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

Fourth Quarter 2014 (October 1 to December 31)

January 30, 2015

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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, 2014 and December 31, 2014**.

Critical Events This Quarter

The following critical events occurred this quarter:

- 1. On October 22, 2014, DEP submitted design documents for the 26th Ward Preliminary Treatment Reliability Improvements on the High Level Main Sewage Pumps and responded on December 23, 2014 to comments provided by DEC on November 24, 2014. DEP certified Final Design Completion on December 30, 2014.
- 2. DEP certified Construction Completion of the Paerdegat Dredging project on November 18, 2014; the DEC final inspection meeting was held on November 25, 2014; and the DEC issued a certification of construction compliance on December 1, 2014.
- 3. DEP certified Notice to Proceed (NTP) to Construction for the Jamaica Tributaries Bending Weirs project on December 4, 2014.
- 4. Final Design Completion for the Flushing Bay Regulator Modifications was certified by DEP on December 5, 2014.
- 5. On December 12, 2014, Construction Completion of the Tallman Island Whitestone Interceptor was certified by DEP.
- 6. Notice to Proceed (NTP) to Construction for Wards Island Wastewater Treatment Plant Bar Screen Replacements was certified by DEP on December 23, 2014.
- 7. On December 29, 2014, DEP certified Notice to Proceed (NTP) to Construction for the Flushing Bay Low Lying Sewers Diversion.
- 8. DEP submitted the Flushing Creek Long Term Control Plan (LTCP) on December 30, 2014.
- 9. On December 12, 2014, DEP provided responses to DEC comments on the Final Design of the Westchester Creek Modifications to CSO-29 and CSO-29A; DEC accepted the certification of Final Design on December 15, 2014.
- 10. DEP responded on October 9, 2014 to DEC comments on the Final Design of the Newtown Creek Enhanced Aeration in East Branch and Upper Newtown Creek.
- 11. On November 24, 2014, DEP responded to DEC's September 22, 2014 comments on the Westchester Creek LTCP.
- 12. On December 22, 2014, DEP responded to DEC's September 22, 2014 request for proposals for the Environmental Benefits Project in the Bronx River watershed and additional information on expenditures by Drexel University. DEC approved the proposal in a letter sent December 23, 2014.

- 13. On October 31, 2014, DEP requested a modification request for the Notice to Proceed (NTP) to Construction milestone for the Newtown Creek Bending Weirs/Floatables Control project; this was approved by DEC on November 21, 2014.
- 14. DEP submitted the partial design for Flushing Bay Dredging on November 26, 2014 per the DEC permit; DEC provided comments on December 23, 2014.
- 15. On November 19, 2014 DEC approved DEP's request to modify the Construction Completion milestone dates for the Gowanus Flushing Tunnel and Pump Station Reconstruction to February 28, 2015.

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 2, 2014 at DEC Region 2 Offices at 47-40 21st St, **Queens, NY** 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 (Oct – Dec 2014)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Paerdegat Basin	Dredging	March 2015	Construction Completion	Accepted by DEC on Dec 1, 2014
Jamaica Tributaries	Bending Weirs	Dec 2014	Notice to Proceed to Construction	Submitted Dec 4, 2014
Flushing Bay	Regulator Modifications	Dec 2014	Final Design Completion	Submitted Dec 5, 2014
Flushing Bay	Diversion of low lying sewers/raise weir BB-R02	Dec 2014	NTP	DEP certified on Dec 29, 2014
Flushing Bay	Tallman Island Whitestone Interceptor	Jul 2015	Construction Completion	DEP certified on Dec 12, 2014
Wards Island*	Replacement of screens at Manhattan and Bronx grit chambers	Dec 2014 *	NTP	DEP certified on Dec 23, 2014
Jamaica Bay*	26 th Ward Preliminary Treatment Reliability Improvements	Dec 2014*	Final Design Completion	DEP certified on Dec 30, 2014

^{*} This project is subject to a modification to the CSO Order related to the Wards Island and 26th Ward WWTPs that is pending final execution by DEP and DEC. Upon final execution of the modification, DEP will include further details on the Wards Island project in this quarterly report.

Major Actions Next Quarter

The following major actions are expected to occur between **January** and **March 2015**:

Hold the next Quarterly Progress Meeting between DEC and DEP on March 6, 2015 at DEP's offices in Kingston, 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 (Jan – Mar 2015)

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Flushing Bay Dredging Mar 2015 I		Submittal of Final Dredge Designs and Modification Request	On Schedule	
Inner Harbor	Gowanus Flushing Tunnel	Feb 2015	Construction Completion	On Schedule
Inner Harbor	Gowanus Flushing Tunnel	Feb 2015	Construction Completion	On Schedule
Paerdegat Basin	Dredging	March 2015	Construction Completion	Completed and Accepted by DEC on Dec 1, 2014
Jamaica Bay	26 th Ward HLSS	March 2015	Construction Completion	On Schedule

^{*}This project is subject to a modification to the CSO Order related to the Wards Island and 26th Ward WWTPs that is pending final execution by DEP and DEC. Upon final execution of the modification, DEP will include further details on the Wards Island project in this quarterly report.

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 Canal Flushing Tunnel Modernization	Modification Request	Replacement of bar screens in Flushing Tunnel	Construction Completion Sep 2014 (FT) and Nov 2014 (PS)	Modification Request Approved by DEC on November 19, 2014, noting consideration of force majeure events. Modified date for FT and PS is now February 28, 2015.

LOCATION/ PROJECT AREA	ITEM DESCRIPTION	ACTION(S)	REASON FOR ACTION(S)	MILESTONE DATE	STATUS
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	Force Majeure granted on Apr 11, 2014. Final decision as to completion date pending
Jamaica Bay	26 th Ward WW Stabilization	Modification Request Mar 1, 2013	Delay incurred related to procurement of designer	April 2013	New Order on Consent pending

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%
	Gowanus Flushing Tunnel Modernization	Feb 2010	Feb 2015 ⁽⁵⁾	Feb 2015	97%	87%
Inner Harbor	Gowanus Pumping Station Reconstruction	Feb 2010	Feb 2015 ⁽⁵⁾	Feb 2015	97%	87%
	Dredging of Gowanus Canal	TBD ⁽²⁾	TBD ⁽²⁾	TBD ⁽²⁾	-	-
Paerdegat	Structures and Equipment	Sep 2005	May 2011	Certified May 2011	100%	100%
Basin	Dredging of Paerdegat Basin	Mar 2013	Mar 2015	Certified Nov 2014	88%	100%
	Tallman Island Whitestone Interceptor	Dec 2011	Jul 2015	Certified Dec 2014	84%	95%
	Tallman Island Flushing Interceptor	TBD	TBD	-	-	-
Flushing	Divert Low-Lying Sewers	Dec 2014	Dec 2016	Dec 2016	0%	0%
Bay	Raise Weir BB-R02	Jun 2014	Dec 2016	Dec 2016	20%	0%
	Regulator Modifications	Dec 2015	Jun 2018	Jun 2018	ı	ı
	Environmental Dredging of Flushing Bay	Mar 2016	TBD ⁽³⁾	TBD ⁽³⁾	-	-
	Destratification Facility	Sep 2010	Mar 2012	Certified Mar 2012	100%	100%
Jamaica Tributaries	Parallel 48-Inch Siphon / Interceptor	Aug 2014	Feb 2017	Feb 2017	13%	10%
	Bending Weirs	Dec 2014	Jun 2016	Jun 2016	0%	0%
Coney Island	Avenue V Pumping Station Upgrade	Nov 2005	Jun 2012	Certified Jun 2012	100%	100%
Creek	Avenue V Force Mains	Jul 2007	Jun 2012	Certified Jun 2012	100%	100%
Newtown	Enhanced Aeration Lower English Kills	Apr 2013	Mar 2014	Recertified May 2014	100%	100%
Creek	Enhanced Aeration East Branch, Upper Newtown	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	0%	0%
	GI Demonstration	Oct 2012	May 2013	Certified May 2013	100%	100%
Westchester	Modifications to CSO-29 and CSO-29A	Dec 2015	Dec 2019	Dec 2019	-	-
Creek	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%
	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	-	-
Jamaica Bay	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⁾	18%	-
	26 th Ward Stabilization of PSTs #1to 4	Dec 2017 ⁽⁴⁾	Jul 2019 ⁽⁴⁾	Nov 2019 ⁽⁴⁾	-	-
	Rockaway WWTP Conveyance Improvements		Dec 2017	Dec 2017	-	-

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

⁽²⁾ **This project is on hold per the Order on Consent**, dredging NTP is due three years from effective date of permit (EDP) (DEC and USACE) and completion within five years of EDP.

⁽³⁾ Dredging; completion milestone to be submitted as part of the final permit modification request per the DEC permit.

⁽⁴⁾ Modifications to the CSO Order related to the Wards Island and 26th Ward WWTPs are pending final execution by DEP and DEC (specifically Appendix A milestones XII.K.5 through 8).

⁽⁵⁾ Milestone Date for both the Flushing Tunnel and Pump Station Milestones were modified to February 28, 2015.

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.

Phase I, Stage 2 ER - AC2Contract ID Plan Elements Alley Creek CSO Abatement Facilities Location Northern Boulevard and Alley Park in Bayside, Queens Construction of CSO abatement facilities, including modifications to the Old Douglaston Pumping Station; hydraulic control structures and facilities to activate Actions the 5 MG CSO storage facility constructed under Phase I, Stage 1; and rehabilitation of the CSO Outfall TI-008 structure. \$35,629,594 Cost Certification accepted Sep 25 2012 Status None – all projects in this planning area have been certified and accepted Other Issues

Table 5 – Alley Creek CSO Projects

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, Gl, 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
 - No activities in this 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.

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) There have been 109 anchors removed to date. G Contractor still needs to remove approximately 70 anchors remaining south of Carroll Street Bridge. Removal of remaining anchors has been on hold per EPA.

- The Interim Wastewater Pumping Station (IWWPS) All Interim Services have been decommissioned. VFD Trailers, Interim Rudox Generator and Interim Electrical Equipment have been moved off-site. E Contractor completed demolition and removal of the Interim ductbank along the east side of the site and along the bulkhead of the canal.
- Flushing Tunnel Building: The G Contractor continued repointing of exterior brick masonry on the East and South sides 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 completed installation of HVAC Ductwork. Contractor also installed 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 H Contractor continued the installation of Automatic Temperature Controls conduit and wire throughout the Service Building. The G Contractor also began installation of all doors and hardware. 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 E and the G Contractors successfully installed and tested the Duperon Flexrake Mechanical bar screen in the Courtyard Chamber on November 21, 2014.
- CSO Screening Area The G Contractor successfully tested the CSO Level and Screening Control System with the third successful test occurring on December 24, 2014. The G Contractor completed installation of exterior face brick and limestone keystone for the north portion of the Butler Street wall. G contractor also excavated and installed site drainage piping and structures along the canal bulkhead.

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: Complete exterior restoration at the Flushing Tunnel Building. Perform 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. Install exterior lighting on the North side of the Service Building. Continue site drainage installation. Continue site restoration. Commence restoration of Butler Street.
- CSO Area: Successful start-up and acceptance testing of CSO Level Control System was completed on December 24, 2014.

Table 6 – Inner Harbor CSO Projects

	Dredging of Gowanus Canal	Gowanus Canal Pumping Station and Flushing Tunnel
Contract ID	CSO-DRDG/DRG-GC	CSO-GC
Plan Elements	Dredging Gowanus Canal Head End	Rehabilitation of Pumping Station and Flushing Tunnel
Location	Gowanus Canal	Gowanus Pumping Station Property Brooklyn
Actions	Dredging in Gowanus Canal	Wastewater Pumping Station and Flushing Tunnel Pumping System upgrades
Construction Cost	\$13,100,000 (based on concept design)	\$160,334,214
Status	Design on hold	In Construction
Other Issues	Design on Hold	Force Majeure and Modification Request related to Superstorm Sandy. Modification request for replacement of bar screens related to Flushing Tunnel.

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
 - Design work is complete.

Construction Work Performed During This Quarter

- Environmental Dredging
 - Construction is complete. DEC accepted the certification of Construction Completion of the Paerdegat Dredging project on December 1, 2014.

Anticipated Design Activities for Next Quarter

None anticipated; the project is complete.

Anticipated Construction Activities for Next Quarter

None anticipated; the project is complete.

Table 7 – Paerdegat Basin CSO Projects

	Phase III	Dredging
Contract ID	CSO – 5	DRG-PB
Plan Elements	Structures and Equipment	Environmental Dredging
Location	West Shore of Paerdegat Basin	Head end of Paerdegat Basin
Actions	Minor items and documentation	Dredge bottom sediments to finish depth of three ft. below MLLW
Construction Cost	\$ 207,324,114	\$8,884,940
Status	DEC formally accepted construction completion on Aug 24 2012.	Construction completion accepted by DEC on Dec 1 2014
Other Issues		

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 is complete and the final draft is under review. 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
 - NTP at risk letter issued to Contractor. Letter issued to DEC on December 29, 2014.
- Regulator Modifications
 - Completed CEQR review.
 - Completed design.
- Environmental Dredging

The final design phase of the project continued, including:

- DEP submitted the partial design for Flushing Bay Dredging on November 26, 2014 per the DEC permit Condition No. 4; DEC provided comments on December 23, 2014.
- 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 NWPs 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 modification of Regulator 13 and certified construction completion.
 - Continued 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 be finalized.
- Divert Low-Lying Sewers
 - Contract is expected to be awarded.
- Regulator Modifications
 - Address DEC comments, if any.
- Environmental Dredging
 - Respond to DEC comments on the partial design submission.
 - Continue work on final design, including development of the permit re-verification package for USACE and the permit modification request for DEC.

Anticipated Construction Activities for Next Quarter

- Tallman Island Whitestone Interceptor
 - None, construction completed and certified on December 12, 2014.

Table 8 – Flushing Bay CSO Projects

	Tallman Island Whitestone Interceptor	Tallman Island Flushing Interceptor	Divert Low- Lying Sewers / Raise Weir BB- R02	Regulator Modifications	Environmental Dredging of Flushing Bay
Contract ID	TI-WW-1	TBD	CS-FB-LLD	CS-FB-BWR	CSO-DRDG DRG-FB
Plan Elements	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 -	Bowery Bay High Level Interceptor regulator modifications at 10 regulators	Environmental Dredging
Location	From existing junction	From MH 45 at Whitestone	Regulator BB- 02. Berrian	Five of ten regulators along	Proximate to CSO Outfalls

	chamber at 11 th	Expressway to	Blvd and 19 th	108 th street,	BB006 and
	Ave / 130 th St	MH 29 at	Ave between	Ditmars Blvd	BB008
	to the WWTP,	Ulmer Street	43 rd St. and 45 th	and the	
	College Point,	and 25 th	St.	LaGuardia	
	Queens	Avenue		Airport site	
					Dredge bottom
					sediments to
Actions					final depth of 4
					ft. below
					MLLW
					\$37,900,000
Cost	\$22,071,512	TBD	\$5,610,000	\$41,400,000	(based on 90%
					Design)
Status	Construction Completed	TOC (PW-088- 03) issued for potential design activities described above	In Design	In Design	In Design
0.1	FM submitted				
Other	Nov 19 2012				None
Issues	(Superstorm				NOILC
	Sandy)				

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
 - Continued design services during construction (DSDC).

- Bending Weirs
 - Commenced DSDC.

Construction Work Performed During This Quarter

- Parallel 48-inch Siphon/Interceptor
 - Continued mobilization, site preparation and obtaining necessary approvals.
- Bending Weirs

Issued NTP to contractor on December 4, 2014.

Anticipated Design Activities for Next Quarter

- Parallel 48-inch Siphon/Interceptor
 - Continue DSDC.
- Bending Weirs
 - Continue DSDC.

Anticipated Construction Activities for Next Quarter

- Parallel 48-inch Siphon/Interceptor
 - Continue contractor mobilization & commence construction work.
- Bending Weirs
 - Contractor mobilization.

Table 9 – Jamaica Tributaries CSO Projects

	Destratification Facility	Parallel 48-inch Siphon / Interceptor	Bending Weirs	
Contract ID	CSO-JT-SB	CS-JA-BBS	CS-JA-BWR	
Plan Elements	Destratification	Parallel 48-inch Sewer	Bending Weirs	
Location	Shellbank Basin Queens	Belt Parkway Queens	Regulator J6 on the East Interceptor and regulators J3 and J14 on the West Interceptor	
Actions	Construct Permanent Facility	Design and construct system upgrades	Design and construct system upgrades	
Construction Cost	\$2,776,054	\$20,256,909	\$6,853,955	
Status	Complete	Construction	Construction	
Other Issues	Certification Accepted Jul 23 2012		Contractor NTP Issued	

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

	Avenue V Pumping Station Upgrade	Avenue V Force Mains
Contract ID	PS-79G, H, P, E	PS-79F
Plan Elements	Upgrade Pumping Station	42-inch and 48-inch force mains
Location	Avenue V and West 11th Street Brooklyn	Shore Parkway to Regulator 9A Brooklyn
Actions	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
Construction Cost	\$80,213,297	\$116,818,080
Status	Certification Accepted Oct 23 2012	Certification Accepted Oct 23 2012
Other Issues		

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
 - o 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). **Design of open space for East Branch Aeration** (NC-3) was finalized. **DEP legal review of the contract was completed and submitted to NYC Law Department for approval. Submission of project permits are underway.**
 - Completed 30% design and continued the design of the project toward 60% completion for the Enhanced Aeration in Dutch Kills and portions of Newtown Creek project (NC-4). 60% design completion expected in January 2015.
- Bending Weirs and Floatables Control
 - Completed legal review of the contract documents.
 - Initiated procurement phase which included bid solicitation and receipt of bids from interested construction contractors.
 - Work continued 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.

3-17

- 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
 - Continue procurement phase activities to include evaluation of received bids, contractor selection and registering of construction contract.

Table 11 - Newtown Creek CSO Projects

	Enhanced Aeration 1	Enhanced Aeration 2	Enhanced Aeration 3	Bending Weirs / Floatables Control
Contract ID	CSO-NC-2	CSO-NC-3	CSO-NC-4	CS-NC-REG & FLO
Plan Elements	Enhanced Aeration	Enhanced Aeration	Enhanced Aeration	Floatables Controls and Overflow Reduction
Location	Lower English Kills	East Branch and Upper Newtown Creek	Dutch Kills and Lower Newtown Creek	Dutch Kills, Maspeth Creek, English Kills and East Branch
Actions	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
Construction Cost	\$1,769,000	\$14,676,445	\$26,147,164	\$38 Million
Status	Construction	Design	Design	Initiated Procurement Phase
Other Issues		Potential delay to NTP if approval of design is not timely provided by NYC Public Design Commission and/or City Planning		Milestone for NTP modified to May 2015.

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.
 - Issue: Potential conflict between Con Edison and DEP regarding relocation of utilities. Specifically, Con Edison informed DEP that the electric and natural gas utilities in the project area were located within an easement under which all costs associated with the relocation, support, and protection of the utilities were to be borne by the property owner. However it is DEP's understanding that pursuant to NYC Administrative Code public utilities are required to bear the costs of relocating, supporting, and protecting utility installations that are affected by public construction projects. Therefore DEP plans to send a formal directive to Con Edison in January 2015.
- Pugsley Creek Parallel Interceptor
 - Preliminary Design is approximately **30%** 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
 - Preliminary Plans to be finalized and alignment meeting to be held.

Table 12 – Westchester Creek CSO Projects

	Modifications to CSO-29 and CSO-29A	Pugsley Creek Parallel Interceptor start from CSO-24
Contract ID	CS-ER-WCM	CS-ER-WCP
Plan Elements	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
Location	Eastchester Road, Bronx	Classon Point, Bronx
Actions	Design	Continue Design at DDC
Construction Cost	\$15.3 Million	\$65.8 Million (Estimated)
Status	Final Design completed and approved by DEC	Preparation of design drawings to commence
Other Issues	Potential delay related to relocation of utilities	

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-1which 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.

Contract ID

ER – BR – 1

Plan Elements
Floatables Control Facilities at CSO Outfalls HP-004, HP-007 and HP-009

Location
West Farms Road, Bronx Park Avenue, Bronx Zoo, Soundview Park

Design and construction of floatables control facilities for CSO Outfalls HP-004, HP-007 and HP-009

Construction Cost
\$29,025,336

Status
Certification accepted Jun 24 2013

Other Issues

Table 13 – Bronx River CSO Projects

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

	Waste Load Allocation Field Sampling
Contract ID	LTCP1
Plan	Surface water and discharge outfall water quality sampling and characterization to
Elements	develop Waste Load Allocation (WLA) for the Hutchinson River
Location	Hutchinson River
Actions	
Construction	n/a
Cost	11/ a
Status	Completed
Other	
Issues	

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
 - Design amendments required due to direct interference between existing 60" trunk water main and proposed HLSS 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. Drainage plan needed to be amended as well to show large storm sewer siphons.
 - 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
 - Resolution of NOV related to April 2013 milestone for initiation of design is 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.
 - Submit final design for PST work (26W-20) to DEC for review.
 - Certified proposed milestone XII.K.5 (this milestone is included in the proposed modification to the CSO Order on Consent which is pending final execution by DEP and DEC).

Construction Work Performed During This Quarter

- Hendrix Street Canal Dredging
 - Draft Post Dredge Monitoring Report No. 4 was submitted to DEC.

- Completed water quality sampling, as well as benthic and bathymetric surveys within the Canal to allow for 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 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. 5 to DEC.
- 26th Ward Wet Weather Stabilization (LL MSPs)
 - Complete startup and testing of Pump #5.

Table 15 – Jamaica Bay CSO Projects

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	Hendrix Creek Dredging	Rockaway WWTP Conveyance Improvements	26 th Ward HLSS	26 th Ward Wet Weather Stabilization
Contract ID	CSO-HC	Project not yet initiated	CS-FB-SEW	26W-12 (CO 128) 26W-20
Plan Elements	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
Location	Hendrix Creek, Brooklyn	Rockaway WWTP, Queens	Fresh Creek, Brooklyn	26 th Ward WWTP, Brooklyn
Actions	None	None	None	-
Construction Cost	\$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
Status	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)
Other Issues				Modifications to milestones have been conceptually agreed to and DEP awaits NYC Comptroller approval of corresponding new Order on Consent.

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 ParkTM 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.

Table 16 – 2008 Modified CSO Consent Order Environmental Benefits Projects

Plan Elements:	Bronx River	Flushing Bay and Creek	Gowanus Canal	DEC US Forestry Service Grant
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 (\$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.
Cost:	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
Status:	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
Other Issues:	Subsurface Drainage	None	None	Working with Riverkeeper to close out their contract.

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 expects to certify in early January that it has fulfilled this requirement with a commitment of \$3,002,958 to nine grantees.

2012 Projects:

Albert Einstein College of Medicine

The 12,589 square foot green roof, located in the Westchester Creek watershed is in construction. 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, has completed designs. 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 submitted final 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 construction. The project manages 0.3 acres of impervious area, and has a 1" volume capacity of 4,653 cubic feet.

2014 Projects:

ATCO Properties

The green roof, located in the East River/Open Waters watershed, will manage 3,888 square feet of impervious area and has a 1" volume capacity of 324 cubic feet.

SoBro Jasmine Court

The green roof, located in the East River/Open Waters watershed will manage 5,868 square feet of impervious area and has a volume capacity of 324 cubic feet of water.

SoBro Venture Center

The green roof, located in the East River/Open Waters watershed will manage 16,750 square feet of impervious area and has a volume capacity of 2835 cubic feet of water.

Ballet Tech Foundation

The green roof, located in the East River/Open Waters watershed will manage 5,040 square feet of impervious area and has a volume capacity of 420 cubic feet of water.

Table 17 – 2012 Order - EBP Green Infrastructure Grant Program Projects

2012 Projects Albert Einstein 1	Location:	Description:	Cost:	Funding
Albert Einstein 1				Agreement Date:
	300 Morris			
College of	Park Ave.	Green Roof	\$503,470	12/26/12
	Bronx, NY			
	55 5 th Ave.	Green Roof	\$325,000	11/00/10
	w York, NY		++,	11/20/12
St. Luke and St. 5 Matthew	20 Clinton Ave.	Rain Garden and Porous	\$290, 273	12/26/2012
	rooklyn, NY	Pavement	\$290, 213	12/20/2012
Subtotal	, , , , , , , , , , , , , , , , , , ,		\$1,118,743	
			. , ,	
2013 Projects				
Pratt Institute	200 Villoughby Ave. ooklyn, NY	Green Roof and Rain Garden	\$658,497	12/23/13
Banana Kelly	6-922 Kelly St. Bronx, NY	Green Roof and Rain Garden	\$236,308	9/13/13
Subtotal	,		\$894,805	
2014 Projects				
ATTGG 55	5 5th Ave.			
ATCO Properties	New York, NY	Green Roof	\$192,184	12/18/14
Court I	59 E. 138th St. Bronx, NY	Green Roof	\$182,695	12/18/14
SORro: Venture	99 Lincoln renue Bronx, NY	Green Roof	\$153,876	12/18/14
	0 Broadway w York, NY	Green Roof	\$308,016	12/18/14
2015 Amendment expected				
Amendment to St. Luke and St. 5 Matthew	20 Clinton Ave. rooklyn, NY	Rain Garden and Porous Pavement	\$152,639	Planned for January 2015
0.14			\$989,410	
Subtotal				

Project Name	Location:	Description:	Cost:	Status:	Other Issues:
		2012	Projects		
Albert Einstein College of Medicine	1300 Morris Park Ave. Bronx, NY	Green Roof	\$503,470	Construction Complete	None
New School University	65 5 th Ave. NY, NY	Green Roof	\$325,000	Construction Complete	None
St. Luke and St. Matthew Church	520 Clinton Ave. Brooklyn, NY	Rain Garden and Porous Pavement	\$442,912*	Designs Final	None
		2012 Subtotal	\$1,271,382		
		2013	Projects		
Pratt Institute	200 Willoughby Ave. Brooklyn, NY	Green Roof and Rain Garden	\$658,497	Designs Final	None
Banana Kelly CIA	916 -922 Kelly St. Bronx, NY	Green Roof and Rain Garden	\$236,308	Construction Complete	None
		2013 Subtotal	\$894,805		
		2014	Projects		
ATCO Properties	555 5th Ave. New York, NY	Green Roof	\$192,184	Construction Complete	None
SoBro: Jasmine Court	759 E. 138th St. Bronx, NY	Green Roof	\$182,695	Designs Final	None
SoBro: Venture Center	199 Lincoln Avenue Bronx, NY	Green Roof	\$153,876	Designs Final	None
Ballet Tech Foundation	890 Broadway New York, NY	Green Roof	\$308,016	Designs Final	None
		2014 Subtotal	\$836,771		
		Fin	al Total	\$3,002,958	

^{*}Revised costs per final designs.

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 **Fourth** Quarter of 2014, design and construction work continued in three Green Infrastructure Program areas. First, Area-wide 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). Second and third, 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

Neighborhood Demonstration Area	CSO Tributary Area	Waterbody	Construction Status	EBP	Cost*	Status	Other Issues
Area 1 ROW Only	HP-024	Hutchinson River	Post-construction monitoring	EBP	\$658,383	Complete	None
Area 2 ROW & Onsite	26W-003	Jamaica Bay	Post-construction monitoring	NA	\$1,512,425	Complete	None
Area 3 ROW & Onsite	NCB-015	Newtown Creek	Post-construction monitoring	EBP	\$1,649,008	Complete	None

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

Design and Construction Work Performed During This Quarter

- Right-of-way Area-wide Green Infrastructure Contracts:
 - Continued design and construction in 28 Priority CSO Tributary Areas (~24,000 gross acres)
 - 28 areas are in design
 - 6 of the 28 areas are also in construction.
 - Began design in 1 new Priority CSO Tributary Areas (~3,000 gross acres)
- Public Property Retrofit Program:
 - Continued design of two projects.
 - Continued construction of one project.
 - Continued identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and other city-owned property.
- 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 29 Priority CSO Tributary Areas (~27,000 gross acres).
 - 29 areas in design.
 - 6 of the 28 areas also in construction.
- Public On-site Retrofit Program:

^{*}Final Design, construction and post-construction monitoring costs.

- Continue design of two projects.
- Complete 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 **Fourth 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

October 9, 2014: Presentation at NYCLV Panel (80 attendees)

October 15, 2014: Sandy Recovery & Resource Fair (50 attendees)

October 16, 2014: Bronx Grant Workshop (5 attendees)

October 17, 2014: Presentation at APA Panel (~100 attendees)

October 21, 2014: Brooklyn Grant Workshop (10 attendees)

October 22, 2014: NYC Soil and Water Conservation District GI Tour (20 attendees)

October 22, 2014: Gowanus Canal Cleanup meeting (40 attendees)

October 22, 2014: Manhattan Grant Workshop (10 attendees)

October 28, 2014: Queens and SW Calculations Workshop (15 attendees)

October 30, 2014: S.W.I.M. Public Meeting (30 attendees)

December 4, 2014: Water Infrastructure Steering Committee (20 attendees)

December 15, 2014: NRDC GI Tour (4 attendees)

December 22, 2014: Brooklyn CB 6 meeting (20 attendees)

LTCP Education and Outreach Activities

 On October 23, 2014, DEP held a public meeting to present draft alternatives for the Flushing Creek LTCP at the Al Oerter Recreation Center, 131-40 Fowler Ave, Queens. The meeting was advertised in local newspapers, posted on the DEP LTCP website and e-mailed to stakeholders. Approximately 26 attendees from the public as well as representatives from DEC and DEP were present.

- On November 19, 2014, DEP held the Gowanus Canal LTCP Kick-Off at PS 32, 317 Hoyt Street, Brooklyn NY 11231. The meeting was advertised in local newspapers, posted on the DEP LTCP website and e-mailed to stakeholders. Approximately 51 attendees from the public as well as representatives from DEC and DEP were present.
- On December 11, 2014, DEP held the 3rd Annual Citywide Public Meeting at Hostos Community College, 500 Grand Concourse, Bronx, NY 10451. The meeting was advertised in local newspapers, posted on the DEP LTCP website and e-mailed to stakeholders. Approximately 32 attendees from the public as well as representatives from DEC and DEP were present.
- On December 15, 2014, DEP conducted an interagency briefing to the New York City Department of City Planning DCP.

Planned Activities Not Conducted During This Quarter

DEP conducted all planned activities this quarter.

Summary of Comments Received

DEP received comments (via e-mail) on the Flushing Creek alternatives from the following: Vince DeCapio; Friends of Flushing Creek; Empire Dragon Boat Team; and the SWIM Coalition. The Bronx Council for Environmental Quality submitted comments on the Citywide Public Meeting.

In addition, DEP received 7 additional emails from citizens and citizen group representatives in the fourth quarter of 2014. Six of these emails were for people who wanted to RSVP for the Flushing Creek, Gowanus Canal and Citywide public meetings. One e-mail was a request 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 **Fourth Quarter of 2014**.

Table 19 - Key DEP Personnel for Contracts Subject to the CSO Consent Order

Dii A	Duningt	<u>DE</u>	DEP Responsible Personnel			
Planning Area	Project	Bureau	Chief	APM		
Alley Creek	All projects complete	-	-	-		
Outer Harbor	All Projects Complete	-	-	-		
	CSO-DRDG: Gowanus Dredging	BEDC	Tysvaer	Chao		
Inner Harbor	CSO-GC: Flushing Tunnel	BEDC	Clarke	Joseph		
	CSO-GC: Gowanus PS	BEDC	Clarke	Joseph		
Paerdegat	CSO-5: Storage Facility (Complete)	-	-	-		
Basin	CSO-DRDG: Dredging	BEDC	Tysvaer	N. Shah		
	CSO-DRDG: Dredging	BEDC	Tysvaer	Chao		
	PW-088 Assn. 2B: Flushing Interceptor	BWT	Lochan	Tbd		
Flushing	CS-FB-LLD: Low-Lying Sewers	BWSO	Barbaro	Gordon/Shah		
Bay	CS-FB-LLD R2 Weir	BEDC	Tbd	Tbd		
	CS-FB-BWR: Regulators	BEDC	Tysvaer	Szeto		
	TI-WW-1: Whitestone Interceptor	BEDC	Solimando	Sadat		
Jamaica	CS-JA-BWR: Bending Weirs	BEDC	Tysvaer	Szeto		
Tributaries	CS-JA-BBS: 48-Inch Sewer	BEDC	Tysvaer	Szeto		
Titoutaires	CSO-JT-SB: Destratification (Complete)	-	-	-		
Coney Island	PS-79F: Ave V Force Main (Complete)	-	-	-		
Creek	PS-79: Ave V Pump Station (Complete)	-	-	-		
	CSO-NC-4: Dutch Kills, Lower Newtown	BEDC	Tysvaer	Meshkati		
Newtown	CSO-NC-3: East Branch, Upper Newtown	BEDC	Tysvaer	Meshkati		
Creek	CSO-NC-2: Enhanced Aeration Lower English Kills	BEDC	Tysvaer	Adabi		
	CS-NC-REG&FLO: Regulators / Floatables Control	BEDC	Tysvaer	Chao		
Westchester	CS-ER-WCM: Modifications to CSO-29 / 29A	BEDC	Tysvaer	Chao		
Creek	CS-ER-WCP: Pugsley Creek Parallel Interceptor	BWSO	Barbaro	Gordon/Shah		
Bronx River	All projects complete	-	-	-		
Hutchinson River	LTCP1: Waste Load Allocation	BWT	Mahoney	Lee		
	CSO-HC: Hendrix Creek Dredging	BEDC	Tysvaer	N. Shah		
Jamaica	CS-FB-SEW: 26th Ward / Fresh Creek HLSS	BWSO	Barbaro	Gordon/Shah		
Bay	CO 26W-128: Low Level Main Sewage Pumps	BEDC	Solimando	Kharivala		
	26W-20: 26th Ward Wet Weather Stabilization	BEDC	Solimando	D'Attile		
	Reconstruction of Main Sewage Pumps (MSP)	BEDC	Moriarty	N. Shah		
Wards Island	Bar Screen Replacement	BEDC	-	-		
	WI WWTP Wet Weather Operating Plan	BWT	Deur	T. Tam		
G.I. Demonstrations	All projects complete	-	-	-		

6.0 Other Issues

Action Items generated during the **December 2, 2014** CSO Quarterly Meeting are summarized below.

Table 20 – Action Items from Quarterly Progress Meeting

Planning Area	Responsible Party	Required Action	Status
Inner	DEP	• Send letter (in early 2015) on problems with inflatable	In Progress
Harbor		dams and proposal for future operation	
Newtown Creek	DEP	 Respond to S. Maresca's 11/7/2014 email on wetlands permit application for enhanced aeration in East Branch and upper Newtown Creek 	Completed
	DEP	 Notify DEC when inspection of sagging section of Flushing interceptor will be conducted 	In Progress
Flushing Bay/Creek	DEP	• Provide conceptual design 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	 Provide new project proposals for Bronx River watershed EBP 	Completed
EBPs	DEP	• Discuss with P. Kenline the use of the remaining EBP funds for NY Hospital green roof	In Progress
	DEP	 Provide sampling plans for Coney Island Creek, Jamaica Bay and other waterbodies recently or currently being sampled for development of LTCPs 	In Progress
	DEP	 Provide flow monitoring and influent sampling data from LTCP sampling efforts 	In Progress
	DEP	Provide location of sampling points for Hutch River	Completed
	DEP	Submit certification letter for GI grant program	Completed
Misc	DEP	Submit revised GI Demo Project PCM report that incorporates DEC comments	Completed
	DEP / DEC	 Conduct quarterly technical meetings on city-wide GI implementation, commencing with the 2014 annual GI report in April 	In Progress
	DEP	 Discuss internally the process for documenting public comments received on LTCPs and provide update to DEC 	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.
 - DEP responded on November 24, 2014 to comments from DEC sent 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).
 - Flushing Creek LTCP submitted on time on December 30, 2014.
- Bronx River LTCP: June 2015
 - Landside and receiving water modeling ongoing.
 - Alternatives evaluations ongoing.
- Gowanus Canal LTCP: June 2015
 - Landside and receiving water modeling ongoing.
 - Alternatives evaluations ongoing.
- 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 2016

- Receiving water sampling for Flushing Bay has been integrated into the Flushing Creek sampling program.
- Jamaica Tributaries and Bay LTCP: June 2017

Newtown Creek LTCP: June 2017

Citywide LTCP: December 2017