# UNITED STATES DISTRICT COURT for the DISTRICT OF MASSACHUSETTS

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UNITED STATES OF AMERICA,	•	
Plaintiff,	•	
v.	•	CIVIL ACTION No. 85-0489-RGS
METROPOLITAN DISTRICT COMMISSION, et al.,	• • •	
Defendants.	•	
	•	
CONSERVATION LAW FOUNDATION OF NEW ENGLAND, INC.,	• •	
Plaintiff,	•	
v.	•	CIVIL ACTION No. 83-1614-RGS
METROPOLITAN DISTRICT COMMISSION,	•	
Defendants.	• •	
	•	

# MWRA QUARTERLY COMPLIANCE AND PROGRESS REPORT AS OF SEPTEMBER 14, 2007

The Massachusetts Water Resources Authority (the "Authority") submits the following quarterly compliance report for the period from June 16, 2007 to September 14, 2007 and supplementary compliance information in accordance with the Court's order of December 23, 1985 and subsequent orders of the Court.

# I. <u>Schedule Seven</u>

A status report for the scheduled activities for the month of July 2007 on the Court's Schedule Seven, certified by Frederick A. Laskey, Executive Director of the Authority, is attached hereto as Exhibit "A."

# A. <u>Activities Not Completed</u>.

# 1. Commence Construction of CAM400 Manhole Separation and Construction of CAM004 Stormwater Outfall and Detention Basin.

The City of Cambridge was unable to commence construction of the CAM400 manhole separation project and the CAM004 stormwater outfall and detention basin project, both elements of the Authority's combined sewer overflow ("CSO") long-term control plan for Alewife Brook, due to the ongoing citizens' appeal of the Superseding Order of Conditions that was issued by the Massachusetts Department of Environmental Protection ("DEP") to the City of Cambridge Department of Public Works ("DPW") pursuant to the Wetlands Protection Act.<sup>1</sup> The DPW received a Superseding Order of Conditions for its Cambridge Park Drive Drainage project (Contract 12) from DEP on March 31, 2005. Contract 12 includes the CAM004 stormwater outfall and detention basin essential to the feasibility of the Alewife Brook CSO plan. DEP's order of

<sup>&</sup>lt;sup>1</sup> See Compliance and Progress Reports dated June 15, 2005, pp. 8-9; March 15, 2007, pp. 5-6; December 15, 2006, pp. 9-10; September 15, 2005, pp. 6-7; June 15, 2006, pp. 6-7; March 15, 2006, pp. 5-6; December 15, 2005, pp. 6-7; September 15, 2005, pp. 8-9; June 15, 2005, pp. 10-11; December 15, 2004, pp. 10-12; and September 15, 2004, pp. 6-7 for previous reports on the wetland permitting issue.

conditions was appealed by a group of citizens on April 13, 2005. On March 12, 2007, the Massachusetts Division of Administrative Law Appeals' Administrative Magistrate presiding over the appeal issued a recommended final decision granting DPW and DEP a directed decision and sustaining DEP's superseding order of conditions. On June 1, 2007, the Acting Commissioner of DEP issued a final decision sustaining the superseding order of conditions. Petitioners filed a motion for reconsideration of this decision on June 12, 2007. There has been no further action with respect to the petitioner's motion for reconsideration since the Authority last reported.

The Authority currently estimates that the five projects constituting the long-term CSO control plan for Alewife Brook, including CAM004 stormwater outfall and detention basin (Contract 12) and CAM400 manhole separation have experienced a delay of at least 15 months. In anticipation of the conclusion of the administrative appeal process, the Authority and the City of Cambridge recently met to discuss plans for resuming design this fall with the goal of commencing construction in 2008.

# B. <u>Progress Report</u>.

- 1. <u>Combined Sewer Overflow Program</u>.
  - (a) North Dorchester Bay Storage Tunnel and Related Facilities.

The Authority continues to make considerable progress on the North Dorchester Bay storage tunnel and related facilities. The tunnel boring machine ("TBM") arrived last week and is currently being assembled and tested

- 3 -

by the contractor, a process which is expected to take several weeks. NStar has brought a dedicated 13.5kV power line for the TBM to the site. The contractor is proceeding with construction of the CSO and stormwater diversion structures for CSO outfalls BOS085-087, which are expected to be completed in November 2007.

The Authority also made progress with design of the CSO facilities related to operation of the storage tunnel, including the 15 mgd dewatering pump station at Conley Terminal, the 24-inch force main from the pump station to the existing Boston Water and Sewer Commission ("BWSC") sewer system and the remote odor control facility near the Bayside Expo. The Authority completed review of the Draft Design Report in July and received the Final Design Report from the consultant earlier in early September.

On another front integral to the benefits of the North Dorchester Bay long-term CSO control plan, BWSC recently awarded a \$28.4 million contract for construction of the Morrissey Boulevard Storm Drain. BWSC also recently attained substantial completion on a smaller construction contract for a diversion chamber that will link the Authority's tunnel to the Morrissey Boulevard drain.

In order to memorialize the significance of the CSO projects for North Dorchester Bay, the Authority held a ceremony on September 12, 2007 in South Boston "launching" the TBM for the North Dorchester Bay storage tunnel. After so many years of local opposition, the project, as redesigned, now has the support of the project neighbors and their elected representatives. The

- 4 -

Authority was honored and pleased that so many people involved with this project were able to take part in this event. Among the attendees were the Honorable Richard G. Stearns; the United States Environmental Protection Agency ("EPA") Regional Administrator Robert Varney; Secretary of Energy and Environmental Affairs for the Commonwealth, Ian Bowles; Massachusetts State Senator Jack Hart; Boston City Councilor Michael Flaherty and environmental leaders Vivien Li and Bruce Berman.

# (b) South Dorchester Bay Sewer Separation.

As reported last quarter, BWSC has closed all of the regulators tributary to the Authority's Fox Point and Commercial Point CSO treatment facilities, effectively eliminating CSO overflows to South Dorchester Bay. BWSC has continued to evaluate system hydraulic conditions during wet weather to determine whether the performance of the Dorchester system, including control of system flooding, is consistent with predicted levels. The results of the flow monitoring and hydraulic analysis program were expected to be available this past quarter, but are now expected to be available this fall. Upon certification from BWSC that all of the regulators are closed, the Authority will request permission from DEP and EPA to cease treatment operations at the Commercial Point and Fox Point facilities.

- 5 -

# (c) <u>Quarterly CSO Progress Report</u>.

In accordance with Schedule Six, the Authority submits as Exhibit "B" its Quarterly CSO Progress Report (the "quarterly report"). The quarterly report summarizes progress made in design and construction on the CSO projects during the past quarter and identifies issues that do or may affect compliance with Schedule Seven.

The Authority and the CSO communities have completed 20 of the 35 projects in the long-term CSO control plan and have commenced construction on six of the remaining projects. During the past quarter, the Authority and its CSO member communities made substantial progress on design and construction for several projects.

# C. <u>Federal District Court Judge A. David Mazzone Memorial</u>.

In recognition of the significant role that the Honorable A. David Mazzone played in overseeing the Boston Harbor Project, the Authority's Board of Directors voted unanimously to dedicate the public access area surrounding the Deer Island Treatment Plant in his honor. A committee of his family, friends and colleagues was formed to raise the necessary private funding for a memorial commemorating his contributions to a clean Boston

Harbor. A dedication ceremony is planned for October 19, 2007.

By its attorneys,

<u>/s/ John M. Stevens</u> John M. Stevens (BBO No. 480140) Jonathan M. Ettinger (BBO No. 552136) Foley Hoag LLP 155 Seaport Boulevard Boston, Massachusetts 02210 (617) 832-1000 jstevens@foleyhoag.com

Of Counsel:

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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 14, 2007.

> <u>/s/ John M. Stevens</u> John M. Stevens (BBO No. 480140) jstevens@foleyhoag.com

Dated: September 14, 20007

B3407845.1

MWRA MONTH	MWRA MONTHLY COMPLIANCE REPORT July 2007		EXHIBIT "A"	
MONTH/YEAR	CSO CONTROL	LONG-TERM SLUDGE MANAGEMENT	NEW BOSTON HARBOR OS SECONDARY TREATMENT PLANT	Case 1:8
July 2007	MWRA, in cooperation with Cambridge, to commence construction of CAM400 manhole separation.			35-cv-00
	(Not Completed - See September 14, 2007 Compliance and Progress Report)			)489-R
	MWRA, in cooperation with Cambridge, to commence construction of CAM004 stormwater outfall and detention basin. <sup>26</sup>			RGS
	(Not Completed - See September 14, 2007 Compliance and Progress Report)			Docur
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				14/2007
		Certification of Completed Activities	eted Activities	Page
		By: Frederick A. Laskey Executive Director, I	Frederick A. Laskey Executive Director, MWRA	e 1 of 1
		Date: <u>September 14, 2007</u>	4, 2007	

SCHEDULE SEVEN

Case 1:85-cv-00489-RGS

Document 1679-2

Filed 09/14/2007

Page 1 of 1

# Massachusetts Water Resources Authority



# Combined Sewer Overflow Control Plan

# Quarterly Progress Report September 14, 2007

## Case 1:85-cv-00489-RGS Document 1679-3 Filed 09/14/2007 Page 2 of 14

Massachusetts Water Resources Authority Combined Sewer Overflow Control Plan Quarterly Progress Report - September 2007

# TABLE OF CONTENTS

1

- 1. Quarterly Progress Overview
- 2. Project Implementation
  - 2.1 MWRA-Managed Projects

North Dorchester Bay Tunnel and Related Facilities 3 East Boston Branch Sewer Relief (BOS003-014) 5 BOS019 Storage Conduit 6 Union Park Detention/Treatment Facility 6 Brookline Connection and Cottage Farm Overflow 7 Interconnection and Gate Optimization Study of Prison Point CSO Facility 7

2.2 Community-Managed Projects

7 South Dorchester Bay Sewer Separation Stony Brook Sewer Separation 8 Fort Point Channel Sewer Separation 8 9 Morrissey Boulevard Storm Drain Reserved Channel Sewer Separation 9 Bulfinch Triangle Sewer Separation 9 Brookline Sewer Separation 10 10 Cambridge/Alewife Brook Sewer Separation

2.3 Region-wide Floatables Control and Outfall Closing Projects

Cambridge Floatables Control 11

Table 1. CSO Project Progress		Status as of September 14, 2007				
MWRA Contract	CSO Projects in Schedule Seven	IN DESIGN	IN CONSTRUCTION	COMPLETE		
MWRA Managed Projects						
N. Dorchester Bay Tunnel	N. Dorchester Bay CSO Storage Tunnel	Х	Х			
N. Dorchester Bay Facilities	and Related Facilities	Λ	Λ			
Pleasure Bay Storm Drain Improvements X						
Hydraulic Relief Projects	CAM005 Relief			Х		
	BOS017 Relief			Х		
East Boston Branch Sewer Relief		Х	Х			
BOS019 CSO Storage Conduit				Х		
Chelsea Relief Sewers	Chelsea Trunk Sewer Relief			Х		
	Chelsea Branch Sewer Relief			Х		
	CHE008 Outfall Repairs			Х		
Union Park Detention/Treatment Facility				Х		
CSO Facility Upgrades and MWRA	Cottage Farm Upgrade			Х		
Floatables	Prison Point Upgrade	-		Х		
	Commercial Point Upgrade	-		Х		
	Fox Point Upgrade			Х		
	Somerville-Marginal Upgrade			X		
	MWRA Floatables and Outfall Closings			X		
Brookline Connection and Cottage Farm Overflow Interconnection and Gate		X				
Charles River Interceptor Gate Controls and Additional Interceptor Connections		Start 1/08				
Optimization Study of Prison Point C	SO Facility		(1)			
Community Managed Projects		1				
South Dorchester Bay Sewer Separation				(2)		
Stony Brook Sewer Separation				X		
Neponset River Sewer Separation				X		
Constitution Beach Sewer Separation Fort Point Channel Sewer Separation and System Optimization				X		
*	and System Optimization		V	Х		
Morrissey Boulevard Storm Drain Reserved Channel Sewer Separation		v	Х			
Bulfinch Triangle Sewer Separation		X				
Brookline Sewer Separation		X				
Somerville Baffle Manhole Separation		X		v		
Cambridge/Alewife Brook Sewer CAM004 Outfall and Basin		v		Х		
Separation		X X	X			
	CAM004 Sewer Separation CAM400 Manhole Separation	X Start 10/07	Λ			
	Interceptor Connection Relief/Floatables	Start 10/07 Start 10/07				
	MWR003 Gate and Rindge Ave. Siphon	Start 7/10				
Region-wide Floatables Control and		X	Х			
Region-while r toatables Control and	u Outrali Ciosiligs	Λ	Λ			

(1) The Prison Point study, completed in March 2007, recommended operational improvements that MWRA has begun to implement. MWRA expects to complete full implementation and testing of the improvements by Spring 2008.

(2) BWSC has completed the sewer separation contracts and has closed the CSO regulators tributary to the Fox Point and Commercial Point outfalls. BWSC is now conducting flow monitoring and hydraulic evaluations to confirm that system performance goals have been met.

### 1. Quarterly Progress Overview

This quarterly progress report is presented to comply with reporting requirements in the Federal District Court's Order in the Boston Harbor Case. For the combined sewer overflow ("CSO") projects referenced in the Court's Order and its schedule of milestones (Schedule Seven), the report summarizes progress made during the period from June 16, 2007, to September 14, 2007, identifies project schedules relative to corresponding Court milestones, and describes issues that have affected or may affect compliance with Schedule Seven.

Detailed descriptions of the CSO projects and identification of all corresponding Court milestones for design and construction are not presented in this report but can be found in MWRA's CSO Annual Progress Report 2006, dated March 2007. The Annual Report is available for public review on MWRA's website, at www.mwra.com.

Table 1 shows the status of implementation for each of the 35 projects that comprise the long-term CSO control plan as referenced in Schedule Seven. As shown in Table 1, MWRA and the CSO communities have completed 20 of the 35 projects in the long-term CSO control plan. Six of the remaining projects are in construction phases, including two projects for which major construction efforts are underway -North Dorchester Bay CSO storage tunnel and Morrissey Boulevard storm drain - and three projects for which early construction work is completed and later phases of work are in final design or will be in final design soon to produce additional construction contracts, including East Boston Branch Sewer relief project, Cambridge/Alewife Brook sewer separation, and region-wide floatables controls. The sixth project "in construction" involves the implementation and testing of operational improvements at the Prison Point CSO facility.

MWRA and its CSO member communities continued to make substantial design and construction progress in the past quarter, as described below. MWRA has also continued to monitor the performance of recently completed CSO projects, including the Union Park Detention/Treatment Facility, the BOS019 CSO Storage Conduit, and the operational modifications at the Prison Point CSO facility. However, lower than normal rainfall in the past quarter limited the amount of new data. The Boston Water and Sewer Commission ("BWSC") also continues to monitor the performance of sewer separation projects it has completed at South Dorchester Bay, Stony Brook and Fort Point Channel.

At the same time, due to an environmental permit appeal previously reported, the City of Cambridge continued to be unable to commence design of either the CAM400 manhole separation project or the interceptor connection and floatables control installations at various Alewife Brook outfalls, which were required by Schedule Seven to start by July 2006. Accordingly, Cambridge was unable to commence

1

construction of the CAM400 manhole separation project, and was also unable to commence construction of the CAM004 stormwater outfall and detention basin, both required by Schedule Seven to start by July 2007. These and other projects that comprise the Alewife Brook CSO control plan continue to be delayed pending final resolution of the citizens' appeal of the DEP Superseding Order of Conditions for the stormwater outfall and detention basin.

The following are highlights of the progress MWRA and the CSO communities made on CSO control projects in the third quarter of 2007, along with other key issues affecting project schedules. More information is provided in later sections of this report.

- MWRA continued to make considerable progress with construction of the \$151.2 million North Dorchester Bay CSO storage tunnel and with design of the related CSO facilities, including the dewatering pump station, force main and remote odor control facility. The construction contractor received the tunnel boring machine ("TBM") on September 5 for on-site assembly and testing to prepare for mining operations. In addition, the contractor is continuing with construction of the CSO and stormwater diversion structures at a few of the existing outfalls. On the related design contract, MWRA has authorized the consultant to commence final design activities. The 60% design plans are due in October 2007.
- The \$46.4 million Union Park Detention/Treatment Facility has been in beneficial use since substantial completion was attained last April. The contractor continues to address punch list work items. Facility operation is still in the period of start-up and systems optimization referenced in Schedule Seven (footnote 35). The facility is performing as intended to reduce the frequency, volume and impacts of overflows discharged by the BWSC Union Park Pumping Station to the Fort Point Channel.
- After reviewing the Draft Project Design Report for the East Boston Branch Sewer Relief Project (interceptor relief for BOS003-014), in June 2007 MWRA authorized its design consultant to proceed with the final design services in the contract. Substantial final design progress has been made since then. MWRA is coordinating its work with ongoing or planned construction projects in East Boston by BWSC, the City of Boston, the Massachusetts Highway Department ("MassHighway") and Keyspan. MWRA continues to address and assess any effects these other projects may have on the CSO project's construction schedule.
- MWRA continued to make substantial progress with design of the Brookline Connection, Cottage Farm overflow chamber interconnection and Cottage Farm gate control project. This project is intended to reduce treated CSO discharges to the Charles River Basin at the

Cottage Farm CSO facility. MWRA recently received for review the Final Hydraulic Modeling Technical Report and the Final Preliminary Design Report from its design consultant. On August 6, 2007, MWRA authorized the consultant to proceed with the final design services in the contract.

- MWRA continued to implement and test operational modifications recommended in its Prison Point CSO facility optimization study. The study report, submitted to EPA and DEP last March, recommended a set of changes to the facility's operating procedures that MWRA predicts will significantly reduce the frequency and volume of treated discharges to the Inner Harbor.
- The Town of Brookline continued to make progress with design of the Brookline sewer separation project, which is intended to reduce CSO discharges to the Charles River Basin.
- BWSC continued to make progress with design of the Reserved Channel sewer separation and Bulfinch Triangle sewer separation projects, which are intended to reduce CSO discharges to the Reserved Channel and the Charles River Basin, respectively.
- MWRA and the City of Cambridge recently met to discuss plans for resuming design of the Alewife Brook CSO projects this fall and commencing construction in 2008, in anticipation of the conclusion of the administrative appeal process on the DEP Superseding Order of Conditions for Cambridge's Contract 12.
- Cambridge recently awarded the construction contract for floatables controls at two CSO outfalls along the Charles River and plans to issue a notice to proceed later this month.
- On August 30, 2007, the Massachusetts Department of Environmental Protection ("DEP") issued final determinations extending the variances for CSO discharges to the Lower Charles River/Charles Basin and the Alewife Brook/Upper Mystic River by three years, to October 1, 2010 and September 1, 2010, respectively.

## 2. <u>Project Implementation</u>

## 2.1 MWRA-Managed Projects

## North Dorchester Bay Tunnel and Related Facilities

The contractor for the \$151.2 million South Boston CSO storage tunnel has made considerable progress over the past quarter. It has completed excavations of the mining shaft at the downstream end of the proposed tunnel at Massport's Conley Terminal and the equipment retrieval shaft at the upstream end of the proposed tunnel near the Bayside Exposition

Center ("Bayside Expo"). The contractor has received the tunnel boring machine (TBM) from the manufacturer and is now assembling the TBM on site. Meanwhile, NStar has completed a dedicated 13.5kV power line for the TBM operation.

In addition, the contractor is continuing with construction of the CSO and stormwater diversion structures and related piping for CSO outfalls BOS085-087, which are expected to be completed by November 2007.

MWRA also made progress with design of the CSO facilities related to operation of the storage tunnel, including the tunnel dewatering pump station at Conley Terminal, the 24-inch force main from the pump station to the existing BWSC sewer system, and the remote odor control facility near the Bayside Expo. MWRA completed review of the Draft Design Report in July 2007 and received the Final Design Report from the consultant in early September. MWRA has directed the consultant to change the route of the proposed force main, primarily utilizing East Broadway in lieu of East Sixth Street. The consultant has developed plans and begun to obtain permits for geotechnical and materials investigations along the hazardous new alignment. The consultant has also commenced field and utilities surveys, mapping, noise analyses and hydraulic analyses for the newly aligned force main. In the meantime, the consultant has also completed borings at the dewatering pump station and remote odor control facility sites.

On June 19, MWRA also authorized the design consultant to commence a planned study of the long-term operation of the existing CSO and stormwater outfalls with the proposed storage tunnel on-line and discharges through the outfalls occurring only infrequently (i.e. 5-year storm control for stormwater and 25-year storm control for CSO). In particular, the consultant will study means to prevent the build-up of bay sediments over and into the ends of the outfalls from compromising the hydraulic performance of the outfalls when needed. Initial work includes bathymetric surveys, sediment core sampling and internal outfall inspections.

During the next quarter, the consultant is scheduled to submit the 60% design documents and perform the Value Engineering Study. The consultant also plans to complete the field activities and geotechnical/hazardous materials investigations associated with the new force main route.

#### East Boston Branch Sewer Relief (BOS003-014)

On June 26, 2007, after review of the design consultant's Draft Project Design Report, MWRA authorized the consultant to proceed with final design services.

In the past quarter, MWRA also received the final geotechnical data and final hazardous materials assessment report for report construction contract 6841, which involves the proposed upgrade of sewers in the upstream reaches of the East Boston interceptor system, primarily using the pipe-bursting method. The consultant is currently progressing on work related to key design deliverables MWRA expects to receive in the next few months related to Contract 6257, which involves construction of a relief interceptor sewer along Border, Condor, East Eagle, Chelsea and Orleans Streets with micro-tunneling. These deliverables include the final geotechnical data report, the final hazardous materials assessment report, the draft geotechnical baseline report, draft permit applications, and the 100% design plans and construction specifications.

The consultant has determined that the project construction schedule must include work during the winter months in order to meet the June 2010 milestone for completion of construction in Schedule Seven. On June 19, 2007, MWRA sent a letter to the City of Boston Department of Public Works (the "Boston DPW") requesting that the City's winter moratorium on street excavation be waived for construction of this project. At a meeting on July 25, representatives of the Boston DPW stated that MWRA will be allowed to work in City of Boston streets during the winter months. MWRA has requested and expects to receive written confirmation of this authorization.

BWSC awarded its construction contract for water, sewer and drain replacements in Border and Condor Streets on June 19, 2007, two months ahead of the schedule anticipated and reported by MWRA in last quarter's report. Although this BWSC work is not part of the MWRA's approved long-term CSO control plan, it shares much of the same alignment as MWRA's proposed micro-tunneling CSO control contract (Contract 6257). Overlap between the two projects will require careful coordination by BWSC and MWRA and the cooperation of their construction contactors to avoid or minimize delays.

BWSC's contractor began physical construction in August 2007. BWSC's contractor's schedule, approved by BWSC on August 15, 2007, projects completion of BWSC's work in September 2008, assuming Boston DPW allows its work to be performed in the winter months. BWSC will perform permanent trench repairs under separate contract, with final paving to be completed sometime after completion of the water, sewer and drain replacements.

5

MWRA was informed in August 2007 that MassHighway, in cooperation with the City of Boston, plans to advertise a contract for replacement of the City's Chelsea Street Bridge later this month. MWRA has been tracking this long-delayed project for many years to understand and define the potential for impacts to MWRA's construction schedule. At a meeting on September 4, 2007, the City of Boston indicated the existing Chelsea Street Bridge will be taken out of service for a three to six month period starting 24 months after issuance of the City's notice to proceed ("NTP"). The NTP date has not been finalized by MassHighway.

Assuming Boston's NTP is issued at the start of 2008, the existing Chelsea Street Bridge could be taken out of service at the end of 2009, concurrent with construction of MWRA Contract 6257. Closing the bridge will divert traffic to the McArdle (Meridian Street) Bridge between Chelsea and East Boston and result in increased traffic volume on Condor and East Eagle Streets in East Boston. MWRA's contractor may be working in these streets during this time period, and careful coordination with the City of Boston is required.

On August 14, 2007, KeySpan informed MWRA that its long-delayed project to install a 24-inch gas distribution main in East Boston was rescheduled to be constructed from March 2008 to August 2008. KeySpan's construction will include work on ConocoPhillips Oil Company's land along Chelsea Street, where MWRA project plans call for a jacking shaft for its micro-tunneling operations. With the latest KeySpan schedule change, MWRA will not be able to occupy the ConocoPhillips property until September 2008. At this time, MWRA does not anticipate any construction delays to Contract 6257 due to the KeySpan work.

MWRA continues to coordinate its project work with BWSC, the City of Boston and KeySpan to assess the impact of their projects on MWRA's construction schedule and to avoid or minimize delays to the extent possible.

## BOS019 CSO Storage Conduit

MWRA substantially completed construction of the BOS019 CSO storage conduit on March 30, 2007. The new facility includes two, 280-foot long, 10-foot by 17-foot underground concrete storage conduits that provide 670,000 gallons of overflow storage capacity, a pump out facility and an influent gate house. The facility has been on-line since March and is operating as intended.

## Union Park Detention/Treatment Facility

On April 26, 2007, MWRA declared the construction contract to be substantially complete and, since then, the contractor has focused on the punch list work items. Two systems are currently being reevaluated

and refined: the chlorine analyzers in automatic mode and the odor control system. Neither of these systems is compromising the performance of the new facility for storage and treatment of CSO flows.

## Brookline Connection and Cottage Farm Overflow Chamber Interconnection and Gate

MWRA received the Final Hydraulic Modeling Technical Report and the Final Preliminary Design Report for this project on September 14, 2007. On August 6, 2007, MWRA authorized its design consultant to proceed with the final design services in the contract. With the 100% design documents scheduled to be completed by October 2007, MWRA plans to have initial discussions with key permitting agencies (Department of Conservation and Recreation, Boston and Cambridge Conservation Commissions, etc.) over the next few months.

## Optimization Study of Prison Point CSO Facility

On March 30, 2007, MWRA submitted its report on the optimization study of the Prison Point CSO facility to EPA and DEP, in compliance with Schedule Seven. Since then, MWRA has implemented the recommendations related to operation of the influent gates to maximize storage and conveyance to Deer Island and minimize the discharge of treated CSO to the Inner Harbor. With new depth sensors recently installed in the Charlestown Branch Sewer (the "CBS"), MWRA has also begun to implement the recommended procedures for operating the small dry weather pumping station at the Prison Point facility during wet weather. Optimizing the dry weather pump operation is intended to maximize flows to Deer Island while avoiding any increase in overflows to the BOS019 CSO storage conduit located upstream of the dry weather discharge connection to the CBS.

Over the next several months, MWRA will continue to improve operations at Prison Point in accordance with the recommended plan and monitor the effects of the new operations on treated discharge volume, dry weather pump discharge volume, and the avoidance of any increase in untreated CSO discharges in hydraulically related systems.

## 2.2 Community-Managed Projects

## South Dorchester Bay Sewer Separation

South Dorchester Bay sewer separation is intended to eliminate CSO flows to the Commercial Point and Fox Point CSO treatment facilities by the Schedule Seven milestone of November 2008, allowing MWRA to decommission the facilities. BWSC commenced construction in April 1999. All nine separation contracts have been completed. Overall project work has resulted in the installation of a total of 135,351 linear feet of new storm drain.

BWSC continues to perform downspout disconnection work to increase the amount of stormwater inflow removed from the sewer system. An ongoing downspout contract is approximately 89% complete, and a final downspout contract is scheduled to commence soon. Overall, BWSC has completed the removal of approximately 67% of the downspouts slated to be disconnected. BWSC also continues to perform final paving to restore disturbed areas. The third and final paving contract commenced in October 2005 and will continue through November 2007.

As reported last quarter, BWSC has closed all of the regulators tributary to MWRA's Fox Point and Commercial Point CSO treatment facilities, effectively eliminating CSO overflows to South Dorchester Bay. BWSC has continued to evaluate system hydraulic conditions during wet weather to determine whether the performance of the Dorchester system, including control of system flooding, is consistent with predicted levels. The results of the flow monitoring and hydraulic analysis program were expected to be available this past quarter, but are now expected to be available this fall. Upon certification from BWSC that all of the regulators are closed, the Authority will request permission from DEP and the United States Environmental Protection Agency to cease treatment operations at the Commercial Point and Fox Point facilities.

#### Stony Brook Sewer Separation

Stony Brook sewer separation is intended to minimize CSO discharges into BWSC's Stony Brook Conduit, which drains to the Charles River Basin. BWSC commenced construction in July 2000 and has completed construction of all four separation contracts. BWSC installed a total of 73,313 linear feet of new storm drains to complete this project. As reported earlier, downspout disconnection work in the Stony Brook project area is complete. A final paving contract to restore disturbed areas is still underway and will continue through November 2007.

BWSC has conducted flow monitoring of the Stony Brook sewer system and had anticipated issuing a report soon that would summarize its evaluation of the data and its conclusions on CSO control performance. However, a second round of flow monitoring is needed due to inconclusive results in one tributary area and the discovery of a previously unknown regulator, which will be metered to determine CSO activation frequency and volume or inactive status.

#### Fort Point Channel Sewer Separation

On March 30, 2007, BWSC substantially completed construction of the project, in compliance with Schedule Seven. This project is expected to reduce CSO discharges to Fort Point Channel at outfalls BOS072 and BOS073 from 9 activations totaling 3 million gallons of untreated CSO

in a typical year to zero discharges in a typical year. BWSC installed 4,550 linear feet of new storm drain and completed weir raising and floatables controls at the related CSO regulators. BWSC is continuing to conduct flow monitoring to measure the CSO control performance of the separated system.

#### Morrissey Boulevard Storm Drain

A component of the North Dorchester Bay CSO control plan, the Morrissey Boulevard storm drain project is intended to direct some of the North Dorchester Bay stormwater away from MWRA's recommended CSO storage tunnel in storms greater than the 1-year design storm.

As previously reported, BWSC issued the Notice to Proceed with the first of two planned construction contracts for the project in December 2006, in compliance with Schedule Seven. The first contract is substantially complete. It involved construction of the diversion chamber that will allow stormwater flows now discharging to the South Boston beaches at outfall BOS087 to be diverted to Savin Hill Cove in storms greater than the 1-year design storm. (In smaller storms, the stormwater will be diverted to the North Dorchester Bay CSO storage tunnel.) BWSC recently awarded a second, much larger, construction contract and on September 5 held a pre-construction meeting for this contract.

#### Reserved Channel Sewer Separation

Reserved Channel sewer separation is intended to minimize CSO discharges to the Reserved Channel by separating combined sewer systems in adjacent areas of South Boston. Implementation of the recommended sewer separation plan will reduce the number of overflows to the Reserved Channel from as many as 37 to 3 in a typical year.

BWSC is continuing with the data collection phase, including field investigations, internal pipeline inspections, building inspections, geotechnical investigations and flow metering. The project schedule calls for submission of the preliminary design report by January 2008. Final design will commence immediately thereafter, with start of construction by May 2009.

## Bulfinch Triangle Sewer Separation

The goal of the Bulfinch Triangle sewer separation project is to minimize CSO discharges to the Charles River by separating combined sewer systems in the area of Boston roughly bounded by North Station, Haymarket Station, North Washington Street, Cambridge Street and immediate environs. The recommended sewer separation plan is intended to reduce the number of overflows to the Charles River, reduce overflows to the Prison Point CSO facility and close outfall BOS049.

Field investigations, building inspections, survey work and public outreach are ongoing. Additional inspection work was necessary prior to finalizing the Preliminary Design Report, which BWSC had issued in draft form last April. BWSC expects to receive the final Preliminary Design Report later this month.

#### Brookline Sewer Separation

This project will separate sewers in several areas of Brookline, totaling 72 acres, where there are remaining combined sewers tributary to MWRA's Charles River Valley Sewer. The project is intended to reduce discharges to the Charles River from the Cottage Farm facility.

The Project was originally split into two sections, Beacon Street area coordinate and Boylston Street area, to with MassHighway's reconstruction of Beacon Street. Preliminary and final design of Beacon Street area was to be conducted first. However, MassHighway accelerated its construction schedule, and therefore the start of construction of sewer separation in the Beacon Street area could not meet MassHighway's schedule (this does not compromise court schedule compliance). Brookline now expects to construct the project with one construction contract. Brookline is reevaluating the preliminary and final design schedule and expects to issue a revised schedule later this month.

Field investigations and flow monitoring are ongoing. Brookline has completed the survey work, utility research and preliminary storm drain layout in the Beacon Street area. Verification of sewer and storm drain service connections, hazardous materials assessments and geotechnical investigations are ongoing.

#### Cambridge/Alewife Brook Sewer Separation

The City of Cambridge was unable to commence construction of the CAM400 manhole separation project and the CAM004 stormwater outfall and detention basin project, both elements of MWRA's long-term CSO control plan for Alewife Brook, due to the ongoing citizens appeal of the Superseding Order of Conditions that was issued by DEP to the City of Cambridge Department of Public Works ("Cambridge DPW") pursuant to the Wetlands Protection Act for Cambridge's Contract 12. Contract 12 includes the CAM004 stormwater outfall and detention basin.

A portion of the Cambridge/Alewife Brook sewer separation project is being implemented by MWRA. The work involves installation of an overflow control gate and floatables control at outfall MWR003 and hydraulic relief of an MWRA siphon near Rindge Avenue. Due to delays associated with Cambridge's Contract 12, MWRA has revised its schedule for the MWR003 improvements and Rindge Avenue Siphon. MWRA now plans to commence design by July 2010.

## 2.3 Region-wide Floatables Control and Outfall Closing Projects

MWRA and BWSC have completed work to control floatables in CSO discharges from the outfalls they own and operate, with the exception of floatables control at MWRA outfall MWR003, discussed above under "Cambridge/Alewife Brook Sewer Separation."

### Cambridge Floatables Control

Floatables control will be installed by Cambridge at four Cambridge outfalls, as well as one Somerville outfall, along Alewife Brook as part of the Cambridge/Alewife Brook sewer separation project. These controls were included in the various regulatory filings on the Alewife Brook project and the Alewife Brook/Upper Mystic River Variance. As previously reported, Cambridge has completed floatables control at one of these locations, outfall CAM401A. Design work for the other outfalls along Alewife Brook is on hold pending resolution of the Contract 12 wetlands appeal.

With respect to Charles River floatables control, for the two CSO outfalls it owns and operates (CAM007 and CAM017), Cambridge has awarded the construction contract and plans to commence construction later this month. Construction is scheduled to be completed by December 2007, in compliance with Schedule Seven. In the fall of 2006, Cambridge temporarily closed two other CSO outfalls (CAM009 and CAM011) on the Charles River that were previously slated for floatables control. Cambridge intends to monitor system conditions near them over the next two years to determine whether they can be permanently closed without adverse hydraulic effect.