

UNITED STATES DISTRICT COURT
for the
DISTRICT OF MASSACHUSETTS

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UNITED STATES OF AMERICA,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,
et al.,

Defendants.

.....

CONSERVATION LAW FOUNDATION OF
NEW ENGLAND, INC.,

Plaintiff,

v.

METROPOLITAN DISTRICT COMMISSION,

Defendants .

.....

CIVIL ACTION
No. 85-0489-RGS

CIVIL ACTION
No. 83-1614-RGS

MWRA QUARTERLY COMPLIANCE AND
PROGRESS REPORT AS OF September 15, 2015

The Massachusetts Water Resources Authority (the "Authority") submits the following quarterly compliance report for the period from June 16, 2015 to September 15, 2015 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 past quarter on the Court's Schedule Seven.

A. Progress Report.

1. Combined Sewer Overflow Program.

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

The construction contract for Control Gate and Floatables Control at Outfall MWR003 and MWRA Rindge Avenue Siphon Relief is approximately 95 percent complete and is on schedule to be completed by October 28, 2015 in compliance with Schedule Seven. The project is intended to improve the hydraulic performance of the Authority's Alewife Brook interceptor system, help control flooding in tributary community sewers in large storms, and support the attainment of the long-term levels of control for CSO discharges to Alewife Brook.

As reported last quarter, the contractor had completed and tested the major elements of work for this project, including the 48-inch diameter replacement siphon, the automated weir gate, the underflow baffle that provides floatables control for remaining CSO discharges through Outfall MWR003, and the associated modifications to CSO regulator structures RE031 and RE032. With this level of completion, two of the three key project components - the siphon and the floatables control - are now operational and providing improved system hydraulic performance and environmental benefit.

The last key element of the project - the automated weir gate - is fully installed and tested on-site and will become operational with completion of the project over the next several weeks, in compliance with Schedule Seven.

b. CAM004 Sewer Separation.

The City of Cambridge has continued to make progress with the four construction contracts (contracts 8A, 8B, 9 and Concord Lane) that comprise the remaining work of the CAM004 sewer separation project. Cambridge continues to manage, coordinate and sequence the work of all four contracts and related utility relocations and traffic management to control construction impacts and bring the project to completion by December 2015 in compliance with Schedule Seven.

Cambridge and the Authority have increased their level of effort, with a resulting increased cost, to meet this schedule. Cambridge and its contractors and lead engineering consultant continue to grapple with the complexities of this major construction undertaking: area-wide sewer separation; related extensive private utility relocation and accommodation; other public infrastructure improvements, including major, critical improvements to Cambridge's water distribution system; and surface restoration work that includes surface stormwater controls (Green Infrastructure). All of this is occurring across a 211-acre area of dense urban residential neighborhoods, business districts and high-traffic city streets.

The construction work and management level of effort for this project have grown as the four construction contracts have progressed and the amount

of work in these phased-in contracts has compounded. For example, on July 31, 2015, 17 separate construction crews were working in the sewer separation project area. Numerous construction change orders have addressed differing or unforeseen site conditions, additional utility conflicts, unsuitable or contaminated soils, and the need for additional traffic, resident and business impact mitigation, and Cambridge anticipates additional change orders. As previously reported, private utility relocation delays have delayed sewer separation activities, especially on Contract 8B.

Cambridge has responded to these hurdles and delays aggressively, by expediting design changes in the field, negotiating work and schedule changes with the contractors, significantly extending construction contract durations to shift more of the non-CSO control work beyond the December 2015 Court milestone, and applying greater engineering and management resources and level of effort. Cambridge's estimate of the total cost to complete the CAM004 sewer separation project has increased from \$97.7 million in November 2013 to \$122.4 million. On September 16, 2015, Authority staff will seek Board of Directors approval to increase Authority funding for CAM004 sewer separation and the other CSO projects Cambridge has implemented by \$5.3 million, from \$93.4 million to \$98.7 million.

The Authority has pressed Cambridge for assurances that it can complete all of the CSO related work by the December 2015 milestone. In response, Cambridge has provided detailed information on the remaining work of each contract, estimated crew-days for each work activity within each

contract, the sequencing of work, timelines, and the City's management approach for coordinating with each contractor and tracking construction progress.

The last key piece of remaining construction to complete CAM004 sewer separation involves work by the Contract 9 contractor to make major modifications to storm drainage structures at the downstream end of the sewer separation area that will allow stormwater flows to be redirected from the sewer system to the Alewife wetland. This work will take up to two months and, therefore, must begin no later than October 30. Most of this work cannot begin until ongoing sewer and storm drain installation and removal of sewer connections to pipes that will serve as storm drains is completed within contracts 8B, 9 and Concord Lane.

Cambridge is presently holding the contractors to their contract schedules, but construction risks remain, as do Cambridge's and the Authority's concerns. In response to the concerns, Cambridge has developed contingency plans to accomplish the final Contract 9 work on a faster track should the ongoing work of Contract 8B or Concord Lane be delayed beyond October 30. While Cambridge is prepared for this possibility, it believes the ongoing work can be completed by October and has stated that it is "concerned, but not alarmed." Cambridge and the Authority will continue to track construction progress closely, with the goal of avoiding or minimizing any further delay. Meanwhile, Cambridge continues to make progress on each of the four construction contracts.

The contractor for the \$17.8 million Contract 8A (the Authority's share is \$10.5 million) has continued to perform surface restoration work and construct stormwater related environmental improvements since substantially completing the sewer separation work of this contract in 2014. Cambridge expects the contractor to complete all remaining (non-CSO) work soon.

The contractor for the \$31.2 million Contract 8B (the Authority's share is \$17.8 million) has completed the installation of mainline storm drains and sewers and is continuing with the installation of storm drain laterals and the removal of private inflow sources throughout the Contract 8B area. All CSO related work in Contract 8B is required by the contract to be complete by September 18. Despite holding firm the contractor to this schedule, Cambridge is not confident that the contractor will meet this contract deadline; however, Cambridge is confident that barring any further unforeseen construction changes the contractor can complete the CSO related work by the critical path date of October 30.

The CSO related work in the \$3.4 million Concord Lane construction contract (the Authority's share is \$1.7 million) is 40 percent complete, and the contractor is scheduled to complete the installation of storm drains and sewers and other CSO related work in October.

The contractor for the \$24.4 million Contract 9 (the Authority's share is \$5.8 million) has completed 95 percent of the CSO related work.

The contractor's work in the past quarter included the installation of storm drains and sewers on Bay State Road and Alpine, Birch, Fern and Garden

Streets, as well as the installation of water mains on Bay State Road and Birch, Chilton, Field and Garden Streets. In addition, the contractor has been removing private inflow sources from the sewers. Cambridge continues to expect that the contractor can complete the CSO related work of Contract 9 by December 2015, in compliance with Schedule Seven. Contract 9 surface work will continue through December 2016.

c. Reserved Channel Sewer Separation.

As previously reported, the Boston Water and Sewer Commission (“BWSC”) has completed six of the nine planned contracts for the Reserved Channel Sewer Separation project: the \$3.9 million Contract 1, which included the rehabilitation of 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, which included the separation of the combined sewers in a 55-acre area tributary to outfall BOS080; the \$1.3 million Contract 7, which was the first of two sequential pavement restoration contracts; the \$11.8 million Contract 3A, which included sewer separation in a 33-acre area tributary to outfall BOS076 and bounded approximately by West First Street, G Street, West Broadway and E Street; the \$13.6 million Contract 3B, which included sewer separation in a 66-acre area of South Boston approximately bounded by East First Street, N Street, East Third Street and Dorchester Street, and including Elkins Street and Summer Street to the edge of the Reserved Channel; and the \$13.8 million Contract 4, which included sewer separation in two large areas of South Boston totaling

182 acres tributary to outfalls BOS076, BOS078 and BOS079. One of the two areas lies south of the Reserved Channel and is approximately bounded by G, N, East Third, Emerson and East Fourth streets. The second area lies west of the Reserved Channel, close to the Boston Convention and Exposition Center (“BCEC”), and is approximately bounded by the Reserved Channel, West Broadway, G Street and the BCEC.

In April 2015, BWSC resumed Contract 8, the second of the two pavement restoration contracts that follow the work of the various sewer separation contracts. The contractor continued the paving operations through the middle of July and plans to complete the paving of East Fourth and M streets this September and October, bringing the contract to substantial completion.

Contract 5 includes pipe cleaning and lining services to rehabilitate some older sewers in the Reserved Channel project area that will remain in service for the long term. The cleaning work and follow-up television inspections are complete, and the pipe lining work is approximately 90 percent complete. Contract 5 does not directly contribute to the CSO control objective of the Reserved Channel project and is therefore funded solely by BWSC. BWSC expects Contract 5 to be substantially complete by November 2015.

The \$211,000 Contract 6 includes the disconnection of roof drain downspouts connected to the sewer system in the Reserved Channel project area. Most (approximately 75 percent) of the building downspouts in the area

were previously disconnected by BWSC, either prior to the project or as part of the work of sewer separation contracts 3A, 3B and 4.

Since commencing Contract 6 in January 2015, the contractor has completed the downspout removals where BWSC has been able to obtain waivers from the property owners for work on private property. In the past quarter, BWSC's legal department completed issuing third notices to the property owners who had not yet signed waivers, and the contractor was able to complete the disconnection of six more downspouts, bringing the total number of downspouts disconnected in this contract to sixty-seven. Forty downspouts remain to be disconnected. If necessary, BWSC can issue shut-off notices to the property owners for non-compliance with BWSC regulations.

Disconnection of the remaining downspouts will remove an amount of stormwater from the sewer system that is a small fraction of the stormwater already removed by the Reserved Channel project contracts. Notwithstanding, BWSC remains committed to completing the work of Contract 6 to maximize inflow removal and the level of CSO control. BWSC expects Contract 6 to be substantially complete by December 2015.

d. EPA's Mystic River Watershed Report Card for 2014.

On July 13, 2015, the United States Environmental Protection Agency ("EPA") issued grades for water quality in segments of the Mystic River and its tributaries. In an effort to provide more localized water quality information, EPA, in cooperation with the Mystic River Watershed Association ("MyRWA"), developed a new grading system for the yearly water quality report card.

The new grading system provides a more nuanced understanding and description of water quality conditions in the Mystic River Watershed. Instead of one grade for the entire watershed, as in previous years, the new system reports grades for each of 14 separate stretches of the river and its tributaries. The grade continues to be based on bacteria levels that meet state water quality standards for boating and swimming.

The report stated that water quality in the main stem of the river from the Mystic Lakes to Boston Harbor meets water quality standards nearly all of the time, especially in dry weather. However, water quality in many of the tributary streams feeding the Mystic often does not meet standards. Water quality is frequently poor due to bacterial contamination in tributary streams such as Winn's Brook, Little River, Mill Brook, the Malden River, the Island End River, and Mill Creek, even in dry weather. The report also stated that the main causes of high bacteria counts in these water bodies is illicit sewer discharges to storm drain systems and uncontrolled urban stormwater runoff that contains pet and animal waste.

The new grading system benefited from a significant expansion in the data set used in the analysis, through inclusion of the Authority's water quality monitoring data along with MyRWA's. The Authority also assists MyRWA by performing most of the laboratory testing of its water quality samples. "This new methodology will be a very helpful tool," said MWRA Executive Director Fred Laskey. "It will provide a roadmap to point out remaining water quality issues in the Mystic."

Respectfully submitted,

/s/ Jonathan M. Ettinger
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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, 2015.

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Dated: September 15, 2015