

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

FOURTH QUARTER 2013
(October 1 to December 31)

January 30, 2014

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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 **October 1, 2013 and December 31, 2013**.

Critical Events This Quarter

The following critical events occurred this quarter:

1. On November 18, 2013, DEP notified DEC that Keith Mahoney was the new CSO Program Manager as of November 15, 2013.
2. On October 21, 2013 DEC provided comments on the Jamaica Tributaries Parallel 48-Inch Siphon/Interceptor. DEP responded to the DEC comments on December 5, 2013, and the design was accepted by DEC on December 9, 2013.
3. DEC and DEP continued to discuss a resolution to the NOV issued on June 10, 2013 in connection with the milestone for final design of 26th Ward Wet Weather Stabilization.
4. DEP certified Final Design Completion of the Jamaica Tributaries Bending Weirs on November 22, 2013 in accordance with Milestone VI.I.2 of Appendix A of the Order. DEC acknowledged receipt on November 27, 2013.
5. On November 4, 2013, DEP responded to DEC’s September 12, 2013 comments on the Alley Creek/Little Neck Bay LTCP and on November 8, 2013, requested an extension from November 12, 2013 to May 12, 2014. The Alley Creek/Little Neck Bay LTCP was resubmitted to DEC on November 12, 2013. On December 12, 2013 DEC disapproved the LTCP and the extension request.
6. DEC provided a draft dredging permit for Flushing Bay on October 21, 2013. A revised permit was provided on November 18, 2013. A final permit has not been issued. DEP issued a negative declaration for Environmental Dredging of Flushing Bay on December 18, 2013.
7. DEC approved the modification request of December 31, 2014 for Final Design Completion of Divert Low Lying Sewers and Raise Weir at Flushing Bay on December 18, 2013.
8. DEP conducted sediment sampling in Gowanus Canal in order to complete the Environmental Determination under CEQR for Environmental Dredging.

9. On December 18, 2013, DEC acknowledged and requested additional information on DEP's Notice of Force Majeure for the Gowanus Canal Flushing Tunnel Modernization and Pump Station Reconstruction projects submitted July 26, 2013.
10. On October 10, 2013, DEP responded to DEC's August 26, 2013 comments on the Newtown Creek Bending Weir / Floatables Control design (Milestone VIII.K.2).
11. DEP submitted a Modification Request on December 11, 2013 that would switch the Milestone dates of the Coney Island Creek and Westchester Creek LTCs so that Westchester Creek would be due June 2014 and Coney Island Creek would be due June 2016.

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 **December 19, 2013 at Wards Island WWTP in Manhattan** 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 **January through March 2014**:

Hold the next Quarterly Progress Meeting between DEC and DEP on **March 10, 2014 at DEP's offices in Kingston, New York.**

Table 1 – Milestones Certified This Quarter (Oct – Dec 2013)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Jamaica Tributaries	Parallel 48-Inch Siphon / Interceptor	Aug 2013	Final Design Completion	Acceptance Dec 9 2013
Jamaica Tributaries	Bending Weirs	Dec 2013	Final Design Completion	Submitted Nov 22 2013

Table 2 – Milestones Under Consideration for Modification (Oct – Dec 2013)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Newtown Creek	Enhanced Aeration LEK	Mar 2013	Construction Completion	Modification from Dec to Mar requested on Oct 31 2013 was approved Dec 18 2013

Table 3 – Milestones Next Quarter (Jan – Mar 2014)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Flushing Bay	Low Lying Sewers	Jan 2014	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 Pumping Station and Flushing Tunnel Modernization	Notice of Force Majeure Nov 19 2012	Superstorm Sandy	Construction Completion Sep 2014	Update provided Apr 12 2013
Flushing Bay	Tallman Island WWTP	Notice of Force Majeure Nov 19 2012	Superstorm 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	Design Completion Jan 2014 NTP Dec 2014	Mod Request granted Dec 18 2013
Jamaica Bay	26th Ward Wet Low Level MSPs	Modification Request Mar 1 2013	Design Procurement	Multiple Milestones	Requested information provided Sep 21 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	85%	78%
	Gowanus Pumping Station Reconstruction	Feb 2010	Sep 2014	Sep 2014	85%	78%
	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	42%	25%
Flushing Bay	Tallman Island Whitestone Interceptor	Dec 2011	Jul 2015	May 2015	58%	49%
	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	Mar 2014	Jan 2014	82%	90%
	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	52%	39%
	26 th Ward PST#5 and High Level MSPs	Apr 2014	Dec 2017	Aug 2018	-	-
	26 th Ward Stabilization of PSTs #1 to 4	Dec 2017	Jul 2019 ⁽⁴⁾	Nov 2019	-	-
	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. See Section 7 for further information about the LTCPs.

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 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 Canal Flushing Tunnel System to eliminate shutdowns during low tide and many maintenance operations with the installation of a new pumping system with redundant, interchangeable pumps.
- ◆ On December 18, 2013, DEC acknowledged and requested additional information on DEP's Notice of Force Majeure for the Gowanus Canal Flushing Tunnel Modernization and Pump Station Reconstruction projects submitted July 26, 2013.

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. In an October 22, 2013 letter, DEC granted an extension for completion of the sampling for CEQR by January 15, 2014.
 - The revised Sediment and Water Quality Sampling Work Plan and Quality Assurance Project Plan (QAPP) (Version 3) Field Modification No. 6 were submitted to EPA and DEC for review on October 17, 2013.
 - DEC and EPA authorized DEP to proceed with sampling on October 22, 2013 and October 25, 2013, respectively.

- DEP completed sample collection on December 5, 2013, including collection of samples requested by DEC.

Anticipated Design Activities for Next Quarter

- Environmental Dredging
- Complete Environmental Determination under CEQR.

Construction Work Performed During This Quarter

- Gowanus Canal – Rehabilitation of Flushing Tunnel (FT) System and Reconstruction of Gowanus Pumping Station.
- Interim Oxygen Transfer System (OTS) - The operation of the system was maintained during this period.
- The Interim Wastewater Pumping 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 placed the Tunnel back into service on December 18, 2013 via the activation of one FT Pump. The Contractor rehabilitated and repaired the three (3) stainless steel bar screens at the Flushing Tunnel intake at Buttermilk Channel and installed new piles and supports. The concrete bulkhead was removed, along with the old pump propeller and shaft.
- Flushing Tunnel Building: The Contractor lowered a FT Pump into the pump tube and subsequently into service. The ultrasonic level sensor was installed on the intake side of the pump and programmed to operate based on the intake tidal level. The FT pump was placed into service on December 18, 2013 and has operated continuously since December 27, 2013. The Electrical Contractor continued the installation of conduit for the Flushing Tunnel Pumps. Contractor mounted local control panels, pullboxes and pulled wire for the FT Pumps. Masonry work continued in the southwest corner of the building for the restrooms.
- Force Main: Installation of all piping was completed and the final hydrostatic test of the force main was successful. Contractor completed the installation of all the air release valves and appurtenances.
- Wastewater Pumping Station (WWPS): The Contractor placed two (2) permanent Main Sewage Pumps in Wet Well Number 2. Contractor completed waterproofing membrane along WWPS walls. Reinforcing steel and forms for concrete pipe supports of the force main at the elevation 2.00 level were installed. The installation of stainless steel roof coping steel and banding was continued and the installation of stainless steel paneling on the exterior walls begun. The Plumbing Contractor continued insulation of installed piping. The Electrical Contractor continued installation of electrical conduit and racks at the WWPS 10.75 level and underside of roof.

- Service Building: The Electrical Contractor completed the installation of the Con Edison Network Protection equipment. The E Contractor also completed working inside the transformer vault in preparation for Con Edison permanent power. Con Edison energized one (1) out of the three (3) primary 27kV feeders on December 16, 2013. Installation of anchors, racks and conduit on the 1st and 2nd floors continued. The HVAC Contractor furnished, installed and tested the local control panel for the Con Edison Vault Ventilation System. H Contractor also ran conduit, pulled, tested and terminated power and control cable, started-up and tested supply and exhaust ventilation systems located on the roof of the Service Building. HVAC balancing of the vault was completed and the balancing report was submitted to Con Edison.
- CSO Screening Area – Contractor completed construction of the CSO extension. The stainless steel tipping buckets, bending weirs and screens were delivered and the installation of one Tide Gate was completed.

Anticipated Construction Activities for Next Quarter

- Gowanus Canal – Rehabilitation of Flushing Tunnel (FT) System and Reconstruction of Gowanus Pumping Station
 - The Interim Wastewater Pumping System will continue operation.
 - The Oxygen Transfer System will be disassembled and removed.
 - Flushing Tunnel: continue operation of the Tunnel via one FT Pump.
 - Flushing Tunnel Building: continue masonry restoration along the interior of the building and complete the restroom wall construction. Continue installation of Main System Control Panel and associated conduits. Begin pulling wire. Installation of HVAC equipment and ductwork. Complete the replacement and repairs to the slate shingle roof.
 - Wastewater Pumping Station: Continue installation of electrical conduit, support racks and panels. Complete installation and testing of slide gates. Installation of stainless steel wall panels and louvers. Start pulling control and power wire. Continue installation of local control panels and conduit.
 - Service Building: Continue with the installation of conduit, piping and ductwork at the first and second floors. Installation of stainless steel wall panels and louvers. Start pulling power and control wire. Installation of the Emergency Generator and associated equipment, piping and appurtenances. Complete the installation of stainless steel architectural roofing and limestone pilaster masonry work.
 - CSO Area: Installation of second Tide Gate. 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)	\$156,881.161
<i>Status</i>	In Design	In Construction
<i>Other Issues</i>	DEC extended the date for completion of the Environmental Determination under CEQR to January 15, 2014.	

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. 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 program was completed and based on preliminary numbers no PCBs were found above 2 PPM level. The contractor started submitting various plans and shop drawing for the start of dredging and the plans are under review.

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. The contractor has set up the field offices and started mobilizing his equipment to his main yard. During the next quarter the contractor will mobilize to the site, set up his environmental controls, and start dredging at the mouth end of the Basin. This should allow him to start his demolition of the bridge piles (CO #01).
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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 and closed by DEC on Sept 11 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
 - Flow monitoring and the conceptual design have commenced. 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.
- Divert Low-Lying Sewers
 - Final Design has been completed.
 - Job is currently out for bids and the bid date is scheduled for Jan 7, 2014.
 - Modification Request was granted to change Final Design date from Jun 2013 to Jan 2014 and Notice to Proceed date from Jun 2014 to Dec 2014.
 - DEC approved the modification request of December 31, 2014 for Final Design Completion of Divert Low Lying Sewers and Raise Weir at Flushing Bay on December 18, 2013.
- Regulator Modifications
 - 30% design approved
 - Value engineering session was conducted, implementation meeting is scheduled for January 2014.
 - Continued coordination with Port Authority, Con Edison, National Grid, FDNY, and cable companies.
 - Commenced CEQR review
 - Advanced 60% design work
- Environmental Dredging
 - DEC provided a draft of the permit for Environmental Dredging on October 21, 2013. A teleconference for DEP and DEC to discuss the draft permit conditions was held on

November 6, 2013. A revised draft permit was provided on November 18, 2013 and issuance of the final permit is pending.

- DEP issued a negative declaration for Environmental Dredging of Flushing Bay on December 18, 2013.

Construction Work Performed During This Quarter

- Tallman Island Whitestone Interceptor
 - Completed Construction of New Whitestone Interceptor in Powell's Cove Park to Station 14+50 (approximately 70% complete).
 - Completed construction of new connection chamber in Tallman Island WWTP.
 - Activated permanent storm sewer flow diversion and started construction of the new interceptor diversion chamber at 11th Ave and 131st Street.
 - Continued operation of dewatering system.
 - Maintained erosion and sediment control measures in wetland and adjacent areas.
 - Flow monitoring and the conceptual design have commenced.

Anticipated Design Activities for Next Quarter

- Tallman Island Flushing Interceptor
 - The demonstration project for the structural assessment of the sewer invert will begin in the spring. On January 31, 2014 a second vendor will be presenting their solution for performing a structural of the sewer invert.
- Divert Low-Lying Sewers
 - DDC to advertising and accept bids for the sewer work in January 2014.
- Regulator Modifications
 - Submit 60% design documents for DEP review
 - Attend value engineering implementation meeting
 - Continue coordination with Port Authority, NYCDOT, NYSDOT, NYC Transit, and DPR
 - Continue utility coordination
 - Advance CEQR review
 - Advance permitting activities
- Environmental Dredging
 - Activity is pending issuance of the DEC permit for Environmental Dredging.

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.
- Complete construction of turning chambers # 4 and #5.
- Continue 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
 - Responded to DEC Final Design Submittal review comments on December 5, 2013.
 - Received DEC Final Design approval on December 9, 2013.
 - Submitted contract documents for legal review.
- Bending Weirs
 - Incorporated review comments from 90% design review.
 - Submitted Final Design Plans and Specifications to DEC on November 22, 2013, in advance of the milestone date of December 2013.
 - Received Negative Declaration for EAS.

No Construction Work Performed During This Quarter

Anticipated Design Activities for Next Quarter

- Parallel 48-inch Siphon/Interceptor
 - Advertise construction project for bidding upon completion of legal review.
- Bending Weirs
 - Submit contract documents for legal review and advertise construction project for bidding upon completion of 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	\$31,200,000	\$7,256,000
<i>Status</i>	Complete	Design	Design
<i>Other Issues</i>	Certification Accepted Jul 23 2012	Final Design accepted by DEC on Dec 9 2013	Final Design Submitted to DEC on Nov 22 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 includes 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 in this planning area except the LTCP have been certified complete and accepted by DEC. See Section 7 for further information about the LTCPs.

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 started construction activities and completed installation of the new blower and aeration piping. Testing of the new aeration system is expected to be completed in early January. DEP submitted and DEC approved a request to modify the completion date from December 2013 (NC-2) to March 2014.
 - Continued the 60% design for the Enhanced Aeration in East Branch and Portions of Newtown Creek Enhanced Aeration project. Finalized the design of a public waterfront access required by use group 6D designation of the NC-3 site and submitted to the Public Design Commission for review and approval.
 - The Basis of Design Report (BODR) for NC-4 was approved in December 2013. Initiated the 30% design of the project.
- Bending Weirs and Floatables Control
 - Responded to DEC comments on Final Design of Bending Weirs and Floatables Control Facilities on October 10, 2013. DEC emailed additional comments on December 18, 2013.
 - Submitted construction documents for legal review in preparation of advertising and bidding of the project.

Anticipated Design Activities for Next Quarter

- Enhanced Aeration

- Enhanced Aeration in Lower English Kills project is expected to be complete in January 2014.
- Complete 60% design for the Enhanced Aeration in East Branch and Portions of Newtown Creek project (NC-3) and initiate the 90% design of the project.
- Continue preliminary design (30%) of the Enhanced Aeration in Dutch Kills and Portions of Newtown Creek project (NC-4).
- Bending Weirs and Floatables Control
 - Respond to DEC's December 18, 2013 email. DEP agreed to have a technical meeting to review calculations and assumptions made in projecting floatables removal efficiencies and address DEC's concerns.
 - Prepare for procurement phase following acceptance of design by DEC.

Anticipated Construction Activities for Next Quarter

- DEP submitted a Modification Request on the Milestone Date for Construction Completion of the Newtown Creek Enhanced Aeration in the Lower English Kills. On December 18, 2013 DEC approved the Milestone extension from December 31, 2013 to March 31, 2014.

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	\$35.4 Million
<i>Status</i>	Construction	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
 - Continued with 60% Design Activities
 - Met with community stakeholder representatives to review project and potential local impacts during construction.
- Pugsley Creek Parallel Interceptor
 - Survey and borings have been received.
 - Preliminary Design is approximately 20% complete.

Anticipated Design Activities for Next Quarter

- Modifications to CSO-29 and 29A
 - Complete 60% Design activities
 - Continue coordination with local stakeholders to review project and potential impacts during construction.
 - Initiate and complete additional fieldwork to include topographic survey, ground penetrating radar survey at project sites and testing of existing relief structure concrete at CSO-29 and CSO-29A.
- Pugsley Creek Parallel Interceptor
 - Preparation of design drawings to continue

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>	60% 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 include the following items:

- ◆ Waste Load Allocation Field Sampling
- ◆ Green Infrastructure Demonstration- The project that had originally been planned for the Bronx River drainage area has been changed to the Hutchinson River drainage area within subcatchment HP-024, per approved 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. See Section 7 for further information about the LTCPs.

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
 - Survey has been received and preparation of design drawings has started 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
 - 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.
 - Negotiation of modified dates and resolution of NOV are ongoing.
 - 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 design effort.

Construction Work Performed During This Quarter

- Hendrix Street Canal Dredging
 - Completed benthic survey
- 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.
- 26th Ward High Level Sewer Separation
 - Preparation of design plans for Phases 1a and 1b to continue.

Anticipated Construction Activities for Next Quarter

- Hendrix Street Canal Dredging
 - 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).	\$7.6 million \$126.4 million

			\$63 million for 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 necessitates 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 November 2012 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; \$357,917 has been invoiced through July 2013.

- **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-watershed 60% 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. A topographical survey of the site was conducted. The total project value is \$448,803; \$75,000 has been invoiced to date.

- **Regional Plan Association**

Two Sponge Park™ bioretention basins have been 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 were installed and data collection began 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 were released in December 2013, with construction to start in early Spring 2014. Additional comments by NYCDOT required modification to the original design. The total project value is \$583,470 (\$873,470 including EPA Grant); \$264,694 through July 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; \$208,589 has been invoiced through September 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. 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 a total of **\$2,013,548** under the Environmental Benefits Program (EBP) to five grantees of the Green Infrastructure Grant Program by December 31, 2013.

2012 Projects:

- **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.

▪ **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.

▪ **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.

2013 Projects:

▪ **Pratt Institute**

The green roof and bioinfiltration project, located in the East River/Open Waters watershed, has completed designs. The project manages 0.62 acres of impervious area, and has a 1" volume capacity of 9,483 cubic feet.

▪ **Banana Kelly Community Improvement Association**

The green roof and rain garden project, located in the East River/Open Waters watershed, has completed designs. The project manages 0.3 acres of impervious area, and has a 1" volume capacity of 4,653 cubic feet.

Table 18 – 2012 Order - EBP Green Infrastructure Grant Program Projects

	<i>2012 Projects</i>			<i>2013 Projects</i>	
<i>Project Name:</i>	<i>Albert Einstein College of Medicine</i>	<i>New School University</i>	<i>St. Luke and St. Matthew Church</i>	<i>Pratt Institute</i>	<i>Banana Kelly Community Improvement Association</i>
<i>Location:</i>	1300 Morris Park Avenue, Bronx NY	65 5 th Avenue, New York, NY	520 Clinton Avenue, Brooklyn, NY	200 Willoughby Avenue Brooklyn, NY	916 -928 Kelly Street, Bronx, NY
<i>Description:</i>	Green Roof	Green Roof	Rain Garden and Porous Pavement	Green Roof and Rain Garden	Green Roof and Rain Garden
<i>Cost:</i>	\$503,470	\$325,000	\$290,273	\$658,497	\$236,308
<i>Status:</i>	Design Complete	Construction Complete	90% Design under review	90% Design Complete	Design Complete
<i>Other Issues:</i>	None	None	None	None	None
<i>Total:</i>	2012			2013	
	\$1,118,743			\$894,805	

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)
 - Right of way (ROW) construction completion certified May 10, 2013
 - Onsite construction completed September 16, 2013
 - Ongoing monitoring of Demonstration Area projects
 - PCM Report due August 2014
- ◆ Hutchinson River Green Infrastructure Demonstration Project (EBP Funded)
 - ROW construction completion certified April 30, 2013
 - Ongoing monitoring of Demonstration Area projects
 - PCM Report due August 2014
- ◆ Jamaica Bay Green Infrastructure Demonstration Project in 26th Ward Sewershed
 - ROW construction completion certified December 31, 2012
 - Onsite construction completed September 16, 2013
 - Ongoing monitoring of Demonstration Area projects
 - PCM Report due August 2014

This information is presented in addition to and complementary with the Environmental Benefits Projects described in the previous section. Quarterly expenses for ongoing monitoring are approximately \$40,000 for all three Demonstration Areas.

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>
Area 1- ROW	HP-024	Hutchinson River	Post-construction monitoring	EBP	\$545,534	None
Area 2 - ROW	26W-003	Jamaica Bay	Post-construction monitoring	NA	\$871,000	None
Area 2- Onsite	26W-003	Jamaica Bay	Post-construction monitoring	NA	\$463,584	None
Area 3 - ROW	NCB-015	Newtown Creek	Post-construction monitoring	EBP	\$519,925	None
Area 3- Onsite	NCB-015	Newtown Creek	Post-construction monitoring	EBP	\$927,508	None

Changes from the previous reporting period are shown in **bold**. * **Design and construction costs.**

During the Fourth Quarter of 2013, design and construction work continued in three Green Infrastructure Program areas. Green Infrastructure design and construction work is focused in the following Priority Waterbodies: Bowery Bay, Bronx River, Flushing Bay, Flushing Creek, Gowanus Canal, Hutchinson River, Jamaica Bay, Newtown Creek, and Westchester Creek.

Design and Construction Work Performed During This Quarter

- Right-of-way Green Infrastructure Contracts:
 - Continued design in 17 Priority CSO Tributary Areas.
 - Continued construction in three Priority CSO Tributary Areas.
- Public Onsite Retrofit Program:
 - Continued design of four onsite projects.
 - Completed design of three onsite projects.
 - Continued identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and NYCHHC.
- Green Infrastructure Grant Program:
 - Completed design of two grant projects.
 - Continued construction of one grant project.
 - Completed construction of one grant project.
 - 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:**
 - Begin design in two Priority CSO Tributary Areas.
 - Continue design in 17 Priority CSO Tributary Areas.
 - Continue construction in three Priority CSO Tributary Areas.
- **Public Onsite Retrofit Program:**
 - Begin design of four onsite projects
 - Continue design of two onsite projects.
 - Complete design of two onsite projects.
 - Begin construction of three 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 **Fourth 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

- October 11, 2013: Queens Community Board Budget Consultation Meeting (25 attendees)
- October 23, 2013: Green Infrastructure tour presentation at Queens College (70 attendees)
- November 6, 2013: S.W.I.M. public meeting (15 attendees)
- November 7, 2013: Presentation to Ridgewood Property Owners and Civic Association (20 attendees)
- November 7, 2013: Queens Community Board 10 meeting
- November 7, 2013: Federated Blocks of Laurelton meeting
- November 12, 2013: Queens Community Board 4 meeting (40 attendees)
- November 13, 2013: Queens Community Board 6 meeting (40 attendees)
- November 19, 2013: Green Infrastructure Steering Committee Meeting (30 attendees)
- November 19, 2013: Meeting with Riverkeeper and NRDC (2 attendees)
- December 10, 2013: Columbia University Capstone Presentation 15 attendees)
- December 17, 2013: Sustainability meeting with LaGuardia Community College (10 attendees)

LTCP Education and Outreach Activities

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

5.0 Key Personnel Changes

On November 18, 2013, DEP notified DEC that Keith Mahoney was the new CSO Program Manager as of November 15, 2013. The table below provides key personnel as of the Fourth 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	All projects complete	-	-	-
Outer Harbor	All Projects Complete	-	-	-
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	All projects complete	-	-	-
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	All projects complete	-	-	-

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

6.0 Other Issues

Action Items generated during the **December 19, 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	- Provide updates on force majeure for Hurricane Sandy and ConEd equipment deliveries for Gowanus Canal flushing tunnel and pump station	In Progress
	DEP	- Provide CEQR decision on Gowanus Canal dredging by Jan 15 2014	In Progress
Flushing Bay	DEP	- Provide latest survey data on movement of Flushing interceptor	Completed
	DEP	- Notify DEC in advance of field inspections of Flushing interceptor	In Progress
Newtown Creek	DEP	- Respond to DEC follow-up comments on floatables control final design	In Progress
Hutchinson River	DEP	- Address DEC comments on waste load allocation	In Progress
	DEP	- Develop detailed schedule for completion of LTCP	In Progress
	DEC	- Follow on MS4 audit and IDDE with Mt. Vernon	Completed
Alley Creek	DEP, DEC	- Conduct regular technical meetings to resolve outstanding issues	In Progress
Coney Island	DEC	- Respond to request for modification for Coney Island and Westchester Creek LTCPs	Completed
Green Infrastructure and EBPs	DEP, DEC	- Conduct dedicated progress meeting for green infrastructure	In Progress
	DEP, DEC	- Confirm use of remaining funds for Newtown Creek EBP	
General	DEP	- Provide BODRs for Newtown Creek enhanced aeration and Westchester Creek regulator modifications, as well as any other BODR that is available	In Progress
	DEP, DEC	- Hold joint legal and technical meeting to resolve interpretation issues on LTCPs	In Progress

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. **DEP responded to DEC's comments on November 8, 2013 and requested an extension from November 12, 2013 to May 12, 2014. On December 12, 2013 DEC rejected the LTCP and the extension request.**
 - Work on the Coney Island Creek LTCP has commenced. The report is due June 2014. The Coney Island Creek LTCP may be delayed. **Therefore, DEP submitted a Modification Request on December 11, 2013 that would switch this Milestone date with the Westchester Creek LTCP date of June 2016.**
 - 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
 - **Work on the Westchester Creek LTCP has commenced in anticipation of switching this Milestone date with the Coney Island Creek LTCP date per the December 11, 2013 Modification Request such that Westchester would be due June 2014.**
 - Newtown Creek: June 2017
 - Citywide: December 2017
- All Waterbody/Watershed Facility Plans (WWFPs) have been approved.