

City of New York
Department of Environmental Protection
Bureau of Wastewater Treatment

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

QUARTERLY PROGRESS REPORT

Third Quarter 2014
(July 1 to September 30)

October 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 **July 1, 2014 and September 30, 2014**.

Critical Events This Quarter

The following critical events occurred this quarter:

1. DEP certified Notice to Proceed (NTP) to Construction for the Parallel 48-Inch Siphon in the Jamaica Tributaries on August 27, 2014. The NTP was issued on July 25, 2014. A copy of the certification letter is provided in Appendix A.
2. DEP submitted a Post-Construction Monitoring (PCM) Report on the Green Infrastructure Demonstration Projects in Newtown Creek, Hutchinson River, Jamaica Bay and 26th Ward sewersheds on August 29, 2014.
3. DEP submitted the Hutchinson River Long Term Control Plan (LTCP) on September 30, 2014 in accordance with the Consent Order milestone.
4. DEP requested technical modifications for the design of the overflow monitoring system for the Gowanus Canal Pump Station on July 9, 2014. DEC approved this request on July 24, 2014.
5. DEC requested an updated Force Majeure from DEP on the Gowanus Canal Flushing Tunnel and Pump Station on July 25, 2014. DEP submitted the update on August 1, 2014 and requested a two-month extension of the construction completion milestone for the Pump Station reconstruction from September 2014 to November 2014. DEC approved the extension on September 22, 2014. On September 30, 2014 DEP submitted a modification request to extend the construction completion milestone dates for both the Flushing Tunnel and Pump Station as recommended by DEC. DEP requested that both milestones be modified to February 2015.
6. DEC provided comments on the Final Design of the Westchester Creek Modifications to CSO-29 and CSO-29A on August 25, 2014.
7. DEC provided comments on the Final Design of the Newtown Creek Enhanced Aeration in East Branch and Upper Newtown Creek on September 2, 2014.
8. DEC provided comments on the Westchester Creek LTCP on September 22, 2014.
9. DEC requested proposals for the Environmental Benefits Project in the Bronx River watershed and additional information on expenditures by Drexel University on September 22, 2014.
10. DEP sent a clarification letter on September 23, 2014 to DEC in regards to the Flushing Bay dredging project's certification dates for the Notice to Proceed and the dredging completion date.

11. DEP submitted a revised Hutchinson River Water Quality and Sewer System report on September 27, 2014 that provided updates related to the EPA 2012 Recreational Water Quality Criteria and other information.

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 **September 24, 2014** at **DEP's offices in Kingston, New York** 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 1 – Milestones Certified This Quarter (Jul – Sep 2014)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Jamaica Tributaries	Parallel 48-Inch Siphon / Interceptor	Aug 2014	Notice to Proceed to Construction	Submitted Aug 27, 2014
Newtown Creek, Hutchinson River, Jamaica Bay	GI PCM Report	Aug 2014	Submit Report	Submitted Aug 29, 2014
Hutchinson River	LTCP	Sep 2014	Submit Report	Submitted Sep 30, 2014

Major Actions Next Quarter

The following major actions are expected to occur between **October** and **December 2014**:

Hold the next Quarterly Progress Meeting between DEC and DEP on **December 2, 2014** at **DEC Region 2 Offices at 47-40 21st St, Queens, NY**. Table 2 presents the status of the milestones for next quarter and Table 3 provides a list of outstanding modification requests and force majeure notices.

Table 2 - Milestones Next Quarter (Oct – Dec 2014)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Flushing Bay	Divert Low Lying Sewers / Raise Weir BB-R02	Dec 2014	Notice to Proceed to Construction	On Schedule
Flushing Bay	Regulator Modifications	Dec 2014	Final Design Completion	On Schedule
Flushing Bay	Drainage Basin Specific LTCP	Dec 2014	Submit Approvable Flushing Creek LTCP	On Schedule
Jamaica Tributaries	Bending Weirs	Dec 2014	Notice to Proceed to Construction	On Schedule

Newtown Creek	Bending Weirs / Floatables Control	Dec 2014	Notice to Proceed to Construction	Modification Request to be submitted by Oct 31, 2014
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Table 3 – Outstanding Modification Requests and Force Majeure Notices

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	Under consideration by DEC
Inner Harbor	Gowanus Canal Flushing Tunnel Modernization	Modification Request	Replacement of bar screens in Flushing Tunnel	Construction Completion Sep 2014 (FT) and Nov 2014 (PS)	Under consideration by DEC
Inner Harbor	Gowanus Canal Dredging	Notice of Force Majeure Mar 7, 2014	Gowanus Canal Superfund Record of Decision and analytical data	NTP and Construction Completion Dates	Force Majeure granted on Apr 11, 2014, Final Decision as to Completion Date Pending
Flushing Bay	Tallman Island WWTP	Notice of Force Majeure Nov 19, 2012	Superstorm Sandy	Construction Completion Jul 2015	Under Consideration by DEC
Jamaica Bay	26 th Ward WW Stabilization	Modification Request Mar 1, 2013	Delay incurred related to procurement of designer	April 2013	Under discussion between DEC and DEP

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 4 – 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	Nov 2014	Dec 2014	96%	82%
	Gowanus Pumping Station Reconstruction	Feb 2010	Nov 2014	Dec 2014	96%	82%
	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	75%	82%
Flushing Bay	Tallman Island Whitestone Interceptor	Dec 2011	Jul 2015	May 2015	90%	80%
	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	Recertified May 2014	100%	100%
	Enhanced Aeration East Branch, Upper Newtown Cr	Jun 2015	Jun 2018	Jun 2018	-	-
	Enhanced Aeration Dutch Kills, Lower Newtown Cr	Dec 2016	Dec 2019	Dec 2019	-	-

WATERBODY	ITEM DESCRIPTION	NOTICE TO PROCEED	CONSTRUCTION COMPLETION	PROJECTED COMPLETION	% OF TIME ELAPSED	% OF CONSTRUCTION COMPLETED ⁽¹⁾
	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	Aug 2012	Apr 2015 ⁽⁴⁾	Jan 2015	88%	85%
	26 th Ward PST#5 and High Level MSPs	Apr 2014 ⁽⁴⁾	Dec 2017 ⁽⁴⁾	Aug 2018 ⁽⁴⁾	-	-
	26 th Ward Stabilization of PSTs #1 to 4	Dec 2017 ⁽⁴⁾	Jul 2019 ⁽⁴⁾	Nov 2019 ⁽⁴⁾	-	-
	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; completion milestone to be submitted as part of the final permit modification request per the DEC permit.

(4) Modifications under discussion with DEC (specifically Appendix A milestones XII.K.5 through 8).

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 5 – 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.

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

- Gowanus Pumping Station and Flushing Tunnel Modernization
 - **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
 - **No activities in this quarter; design work on this project is on hold as discussed in DEP's force majeure notification dated March 7, 2014.**

Anticipated Design Activities for Next Quarter

- Environmental Dredging
 - **No activities in this quarter; design work on this project is on hold as discussed in DEP's force majeure notification dated March 7, 2014.**

Construction Work Performed During This Quarter

- Gowanus Pumping Station and Flushing Tunnel Modernization
 - The Flushing Tunnel was successfully placed into operation on May 3, 2014.

- **Interim Oxygen Transfer System (OTS) - Contractor removed concrete anchors and also performed all turbidity monitoring and sampling required by his approved plan.**
- **The Interim Wastewater Pumping Station (IWWPS) All Interim Services have been decommissioned. VFD Trailers, Interim Rudox Generator and Interim Electrical Equipment are ready to be moved off-site. E Contractor completed demolition and removal of the Interim ductbank along the east side of the site.**
- **Flushing Tunnel Building: The G Contractor continued repointing of exterior brick masonry on the East side of the building. Contractor also performed power washing of the brick prior to start of repointing. The G Contractor continued the installation of window frames and glazing inside the Flushing Tunnel Building. The H Contractor continued installation of HVAC Ductwork. Contractor also delivered all exhaust fans, CACC, CRAC and HV Units.**
- **Force Main: The Contractor successfully started-up and tested the Wastewater Pump Station Force Main on June 20, 2014.**
- **Wastewater Pumping Station (WWPS): The Contractor successfully tested and started up the Wastewater Pump Station. The 10-day operational acceptance test completed on June 20, 2014.**
- **Service Building: The G Contractor completed the installation of stainless steel paneling on the exterior of the Service Building. The Contractor also completed the installation of stainless steel louvers at the Generator Room on the 2nd floor of Service Building and on the south wall of the Electrical Room. The E Contractor continued pulling, testing, and terminating of power and control wiring on the 1st and 2nd floors and in the Storage Room. The Contractor continued pulling wire/cable and testing for the switchgear to the variable frequency drives for the Flushing Tunnel and Wastewater pumps. The Contractor successfully installed and tested the Emergency Standby Generator on June 26, 2014.**
- **CSO Screening Area – The G Contractor completed installation of the horizontal bar screens and Type “A” bending weirs. The G Contractor also completed installation of the Stainless Steel hydraulic lines inside the CSO to the A and B Type bending weirs. Contractor had manufacturer on-site to begin start-up and operation of the CSO Level Control System. The E Contractor completed installation of conduit from WWPS handhole into the CSO Type “A” and “B” bending weirs and horizontal screens. E Contractor also installed formwork, reinforcing steel and placed concrete for the ductbank. This ductbank also included conduit for site lighting at the Butler Street Wall and the east wall. The G Contractor continued installation of exterior face brick and limestone keystone for the north portion of the Butler Street wall. G Contractor also delivered and set the remaining two (2) sections of pre-cast concrete wall for the east side return section of the Butler Street wall. The G Contractor installed formwork, reinforcing steel, fence post embedment and placed approximately 28 CY of concrete for the east site fence step wall and footing.**

Anticipated Construction Activities for Next Quarter

- Gowanus Pumping Station and Flushing Tunnel Modernization
 - **Flushing Tunnel: successful start-up and testing of the Flushing Tunnel and all three (3) Flushing Tunnel Pumps was completed on May 3, 2014.**
 - **Flushing Tunnel Building: Continue exterior restoration at the Flushing Tunnel Building. Continue installation of HVAC equipment and ductwork inside the Flushing Tunnel Building. Start-up and testing of the Control Room CRAC Unit, HV Unit and exhaust fan. Perform testing and balancing of systems. Complete installation of the windows and glazing. Complete installation of interior lighting fixtures.**
 - **Wastewater Pumping Station: The Wastewater Pump Station was successfully tested and started-up on June 20, 2014.**
 - **Service Building: Continue installation of all HVAC temperature control wiring and panels. Start-up and testing of the Fire Alarm System. Continue installation of granite panels and brick at the pre-cast foundation wall in Butler Street. Install exterior lighting on the North side of the Service Building. Commence site drainage installation. Commence site restoration. Commence restoration of Butler Street.**
 - **CSO Area: Complete start-up and acceptance testing of CSO Level Control System. Removal of the Interim VFD trailers and Interim Service Transformer and Switchgear. Complete Installation of conduit and wire for CSO Level Control System instrumentation and flow sensors. Complete installation of the East side step wall for the ornamental fence.**

Table 6 – 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>	Dredging in Gowanus Canal	Wastewater Pumping Station and Flushing Tunnel Pumping System upgrades
<i>Construction Cost</i>	\$13,100,000 (based on concept design)	\$160,334,214
<i>Status</i>	Design on hold	In Construction
<i>Other Issues</i>	Design on Hold	Force Majeure and Modification Request related to Superstorm Sandy. Modification request for replacement of bar screens related to Flushing Tunnel.

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 completed all submittals needed to start work and prepared a cost proposal for a change order to removed old bridge piles. Revised dredge prism was submitted and approved reducing the amount of dredging.

Construction Work Performed During This Quarter

- Environmental Dredging
 - **The contractor completed all dredging/dewatering operations and removal of all piles as required by contract.**
 - **The Mouth End was completed on April 3, 2014. A total of 5,219 cubic yards of sediment was removed.**
 - **The Head End was completed on May 9, 2014. A total of 14,137 cubic yards of sediment was removed.**
 - **The sand capping of the Head End (12 inch layer) was completed on June 19, 2014. A total of 31,819 tons of sand was used.**
 - **Installation of the 230' x 88' concrete scour protection mattress at the CSO Outfalls 4 and 5 was completed on July 10, 2014.**
 - **Installation of the 88'x80' concrete scour protection mattress at Tidal gate No. 1 of the CSO was completed on July 18, 2014.**

- **The prior to demobilization from the site on July 22, 2014, the contractor installed the Warning Sign on the northeast shoreline as directed by Design.**

The Final Inspection of the site was conducted on August 20, 2014 by DEP representatives, and the Request for Substantial Completion was received from the contractor. Closeout activities and tasks were begun in late July and continued through the month of August.

Anticipated Design Activities for Next Quarter

- Design services during construction for environmental dredging will continue.

Anticipated Construction Activities for Next Quarter

- **Once Substantial Completion is granted, the notification to the NYSDEC will be prepared along with related Agency notifications (NYCDOT, Army Corps and NOAA). After the NYSDEC completes its final site inspection, the Final Checklist will be submitted for their approval.**

Table 7 – 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 Sep 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
 - **Conceptual design work on the Ulmer Street Interceptor continued this quarter. The design alternatives were discussed within DEP and the best was selected. The consultant was instructed to proceed with the conceptual design for the selected alternative. Budget was approved for the structural assessment and as soon as the work is scheduled DEC will be notified so that someone can be present during the work.**
- Divert Low-Lying Sewers
 - **Design has been completed.**
- Regulator Modifications
 - **Continued coordination with NYCDOT, NYSDOT, NYC Transit, Port Authority, Con Edison, National Grid, FDNY, Verizon, and cable companies.**
 - **Continued CEQR review.**
 - **Continued 90% design.**
- Environmental Dredging
 - The final design phase of the project continued, including:**
 - **Sampling for copper, lead and mercury (related to DEC Natural Resources Permit Conditions No. 4 and 10); results are forthcoming.**
 - **Continued coordination with DPR based on the location of the dredging area within the World's Fair Marina.**
 - **Outreach to PANYNJ and USACE.**
 - **Potential issue: NTP date could be affected by several potential risks in finalizing the design, including, but not limited to DEC's comments on the partial and final dredge designs, USACE resubmission of NWP's due to changes in design, and other stakeholder requirements (i.e. PANYNJ and DPR). A letter was sent to DEC on**

September 23, 2014 to clarify these concerns, as requested by DEC during June 2014 Quarterly Meeting.

Construction Work Performed During This Quarter

- Tallman Island Whitestone Interceptor
 - **Completed Construction of New Whitestone Interceptor.**
 - **Activated the new section of the Interceptor.**
 - **Completed modification of Regulator 10 and 10A. Started modification of Regulator 13.**
 - **Started landscaping work at Powell’s Cove Park**
 - **Maintained erosion and sediment control measures in wetland and adjacent areas.**

Anticipated Design Activities for Next Quarter

- Tallman Island Flushing Interceptor
 - **The conceptual design work will continue for the selected alternative and the structural assessment will be performed if the vendor can fit it into their schedule.**
- Divert Low-Lying Sewers
 - **Contract is expected to be awarded.**
- Regulator Modifications
 - **Complete 90% design work.**
 - **Continue coordination with Port Authority, NYCDOT, NYSDOT, NYC Transit, Con Edison, National Grid, Verizon, cable companies, and DPR.**
 - **Complete CEQR review.**
 - **Commence 100% design.**
- Environmental Dredging
 - **Submit the 90% Flushing Bay Dredging design to DEC as required by DEC permit condition No. 4, which requires DEP to submit “draft design plans, proposed specifications, methodologies” within 12 months of the permit.**
 - **Continue work on final design, including development of the permit re-verification package for USACE.**

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 8 – 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	In Design
<i>Other Issues</i>	FM submitted Nov 19 2012 (Superstorm Sandy)				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
 - **Construction contract was registered and Notice to Proceed was issued on July 28, 2014.**
 - **Design services during construction (DSDC) commenced.**
- Bending Weirs
 - **In process of evaluating low bidder.**

Construction Work Performed During This Quarter

- Parallel 48-inch Siphon/Interceptor
 - **Contractor mobilization.**

Anticipated Design Activities for Next Quarter

- Bending Weirs
 - **Award & register construction contract, issue NTP & commence work.**

Anticipated Construction Activities for Next Quarter

- Parallel 48-inch Siphon/Interceptor
 - **Continue contractor mobilization & commence construction work.**

Table 9 – 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	\$20,256,909	6,853,955
<i>Status</i>	Complete	Construction	Procurement
<i>Other Issues</i>	Certification Accepted Jul 23 2012		

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 10 – 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
 - Completed 90% design and certified completion of the aeration system for East Branch and Upper Newtown Creek (NC-3).
 - **Continued design of the project toward 30% completion for the Enhanced Aeration in Dutch Kills and portions of Newtown Creek project (NC-4).**
 - **Continued to modify design of open space for East Branch Aeration (NC-3) to receive approval of project by City Planning. Updating permits for final submittal based on evolving design.**
 - **Submitted 30% design for review for Dutch Kills Aeration and Upgrade of Borden Ave Pump Station (NC-4).**
- Bending Weirs and Floatables Control
 - **Continued legal review of the contract documents.**
 - **Initiated work on development of the Public Outreach Program.**

Anticipated Design Activities for Next Quarter

- Enhanced Aeration
 - **Continue seeking approval of NYC Planning and Public Design Commission for East Branch.**

- **East Branch: Obtain approval of the project from City Planning and Public Design Commission and begin the procurement of the construction contract.**
- Continue/complete the preliminary design (30%) of the Enhanced Aeration in Dutch Kills and Portions of Newtown Creek project (NC-4).
- Bending Weirs and Floatables Control
 - **Prepare and submit, by October 31, 2014, modification request to DEC for NTP milestone (December 2014).**
 - **Prepare for and initiate procurement phase.**

Table 11 – 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>	Certification accepted May 13, 2014	The design of the blower building and aeration system submitted June 30, 2014.	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	\$14,676,445	\$26,147,164	\$38 Million
<i>Status</i>	Construction	Design	Design	Prepare for Procurement Phase
<i>Other Issues</i>		Potential delay to NTP if approval of design is not timely provided by NYC Public Design Commission and/or City Planning		Submit modification request for NTP milestone

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
 - **Prepared responses to DEC review comments on final design submission.**
- Pugsley Creek Parallel Interceptor
 - Preliminary Design is approximately **25%** complete.

Anticipated Design Activities for Next Quarter

- Modifications to CSO-29 and 29A
 - **Submit final design documents for Law Department Review.**
- Pugsley Creek Parallel Interceptor
 - Preparation of design drawings to continue.

Table 12 – Westchester Creek CSO Projects

	<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>	Design	Continue Design at DDC
<i>Construction Cost</i>	\$15.3 Million	\$65.8 Million (Estimated)
<i>Status</i>	Final Design completed and submitted to DEC	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 **shallow bedrock and** the 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 13 – Bronx River CSO Projects

<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>	Certification accepted Jun 24 2013
<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 was 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 14 – Hutchinson River CSO Projects

<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 was 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
 - **Alignment meetings have been held** 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.
 - 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 Sicklen 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 and resolution of NOV are ongoing.
 - **PST work (26W-20) Currently with DEP legal for review.**
 - **HLMSP work (26W-21) Advertised on 9/22/14, bids due 11/5/14.**

Construction Work Performed During This Quarter

- Hendrix Street Canal Dredging
 - **Draft Post Dredge Monitoring Report No. 4 is currently under review.**
 - **Completed ambient odor monitoring at the Hendrix Street Canal to be used in the preparation of Post Dredge Monitoring Report No. 5.**

- 26th Ward Wet Weather Stabilization (LL MSPs)
 - Continued with the replacement of Pump #5.

Anticipated Design Activities for Next Quarter

- 26th Ward Wet Weather Stabilization (26W-20/21)
 - **Submit final design for PST work (26W-20) to DEC for review. Certify Milestone XII.K.5.**
- 26th Ward High Level Sewer Separation
 - **Design drawings for Phases 1a and 1b are being reviewed and updated.**
 - Survey is expected to be received for Phases 2a, 2b, 3a, and 3b.

Anticipated Construction Activities for Next Quarter

- Hendrix Street Canal Dredging
 - **Complete and submit Post Dredge Monitoring Report No. 4 to DEC.**
 - **Complete benthic and bathymetric survey fieldwork at the Canal to allow for preparation of Post Dredge Monitoring Report No. 5.**
- 26th Ward Wet Weather Stabilization (LL MSPs)
 - Complete startup and testing of Pump #5.

Table 15 – 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 Phases 3a and 3b (estimated)	LLMSP \$7.6 million 26W-21 \$19 million 26W-20 \$126.4 million
<i>Status</i>	Construction Complete	Project not yet initiated	CPIs for all 3 phases have been sent to DDC.	In Construction (LLMSPs) In Procurement (26W-21) In Design (26W-20)
<i>Other Issues</i>				Modifications to milestones have been conceptually agreed to and DEP await NYC Comptroller approval of corresponding new Order on Consent.

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 was completed in November 2012 and monitoring of flow data continues and is in year two of the three year monitoring period.

The total project value is \$660,440; \$357,917 has been invoiced through July 2013. **Invoice for the July 2013 – July 2014 period has been received and is under review.**

- **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. A topographical survey of the site was conducted. 90% construction designs are in the process of being updated and additional permeability tests showed acceptable on-site infiltration rates. Alternative drainage conveyance into the sewer system will not be required.. The total project value is \$448,803; \$75,000 has been invoiced to date as **startup fund and subsequent bills have been deducted from the fund. \$21,825 remains available in Audubon's startup fund.**

- **Regional Plan Association**

Two Sponge Park™ bioretention basins were completed in June 2013 and monitoring will begin in spring 2014. Monitoring equipment was installed and data collection testing began in the fall of 2013. **After a pause in winter, data collection resumed in spring 2014 and is currently ongoing.** The total project value is \$600,000; **\$430,594** has been invoiced through **June 2014.**

- **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.. Construction began in April and all major structures for the eleven bioswales were completed by June. Trees and herbaceous plants were installed in early June and are currently being maintained by the Conservancy and the contractor. Installation of tree guards and other aesthetic details **has been completed and the sites are ready to**

receive monitoring equipment. The total project value is \$583,470 (\$873,470 including EPA Grant); **\$296,463** has been billed through **May 2014**.

- **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 Excav Services and construction began on May 20, 2013. Construction was halted due to the discovery of contaminated soil. **Construction resumed in 2014 with the** segregation and removal of the differing soil. Site grading **progressed and is soon ready to receive inbound soils. Installation of wetland planting and upland vegetation is expected during the next spring planting window.** The total project value is \$504,340; **\$295,865** was invoiced through **June 2014**.

- **Drexel University**

Project was to 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. Due to high bedrock and low infiltration rate, the proposed location at Stratford Ave is being dropped as a viable site. **Alternative sites are currently being evaluated. Bronx High School of Science was submitted as an alternate site and was approved by DEC to proceed with full design. Additional schools are being evaluated and we have reached out to the Department of Education to get their approval to proceed with the further evaluation of potential sites.** The total project value is \$893,493; \$75,000 has been invoiced to date. **Full accounting of project expenses incurred to date is expected in late October 2014. These remaining funds will be used to design, construct, maintain and monitor approved stormwater locations.**

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. **Construction began in April 2014.**

- **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. Construction is anticipated to begin in summer 2014.

Table 16 – 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>
<i>Location:</i>	HP-009 Service Area	Multiple Areas	6th St / 2nd Ave, Brooklyn	Bronx River and Newtown Creek CSO Areas
<i>Description:</i>	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 (\$504,340); NYC Audubon Rego Park Green Streets (\$448,803)	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.
<i>Cost:</i>	Budget: \$850,000 JTD : \$75,000 This Qtr: \$0 Next Qtr: \$0	Budget: \$2,213,583 JTD: \$1,159,376 This Qtr: \$67,967 Next Qtr: \$300,000	Budget: \$583,470 JTD: \$296,463 This Qtr: \$3,927 Next Qtr: \$100,000	Budget: \$250,000 JTD: \$223,244 This Qtr: \$0 Next Qtr: \$0
<i>Status:</i>	Alternative BMP site location review underway	Manhattan College and RPA completed construction and is in the monitoring phase. Construction at Unisphere is ongoing. NYC Audubon is updating 90% designs to reflect soil infiltration investigation	Construction completed July 2014. Monitoring of installations to begin and continue for three years.	Contracts expired Jun 30 2013
<i>Other Issues:</i>	Subsurface Drainage	None	None	Working with Riverkeeper to close out their contract.

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

2013 Projects:

▪ **Pratt Institute**

The green roof and bioinfiltration project, located in the East River/Open Waters watershed, is in design review. The project manages 0.62 acres of impervious area, and has a 1” volume capacity of 9,483 cubic feet. Construction is anticipated to begin in summer 2014.

▪ **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. Construction began in April 2014.

Table 17 – 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	\$442,912	\$658,497	\$236,308
<i>Status:</i>	In Construction	Construction Complete	Design Complete	Design Complete	Construction Complete
<i>Other Issues:</i>	None	None	None	None	None
<i>Total:</i>	2012			2013	
	\$1,271,382			\$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.
 - **Post Construction Monitoring (PCM) Report submitted August 2014.**
- ◆ Hutchinson River Green Infrastructure Demonstration Project (EBP Funded)
 - ROW construction completion certified April 30, 2013.
 - Ongoing monitoring of Demonstration Area projects.
 - **Post Construction Monitoring (PCM) Report submitted 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.
 - **Post Construction Monitoring (PCM) Report submitted August 2014.**

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

During the Third Quarter of 2014, design and construction work continued in three Green Infrastructure Program areas. Green Infrastructure design and construction work is focused in the following CSO Tributaries: Bronx River, East River/Open Waters, Flushing Bay, Flushing Creek, Gowanus Canal, Hutchinson River, Jamaica Bay, Newtown Creek, and Westchester Creek. The Right-of-way Area-wide Green Infrastructure contracts design and build thousands of Right-of-way Bioswales, Right-of-way Rain Gardens and Stormwater Greenstreets (ROWBs, ROWRGs and SGSs). The Public On-site Retrofit and Green Infrastructure Grant Programs design and build a range of green infrastructure practices on public and private property.

Table 18 – 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 Only</i>	HP-024	Hutchinson River	Post-construction monitoring	EBP	\$658,383	None
<i>Area 2 ROW & Onsite</i>	26W-003	Jamaica Bay	Post-construction monitoring	NA	\$1,512,425	None
<i>Area 3 ROW & Onsite</i>	NCB-015	Newtown Creek	Post-construction monitoring	EBP	\$1,649,008	None

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

***Final** Design, construction and post-construction monitoring costs.

Design and Construction Work Performed During This Quarter

- Right-of-way Area-wide Green Infrastructure Contracts:
 - **Continued design and construction in 18 Priority CSO Tributary Areas (~20,000 acres gross area)**
 - **18 areas are in design**
 - **3 of the 18 areas are also in construction.**
 - **Began design in 10 new Priority CSO Tributary Areas (4,135 acres gross area)**
 - **Completed construction in one Priority CSO Tributary Area.**
- Public Property Retrofit Program:
 - **Began design of two projects.**
 - **Completed design of one project.**
 - **Began construction of one project.**
 - **Completed construction of two onsite projects.**
 - Continued identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and NYCHHC.
- Green Infrastructure Grant Program:
 - Continued funding agreement and design review for 2011, 2012, 2013, and 2014 grant recipients.

Anticipated Design and Construction Activities for Next Quarter

- Right-of-way Area-wide Green Infrastructure Contracts:
 - **Continue design and construction in 28 Priority CSO Tributary Areas (24,136 gross acres).**

- **28 areas in design.**
- **3 of the 28 areas also in construction.**
- **Begin design in one Priority CSO Tributary Area (3,232 acres gross area).**
- Public On-site Retrofit Program:
 - **Continue design of two projects.**
 - **Continue construction of one project.**
 - Continue identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and NYCHHC.
- Green Infrastructure Grant Program:
 - Continue funding agreement and design reviews for 2011, 2012, 2013 and 2014 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 2014** 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.

Green Infrastructure Meetings

- July 10, 2014: Presentation at NYCSBS NYC Business Solutions Quarterly meeting (25 attendees)
- July 21, 2014: Presentation to Bronx Community Board 9 District Manager (2 attendees)
- July 22, 2014: EPA Climate Resiliency Webinar Presentation (800 attendees)
- July 22, 2014: Conference Call with Gowanus Canal Conservancy and Riverkeeper (4 attendees)
- July 24, 2014: Meeting with Gowanus Canal Conservancy and TreesNY (4 attendees)
- July 30, 2014: S.W.I.M. public meeting (20 attendees)
- July 31, 2014: Presentation to Carbon Challenge University and Hospital Partners (20 attendees)
- August 8, 2014: Conference call interview with Queens Zoo (10 attendees)
- August 14, 2014: Meeting with NYSERDA grant applicants (20 attendees)
- August 26, 2014: Green City Force training meeting (40 attendees)
- September 4, 2014: Presentation to Bronx Community Board 9 District Manager (10 attendees)
- September 9, 2014: Presentation to Sunnyside Shines BID (10 attendees)
- September 15, 2014: Presentation at Newtown Creek Superfund CAG Community/Academic meeting (4 attendees)
- September 16, 2014: Meeting with Design Trust for Public Space (25 attendees)
- September 18, 2014: Brooklyn North Community Board Budget Consultation meeting (15 attendees)
- September 23, 2014: Queens Community Board Budget Consultation meeting (20 attendees)
- September 24, 2014: Meeting with Greater London Authority (1 attendee)

LTCP Education and Outreach Activities

- **On September 9, 2014, DEP held a public meeting to present draft alternatives for the Hutchinson River Long Term Control Plan at Co-op City 177 Dreiser Loop, 2nd Floor Auditorium B in the Bronx. The meeting was advertised in local newspapers, posted on the DEP LTCP website and e-mailed to stakeholders. Approximately 15 attendees from the public as well as representatives from DEC and DEP were present.**

Planned Activities Not Conducted During This Quarter

- DEP conducted all planned activities this quarter.

Summary of Comments Received

On September 19, 2014, DEP received a letter from the Stormwater Infrastructure Matters Coalition (SWIM) stating their concerns on the DEP's LTCP process for all waterbodies and comments on the Hutchinson River LTCP. DEP will be preparing a response.

DEP received 11 emails from citizens and citizen group representatives in the third quarter of 2014. Six of these emails were for people who wanted to RSVP for the Hutchinson River meeting on LTCP draft alternatives held on September 9, 2014. Two emails were from citizens requesting to unsubscribe from the mailing list and three e-mails were requests to be added to the mailing list.

5.0 Key Personnel Changes

There were no key personnel changes. The table below provides key personnel as of the **First Quarter of 2014**.

Table 19 – 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 Tbd 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 Kharivala 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 **September 24, 2014** CSO Quarterly Meeting are summarized below.

Table 20 – Action Items from Quarterly Progress Meeting

<i>Planning Area</i>	<i>Responsible Party</i>	<i>Required Action</i>	<i>Status</i>
Inner Harbor	DEP	<ul style="list-style-type: none"> • Ensure coordination between LTCP and Superfund for planning/design of CSO tanks 	In Progress
	DEP	<ul style="list-style-type: none"> • Provide operational data on inflatable dam at regulator B-6 	In Progress
Newtown Creek	DEP	<ul style="list-style-type: none"> • Submit wetlands permit application for Newtown Creek/East Branch enhanced aeration project 	In progress
	DEP	<ul style="list-style-type: none"> • Submit mod request for Newtown Creek floatables control/bending weir NTP milestone 	In progress
Jamaica Bay	DEP	<ul style="list-style-type: none"> • Provide final design for 26th Ward HLMSPs and PSTs as soon as completed, rather than milestone date of December 2014 	In Progress
Flushing Bay/Creek	DEP	<ul style="list-style-type: none"> • Notify DEC when inspection of sagging section of Flushing interceptor will be conducted 	In Progress
	DEP	<ul style="list-style-type: none"> • Provide facility plan for replacement of sagging section of Flushing interceptor when completed. Facility plan and results from structural inspection will be submitted to fulfill requirements of milestone V.I.5 	In Progress
	DEP	<ul style="list-style-type: none"> • Send letter regarding potential impacts to schedule for Flushing Bay dredging design completion 	Completed
	DEP	<ul style="list-style-type: none"> • Provide presentation of alternatives for Flushing Creek prior to public meeting 	Completed
EBPs	DEP	<ul style="list-style-type: none"> • Provide detailed scope and budget for use of \$27K from Newtown Creek GI 	In progress
	DEP	<ul style="list-style-type: none"> • Provide new project proposals for Bronx River watershed EBP 	In Progress
Misc	DEP	<ul style="list-style-type: none"> • Provide briefing on GI Demonstration Projects PCM 	Completed
	DEP	<ul style="list-style-type: none"> • Provide sampling plans for Coney Island Creek, Jamaica Bay and other waterbodies recently or currently being sampled for development of LTCPs 	In Progress
	DEP	<ul style="list-style-type: none"> • Provide sampling data for LTCP waterbodies 	In Progress
	DEP	<ul style="list-style-type: none"> • Consider adding long-term water quality monitoring points in Hutchinson River and Westchester Creek 	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 LTCP due date are shown, work has not yet been initiated as of the reporting quarter. All Waterbody/Watershed Facility Plans (WWFPs) have been approved.

- Alley Creek LTCP: June 2013
 - 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. DEP filed an Article 78 proceeding on February 21, 2014, pursuant to the terms of the Order, to dispute DEC's December 2013 disapproval of DEP's November 2013 Alley Creek LTCP submittal. DEP continues to seek a resolution of this matter with DEC and submitted a revised LTCP on June 30, 2014.
- Westchester Creek LTCP: June 2014 (modified date)
 - Submitted LTCP to DEC on June 30, 2014.
 - **Comments from DEC received September 22, 2014.**
- Hutchinson River LTCP: September 2014
 - **A revised Water Quality and Sewer System Report was submitted to DEC to support the waste load allocation based on revisions to the Westchester County landside loadings that were developed using the County's modeling framework.**
 - **Hutchinson River LTCP submitted on time on September 30, 2014.**
- Flushing Creek LTCP: December 2014
 - Completed all water quality sampling of receiving waters Additional CSO overflow monitoring is being conducted at the major outfall to Flushing Creek (TI-011).
 - **Landside and receiving water modeling ongoing.**
 - **Alternatives evaluations ongoing.**
- Bronx River LTCP: June 2015
 - **Receiving water and sewer sampling program ongoing.**
- Gowanus Canal LTCP: June 2015
 - **Landside and receiving water modeling ongoing.**
 - **Alternatives evaluations ongoing.**
- Jamaica Tributaries and Bay LTCP: June 2015
- Newtown Creek LTCP: June 2015
- Coney Island Creek LTCP: June 2016 (modified date)

- DEC granted DEP's December 11, 2013 modification request to switch this Milestone date with the Westchester Creek LTCP date of June 2016.
- Flushing Bay LTCP: June 2017
 - Receiving water sampling for Flushing Bay has been integrated into the Flushing Creek sampling program.
- Citywide LTCP: December 2017