding the beneficial use of biosolids.
Nov. 2005	
Dec. 2005	
Jan. 2006	
Feb. 2006	
March 2006	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹
April 2006	MWRA to commence 12-month optimization study to identify operating procedures at Prison Point and related structures that will minimize treated discharges from the Prison Point facility without increasing untreated overflows elsewhere.

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Treatment Plant**

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CSO Control

Month/Year

<p>May 2006</p>	<p>MWRA, in cooperation with BWSC, to complete construction of Pleasure Bay storm drain improvements.</p>
<p>June 2006</p>	<p>MWRA to resume design of interceptor relief for BOS 003-014.</p>
<p>July 2006</p>	<p>MWRA, in cooperation with BWSC, to commence design of Reserved Channel sewer separation. MWRA, in cooperation with Cambridge, to commence design of CAM400 manhole separation; and to commence design of interceptor connection relief and floatables control at CAM002, CAM401B, and SOM01A and floatables control at CAM001.²⁶</p>
<p>Aug. 2006</p>	<p>MWRA to commence construction of North Dorchester Bay storage tunnel and related facilities.</p>
<p>Sept. 2006</p>	<p>MWRA to complete construction of hydraulic relief for BOS 017 and storage conduit for BOS 019.</p>
<p>MWRA, in cooperation with BWSC, to complete construction of Stony Brook sewer separation.²⁶</p>	<p>MWRA to commence design of the Brookline Connection, Cottage Farm overflow chamber interconnection, and Cottage Farm gate control.</p>
<p>Oct. 2006</p>	

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CSO Control

Month/Year

Nov. 2006	<p>MWRA, in cooperation with BWSC, to commence design of Bulfinch Triangle sewer separation. MWRA, in cooperation with Brookline, to commence design of Brookline sewer separation.²⁶</p>
Dec. 2006	<p>MWRA, in cooperation with BWSC, to commence construction of Morrissey Boulevard storm drain.</p>
Jan. 2007	
Feb. 2007	
March 2007	<p>MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹</p> <p>MWRA, in cooperation with BWSC, to complete construction of sewer separation and system optimization for BOS 072 and BOS 073.</p> <p>MWRA to submit report on, and commence implementation of measures that optimize operation of dry weather pumps and influent gates at Prison Point and related structures in part to maximize upstream storage. MWRA to propose flow limits for Prison Point facility based on the results of the optimization study commenced on April 1, 2006.</p>

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CSO Control

Month/Year

April 2007			
May 2007			
June 2007			
July 2007			
Aug. 2007			
Sept. 2007			
Oct. 2007			
Nov. 2007			
Dec. 2007	MWRA, in cooperation with Cambridge, to complete floatables control at outfalls CAM007, CAM009, CAM011, and CAM017. ²⁶		
Jan. 2008	MWRA to commence design of Charles River Valley/South Charles River Relief Sewer gate controls and evaluation of additional Charles River interceptor interconnection alternatives.		
Feb. 2008			

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CSO Control

Month/Year

March 2008 MWRRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹

April 2008

May 2008

June 2008

MWRRA to commence construction of the Brookline Connection, Cottage Farm overflow chamber inter-connection, and Cottage Farm gate control. MWRRA to commence construction of interceptor relief for BOS003-014.

July 2008

Aug. 2008

Sept. 2008

Oct. 2008

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CSO Control

Month/Year

Nov. 2008

MWRA, in cooperation with BWSC, to assure completion of construction of South Dorchester Bay sewer separation.²⁶

MWRA, in cooperation with BWSC, to commence construction of Bulfinch Triangle sewer separation. MWRA, in cooperation with Brookline, to commence construction of Brookline sewer separation.²⁶

Dec. 2008

Jan. 2009

MWRA to complete evaluation of additional Charles River interceptor interconnection alternatives and submit related report to EPA and DEP. Such report shall include reasonably expeditious schedules for completing projects that can be completed for low cost, that do not have unexpected construction impacts, and that result in a meaningful reduction in overflow volume or frequency.

Feb. 2009

March 2009

MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project.³¹

April 2009

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Month/Year

May 2009	MWRRA, in cooperation with BWSC, to commence construction of Reserved Channel sewer separation.
June 2009	MWRRA, in cooperation with BWSC, to complete construction of Morrissey Boulevard storm drain.
MWRRA to complete construction of the Brookline Connection, Cottage Farm overflow chamber interconnection, and Cottage Farm gate control.	
July 2009	
Aug. 2009	
Sept. 2009	
Oct. 2009	
Nov. 2009	
Dec. 2009	
Jan. 2010	MWRRA, in cooperation with Cambridge, to commence construction of interceptor connection relief and floatables control at CAM002 and CAM401B and floatables control at CAM001, and to commence construction of CAM400 manhole separation. ²⁶

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CSO Control

Month/Year

Feb. 2010	
March 2010	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹
April 2010	
May 2010	
June 2010	MWRA to complete construction of interceptor relief for BOS003-014.
July 2010	
Aug. 2010	
Sept. 2010	
Oct. 2010	MWRA, in cooperation with Cambridge, to complete construction of interceptor connection relief and floatables control at CAM002 and CAM401B and floatables control at CAM001. ²⁶
Nov. 2010	
Dec. 2010	
Jan. 2011	

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CSO Control

Month/Year

Feb. 2011	
March 2011	MWRA, in cooperation with Cambridge, to complete construction of CAM400 manhole separation. ²⁶ MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹
April 2011	MWRA, in cooperation with Cambridge, to commence construction of CAM004 stormwater outfall and detention basin. ²⁶
May 2011	MWRA to complete construction of North Dorchester Bay storage tunnel and related facilities.
June 2011	
July 2011	
Aug. 2011	
Sept. 2011	
Oct. 2011	
Nov. 2011	
Dec. 2011	

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CSO Control

Month/Year

Jan. 2012	
Feb. 2012	
March 2012	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹
April 2012	MWRA to commence design of control gate and floatables control at outfall MWR003, and MWRA Rindge Avenue Siphon relief, and to commence design of interceptor connection relief and floatables control at outfall SOM01A.
May 2012	
June 2012	
July 2012	
Aug. 2012	
Sept. 2012	MWRA, in cooperation with Cambridge, to commence construction of CAM004 sewer separation. ²⁶
Oct. 2012	
Nov. 2012	

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CSO Control

Month/Year

Dec. 2012	
Jan. 2013	
Feb. 2013	
March 2013	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹
April 2013	MWRA, in cooperation with Cambridge, to complete construction of CAM004 stormwater outfall and detention basin. ²⁶
May 2013	
June 2013	
July 2013	MWRA, in cooperation with BWSC, to complete construction of Bulfinch Triangle sewer separation. MWRA, in cooperation with Brookline, to complete construction of Brookline sewer separation. ²⁶
Aug. 2013	
Sept. 2013	MWRA to commence construction of interceptor connection relief and floatables control at outfall SOM01A.
Oct. 2013	

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CSO Control

Month/Year

Nov. 2013			
Dec. 2013			
Jan. 2014			
Feb. 2014			
March 2014		MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹	
April 2014			
May 2014			
June 2014		MWRA to complete construction of interceptor connection relief and floatables control at outfall SOM01A.	
July 2014			
Aug. 2014		MWRA to commence construction of control gate and floatables control at outfall MWR003, and MWRA Rindge Avenue Siphon relief.	
Sept. 2014			
Oct. 2014			

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CSO Control

Month/Year

Nov. 2014			
Dec. 2014			
Jan. 2015			
Feb. 2015			
March 2015	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹		
April 2015			
May 2015			
June 2015			
July 2015			
Aug. 2015			
Sept. 2015			
Oct. 2015	MWRA to complete construction of control gate and floatables control at outfalls MWR003, and MWRA Rindge Avenue Siphon relief.		

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CSO Control

Month/Year

Nov. 2015		
Dec. 2015	MWRA, in cooperation with Cambridge, to complete construction of CAM004 sewer separation. ²⁶ MWRA, in cooperation with BWSC, to complete construction of Reserved Channel sewer separation.	
Jan. 2016		
Feb. 2016		
March 2016	MWRA to submit annual report which describes progress in planning, design, and construction of each CSO project, and identifies any issues which may interfere with timely completion of any project. ³¹	
April 2016		
May 2016		
June 2016		
July 2016		
Aug. 2016		
Sept. 2016		
Oct. 2016		

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CSO Control

Month/Year

Nov. 2016			
Dec. 2016			
Jan. 2017			
Feb. 2017			
March 2017			
April 2017			
May 2017			
June 2017			
July 2017			
Aug. 2017			
Sept. 2017			
Oct. 2017			
Nov. 2017			
Dec. 2017			

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Sludge Management**

CSO Control

Month/Year

Jan. 2018 MWRRA to commence three-year performance assessment of its Long-Term CSO Control Plan.³⁸ The assessment shall include post-construction monitoring in accordance with EPA's Combined Sewer Overflow (CSO) Policy, 59 Fed. Reg. 18688 (Apr. 19, 1994).

Feb. 2018

March 2018

April 2018

May 2018

June 2018

July 2018

Aug. 2018

Sept. 2018

Oct. 2018

Nov. 2018

³⁸ The documents that comprise the Authority's Long-Term CSO Control Plan are identified in the March 15, 2006, Second Stipulation of the United States and the Massachusetts Water Resources Authority on Responsibility and Legal Liability for Combined Sewer Overflow Control.

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CSO Control

Month/Year

Dec. 2018			
Jan. 2019			
Feb. 2019			
March 2019			
April 2019			
May 2019			
June 2019			
July 2019			
Aug. 2019			
Sept. 2019			
Oct. 2019			
Nov. 2019			
Dec. 2019			
Jan. 2020			
Feb. 2020			

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CSO Control

Month/Year

March 2020			
April 2020			
May 2020			
June 2020			
July 2020			
Aug. 2020			
Sept. 2020			
Oct. 2020			
Nov. 2020			
Dec. 2020	<p>MWRA to submit results of its three-year performance assessment of its Long-Term CSO Control Plan to the EPA and DEP. MWRA to demonstrate that it has achieved compliance with the levels of control (including as to frequency of CSO activation and as to volume of discharge) specified in its Long-Term CSO Control Plan.</p>		