

City of New York
Department of Environmental Protection
Bureau of Engineering Design & Construction

CSO Order on Consent
DEC Case # CO2-20110512-25, Modification to CO2-20000107-8

QUARTERLY PROGRESS REPORT

THIRD QUARTER 2013
(July 1 to September 30)

October 30, 2013

Table of Contents

Table of Contents	i
List of Tables	ii
1.0 Executive Summary	1-1
2.0 Construction Contracts	2-4
3.0 Detailed Description of Work Performed	3-1
3.1. <i>Alley Creek CSO</i>	3-1
3.2. <i>Inner Harbor CSO</i>	3-2
3.3. <i>Paerdegat Basin CSO</i>	3-6
3.4. <i>Flushing Bay CSO</i>	3-8
3.5. <i>Jamaica Tributaries CSO</i>	3-11
3.6. <i>Coney Island Creek CSO</i>	3-13
3.7. <i>Newtown Creek CSO</i>	3-14
3.8. <i>Westchester Creek CSO</i>	3-16
3.9. <i>Bronx River CSO</i>	3-17
3.10. <i>Hutchinson River CSO</i>	3-18
3.11. <i>Jamaica Bay CSO</i>	3-19
3.12. <i>Environmental Benefits Projects</i>	3-22
3.13. <i>Green Infrastructure Program Implementation</i>	3-26
4.0 Community Relations	4-1
5.0 Key Personnel Changes	5-1
6.0 Other Issues	6-1
7.0 Status of LTCP Development	7-1

List of Tables

Table 1 – Milestones Certified This Quarter (April 2013 – June 2013).....	1-2
Table 2 – Milestones Under Consideration for Modification (April 2013–June 2013)	1-2
Table 3 – Milestones Next Quarter (July 2013 – September 2013)	1-2
Table 4 – Outstanding Modification Requests and Force Majeure Notices from Previous Quarters	1-3
Table 5 – Construction Contracts and their Status.....	2-4
Table 6 – Alley Creek CSO Projects	3-1
Table 7 – Inner Harbor CSO Projects	3-5
Table 8 – Paerdegat Basin CSO Projects	3-7
Table 9 – Flushing Bay CSO Projects	3-10
Table 10 – Jamaica Tributaries CSO Projects	3-12
Table 11 – Coney Island Creek CSO Projects	3-13
Table 12 – Newtown Creek CSO Projects.....	3-15
Table 13 – Westchester Creek CSO Project	3-16
Table 14 – Bronx River CSO Project	3-17
Table 15 – Hutchinson River CSO Project.....	3-18
Table 16 – Jamaica Bay CSO Projects	3-20
Table 17 –2008 Modified CSO Consent Order Environmental Benefits Projects	3-24
Table 18 –2012 CSO Order on Consent Environmental Benefits Projects	3-25
Table 19 –Green Infrastructure Neighborhood Demonstration Project Status.....	3-26
Table 20 – Key DEP Personnel for Contracts Subject to the CSO Consent Order	5-1
Table 21 – Action Items from Quarterly Progress Meeting	6-1

1.0 Executive Summary

The Combined Sewer Overflow Order on Consent (DEC Case # CO2-20000107-8) was entered into by the City of New York (City), the New York City Department of Environmental Protection (DEP) and the New York State Department of Environmental Conservation (DEC) on January 14, 2005. This Order on Consent was modified on April 14, 2008, September 3, 2009, and March 8, 2011 (collectively, the “Order”). Pursuant to the Order, the City shall submit quarterly status reports to DEC (Quarterly Reports). The Quarterly Reports shall describe the actions that have been taken toward achieving compliance with this Order during the past three-month period. This Quarterly Report sets forth the status of and progress made by DEP in complying with the milestones set forth in the Order between **July 1, 2013 and September 30, 2013**.

Critical Events This Quarter

The following critical events occurred this quarter:

1. On July 26, 2013 DEP submitted a Notice of Force Majeure for the Construction Completion of the Gowanus Canal Pump Station and Flushing Tunnel related to delays associated with Con Edison Transformer and Network Protection Vault.
2. On July 12, 2013 DEP provided DEC an update on the Sediment Sampling Plan for Gowanus Canal Dredging and also committed to additional interim milestones as requested by the DEC.
3. On July 31, 2013 DEC requested additional information pertaining to the 26th Ward Wet Weather Modification Request and DEP provided this information to DEC on September 20, 2013.
4. On July 31, 2013 DEC requested additional information pertaining to the Flushing Bay Low Lying Sewer Modification Request and DEP provided this information to the DEC on September 30, 2013.
5. On August 5, 2013 DEP submitted an update to the Notice of Force Majeure for Paerdegat Basin Dredging that was related to the National Grid Oil Spill into the Basin.
6. On August 26, 2013 DEC provided comments on the Newtown Creek Floatables and Bending Weir design documents.
7. On August 30, 2013 DEP submitted the final design documents for the Jamaica Tributaries Parallel 48” Siphon/Interceptor.
8. On September 12, 2013 DEC provided comments on the Alley Creek/Little Neck Bay LTCP.

Major Actions This Quarter

DEP continued to make progress in the planning, design and construction of its CSO facilities during this quarter, as documented in this report. As required by the Order, DEP and DEC held a Quarterly Progress Meeting on **Sep 16, 2013 at DEP’s offices in New York City** to discuss issues related to the Order and to review milestones met during the last quarter.

Table 1 presents the milestones that occurred this quarter. For each milestone listed in Table 1 below, either met or postponed, written notification was submitted by DEP to DEC. Table 2 presents milestones from the reporting quarter that are under consideration for potential modification.

Major Actions Next Quarter

The following major actions are expected to occur from **October through December 2013**:

Hold the next Quarterly Progress Meeting between DEC and DEP on **December 19, at Ward’s Island Wastewater Treatment Plant in New York, NY.**

Table 1 – Milestones Certified This Quarter (July 2013 – September 2013)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Jamaica Tributaries	Parallel 48-Inch Siphon / Interceptor	Aug 2013	Final Design Completion	Submitted

Table 2 – Milestones Under Consideration for Modification (July 2013 – September 2013)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Inner Harbor	Gowanus Flushing Tunnel Modernization and Pump Station Reconstruction	Sep 2014	Construction Completion	Notice of Force Majeure submitted July 26, 2013
Newtown Creek	Enhanced Aeration LEK	Dec 2013	Construction Completion	Modification to be requested

Table 3 – Milestones Next Quarter (October 2013 – December 2013)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Jamaica Tributaries	Bending Weirs	Dec 2013	Final Design Completion	On Schedule

Table 4 – Outstanding Modification Requests and Force Majeure Notices from Previous Quarters

LOCATION/ PROJECT AREA	ITEM DESCRIPTION	ACTION(S)	REASON FOR ACTION(S)	MILESTONE DATE	STATUS
Inner Harbor	Gowanus Pump Station and Flushing Tunnel Modernization	Notice of Force Majeure Nov 19 2012	Hurricane Sandy	Construction Completion Sep 2014	Update provided Apr 12 2013
Flushing Bay	Tallman Island WWTP	Notice of Force Majeure Nov 19 2012	Hurricane Sandy	Construction Completion Jul 2015	Under Consideration
Flushing Bay	Low Lying Sewers, Raise Weirs	Modification Request May 1 2013	Portion of project transferred to DDC	NTP Jun 2013	Update provided Sep 30 2013
Jamaica Bay	26th Ward Wet Low Level MSPs	Modification Request Mar 1 2013	Design Procurement	Multiple Milestones	Requested information provided Sep 21 2013
Paerdegat Basin	Dredging	Notice of Force Majeure	Sep 27 2012 oil spill	Dredging Completion Mar 2015	Update provided Aug 5 2013

Changes from the previous reporting period are shown in **bold**

2.0 Construction Contracts

The 2012 CSO Consent Order contains milestones and schedules governing the planning, design and construction of DEP's Citywide CSO Program. Numerous CSO related facilities will be constructed to reduce combined sewage discharges to the receiving waters surrounding the City. The table below provides a list of construction contracts, identified in Appendix A of the Order, necessary to fulfill the requirements of the Order. This table identifies, by percentage, the estimated amount of construction that has been completed.

Table 5 – Construction Contracts and their Status

WATERBODY	ITEM DESCRIPTION	NOTICE TO PROCEED	CONSTRUCTION COMPLETION	PROJECTED COMPLETION	% OF TIME ELAPSED	% OF CONSTRUCTION COMPLETED ⁽¹⁾
Alley Creek	CSO Retention Facility	Dec 2006	Dec 2009	Certified Mar 2011	100%	100%
Inner Harbor	Gowanus Flushing Tunnel Modernization	Feb 2010	Sep 2014	Sep 2014	78%	72%
	Gowanus Pump Station Reconstruction	Feb 2010	Sep 2014	Sep 2014	78%	72%
	Dredging of Gowanus Canal	TBD ⁽²⁾	TBD ⁽²⁾	TBD ⁽²⁾	-	-
Paerdegat Basin	Structures and Equipment	Sep 2005	May 2011	Certified May 2011	100%	100%
	Dredging of Paerdegat Basin	Mar 2013	Mar 2015	Mar 2015	25%	0%
Flushing Bay	Tallman Island Whitestone Interceptor	Dec 2011	Jul 2015	May 2015	49%	19%
	Tallman Island Flushing Interceptor	TBD	TBD	-	-	-
	Divert Low-Lying Sewers	Dec 2014	Dec 2016	Dec 2016	-	-
	Raise Weir BB-R02	Jun 2014	Dec 2016	Dec 2016	-	-
	Regulator Modifications	Dec 2015	Jun 2018	Jun 2018	-	-
	Environmental Dredging of Flushing Bay	TBD ⁽³⁾	TBD ⁽³⁾	TBD ⁽³⁾	-	-
Jamaica Tributaries	Destratification Facility	Sep 2010	Mar 2012	Certified Mar 2012	100%	100%
	Parallel 48-Inch Siphon / Interceptor	Aug 2014	Feb 2017	Feb 2017	-	-
	Bending Weirs	Dec 2014	Jun 2016	Jun 2016	-	-
Coney Island Creek	Avenue V Pumping Station Upgrade	Nov 2005	Jun 2012	Certified Jun 2012	100%	100%
	Avenue V Force Mains	Jul 2007	Jun 2012	Certified Jun 2012	100%	100%
Newtown Creek	Enhanced Aeration Lower English Kills	Apr 2013	Dec 2013	Dec 2013	63%	-
	Enhanced Aeration East Branch, Upper Newtown Cr	Jun 2015	Jun 2018	Jun 2018	-	-

WATERBODY	ITEM DESCRIPTION	NOTICE TO PROCEED	CONSTRUCTION COMPLETION	PROJECTED COMPLETION	% OF TIME ELAPSED	% OF CONSTRUCTION COMPLETED ⁽¹⁾
	Enhanced Aeration Dutch Kills, Lower Newtown Cr	Dec 2016	Dec 2019	Dec 2019	-	-
	Bending Weirs / Floatables Control	Dec 2014	Dec 2017	Dec 2017	-	-
	GI Demonstration	Oct 2012	May 2013	Certified May 2013	100%	100%
Westchester Creek	Modifications to CSO-29 and CSO-29A	Dec 2015	Dec 2019	Dec 2019	-	-
	Pugsley Creek Parallel Interceptor	Jun 2016	Dec 2019	Dec 2019	-	-
Bronx River	Floatables Control	Jun 2009	Oct 18 2012	Certified Oct 2012	100%	100%
Hutchinson River	GI Demonstration	Aug 2012	Apr 2013	Certified Apr 2013	100%	100%
Jamaica Bay	Hendrix Creek Dredging	Feb 2010	Feb 2012	Oct 2011	100%	100%
	26 th Ward HLSS Phase 1	Mar 2016	Dec 2018	Dec 2018	-	-
	26 th Ward HLSS Phase 2	Mar 2018	Dec 2020	Dec 2020	-	-
	26 th Ward HLSS Phase 3	Mar 2020	Dec 2022	Dec 2022	-	-
	GI Demonstration 26 th Ward	Jun 2012	Dec 2012	Certified Dec 2012	100%	100%
	26 th Ward Low Level MSPs	Sep 2012	Apr 2015	Jun 2014	39%	-
	26 th Ward PST#5 and High Level MSPs	Apr 2014	Dec 2017	Aug 2018	-	-
	26 th Ward Stabilization of PSTs #1to 4	Dec 2017	Jul 2019 ⁽⁴⁾	Nov2019	-	-
	Rockaway WWTP Conveyance Improvements		Dec 2017	Dec 2017	-	-

Note: Changes from the previous reporting period are shown in bold

(1) Percentage Construction Completion is tracked based on cost incurred.

(2) Dredging NTP 3 years from effective date of permit (EDP) (DEC and USACE); completion within 5 years of EDP.

(3) Dredging NTP 2 years from EDP; completion TBD per permits.

(4) For escrow recovery; enforceable milestone is July 2019.

3.0 Detailed Description of Work Performed

3.1. Alley Creek CSO

The Alley Creek CSO Facilities Planning area is within the Tallman Island Wastewater Treatment Plant (WWTP) service area in Queens and included Consent Order projects constructed under contracts ER-AC1 and AC2. DEP certified Construction Completion of the Alley Creek CSO Facility on June 27, 2011. The facility was certified as being operational as of March 11, 2011 and the certification of Construction Completion was accepted by DEC on September 25, 2012.

All projects under this planning area except the LTCP have been certified complete and accepted by DEC.

Table 6 – Alley Creek CSO Projects

<i>Phase I, Stage 2</i>	
<i>Contract ID</i>	ER – AC2
<i>Plan Elements</i>	Alley Creek CSO Abatement Facilities
<i>Location</i>	Northern Boulevard and Alley Park in Bayside, Queens
<i>Actions</i>	Construction of CSO abatement facilities, including modifications to the Old Douglaston Pumping Station; hydraulic control structures and facilities to activate the 5 MG CSO storage facility constructed under Phase I, Stage 1; and rehabilitation of the CSO Outfall TI-008 structure.
<i>Cost</i>	\$35,629,594
<i>Status</i>	Certification accepted Sep 25 2012
<i>Other Issues</i>	None – all projects in this planning area have been certified and accepted

3.2. Inner Harbor CSO

The Inner Harbor CSO Facility Planning area consists of the drainage areas of the North River, Newtown Creek, and Red Hook WWTPs and their associated sewers and pumping stations. The receiving waters of the study area include the Lower East River, Hudson River, Upper New York Bay, and Gowanus Canal and Bay. The Consent Order projects are constructed under contracts CSO-DRDG/DRG, GI, and CSO-GCER, which include the following items:

- ◆ Environmental dredging in approximately 825 feet of the head end of Gowanus Canal to a final water depth of 3.0 feet below mean lower low water
- ◆ Gowanus Canal Pumping Station reconstruction to improve operational reliability and to redirect flow directly to the Columbia Street Interceptor via a new force main to be constructed within the Flushing Tunnel.
- ◆ Rehabilitation of the Gowanus Flushing Tunnel to eliminate shutdowns during low tide and many maintenance operations with the installation of a new pumping system with redundant, interchangeable pumps.

Gowanus Canal was added to the US EPA Superfund National Priorities List (NPL) on March 2, 2010. On September 27, 2013, EPA issued the Record of Decision, which describes the factual and legal basis for the selected remedy for the contaminated sediments and source controls at the site.

Design Work Performed During This Quarter

- DEP is incorporating design modifications to address flood adaptation, which will be a combination of dyke walls, raising of control rooms / equipment, flood gates and door bulkheads.
 - Environmental Dredging
 - In a July 12, 2013 letter, DEP committed to completion of the City Environmental Quality Review (CEQR) process by November 15, 2013.
 - The Sediment and Water Quality Sampling Work Plan was submitted to EPA and DEC for review on August 6, 2013.
 - A Quality Assurance Project Plan and Field Modification (No. 6) were submitted to EPA and DEC for review on August 21, 2013.
 - DEP is in receipt of comments on the documents from DEC and EPA, including feedback resulting from a teleconference with DEC on September 23, 2013.
 - Based on the extent of the comments, DEC extended the date to complete the CEQR process an additional 30 days (to December 15, 2013).
 - DEP is in the process of revising the sampling program documents.

Anticipated Design Activities for Next Quarter

- Environmental Dredging
- Complete revisions to sampling work plan and field modification.
Complete sampling and analysis.

Construction Work Performed During This Quarter

- Gowanus Canal – Rehabilitation of Flushing Tunnel and Reconstruction of Gowanus Pump Station
- Interim Oxygen Transfer System (OTS) - The operation of the system was maintained during this period.
- The Interim Wastewater Pump Station (IWWPS) was put back on to Con Edison Interim power on February 21, 2013. Currently, the Rudox Generator is on standby service should the Con Edison power fail. The Contractor continues with weekly testing of the generator.
- Flushing Tunnel: The Contractor completed all tunnel work, removed all temporary utilities and tunnel dewatering pumps, and allowed the tunnel to fill with water. All work inside the tunnel is complete. The 18-in sewer bypass work at the stop log chamber on the Port Authority Property was also completed. The G Contractor also mobilized his barge and removed three (3) stainless steel bar screens at the Flushing Tunnel intake at the Buttermilk Channel for cleaning, inspection and repair.
- Flushing Tunnel Building: Reinforcing steel, formwork, and approximately 520 CY of concrete were placed for the intake/discharge chambers, western elevation 6.31 slab and control room elevation 11.00 slab. The Electrical Contractor continued installation of in slab conduit and the masonry repairs and restoration commenced.
- Force Main: Installation of all piping was completed and the final hydrostatic test of the force main was successful.
- Wastewater Pumping Station: Concrete spall repairs were completed in the wet well. Installation of conduit supports and ductwork continued. The main influent sluice gate leading into the new pump station was installed. All sluice gates and pedestal operators in the wet well were installed. Roof work and painting were completed. The installation of stainless steel gratings and supports began.
- Service Building: Installation of all conduit and supporting devices for the Incoming Service Switchgear, Motor Control Centers, generator, generator switchgear, automatic transfer switches and Variable Frequency Drives in the first floor electrical room continued. Installation of conduit and supporting devices for the second floor mechanical equipment and roof top HVAC units continued. Ductwork at the first floor electrical room and storage rooms was installed, and the installation of electric unit heaters throughout the building was completed. Work continued in the Con Edison and Network Protector Vault continuing the installation of Con Edison supplied equipment. North

Service Building Masonry wall work continued with the installation of brick and limestone.

- CSO Screening Area – Contractor continued installation of formwork, sleeves, embedded items and reinforcing steel for the CSO Extension beams and roof slab. Contractor completed saw cutting of existing structure openings into the new extension area.

Anticipated Construction Activities for Next Quarter

- Gowanus Canal – Rehabilitation of Flushing Tunnel and Reconstruction of Gowanus Pump Station
 - The Interim Wastewater Pumping System will continue operation.
 - The Oxygen Transfer System will continue operation.
 - Flushing Tunnel: All tunnel work is completed and awaiting pumping system completion and testing.
 - Flushing Tunnel Building: Complete new concrete intake and discharge structure for the pumping system. Continue installation of conduit, piping and ductwork. Continue building work. Continue with masonry restoration of the interior of the building. Begin construction of the Control Room and installation of main system control panel, main sewage failsafe and telemetry panels and associated conduit.
 - Force Main: Complete installation of force main vent piping platform and air release valve at the Exit Chamber and Tompkins/Degraw manhole.
 - Wastewater Pumping Station: Continue installation of electrical conduit, support racks and panels. Installation of main sewage pumps and floor gratings. Installation of stainless steel wall panels and louvers. Begin pulling control and power wire. Leak testing of all sluice gates.
 - Service Building: Continue with the installation of conduit, piping and ductwork at the first and second floors. Complete brick veneer and stone masonry work on the north façade. Installation of stainless steel wall panels and louvers. Begin pulling power and control wire.
 - Complete the installation of Con Edison Network Protection equipment and coordinate primary cable feeds into the Con Edison Transformer Vault for permanent power.
 - CSO Area: Installation of new Tide Gate No.1. Continue installation and construction of CSO extension bending weirs, tipping bucket and screens

Table 7 – Inner Harbor CSO Projects

	<i>Dredging of Gowanus Canal</i>	<i>Gowanus Canal Pumping Station and Flushing Tunnel</i>
<i>Contract ID</i>	CSO-DRDG/DRG-GC	CSO-GC
<i>Plan Elements</i>	Dredging Gowanus Canal Head End	Rehabilitation of Pumping Station and Flushing Tunnel
<i>Location</i>	Gowanus Canal	Gowanus Pumping Station Property Brooklyn
<i>Actions</i>	Design on hold	Wastewater Pumping Station and Flushing Tunnel Pumping System upgrades
<i>Construction Cost</i>	\$13,100,000 (based on concept design)	\$156,513,422
<i>Status</i>	In Design	In Construction
<i>Other Issues</i>	DEC offered to extend the date for completion of the CEQR process committed to by DEP to December 15, 2013.	

Changes from the previous reporting period are shown in **bold**

3.3. Paerdegat Basin CSO

The Paerdegat Basin CSO Facility Planning area includes the portion of the Coney Island WWTP service area, associated sewers, and pumping stations that discharges to Paerdegat Basin in Brooklyn. The Consent Order projects are constructed under contracts CSO-5 and CSO-DRDG, which include the following items:

- ◆ The Paerdegat Basin CSO Retention Facility was completed in 2012. Environmental dredging in the head end of Paerdegat Basin to a final water depth of 3.0 feet below mean lower low water.

Design Work Performed During This Quarter

- Environmental Dredging
 - The design is complete; design services during construction (DSDC) continued in this quarter.
 - DEP is in receipt of the sampling and analytical results completed by National Grid in response to the oil spill. In these data there were two sediment samples collected within the DRG-PB dredge area that were found to be above the PCB concentration level of 2 PPM (see attached map and results chart). These data may not be representative of the complete DRG-PB dredge area. In order to verify the accuracy of these results, the Contractor is required by Contract to perform sediment sampling throughout the dredge area. The Contractor's Field Sampling Plan has been approved and the work is scheduled to take place during the next quarter.

Construction Work Performed During This Quarter

- Environmental Dredging
 - Start-up of the construction management and construction contracts continued in this quarter.

Anticipated Design Activities for Next Quarter

- Design services during construction for environmental dredging will continue.

Anticipated Construction Activities for Next Quarter

- CM and construction activities for environmental dredging will continue with project start-up activities which include preparation of regulatory and construction management plans, performing a bathymetric survey to verify quantities and performing sediment sampling and analysis for disposal approval.

Table 8 – Paerdegat Basin CSO Projects

	<i>Phase III</i>	<i>Dredging</i>
<i>Contract ID</i>	CSO - 5	DRG-PB
<i>Plan Elements</i>	Structures and Equipment	Environmental Dredging
<i>Location</i>	West Shore of Paerdegat Basin	Head end of Paerdegat Basin
<i>Actions</i>	Minor items and documentation	Dredge bottom sediments to finish depth of three ft below MLLW
<i>Construction Cost</i>	\$ 207,324,114	\$8,884,940
<i>Status</i>	DEC formally accepted construction completion on Aug 24 2012.	Construction NTP issued on Mar 18 2013
<i>Other Issues</i>		National Grid oil spill (Sep 28 2012) (Notice of FM submitted Oct 18 2013)

Changes from the previous reporting period are shown in **bold**

3.4. Flushing Bay CSO

The Flushing Bay CSO Facility Planning area includes the portions of the Tallman Island WWTP and the High Level Interceptor of the Bowery Bay WWTP drainage areas, associated sewers, and pumping stations that discharge to Flushing Bay and Flushing Creek in Queens. The Consent Order projects are constructed under contracts TI-WW-1, EE-DSGN-4, CS-FB-LLD, CS-FB-BWR, and CSO-DRDG, which respectively include the following items:

- ◆ Tallman Island Whitestone Interceptor
- ◆ Tallman Island Flushing Interceptor
- ◆ Diversion of low-lying sewers and raising of the weir at BB-R02
- ◆ Regulator Modifications
- ◆ Environmental dredging of Flushing Bay

Design Work Performed During This Quarter

- Tallman Island Flushing Interceptor
 - The engineering consultant has been given authorization to proceed with the conceptual design, flow monitoring, and the testing of a technology to determine the structural integrity of the sewer invert. A subcontractor was selected to perform six months of flow monitoring. During the flow monitoring, wet weather flow from the Flushing Bay CSO will be read from existing flow meters. A certain company will be providing a demonstration of their technology to determine whether there are large fractures in the sewer invert. DEC will be informed of the results of the demonstration. Other technologies are still being investigated.
- Divert Low-Lying Sewers
 - Design started on May 2, 2013.
 - Preliminary design plans received on June 24, 2013 and alignment meeting to be held on July 23, 2013.
 - DEP submitted a Modification Request for the Notice to Proceed on September 30, 2013. A date extension from June 2014 to December 2014 for the milestone was requested to coincide with the Final Design Completion milestone which was modified in a May 1, 2013 request.
- Regulator Modifications
 - 30% design documents have been submitted.
 - De-scoped 24th Ave. regulator since it will not yield significant hydraulic benefit.
 - Coordination for Value Engineering is under way.
 - Held coordination meeting with NYC Transit and MTA Bus Company.
 - Continued utility coordination with Con Edison, National Grid, FDNY, and cable.
 - Completed InfoWorks modeling.

- Environmental Dredging
 - No activity in this quarter.

Construction Work Performed During This Quarter

- Tallman Island Whitestone Interceptor
 - Completed Construction of the next 600 feet (Sta. 1100) of New Whitestone Interceptor in Powell's Cove Park.
 - Completed construction of new storm sewer chambers at 11th Ave and 131st Street.
 - Completed Pile driving and poured Connection Chamber Slab.
 - Started driving sheeting and excavating from Connection Chamber to Turning Chamber #5.
 - Continued operation of dewatering system.
 - Maintained erosion and sediment control measures in wetland and adjacent areas.

Anticipated Design Activities for Next Quarter

- Tallman Island Flushing Interceptor
 - Select subcontractors for the flow monitoring and structural assessment
 - Design work will commence for the replacement/repair of the interceptor
- Divert Low-Lying Sewers
 - Design continuing
- Raise Weir BB-RO2
- Regulator Modifications
 - Advance 60% design.
 - Attend value engineering orientation meeting and value engineering workshop.
 - Continue coordination with NYCDOT, NYSDOT, NYC Transit, and DPR.
 - Continue utility coordination.
 - Commence CEQR review.
 - Advance permitting activities.
- Environmental Dredging
 - No anticipated activity.

Anticipated Construction Activities for Next Quarter

- Tallman Island Whitestone Interceptor
 - Continue construction of New Whitestone Interceptor in Powell's Cove Park and North toward Tallman Island WWTP.

- Continue construction of the Connection Chamber and Turning Chamber #5.
- Continue construction of Turning Chamber # 3.
- Start construction of Diversion Chamber at 11th Avenue.

Table 9 – Flushing Bay CSO Projects

	<i>Tallman Island Whitestone Interceptor</i>	<i>Tallman Island Flushing Interceptor</i>	<i>Divert Low- Lying Sewers / Raise Weir BB- R02</i>	<i>Regulator Modifications</i>	<i>Environmental Dredging of Flushing Bay</i>
<i>Contract ID</i>	TI-WW-1	TBD	CS-FB-LLD	CS-FB-BWR	CSO-DRDG DRG-FB
<i>Plan Elements</i>	New section of Whitestone Interceptor; Regulators 10, 10A and 13	Address Flushing Interceptor sag in Ulmer Street	Divert Low Lying sewers in the vicinity of Bowery Bay WWTP. Raise the weir at regulator BB - 02	Bowery Bay High Level Interceptor regulator modifications at 10 regulators	Environmental Dredging
<i>Location</i>	From existing junction chamber at 11 th Ave / 130 th St to the WWTP, College Point, Queens	From MH 45 at Whitestone Expressway to MH 29 at Ulmer Street and 25 th Avenue	Regulator BB- 02. Berrian Blvd and 19 th Ave between 43 rd St. and 45 th St.	Six of ten regulators along 108 th street, Ditmars Blvd and the LaGuardia Airport site	Proximate to CSO Outfalls BB006 and BB008
<i>Actions</i>					Dredge bottom sediments to final depth of 4 ft below MLLW
<i>Cost</i>	\$22,071,512	TBD	\$5,610,000	\$41,400,000	\$38,100,000 (based on 30% Design)
<i>Status</i>	Construction NTP Issued Dec 22 2011	TOC (PW-088- 03) issued for potential design activities described above	In Design	In Design	30% Design complete; USACE permit issued May 10 2013; DEC permit pending
<i>Other Issues</i>	FM submitted Nov 19 2012 (Superstorm Sandy)		Mod request submitted May 1, 2013		None

Changes from the previous reporting period are shown in **bold**

3.5. Jamaica Tributaries CSO

The Jamaica Tributaries CSO Facility Planning area includes the drainage area of the Jamaica WWTP and its associated sewers and pumping stations. The receiving waters of the study area are Bergen, Thurston, Shellbank, and Hawtree Basins, which are located along the eastern shore of Jamaica Bay on either side of JFK International Airport. The Consent Order projects are constructed under contracts CSO-JT-SB, CS- JA-BBS, and CS-JA-BWR, which include the following items, respectively:

- ◆ The Destratification Facility, a permanent diffused-air bubble mixing system at Shellbank Basin designed to eliminate temperature stratification during the summer season, which leads to poor water quality conditions in the basin, odors and marine life kills.
- ◆ A Parallel 48-inch sewer under the Belt Parkway to complement the existing 36-inch double barrel Belt Parkway crossing in the West interceptor.
- ◆ Bending Weirs at regulators J3 and J14 in the West Interceptor and J6 in the East Interceptor drainage area.

DEP Certified Construction Completion of the Destratification Facility on March 20, 2012, and DEC accepted the certification on July 23, 2012.

Design Work Performed During This Quarter

- Parallel 48-inch Siphon/Interceptor
 - Submitted Final Draft EAS to DEP/BEPA.
 - DEP submitted Final Design Plans and Specifications to NYSDEC on August 30, 2013, meeting the Consent Order Milestone.
- Bending Weirs
 - Completed 90% Design Documents.
 - Submitted Final Draft EAS to DEP/BEPA.
 - Held 90% Design Workshop.
 - Performed bending weir equipment removal evaluation for Regulator JA-6.

No Construction Work Performed During This Quarter

Anticipated Design Activities for Next Quarter

- Parallel 48-inch Siphon/Interceptor
 - Submit Contract Specifications for Legal Review.
 - Begin Contract Procurement upon completion of Legal Review.
- Bending Weirs
 - Finalize contract documents and submit for Legal Review.

Table 10 – Jamaica Tributaries CSO Projects

	<i>Destratification Facility</i>	<i>Parallel 48-inch Siphon / Interceptor</i>	<i>Bending Weirs</i>
<i>Contract ID</i>	CSO-JT-SB	CS-JA-BBS	CS-JA-BWR
<i>Plan Elements</i>	Destratification	Parallel 48-inch Sewer	Bending Weirs
<i>Location</i>	Shellbank Basin Queens	Belt Parkway Queens	Regulator J6 on the East Interceptor and regulators J3 and J14 on the West Interceptor
<i>Actions</i>	Construct Permanent Facility	Design and construct system upgrades	Design and construct system upgrades
<i>Construction Cost</i>	\$2,776,054	\$34,312,900	\$7,200,000
<i>Status</i>	Complete	Design	Design
<i>Other Issues</i>	Certification Accepted Jul 23 2012	Final Design Submittal to DEC Aug 2013	

Changes from the previous reporting period are shown in **bold**

3.6. Coney Island Creek CSO

The Coney Island Creek CSO Facility Planning area is within the Owls Head WWTP service area in Brooklyn and included Consent Order projects constructed under contracts PS-79 F, G, H, P, and E. DEP certified Construction Completion of the Avenue V Pumping Station and Force Mains on June 29, 2012. The certification was accepted by DEC on October 23, 2012.

All projects under this planning area except the LTCP have been certified and accepted.

Table 11 – Coney Island Creek CSO Projects

	<i>Avenue V Pumping Station Upgrade</i>	<i>Avenue V Force Mains</i>
<i>Contract ID</i>	PS-79G, H, P, E	PS-79F
<i>Plan Elements</i>	Upgrade Pumping Station	42-inch and 48-inch force mains
<i>Location</i>	Avenue V and West 11th Street Brooklyn	Shore Parkway to Regulator 9A Brooklyn
<i>Actions</i>	Increase capacity to 80 MGD; Lower wet well operating level; Improve station reliability; Architectural restoration	New force mains to convey dry and wet weather flow
<i>Construction Cost</i>	\$80,213,297	\$116,818,080
<i>Status</i>	Certification Accepted Oct 23 2012	Certification Accepted Oct 23 2012
<i>Other Issues</i>		

Changes from the previous reporting period are shown in **bold**

3.7. Newtown Creek CSO

The Newtown Creek CSO Facility Planning area includes the portions of the Newtown Creek WWTP and the Low Level Interceptor of the Bowery Bay WWTP drainage areas that discharge to Newtown Creek, English Kills, Dutch Kills, Whale Creek, Maspeth Creek and the East Branch along the Brooklyn-Queens border. The Consent Order projects are constructed under contracts CSO-NC-2, CSO-NC-3, CSO-NC-4, CS-NC-REG & FLO, GBNC15-05, which include the following items:

- ◆ Enhanced Aeration in the Lower English Kills
- ◆ Enhanced Aeration in East Branch and Upper Newtown Creek
- ◆ Enhanced Aeration in Dutch Kills and Lower Newtown Creek
- ◆ Bending Weirs / Floatables Control
- ◆ Green Infrastructure Demonstration project in the Newtown Creek drainage area
 - Updates on the GI Demonstration Project are discussed in the Green Infrastructure Section of this report.

Newtown Creek was added to the EPA Superfund National Priorities List (NPL) on September 29, 2010. According to EPA, placing Newtown Creek on the list allows the Agency to further investigate contamination at the site and develop an approach to address the contamination.

Design Work Performed During This Quarter

- Enhanced Aeration
 - Contractor continued making required submissions, obtaining approvals and mobilizing for the start of construction activities which are expected to start in mid-October. DEP intends to submit a modification request for the project completion date (NC-2).
 - Initiated the 60% design for the Enhanced Aeration in East Branch and Portions of Newtown Creek Enhanced Aeration project following DEP acceptance of the Preliminary Design (30%) on June 14, 2013. Finalized the design of a public waterfront access required by use group 6D designation of the NC-3 site for submission to the Department of City Planning and Public Design Commission.
 - Completed development of the Basis of Design Report (BODR) for NC-4. The BODR is expected to be submitted for final review and approval to DEP in early October.
- Bending Weirs and Floatables Control
 - Completed and submitted Final Design to DEC on July 1, 2013 in accordance with the Consent Order Milestone.

Anticipated Design Activities for Next Quarter

- Enhanced Aeration
 - Construction to commence on the Enhanced Aeration in Lower English Kills project.

- Complete 60% design for the Enhanced Aeration in East Branch and Portions of Newtown Creek project (NC-3).
- Approve the BODR for the Enhanced Aeration in Dutch Kills and Portions of Newtown Creek and initiate 30% design for the project (NC-4).
- Bending Weirs and Floatables Control
 - Prepare responses to DEC comments associated with final design of the proposed improvements.
 - Prepare for procurement phase following acceptance of design by DEC.

Table 12 – Newtown Creek CSO Projects

	<i>Enhanced Aeration 1</i>	<i>Enhanced Aeration 2</i>	<i>Enhanced Aeration 3</i>	<i>Bending Weirs / Floatables Control</i>
<i>Contract ID</i>	CSO-NC-2	CSO-NC-3	CSO-NC-4	CS-NC-REG & FLO
<i>Plan Elements</i>	Enhanced Aeration	Enhanced Aeration	Enhanced Aeration	Floatables Controls and Overflow Reduction
<i>Location</i>	Lower English Kills	East Branch and Upper Newtown Creek	Dutch Kills and Lower Newtown Creek	Dutch Kills, Maspeth Creek, English Kills and East Branch
<i>Actions</i>	NTP Issued Apr 2, 2013 in accordance with modified milestone date	The design of the blower building and aeration system continues.	The design of the blower building and aeration system continues	Design of bending weirs and baffles, to reduce overflows/floatables
<i>Construction Cost</i>	\$1,769,000	\$18,730,791	\$26,147,164	\$30 Million (Construction Cost Forecast)
<i>Status</i>	Construction Bid	Design	Design	Prepare for Procurement Phase
<i>Other Issues</i>				

Changes from the previous reporting period are shown in **bold**

3.8. Westchester Creek CSO

The Westchester Creek CSO Facility Planning area includes the portion of the Hunts Point WWTP drainage area, its associated sewers, and pumping stations that discharges to Westchester Creek and Pugsley Creek in the Bronx. The Consent Order projects are constructed under contracts CS-ER-WCM and CS-ER-WCP, which respectively include the following items:

- ◆ Modifications to CSO-29 and CSO-29A to increase conveyance to the WWTP and reduce discharges from Outfall HP-014
- ◆ Pugsley Creek Parallel Interceptor to increase conveyance to the WWTP and reduce discharges from Outfall HP-013

Design Work Performed During This Quarter

- Modifications to CSO-29 and 29A
 - Completed 30% Design Activities
- Pugsley Creek Parallel Interceptor
 - Survey has been completed. Borings have been requested.
 - Design has been initiated.

Anticipated Design Activities for Next Quarter

- Modifications to CSO-29 and 29A
 - Initiate 60% Design activities
- Pugsley Creek Parallel Interceptor
 - Preparation of design drawings to commence

Table 13 – Westchester Creek CSO Project

	<i>Modifications to CSO-29 and CSO-29A</i>	<i>Pugsley Creek Parallel Interceptor start from CSO-24</i>
<i>Contract ID</i>	CS-ER-WCM	CS-ER-WCP
<i>Plan Elements</i>	Improve flow control structures in sewers to convey more flow to the Hunts Point WWTP	Add capacity to convey more flow to the Hunts Point WWTP
<i>Location</i>	Eastchester Road, Bronx	Classon Point, Bronx
<i>Actions</i>	Continue Design	Continue Design at DDC
<i>Construction Cost</i>	\$13.6 Million	\$65.8 Million (Estimated)
<i>Status</i>	30% Design currently under review	Preparation of design drawings to commence
<i>Other Issues</i>		

Changes from the previous reporting period are shown in **bold**

3.9. Bronx River CSO

The Bronx River CSO Facility Planning area includes the portion of the Hunts Point WWTP service area, the associated sewers, and pumping stations that discharge to the Bronx River in the Bronx. The Consent Order project is constructed under contract ER-BR-1 which includes the following items:

- ◆ Floatables Control at the Bronx Zoo site (CSO-27)
- ◆ Floatables Control at the Bronx Park Avenue site (CSO-27A)
- ◆ Floatables Control at the Soundview Park site (CSO-13)
- ◆ Floatables Control at the West Farm Road site (CSO-28)
- ◆ Green Infrastructure Demonstration project in the Bronx River watershed
 - The Green Infrastructure Demonstration project originally intended for the Bronx River CSO drainage area has been modified to take place in the Hutchinson River drainage area due to a lack of viable sites in the originally planned area. Updates on the GI Demonstration Project are discussed in the Green Infrastructure Section of this report.

All projects under this planning area except the LTCP have been certified complete and accepted by DEC.

Table 14 – Bronx River CSO Project

<i>Floatables Control</i>	
<i>Contract ID</i>	ER – BR - 1
<i>Plan Elements</i>	Floatables Control Facilities at CSO Outfalls HP-004, HP-007 and HP-009
<i>Location</i>	West Farms Road, Bronx Park Avenue, Bronx Zoo, Soundview Park
<i>Actions</i>	Design and construction of floatables control facilities for CSO Outfalls HP-004, HP-007 and HP-009
<i>Construction Cost</i>	\$29,025,336
<i>Status</i>	Certified Completion on Oct 18 2012
<i>Other Issues</i>	

Changes from the previous reporting period are shown in **bold**

3.10. Hutchinson River CSO

The Hutchinson River CSO Facility Planning area includes the portion of the Hunts Point WWTP drainage area, its associated sewers, and pumping stations that discharges to the Hutchinson River in the Bronx. The Consent Order projects are being executed under contracts LTCP1, CSO-PLANYC, and GXHP-24-03 (DPR), which include the following items:

- ◆ Waste Load Allocation Field Sampling
- ◆ The Green Infrastructure Demonstration project that had originally been planned for the Bronx River drainage area, which will now be conducted in the Hutchinson River drainage area within subcatchment HP-024, per Modification Request submitted by DEP to DEC on Mar 30, 2012. Updates on the GI Demonstration Project are discussed in the Green Infrastructure Section of this report.

All projects under this planning area except the LTCP have been certified complete and accepted by DEC.

Table 15 – Hutchinson River CSO Project

<i>Waste Load Allocation Field Sampling</i>	
<i>Contract ID</i>	LTCP1
<i>Plan Elements</i>	Surface water and discharge outfall water quality sampling and characterization to develop Waste Load Allocation (WLA) for the Hutchinson River
<i>Location</i>	Hutchinson River
<i>Actions</i>	
<i>Construction Cost</i>	n/a
<i>Status</i>	Completed
<i>Other Issues</i>	

Changes from the previous reporting period are shown in **bold**

3.11. Jamaica Bay CSO

The Jamaica Bay CSO Facility Planning area includes the drainage areas of the 26th Ward, Coney Island, and Rockaway WWTPs and their associated sewers and pumping stations. The receiving waters of the study area include Fresh Creek, Hendrix Creek, Spring Creek, and the open waters of Jamaica Bay. The Consent Order projects are constructed under contracts CSO-DRG and CSO-GCER, which include the following items:

- ◆ Interim dredging of the head-end of Hendrix Creek
- ◆ Improving conveyance to the Rockaway WWTP
- ◆ 26th Ward High Level Sewer Separation (HLSS)
- ◆ 26th Ward Wet Weather Stabilization

In addition, the 26th Ward Green Infrastructure Demonstration Project is being performed under a separate contract. Updates on the GI Demonstration Project are discussed in the Green Infrastructure Section of this report.

Design Work Performed During This Quarter

- 26th Ward High Level Sewer Separation
 - DDC is awaiting survey for Phases 1a and 1b (SE-851, SE-852), which include sewer work in the vicinity of East 108th Street between Flatlands Avenue and the outfall at Avenue K, and on Vandalia Avenue from Pennsylvania Avenue to the outfall west of Louisiana Avenue. An EAS has been requested.
 - DDC is awaiting survey for Phases 2a and 2b (SE-853, SE-855) which include sewer work on Louisiana Avenue between Stanley and Flatlands Avenue, and on Farragut Road between East 102nd and East 108th Street. EAS has been requested.
 - DDC is awaiting survey for Phases 3a and 3b (SE-856, SE-857) which includes sewer work on Flatlands Avenue between Georgia and Van Sicken Avenues, and on Foster Avenue between Rockaway Parkway and Bank Street. An EAS has been requested.
- 26th Ward Wet Weather Stabilization
 - On May 24, 2013, DEP provided an update to the Mar 1, 2013 Modification Request for Milestones K.5 through K.8 of the 26th Ward Wet Weather Stabilization. The update included discussion outcomes from a technical meeting between DEP and DEC staff that occurred on May 14, 2013. DEC issued a Notice of Violation for Milestone K.5 (Final Design Completion) on June 10, 2013. DEP contacted DEC by June 28, 2013 to request informal negotiation. Conference call held July 22, 2013 to discuss NOV. DEC requested information pertaining to DEP's certification of Design Initiation in a letter dated July 31, 2013. DEP submitted the requested information on September 20, 2013.
 - 26th Ward Wet Weather Stabilization (26W-20/21) Draft Revised BODR for HLMSP (26W-21) and PST work (26W-20) were submitted to DEP on September 5, 2013, and are under review.
 - Currently utilizing approximately 65% of existing 26W-20 design in the current design effort.

Construction Work Performed During This Quarter

- Hendrix Street Canal Dredging
 - Completed bathymetric survey field work.
- 26th Ward Wet Weather Stabilization (LL MSPs)
 - Continued with the replacement of Pump #4.
 - Installed all three resistor drives.

Anticipated Design Activities for Next Quarter

- 26th Ward Wet Weather Stabilization (26W-20/21)
 - Finalize BODRs and continue working through detailed design.

Anticipated Construction Activities for Next Quarter

- Hendrix Street Canal Dredging
 - Conduct and complete benthic field activities and prepare the third Post Dredge Monitoring Report.
- 26th Ward Wet Weather Stabilization (LL MSPs)
 - Complete startup and testing of Pump #4.
 - Start demolition of Pump #5.

Table 16 – Jamaica Bay CSO Projects

	<i>Hendrix Creek Dredging</i>	<i>Rockaway WWTP Conveyance Improvements</i>	<i>26th Ward HLSS</i>	<i>26th Ward Wet Weather Stabilization</i>
<i>Contract ID</i>	CSO-HC	Project not yet initiated	CS-FB-SEW	26W-12 (CO 128) 26W-20
<i>Plan Elements</i>	Removal of CSO sediment mounds from the head end of the Hendrix Street Canal	Improve collection system and WWTP capacity to achieve 2DDWF		Low Level MSPs High Level MSPs PST#5 PST1-4 Stabilization
<i>Location</i>	Hendrix Creek, Brooklyn	Rockaway WWTP, Queens	Fresh Creek, Brooklyn	26 th Ward WWTP, Brooklyn
<i>Actions</i>	None	None	None	-
<i>Construction Cost</i>	\$13.2 million	TBD	\$50 million for Phases 1a and 1b (estimated) \$51 million for Phases 2a and 2b (estimated). \$63 million for	\$7.6 million \$126.4 million

			Phases 3a and 3b (estimated)	
<i>Status</i>	Construction Complete	Project not yet initiated	CPIs for all 3 phases have been sent to DDC.	In Construction (LLMSPs) In Design (26W-20/21)
<i>Other Issues</i>				New design contract will necessitate a modification to the design completion date.

Changes from the previous reporting period are shown in **bold**

3.12. Environmental Benefits Projects

These projects were undertaken in connection with the settlement of an enforcement action taken by New York State and DEC for violations of New York State law and DEC regulations. The Environmental Benefit Projects (EBPs) are funded by DEP and are designed to abate CSOs and/or address wet weather water quality impacts from CSOs and to benefit the waters in and around New York City. In addition to the EBPs discussed below, the 2012 Order requires that \$2 million in EBP funding be allocated toward the Hutchinson River and Newtown Creek Neighborhood Demonstration Areas, which are described in more detail under the Green Infrastructure Program in Section 3.13.

2008 CSO EBP Grants

The 2008 Modification to the CSO Consent Order requires not less than \$4 million worth of DEP-funded Environmental Benefit Projects (EBPs) designed to abate CSOs and/or address wet weather water quality impacts from CSOs and to benefit the waters in and around New York City.

- **Manhattan College**

The installation of approximately 14,666 sq. ft. of a modular green roof project on New York Hospital in Queens has been designed to control runoff from a 1 to 1.5-inch rainfall.

Alive Structures began removing the ballast from the roofs in late October 2012. They completed installation in late Nov2012 of the vegetated modular trays on three out of the planned four roofs within the hospital complex. Further analysis of the solar irradiance of the roof indicated that too little light would fall on the fourth green roof section. Therefore, it was decided to eliminate this section of the roof and begin full-time monitoring of the previously installed green roof sections. A credit for the fourth roof will be taken and funds will be used for additional monitoring. Monitoring equipment was tested over winter and complete installation of monitoring equipment will be completed by late spring. The total project value is \$660,440; \$234,942 has been invoiced through October 2012.

- **NYC Audubon Society**

A Greenstreets stormwater capture system in Rego Park that will retrofit an impervious surface and replace it with permeable pavement and vegetation to capture runoff from a three acre-watershed60% designs have been reviewed by DEP BWSO and DOT. DOT comments have been addressed and revised into drawings. Additional comments and design changes from BWSO are expected as subsurface soil infiltration rates have been determined to be low and an alternative drainage conveyance back to the sewer system is required. Assuming these issues can be resolved quickly, construction is anticipated to start in late summer/early fall of 2013 and is anticipated to be completed by late fall 2013. The total project value is \$448,803; \$75,000 has been invoiced to date.

- **Regional Plan Association**

Three Sponge Park™ bioretention basins are being constructed under the Long Island Expressway near the Van Wyck Expressway. Dawson Corporation began construction on October 25, 2012. One of three proposed bioretention basins was removed from the design due to conflicting underground infrastructure. The remaining two bioretention

basins have been excavated, framed, and plumbing installed. In spring 2013 the soil was placed and the bioretention areas were planted. Monitoring equipment will be installed and data collection beginning later in summer 2013. Construction started October 25, 2012 and major construction and installation was completed by June 25, 2013. The total project value is \$600,000; \$271,116 has been invoiced through January 2013.

- **Gowanus Canal Conservancy**

The 6th Street Green Corridor Project will build a series of curbside swales ranging from 400 square feet to 1,200 square feet along 6th Street and 2nd Avenue in Brooklyn. 100% designs being developed. The bid documents are planned to be released mid-summer 2013, with construction to start in early fall 2013. Additional comments by NYCDOT required modification to the original design. The total project value is \$583,470 (\$873,470 including EPA Grant); \$253,280 through June 2013.

- **Unisphere, Inc.**

Treatment wetland and rain garden for treating stormwater entering Meadow Lake. This project will receive runoff from approximately 3.26 acres consisting of portions from a parking area at the southwestern edge of Meadow Lake in Flushing Meadows Corona Park. Edesign Dynamics entered into a contract agreement with ExcavServices. Construction began on May 20, 2013. The total project value is \$506,551; \$117,431 has been invoiced through April 2013.

- **Drexel University**

Design, construct, monitor, evaluate, report on and maintain a variety of green infrastructure stormwater capture technologies that also promote ecosystem services in the Bronx River watershed. Schematic design of a detention system has been reviewed by BWSO and OGI for feasibility within the right of way. As with the NYC Audubon projects, subsurface borings have indicated low infiltrating soil. Additional comments and design changes from BWSO and OGI are expected as subsurface soil infiltration rates have been determined to be low and an alternative drainage conveyance back to the sewer system is required. Assuming these issues can be resolved quickly, construction is anticipated to start in fall of 2013. The total project value is \$893,493; \$75,000 has been invoiced to date.

Table 17–2008 Modified CSO Consent Order Environmental Benefits Projects

<i>Plan Elements:</i>	<i>Bronx River</i>	<i>Flushing Bay and Creek</i>	<i>Gowanus Canal</i>	<i>DEC US Forestry Service Grant</i>
Location:	HP-009 service area	Multiple areas	6th St / 2nd Ave, Brooklyn	Bronx River and Newtown Creek CSO Areas
Description:	Stormwater BMP evaluations	Manhattan College New York Hospital Green roof (\$660,440); RPA bioretention basins under the LIE (\$600,000); Unisphere treatment wetlands and rain gardens for Meadow Lake (\$386,551); Columbia University Rego Park Green Streets (\$389,187);	Gowanus Canal Conservancy 6th Street Green Corridor Project	Enhanced tree pit evaluation in HP-009 service area; Green infrastructure installation in Newtown Creek CSO shed; Open source access for Drexel University's LIDRA model; Education and stewardship activities in the HP-009 area.
Cost:	Budget: \$850,000 JTD : \$75,000 This Qtr: \$0 Next Qtr: \$0	Budget: \$2,036,178 JTD: \$698,489 This Qtr: \$19,589 Next Qtr: \$100,000	Budget: \$583,470 JTD: \$253,280 This Qtr: \$16,625 Next Qtr: \$100,000	Budget: \$250,000 JTD: \$223,244 This Q: \$0 Next Qtr:
Status:	In Design	Manhattan College, Unisphere, and RPA completed design. NYC Audubon at 60% design	In design	Contracts expire Jun 30 2013.
Other Issues:	Subsurface Drainage	None	None	Working with Riverkeeper to close out their contract.

Changes from the previous reporting period are shown in **bold**

2012 Order - EBP Green Infrastructure Grant Program Projects

The 2012 Order requires the extension of DEP's existing Green Infrastructure Grant Program and a commitment to use no less than \$3 million of EBP funds to expand the GI Grant Program over a three year period from 2012-2014. DEP identifies how it will commit the total funds in \$1 million increments by the end of each calendar year as part of the EBP Grant Plan. DEP committed over \$1.1 million under the Environmental Benefits Program (EBP) to three Grantees of the Green Infrastructure Grant Program by December 31, 2012.

- **Albert Einstein College of Medicine**

The College will construct a 12,589 square foot green roof on campus, located in the Westchester Creek watershed. The roof is designed to manage 0.47 acres of impervious

area, and its 1” volume capacity is 2,830 cubic feet. The 90% designs are completed and final construction documents are in development. The total cost of the project is funded through EBP.

▪ **New School University**

The 13,542 square foot green roof at The New School’s Manhattan campus has been completed. The building is located in the East River/Open Waters watershed. The roof is designed to manage 0.26 acres of impervious area. The roof’s 1” volume capacity is 1,917 cubic feet. The total cost of the project was \$1.1 million, \$325,000 of which is funded by EBP dollars.

▪ **St. Luke and St. Matthew Church**

The rain garden and porous pavement project, located in the East River/Open Waters watershed, is at the 90% design mark. The project will manage 0.21 acres of impervious area, and the project’s 1” volume capacity is 1,749 cubic feet. EBP funds cover 100% of the project cost.

Table 18 –2012 CSO Order on Consent Environmental Benefits Projects

<i>Plan Elements:</i>	<i>Albert Einstein College of Medicine</i>	<i>New School University</i>	<i>St. Luke and St. Matthew Church</i>
Location:	1300 Morris Park Avenue Bronx NY	65 5 th Avenue New York, NY	520 Clinton Avenue Brooklyn, NY
Description:	Green Roof	Green Roof	Rain Garden and Porous Pavement
Cost:	\$503,470	\$325,000	\$290,273
Status:	90% design completed; final drawings in development	Completed	90% designs due; drawings in development
Other Issues:	None	None	None

Changes from the previous reporting period are shown in **bold**

3.13. Green Infrastructure Program Implementation

This section of the quarterly report provides the status of Green Infrastructure Program implementation required under the 2012 CSO Consent Order. The Order sets forth financial requirements including the requirement to spend no less than \$2M of EBP funds on the implementation of two Green Infrastructure Demonstration areas. The Order also sets forth schedule and stormwater capture targets, and other requirements for the program to reduce runoff and CSO through the use of green infrastructure. Additionally, Appendix A of the 2012 CSO Consent Order contains completion milestones for three Green Infrastructure Demonstration projects:

- ◆ Newtown Creek Green Infrastructure Demonstration Project(EBP Funded)
 - Construction completion certified May 10, 2013
 - PCM Report due August 2014
- ◆ Hutchinson River Green Infrastructure Demonstration Project (EBP Funded)
 - Construction completion certified April 30, 2013
 - PCM Report due August 2014
- ◆ Jamaica Bay Green Infrastructure Demonstration Project in 26th Ward Sewershed
 - Construction completion certified December 31, 2012
 - PCM Report due August 2014

This information is presented in addition to and complementary with the Environmental Benefits Projects described in the previous section.

Table 19 –Green Infrastructure Neighborhood Demonstration Project Status

<i>Neighborhood Demonstration Area</i>	<i>CSO Tributary Area</i>	<i>Waterbody</i>	<i>Construction Status</i>	<i>EBP</i>	<i>Cost*</i>	<i>Other Issues</i>
<i>Area 1- ROW</i>	HP-024	Hutchinson River	Post-construction monitoring	EBP	\$370,000	None
<i>Area 2 - ROW</i>	26W-003	Jamaica Bay	Post-construction monitoring	NA	\$705,000	None
<i>Area 2- Onsite</i>	26W-003	Jamaica Bay	Completed	NA	\$551,000	None
<i>Area 3 - ROW</i>	NCB-015	Newtown Creek	Post-construction monitoring	EBP	\$508,000	None
<i>Area 3- Onsite</i>	NCB-015	Newtown Creek	Completed	EBP	\$894,649	None

Changes from the previous reporting period are shown in **bold**. *Construction costs only

During the Third Quarter, design and construction work continued in three Green Infrastructure Program areas. Several Area-wide Green Infrastructure contracts began or continued the design process, and some began construction. Design and construction work also continued on several public property retrofit projects and grant projects. In addition, several new CSO Tributary Areas were identified and classified as Priority Areas.

Design and Construction Work Performed During This Quarter

- Right-of-way Green Infrastructure Contracts:
 - Current Priority Waterbodies: Flushing Bay, Flushing Creek, Jamaica Bay, Newtown Creek, Bowery Bay, Gowanus Canal, Hutchinson River, Westchester Creek, Bronx River.
 - Continued design in 17 Priority CSO Tributary Areas.
 - Continued construction of three area-wide contracts.
- Public Onsite Retrofit Program:
 - Continued design of five onsite projects.
 - Completed design of two onsite projects.
 - Completed construction of five onsite projects.
 - Continued identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and NYCHHC.
- Green Infrastructure Grant Program:
 - Continued construction of one grant project.
 - Completed construction of three grant projects.
 - Continued funding agreement and design review for the remaining 2011, 2012, and 2013 grant recipients.

Anticipated Design and Construction Activities for Next Quarter

- Right-of-way Area-wide Contracts:
 - Current Priority Waterbodies: Flushing Bay, Flushing Creek, Jamaica Bay, Newtown Creek, Bowery Bay, Gowanus Canal, Hutchinson River, Westchester Creek, Bronx River.
 - Continue design of seventeen Priority CSO Tributary Areas.
 - Continue construction of three area-wide contracts.
- Public Onsite Retrofit Program:
 - Continue design of five onsite projects.
 - Continue construction of two onsite projects.

- Continue identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and NYCHHC.
- Green Infrastructure Grant Program:
 - Continue construction of one grant project.
Continue funding agreement and design review for the remaining 2011, 2012 and 2013 grant recipients.

4.0 Community Relations

DEP's public participation plan was released to the public on June 26, 2012 and describes the multipronged tools and activities DEP will utilize to inform and involve diverse stakeholders and the broader public throughout the LTCP process.

The purpose of the public participation plan is to create a framework for communicating with and soliciting input from interested stakeholders and the broader public on water quality and the challenges and opportunities for CSO controls. The public participation plan is designed to keep important stakeholder issues associated with the LTCP program before the public and ratepayers throughout the life of the program.

DEP will report quarterly to DEC on completed public participation activities outlined in the public participation plan as part of this and all future CSO Quarterly Reports. All updates to the Public Participation Plan implemented as a result of public comments received and quarterly reviews of public participation activities by DEC will be posted annually to DEP's website.

During the **Third Quarter of 2013**, DEP completed several community relations-related tasks and provided several LTCP-related updates and education materials to the public. All tasks, efforts and updates are described in this Quarterly Report.

LTCP and Green Infrastructure Meetings

- July 1, 2013: Conference call with Councilmember Brad Lander's Office (1 attendee)
- July 23, 2013: Conference call hosted by the Brooklyn Borough President's Office, with staff from the offices of CM Fidler, CM Barron, AM Maisel, AM Perry, Congressman Jeffries, and Senator Sampson (10 attendees)
- July 24, 2013: Swim Coalition public meeting (40 attendees)
- September 9, 2013: Brooklyn Community Board 1 meeting (150 attendees)
- September 9, 2013: Brooklyn Community Board 3 meeting (100 attendees)
- September 17, 2013: Brooklyn North Community Board Budget Consultation Meeting, Boards 2-6, 8, 9, 16 (20 attendees)
- September 18, 2013: Queens Community Board 5 meeting (225 attendees)
- September 18, 2013: Bronx Community Board Budget Consultation Meeting (20 attendees)
- September 26, 2013: Farmers Oval Civic Association meeting (30 attendees)

LTCP Education and Outreach Activities

- There were no planned LTCP Education and Outreach Activities conducted in the third quarter of 2013.

. Planned Activities Not Conducted During This Quarter

- DEP conducted all planned activities this quarter.

Summary of Comments Received

No written comments were submitted in the third quarter of 2013.

5.0 Key Personnel Changes

The table below provides key personnel as of the **Third Quarter of 2013**.

Table 20– Key DEP Personnel for Contracts Subject to the CSO Consent Order

Planning Area	Project	DEP Responsible Personnel		
		Bureau	Chief	APM
Alley Creek	<i>All projects complete</i>	-	-	-
Outer Harbor	<i>All Projects Complete</i>	-	-	-
Inner Harbor	CSO-DRDG: Gowanus Dredging CSO-GC: Flushing Tunnel CSO-GC: Gowanus PS	BEDC BEDC BEDC	Tysvaer Clarke Clarke	Chao Joseph Joseph
Paerdegat Basin	CSO-5: Storage Facility (Complete) CSO-DRDG: Dredging	- BEDC	- Tysvaer	- Nayan Shah
Flushing Bay	CSO-DRDG: Dredging PW-088 Assn. 2B: Flushing Interceptor CS-FB-LLD: Low-Lying Sewers CS-FB-LLD R2 Weir CS-FB-BWR: Regulators TI-WW-1: Whitestone Interceptor	BEDC BWT BWSO BEDC BEDC BEDC	Tysvaer Lochan Barbaro Tbd Tysvaer Solimando	Chao Goldin Gordon/Shah Tbd Szeto Sadat
Jamaica Tributaries	CS-JA-BWR: Bending Weirs CS-JA-BBS: 48-Inch Sewer CSO-JT-SB: Destratification (Complete)	BEDC BEDC -	Tysvaer Tysvaer -	Szeto Szeto -
Coney Island Creek	PS-79F: Ave V Force Main (Complete) PS-79: Ave V Pump Station (Complete)	- -	- -	- -
Newtown Creek	CSO-NC-4: Dutch Kills, Lower Newtown CSO-NC-3: East Branch, Upper Newtown CSO-NC-2: Enhanced Aeration Lower English Kills CS-NC-REG&FLO: Regulators / Floatables Control	BEDC BEDC BEDC BEDC	Tysvaer Tysvaer Tysvaer Tysvaer	Meshkati Meshkati Adabi Chao
Westchester Creek	CS-ER-WCM: Modifications to CSO-29 / 29A CS-ER-WCP: Pugsley Creek Parallel Interceptor	BEDC BWSO	Tysvaer Barbaro	Chao Gordon/Shah
Bronx River	<i>All projects complete</i>	-	-	-
Hutchinson River	LTCP1: Waste Load Allocation	BWT	Mahoney	Lee
Jamaica Bay	CSO-HC: Hendrix Creek Dredging CS-FB-SEW: 26th Ward / Fresh Creek HLSS CO 26W-128: Low Level Main Sewage Pumps 26W-20: 26th Ward Wet Weather Stabilization	BEDC BWSO BEDC BEDC	Tysvaer Barbaro Solimando Solimando	Nayan Shah Gordon/Shah Radulescu D'Attile
G.I. Demonstrations	<i>All projects complete</i>	-	-	-

Changes from the previous reporting period are shown in **bold**

6.0 Other Issues

Action Items generated during the **September 16, 2013** CSO Quarterly Meeting are summarized below.

Table 21– Action Items from Quarterly Progress Meeting

<i>Planning Area</i>	<i>Responsible Party</i>	<i>Required Action</i>	<i>Status</i>
Inner Harbor	DEP/DEC	- Conduct telecom to reconcile comments on the Gowanus Canal sampling plan and QAPP	Completed
	DEP	- Provide an update to the Gowanus Canal force majeure associated with Hurricane Sandy to cover the impacts from changes for flood mitigation	On-going
Flushing Bay	DEP	- Provide more information on the flow monitoring of the sagging section of Flushing interceptor (e.g. scope and duration of monitoring)	On-going
	DEC	- Provide draft of dredging permit and discuss internally the process for developing a schedule for the dredging	On-going
General	DEP	Provide BODRs when available	On-going

7.0 Status of LTCP Development

- The status of all Long-Term Control Plan development is described below. Where only the planning area and a date are shown, work has not yet been initiated as of the reporting quarter.
 - The Alley Creek LTCP was submitted on July 2, 2013 in accordance with the requirements of the Order. DEC provided comments on September 12, 2013.
 - Work on the Coney Island Creek LTCP has commenced. The report is due June 2014. The Coney Island Creek LTCP may be delayed.
 - Work on the Hutchinson River LTCP has commenced. The report is due September 2014.
 - Work on the Flushing Creek LTCP has commenced. The report is due December 2014.
 - Bronx River: June 2015
 - Gowanus Canal: June 2015
 - Jamaica Tributaries and Bay: June 2016
 - Westchester Creek: June 2017
 - Newtown Creek: June 2017
 - Citywide: December 2017
- All Waterbody/Watershed Facility Plans (WWFPs) have been approved.