

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 JUNE 14, 2013

The Massachusetts Water Resources Authority (the "Authority") submits the following quarterly compliance report for the period from March 15, 2013 to June 14, 2013 and supplementary compliance information in accordance with the Court's order of December 23, 1985 and subsequent orders of the Court.

I. Schedule Seven.

Schedule Seven activity for the months of March and April 2013 on the Court's Schedule Seven, certified by Frederick A. Laskey, Executive Director of the Authority, is attached hereto as Exhibit "A."

A. Activities Completed.

1. Complete Construction of CAM004 Stormwater Outfall and Detention Basin.

The City of Cambridge completed the Combined Sewer Overflow ("CSO") related elements of the CAM004 stormwater outfall and detention basin project, including the 4-foot by 8-foot box culvert storm drain and its outfall to the wetland basin and all functional components of the wetland basin, including grading, wetland plantings, berm construction, stormwater hydraulic connections and controls, and other infrastructure, on April 25, 2013, in compliance with Schedule Seven. The Authority provided \$13.9 million to Cambridge for planning, design and construction of the project, including the Authority's \$6.2 million share of the construction cost. The City of Cambridge's share of the construction cost is \$12.5 million, including the costs of the recreational and educational amenities for the Alewife Brook Reservation required by the Department of Conservation and Recreation ("DCR").

The CAM004 stormwater outfall and the wetland basin are intended to deliver the separated stormwater flows to the Little River and downstream Alewife Brook without causing an increase in flood levels or pollutant loadings. The project included the construction of a 3,300-foot long, 4-foot by 8-foot box

culvert storm drain to convey the separated stormwater to the new 3.4-acre wetland in DCR's Alewife Brook Reservation. The wetland basin provides 10.3 acre-feet of detention storage of the stormwater flows and an attenuation of the rate of stormwater discharge to the Little River and Alewife Brook. The basin also provides a level of removal of pollutants associated with urban stormwater by natural treatment processes in the constructed wetland system.

In addition to these CSO-related functional objectives, the design of the basin incorporates other "green technology" attributes that are intended to provide or enhance plant and wildlife habitat, natural flood control and recreational and educational opportunities consistent with DCR's Alewife Brook Reservation Greenway Master Plan. To complete the basin's wetland plantings, Cambridge installed 6,000 herbaceous plugs (out of a total 125,000) in early April in the deep marsh zones. Cambridge estimates that these plants will take approximately two months to develop fully-established root zones and leaf growth.

While the outfall and wetland basin are functional, temporary bulkheads have been installed in parts of the upstream conduit system to continue to direct stormwater flows to the CAM004 outfall until the CAM004 sewer separation contracts are complete and flows can be diverted to the basin. Cambridge's contractor will continue with construction through September 2013 to complete the recreational and educational amenities, including pedestrian pathways and trails, boardwalks, overlooks, informational signage, benches, a landscaped amphitheater and upland landscaping. The contractor

is also restoring surfaces, including a portion of the new MassDOT bike path (the "Fitchburg Cutoff Bikepath") that runs from the MBTA's Alewife Station to Belmont, which Cambridge relocated to nearby streets during construction.

Long-term wetland basin maintenance responsibilities are defined in a Memorandum of Agreement between DCR and the City of Cambridge by which Cambridge is responsible for maintaining the main wetland basin, the open water oxbow, the forebay, the vegetated swale between the forebay and the main basin, and City owned utilities on the property. Cambridge will also implement Best Management Practices within the upstream stormwater collection and delivery system. DCR is responsible for managing and maintaining the recreational and educational amenities.

2. Annual Combined Sewer Overflow Report.

The Authority submitted its 2012 annual CSO report on March 14, 2013, in compliance with Schedule Seven.

B. Progress Report.

1. Combined Sewer Overflow Program.

a. Brookline Sewer Separation.

The Town of Brookline completed the \$24.9 million Brookline sewer separation project on April 26, 2013, ahead of the July 2013 milestone in Schedule Seven. All CSO related elements of the project are complete and are functioning as intended for full environmental benefit. With the completion of this project and the CAM004 stormwater outfall and detention basin project, the Authority, in cooperation with its CSO communities, has now completed 31

of the 35 projects that comprise the Authority's approved long-term CSO control plan.

With the project construction described below, Brookline has removed large volumes of stormwater from its and the Authority's sewer systems, and the separated stormwater now drains directly to the Charles River Basin through the Authority's CSO outfall MWR010. The achieved separation removes the burden of the stormwater flows on the sewage transport systems, reduces flows to the Authority's Ward Street Headworks, and is predicted to lower CSO discharges to the Charles River at Outfall MWR010, at the Authority's Cottage Farm CSO treatment facility, and potentially at other Charles River CSO outfalls. Because the Ward Street Headworks system can also overflow to the Authority's Boston Marginal Conduit ("BMC") and Prison Point CSO treatment facility, the project may also relieve overflows from the BMC to the Charles River Basin (outfalls MWR018, 019 and 020) and overflows to the Inner Harbor at Prison Point.

The project involved separating the combined sewer systems serving a 71-acre area of the town. Brookline issued the Notice to Proceed for design in November 2006 and the notice to proceed with the \$1.4 million first construction contract in November 2008, both in compliance with Schedule Seven. Contract 1, which Brookline completed in January 2010, installed 5,658 linear feet of storm drain. Brookline issued the \$16.8 million second and final construction contract in January 2011 and completed the CSO related work on April 26, 2013. Contract 2 installed 4,692 linear feet of storm drain

and 2,483 linear feet of sanitary sewer by open trench method and 4,218 linear feet of sanitary sewer by microtunneling at significant depths along the heavily used Beacon and Monmouth streets.

The project converted Brookline's 84-inch by 89-inch St. Mary's Street combined sewer into a storm drain, closed the old connection of this line to the Authority's system along with one other old connection, and created five new sanitary sewer connections to the Authority's system, all now functioning as intended. As the final piece of the CSO related work, the contractor made internal modifications to Outfall MWR010 by removing old tide gates and an overflow plate to complete the conversion of the St. Mary's Street combined sewer to a storm drain. This conversion allows the project's separated stormwater to be redirected from the Authority's sewer system to Outfall MWR010 and the Charles River.

Related to this project, the Authority completed a \$1.1 million contract in August 2012 to clean Outfall MWR010. The cleaning contract involved the removal of heavy sediments and was necessary to ensure conveyance of Brookline's separated stormwater to the Charles River. Outfall MWR010 also serves as the continuing discharge point for CSO discharges from the Authority's Charles River Valley Sewer ("CRVS") and from a local BWSC combined sewer that ties into the CRVS, which activate only in very large storms.

b. Reserved Channel Sewer Separation.

As previously reported, BWSC has completed four of the nine planned contracts for the \$64.8 million Reserved Channel sewer separation project - the \$4.2 million Contract 1 that rehabilitated all four BWSC CSO outfalls that discharge to the Reserved Channel so as to provide long-term reliability and adequate capacity to carry the separated stormwater flows; the \$5.9 million Contract 2 that separated the combined sewers in a 55-acre area tributary to outfall BOS080; the \$1.1 million Contract 7, which was the first of two sequential pavement restoration contracts; and the \$10.2 million Contract 3A, which involved sewer separation in a 33-acre area tributary to outfall BOS076 bounded approximately by West First Street, G Street, West Broadway and E Street.

BWSC has continued to make significant design and construction progress on the remaining five contracts. The \$10.8 million Contract 3B, which involves sewer separation in two areas tributary to outfalls BOS078 and BOS079 totaling 66 acres, is now 60 percent complete. During the past quarter, the contractor continued to install sewer and drain along East Second Street as well as the side streets K, I and Emmet. Additionally, sewer and drain installation is complete on East Third Street between K and Dorchester Streets. Contract 3B has a completion date of October 2014.

The \$9.1 million Contract 4, the last of the major Reserved Channel sewer separation contracts, is now 40 percent complete. Contract 4 involves sewer separation in two areas totaling 182 acres tributary to outfalls BOS076,

BOS078 and BOS079. During the past quarter, the contractor has completed the installation of storm drains on E, Inman and Fargo Streets, as well as sewer and storm drain on Bolton Street. Contract 4 has a completion date of August 2015.

The \$6.8 million Contract 8, the second of two pavement restoration contracts that follow the work of the various sewer separation contracts as sections of work are completed, is 30 percent complete. BWSC also continues to make progress with the design of Contract 5 (existing sewer cleaning and lining). As reported last quarter, BWSC advertised a \$725,000 Contract 6 (downspout disconnections) for construction bids on February 20, 2013. Soon after receiving bids on March 21, 2013, BWSC decided to reject all bids and to re-advertise Contract 6 with a changed scope of work for the disconnection of existing building downspouts. BWSC expects to advertise and award contracts 5 and 6 this summer. BWSC expects to complete all work for the Reserved Channel sewer separation project by December 2015, in compliance with Schedule Seven.

c. CAM004 Sewer Separation.

As previously reported, the ongoing design of the CAM004 sewer separation project and the award of Contract 8A caused the City of Cambridge concern that it might not be able to complete all of the necessary street by street storm drain and sanitary sewer installation and utility relocation work within its three construction contracts (contracts 8A, 8B and 9) by the December 2015 milestone for completion of construction in Schedule Seven.



While Cambridge has since taken steps to consolidate its schedule and avoid construction conflicts in an effort to maintain compliance with the December 2015 milestone, it is still important to note that Cambridge's current schedule carries considerable risk should problems - such as bidding anomalies, unforeseen utility conflicts, severe weather or further restrictions at soil landfills - arise during construction. Cambridge and its engineer are monitoring these risks closely to mitigate schedule impacts to the sewer separation work to the extent possible. Soil disposal continues to be a potential risk to both schedule and cost due to the state-imposed restrictions on in-state facilities.

During the past quarter, Cambridge continued to make progress with the construction of Contract 8A and the design of Contracts 8B and 9. Construction of the \$17 million Contract 8A (MWRA's share is \$10.8 million) is approximately 30 percent complete. Contract 8A includes the installation of approximately 13,500 linear feet of sanitary sewer and storm drain pipe up to 54-inch diameter in Huron Avenue and several intersecting streets and 7,200 linear feet of smaller diameter drain pipe for building, catch basin and other connections in a 68-acre area immediately east of Fresh Pond Parkway, from Fresh Pond to Brattle Street. During the past quarter, Cambridge's contractor made progress with new sewer and storm drain on Lexington Avenue, Poplar Road, Hawthorne Park, Grozier Street, Vassal Lane and Lakeview Avenue. Cambridge expects to complete street pipeline installations later this year, attain substantial completion of Contract 8A in May 2014, and complete

surface restoration work and private inflow removal by the contract completion date of December 2014.

Cambridge also completed the design of the estimated \$28.9 million Contract 8B (MWRA's share is \$17.5 million), advertised the construction documents in April, and received bids on June 13, 2013. Contract 8B will separate combined sewers in an 83-acre area east of the Contract 8A area, extending as far east and north as Concord Avenue and as far south as Brattle Street. Contract 8B includes approximately 21,000 linear feet of new sanitary sewer and storm drain in Huron Avenue and several intersecting streets, approximately 1,700 linear feet of trenchless pipe rehabilitation and approximately 13,230 linear feet of ductile iron water main. Cambridge plans to award Contract 8B and issue the notice to proceed with construction this July.

Design of Contract 9, which includes the installation of new sanitary sewers and storm drains in Concord Avenue and several intersecting streets to separate combined sewers in a 60-acre area north of Contracts 8A and 8B and extending from Fresh Pond Parkway in the west to the intersection of Concord Avenue and Huron Avenue in the east is approximately 50 percent complete. Recent design efforts include sizing and layout of new subsurface infrastructure, pipeline condition assessments and validation of preliminary design recommendations, hydraulic analyses, preliminary streetscape design and assessment of City and private utility conflicts and required relocations and upgrades. Cambridge plans to complete the 60 percent design submission

and updated construction cost estimate this July. Cambridge has also been holding a series of community meetings and site tours to receive input on surface improvements. Cambridge plans to commence construction of Contract 9 in January 2014 and complete the sewer separation work by December 2015, in compliance with Schedule Seven.

As previously noted, Cambridge submitted to the Authority in February updated cost estimates that increased the Authority's cost share for the Alewife Brook projects by \$27.1 million, from \$60 million to \$87.1 million. In March, the Authority's Board of Directors authorized increasing the total award amount in the Memorandum of Understanding and Financial Assistance Agreement with Cambridge by \$17.3 million primarily for the construction related costs of Contract 8B, which Cambridge had been able to progress to 90 percent design. The authorization also allowed Cambridge to advertise Contract 8B for construction bids without delay. Cambridge's most recent estimates for the construction related costs of Contract 9, including costs for construction, engineering services during construction and police details, suggest that the total award amount should be further increased by approximately \$10 million to cover the Authority eligible costs. The Authority has included an additional \$10 million in its Fiscal Year 2014 CIP budget submission, which is subject to approval by its Board of Directors. Staff will seek Board approval of the 2014 CIP at the Authority's Board of Directors' meeting on June 26. If the higher budget is approved, the Authority expects to seek Board authorization to increase the award amount of the agreement with

Cambridge later this year, when Cambridge has made further design progress toward construction.

- d. Control Gate and Floatables Control at Outfall MWR003 and MWRA Rindge Avenue Siphon Relief; Interceptor Connection Relief and Floatables Control at Outfall SOM01A.

The Authority continues to make progress on schedule with the design of the control gate and floatables control at Outfall MWR003 and Rindge Avenue Siphon relief project (the "MWR003 project"). The interceptor connection relief and floatables control at Outfall SOM01A project (the "SOM01A project"), continues to progress on schedule.

The SOM01A project will upgrade the hydraulic capacity of the connection between the City of Somerville's Tannery Brook Conduit ("TBC") and the Authority's Alewife Brook Conduit to reduce CSO discharges from the TBC at Outfall SOM01A and will provide floatables control for the remaining discharges. Having completed final design of the project earlier this year, the Authority was able to present the construction plans to the Cambridge Conservation Commission at a hearing on April 8, 2013, upon which the Commission determined that the work is not subject to permit requirements under the Wetlands Protection Act. The Authority was also able to secure a construction permit from DCR, issued March 28, 2013, allowing the SOM01A work within DCR's Alewife Brook Reservation and Alewife Brook Parkway. The traffic management plan for Alewife Brook Parkway includes Massachusetts State Police details, and the Authority met with the State Police on May 30, 2013, to review the plans. The Authority is finishing the SOM01A

construction contract documents and plans to advertise the contract for bids later this month and issue the notice to proceed by September 2013, in compliance with Schedule Seven.

The MWR003 project will upgrade the overflow hydraulic capacity at Outfall MWR003 for extreme storms in part to compensate for the loss of system relief with the planned closing of Cambridge's nearby Outfall CAM004. The project will increase the hydraulic capacity of the Rindge Avenue Siphon, which delivers overflows to the outfall, replace the existing static overflow weir at MWR003 with an automated gate that will in its lowered position provide a higher overflow capacity when needed to mitigate system flooding, and provide floatables control for the remaining discharges.

The Authority recently received and is currently reviewing the draft preliminary design report and the hydraulic modeling technical report for the MWR003 project. Construction related issues under consideration include required Wetlands Protection Act and DCR permits, mitigation of construction impacts to the Fitchburg Cutoff Bikepath and a bike path bridge, the siting of above ground equipment related to the automated overflow gate and associated power and controls, and access to the construction site, which may involve acquiring right(s) of entry through private property. A final preliminary design report is due later this month. The design work remains on schedule for commencement of construction by August 2014, in compliance with Schedule Seven.

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 June 14, 2013.

/s/ John M. Stevens  
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Dated: June 14, 2013

**EXHIBIT A**

**SCHEDULE SEVEN**

**MWRA MONTHLY COMPLIANCE REPORT**  
Schedule Seven Milestones for March and April 2013

**EXHIBIT "A"**

**LONG-TERM  
SLUDGE MANAGEMENT**

**NEW BOSTON HARBOR  
SECONDARY  
TREATMENT PLANT**

**MONTH/YEAR**

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.<sup>31</sup>

(Completed – See June 14, 2013 Compliance and Progress Report.)

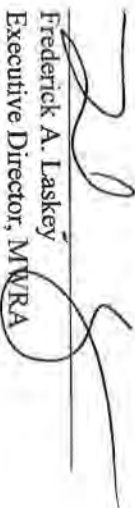
April 2013

MWRA, in cooperation with Cambridge, to complete construction of CAM004 stormwater outfall and detention basin.<sup>26</sup>

(Completed – See June 14, 2013 Compliance and Progress Report.)

**Certification of Completed Activities**

By:

  
Frederick A. Laskey  
Executive Director, MWRA

Date: June 14, 2013