

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

**Second Quarter 2014**  
**(April 1 to June 30)**

**July 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 **April 1, 2014 and June 30, 2014**.

### Critical Events This Quarter

The following critical events occurred this quarter:

1. On June 5, 2014, notice of a change in the CSO Consent Order Manager from Keith Mahoney to Keith Beckmann was sent.
2. DEC granted an extension to the milestone for “Submission of Dredging Permit Applications” in a letter dated April 11, 2014 based on a Notice of Force Majeure and Request for Modification that was submitted by DEP (March 7, 2014).
3. On April 11, 2014, DEC granted DEP’s request to exchange milestone dates for submittal of LTCPs for Coney Island Creek (originally due June 30, 2014) and Westchester Creek (originally due June 30, 2015). The Westchester Creek LTCP was submitted on June 30, 2014.
4. DEC approved the final design of the Flushing Bay low lying sewer diversion / weir raising on April 22, 2014.
5. The Green Infrastructure Program Annual Report was submitted on April 30, 2014.
6. A revised certification of construction completion for the Newtown Creek Enhanced Aeration in Lower English Kills was sent on May 9, 2014 and was accepted by DEC on May 13, 2014.
7. Final design completion of the Westchester Creek CSO-29 and 29A modifications was certified by DEP on June 30, 2014.
8. The CSO Post Construction Compliance Monitoring and CSO Retention Facility Overflow Summary Report were submitted to DEC on June 30, 2014.
9. Final design certification of the Newtown Creek Enhanced Aeration in East Branch and Upper Newtown Creek was sent to DEC on June 30, 2014.
10. The revised Alley Creek LTCP was resubmitted on June 30, 2014.
11. The Westchester Creek LTCP was submitted on June 20, 2014.
12. An updated Force Majeure for the Gowanus Canal Flushing Tunnel and Pumping Station Construction was sent to DEC on May 12, 2014.

### 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 **June 2, 2014 at the Hunts Point Waste Water Treatment Plant (WWTP)** 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 (Apr – Jun 2014)**

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
Citywide	Annual Green Infrastructure Report	Apr 2014	Submit Report	Submitted on Apr 30, 2014
Jamaica Bay	26 <sup>th</sup> Ward Wet Weather Stabilization	Apr 2014	NTP	Discussions on NOV resolution continue
Westchester Creek	Modifications to CSO-29 and CSO-29A	Jun 2014	Final Design Completion	Completed on Jun 30, 2014
Westchester Creek	LTCP	Jun 2014	Submit Report	Submitted on Jun 30, 2014
Newtown Creek	Enhanced Aeration in East Branch and Upper NC	Jun 2014	Final Design Completion	Submitted on Jun 30, 2014

### Major Actions Next Quarter

The following major actions are expected to between **July and September 2014**:

Hold the next Quarterly Progress Meeting between DEC and DEP on a date and location to be determined. 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 (Jul – Sep 2014)**

LOCATION / PROJECT AREA	ITEM DESCRIPTION	MILESTONE DATE	ACTION REQUIRED	STATUS
26 <sup>th</sup> Ward, Hutchinson River, and Newtown Creek	GI Demo PCM Report	Aug 2014	Submit Report	On schedule
Jamaica Tributaries	Parallel 48 in Siphon/Interceptor	Aug 2014	Construction NTP	On schedule

Inner Harbor	Gowanus Canal Flushing Tunnel Modernization	Sept 2014	Construction Completion	Mod request to be submitted by July 31, 2014
Inner Harbor	Gowanus Canal Pump Station Reconstruction	Sept 2014	Construction Completion	Mod request to be submitted by July 31, 2014

**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	<b>Update provided May 12, 2013; modification request to be submitted based on new information</b>
Flushing Bay	Tallman Island WWTP	Notice of Force Majeure Nov 19, 2012	Superstorm Sandy	Construction Completion Jul 2015	Under Consideration by DEC
<b>Jamaica Bay</b>	<b>26<sup>th</sup> Ward WW Stabilization</b>	<b>Modification Requested Mar 1, 2013</b>	<b>Delay incurred related to procurement of designer</b>	<b>April 2013</b>	<b>Under discussion between DEC and DEP</b>
Gowanus Canal	Dredging	Notice of Force Majeure on 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 Pending

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 <sup>(1)</sup>
Alley Creek	CSO Retention Facility	Dec 2006	Dec 2009	Certified Mar 2011	100%	100%
Inner Harbor	Gowanus Flushing Tunnel Modernization	Feb 2010	Sep 2014	<b>Nov 2014</b>	85%	78%
	Gowanus Pumping Station Reconstruction	Feb 2010	Sep 2014	<b>Nov 2014</b>	85%	78%
	Dredging of Gowanus Canal	TBD <sup>(2)</sup>	TBD <sup>(2)</sup>	TBD <sup>(2)</sup>	-	-
Paerdegat Basin	Structures and Equipment	Sep 2005	May 2011	Certified May 2011	100%	100%
	Dredging of Paerdegat Basin	Mar 2013	Mar 2015	Mar 2015	42%	25%
Flushing Bay	Tallman Island Whitestone Interceptor	Dec 2011	Jul 2015	May 2015	58%	49%
	Tallman Island Flushing Interceptor	TBD	TBD	-	-	-
	Divert Low-Lying Sewers	Dec 2014	Dec 2016	Dec 2016	-	-
	Raise Weir BB-R02	Jun 2014	Dec 2016	Dec 2016	-	-
	Regulator Modifications	Dec 2015	Jun 2018	Jun 2018	-	-
	Environmental Dredging of Flushing Bay	TBD <sup>(3)</sup>	TBD <sup>(3)</sup>	TBD <sup>(3)</sup>	-	-
Jamaica Tributaries	Destratification Facility	Sep 2010	Mar 2012	Certified Mar 2012	100%	100%
	Parallel 48-Inch Siphon / Interceptor	Aug 2014	Feb 2017	Feb 2017	-	-
	Bending Weirs	Dec 2014	Jun 2016	Jun 2016	-	-
Coney Island Creek	Avenue V Pumping Station Upgrade	Nov 2005	Jun 2012	Certified Jun 2012	100%	100%
	Avenue V Force Mains	Jul 2007	Jun 2012	Certified Jun 2012	100%	100%
Newtown Creek	Enhanced Aeration Lower English Kills	Apr 2013	Mar 2014	Jan 2014	82%	<b>100%</b>
	Enhanced Aeration East Branch, Upper Newtown Cr	Jun 2015	Jun 2018	Jun 2018	-	-

WATERBODY	ITEM DESCRIPTION	NOTICE TO PROCEED	CONSTRUCTION COMPLETION	PROJECTED COMPLETION	% OF TIME ELAPSED	% OF CONSTRUCTION COMPLETED <sup>(1)</sup>
	Enhanced Aeration Dutch Kills, Lower Newtown Cr	Dec 2016	Dec 2019	Dec 2019	-	-
	Bending Weirs / Floatables Control	Dec 2014	Dec 2017	Dec 2017	-	-
	GI Demonstration	Oct 2012	May 2013	Certified May 2013	100%	100%
Westchester Creek	Modifications to CSO-29 and CSO-29A	Dec 2015	Dec 2019	Dec 2019	-	-
	Pugsley Creek Parallel Interceptor	Jun 2016	Dec 2019	Dec 2019	-	-
Bronx River	Floatables Control	Jun 2009	Oct 18 2012	Certified Oct 2012	100%	100%
Hutchinson River	GI Demonstration	Aug 2012	Apr 2013	Certified Apr 2013	100%	100%
Jamaica Bay	Hendrix Creek Dredging	Feb 2010	Feb 2012	Oct 2011	100%	100%
	26 <sup>th</sup> Ward HLSS Phase 1	Mar 2016	Dec 2018	Dec 2018	-	-
	26 <sup>th</sup> Ward HLSS Phase 2	Mar 2018	Dec 2020	Dec 2020	-	-
	26 <sup>th</sup> Ward HLSS Phase 3	Mar 2020	Dec 2022	Dec 2022	-	-
	GI Demonstration 26 <sup>th</sup> Ward	Jun 2012	Dec 2012	Certified Dec 2012	100%	100%
	26 <sup>th</sup> Ward Low Level MSPs	Sep 2012	Apr 2015	Jun 2014	52%	39%
	26 <sup>th</sup> Ward PST#5 and High Level MSPs	Apr 2014	Dec 2017	Aug 2018	-	-
	26 <sup>th</sup> Ward Stabilization of PSTs #1 to 4	Dec 2017	Jul 2019	Nov 2019	-	-
	Rockaway WWTP Conveyance Improvements		Dec 2017	Dec 2017	-	-

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

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

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

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

(4) **26<sup>th</sup> Ward MSPs and PSTs: modification requests in 2013 are under discussion with DEC (specifically Appendix A milestones XII.K.5 through 8).**



### 3.0 Detailed Description of Work Performed

#### 1.1. 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

## 1.2. 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

- 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
    - **DEC granted an extension to the milestone for “Submission of Dredging Permit Applications” in a letter dated April 11, 2014 based on a Notice of Force Majeure and Request for Modification that was submitted by DEP (March 7, 2014). In the letter, DEC concurred that a force majeure existed and stated that DEC will make a final decision on whether the milestone will be deferred or eliminated in the near future.**
    - **Design work was discontinued in this quarter based on a determination by DEP with concurrence from DEC (above referenced force majeure approval) that dredging under the CSO Consent Order has the potential to conflict with the current proposed Superfund remedy.**

### Anticipated Design Activities for Next Quarter

- Environmental Dredging
  - No activities are anticipated in the next quarter (see above).

### Construction Work Performed During This Quarter

- Gowanus Canal – Rehabilitation of Flushing Tunnel (FT) System and Reconstruction of Gowanus Pumping Station.
- Interim Oxygen Transfer System (OTS) - **The Contractor finished removal of the equipment this period by dismantling and removing the oxygenation cone. The G Contractor mobilized barges and boats for the removal of the OTS piping within the canal. The Contractor removed the HDPE OTS discharge piping (approximately 2,500 lf) from within the canal and trucked off-site. Contractor removed 15 concrete anchors and also performed all turbidity monitoring and sampling required by his approved plan.**
- **The Interim Wastewater Pumping Station (IWWPS) was de-energized and the Contractor began disconnecting and dismantling the IWWPS and piping.**
- **The Flushing Tunnel was successfully placed into operation on May 3, 2014 with turbidity monitoring occurring as per the Flushing Tunnel Start Up Plan that was reviewed and accepted by DEC.**
- Flushing Tunnel Building: The G Contractor **completed** work on the rehabilitation of the masonry walls along the north, south and east walls. The contractor also **completed** work on the roof of the building. The E Contractor completed pulling wire and cable for controls and power for the Flushing Tunnel Pumps. Installation of conduit into the Control Room from the Service Building was completed. The E Contractor also **completed** installation of conduit and racks along with north, south and east walls.
- 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 continued with the installation of stainless steel paneling on the exterior of the Service Building. The Contractor also continued the installation of stainless steel louvers at the Generator Room on the 2<sup>nd</sup> 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 1<sup>st</sup> and 2<sup>nd</sup> 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 – Contractor completed the installation of oscillating floatable baffles on the influent side of the dry weather flow channels. The window walls between Outfall Numbers 2 and 3 and Outfall Numbers 2 and 1 were **completed. This includes** installation of formwork, reinforcing steel and placement of concrete for new concrete beams at these locations. **Contractor also demolished the roof slab on the east side of the CSO and placed concrete and reinforcing steel for the new beams and roof slabs. Contractor installed reinforcing steel and placed concrete for the Butler Street Wall foundation. Contractor also delivered and erected the Butler Street wall precast**

**concrete panels. Contractor began demolition of the Interim Wastewater Pumps including removal of all pumps and associated piping. Contractor began installation of temporary flow diversion bulkheads inside the CSO influent channels in order to commence their work inside the dry weather flow channel for the installation of the Type A weirs and horizontal bar screens.**

#### Anticipated Construction Activities for Next Quarter

- **Gowanus Canal – Rehabilitation of Flushing Tunnel (FT) System and Reconstruction of Gowanus Pumping Station**
  - **The Interim Wastewater Pumping System will be dismantled, de-energized and removed from the site.**
  - **The Oxygen Transfer System anchors will be removed, completing the removal of the Interim OTS system.**
  - **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: Installation of HVAC equipment and ductwork.**
  - **Wastewater Pumping Station: The Wastewater Pump Station was successfully tested and started-up on June 20, 2014.**
  - **Service Building: Installation of stainless steel wall panels and louvers. Complete pulling power and control wire. The Emergency Generator was successfully tested and started-up on June 26, 2014. Complete installation of all Electric Unit Heaters. Begin installation of all HVAC temperature control wiring and panels.**
  - **CSO Area: Complete removal of Interim Wastewater Pumping System. Complete the installation of CSO Level Control System Type A and B Weirs, horizontal bar screens and level control system instrumentation and controls. Demolition of existing west side roof slab, installation of new reinforcing steel, grating and concrete for the west side roof slab. Successful start-up and testing of CSO level control system.**

**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>	Design on hold	Wastewater Pumping Station and Flushing Tunnel Pumping System upgrades
<i>Construction Cost</i>	\$13,100,000(based on concept design)	\$156,881.161
<i>Status</i>	In Design	In Construction
<i>Other Issues</i>	DEC is considering whether to defer and/or eliminate this and related subsequent milestones.	<b>Due to impacts from Hurricane Sandy and the issuance of flooding mitigation change orders, the Consent Order date may not be achieved until October 30, 2014.</b>

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

### 1.3. 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 remove old bridge piles. Revised dredge prism was submitted and approved reducing the amount of dredging.

#### Construction Work Performed During This Quarter

- Environmental Dredging
  - Contractor completed the set-up of the site trailers and mobilized his equipment to start dredging at the mouth end. Dredging started Feb 17<sup>th</sup> at the mouth end after the set-up of the silt curtain. Dredging of the head end was started shortly thereafter while the demolition barge set up and removed the old piles at the mouth. Debris and old piles at the head end were also removed to allow access to the outlet structures.

#### Anticipated Design Activities for Next Quarter

- Design services during construction for environmental dredging will continue.

#### Anticipated Construction Activities for Next Quarter

- **Contractor expected to complete the dredging operation and start the sand capping at the head end.** CM will monitor the placement of the sand cap for quality and thickness.

**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**.

## 1.4. 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 conceptual design alternatives will be presented to DEP in early July. The six months of flow monitoring required by DEC has been completed and a summary report will be prepared after the data is analyzed.**
- Divert Low-Lying Sewers
  - **Environmental Review has been completed and project can now be awarded.**
- Regulator Modifications
  - **Continued coordination with NYCDOT, NYSDOT, NYC Transit, Port Authority, Con Edison, National Grid, FDNY, Verizon, and cable companies.**
  - **Held utility coordination meeting.**
  - **Advanced CEQR review.**
  - **Advanced permitting activities.**
  - **60% design was completed.**
  - **90% design has commenced.**
- Environmental Dredging
  - **The final design phase of the project continued, including:**
  - **Submission of the sampling work plan for copper, lead and mercury (related to DEC Natural Resources Permit Conditions No. 4 and 10) to DEP for Flushing Bay on May 29, 2014; DEP submitted to DEC on June 3, 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 NWP's due to changes in design, and other stakeholder requirements (i.e. Port Authority of New York and New Jersey).**

Construction Work Performed During This Quarter

- Tallman Island Whitestone Interceptor
  - Completed Construction of New Whitestone Interceptor in Powell's Cove Park to Station 14+50 including Turning Chamber #4. Completed Construction of the Interceptor from Turning Chamber #5 to Connection Chamber inside the Plant.
  - Construction of the Interceptor started between Turning Chamber #4 and Turning Chamber #5.
  - Continued construction of the new interceptor diversion chamber at 11<sup>th</sup> Ave and 131<sup>st</sup> Street.
  - Continued operation of dewatering system.
  - Maintained erosion and sediment control measures in wetland and adjacent areas.

Anticipated Design Activities for Next Quarter

- Tallman Island Flushing Interceptor
  - The conceptual design work will continue and the six months of flow monitoring will be completed. A vendor presented their technology for performing a structural condition assessment of the sewer invert and the consultant is in the process of evaluating it to determine whether it will provide useful information.
- 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.
  - Continue utility coordination.
  - Continue CEQR review.
  - Continue permitting activities.
- Environmental Dredging
  - Continue work on final design, including agency coordination with DPR, PANYNJ and 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 11<sup>th</sup> 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 <sup>th</sup> Ave / 130 <sup>th</sup> St to the WWTP, College Point, Queens	From MH 45 at Whitestone Expressway to MH 29 at Ulmer Street and 25 <sup>th</sup> Avenue	Regulator BB- 02. Berrian Blvd and 19 <sup>th</sup> Ave between 43 <sup>rd</sup> St. and 45 <sup>th</sup> St.	Six of ten regulators along 108 <sup>th</sup> 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**.

## 1.5. 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 sent to Comptroller for registration on June 30, 2014.**
- Bending Weirs
  - **Advertised construction contract and help pre-bid conference with potential construction contractors on May 8<sup>th</sup>.**
  - **Opened bids for construction contract on May 29<sup>th</sup> from seven bidders.**
  - **In process of evaluating low bidder.**

### No Construction Work Performed During This Quarter

### Anticipated Design Activities for Next Quarter

- Bending Weirs
  - **Complete evaluation of low bidder and initiate awarding of construction contract.**

### Anticipated Construction Activities for Next Quarter

- Parallel 48-inch Siphon/Interceptor
  - **Register construction contract, issue NTP & commence 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	<b>6,853,955</b>
<i>Status</i>	Complete	<b>Registration of Construction Contract</b>	<b>Bid and Award Construction Contract</b>
<i>Other Issues</i>	Certification Accepted Jul 23 2012		

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

## 1.6. 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**.

## 1.7. 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
  - For Enhance Aeration in Lower English Kills (NC-2), DEP completed construction of this work in February 2014.
  - **Completed 90% design and certified completion of the aeration system for East Branch and Upper Newtown Creek (NC-3). Continue seeking approval of the aeration portion of the project by City Planning and Public Design Commission.**
  - **Continued design of the project toward 30% completion for the Enhanced Aeration in Dutch Kills and portions of Newtown Creek project (NC-4).**
- Bending Weirs and Floatables Control
  - **Continued legal review of the contract documents.**

### Anticipated Design Activities for Next Quarter

- Enhanced Aeration
  - **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 for 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>	Substantial completion was issued as of Feb 20, 2014	The design of the blower building and aeration system continues.	The design of the blower building and aeration system continues	Design of bending weirs and baffles, to reduce overflows/floatables
<i>Construction Cost</i>	\$1,769,000	<b>\$15,442,727</b>	\$26,147,164	\$38 Million
<i>Status</i>	Construction	Design	Design	Prepare for Procurement Phase
<i>Other Issues</i>		<b>Potential delay to NTP if approval of design is not timely provided by NYC Public Design Commission and/or City Planning</b>		

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

## 1.8. Westchester Creek CSO

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

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

### Design Work Performed During This Quarter

- Modifications to CSO-29 and 29A
  - **Completed additional fieldwork to include topographic survey, ground penetrating radar survey at project sites and testing of existing relief structure concrete at CSO-29 and CSO-29A. Completed Final Design Activities and submitted Final Design Documents to DEC on June 30, 2014.**
- Pugsley Creek Parallel Interceptor
  - Preliminary Design is approximately 20% 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 Project**

	<i>Modifications to CSO-29 and CSO-29A</i>	<i>Pugsley Creek Parallel Interceptor start from CSO-24</i>
<i>Contract ID</i>	CS-ER-WCM	CS-ER-WCP
<i>Plan Elements</i>	Improve flow control structures in sewers to convey more flow to the Hunts Point WWTP	Add capacity to convey more flow to the Hunts Point WWTP
<i>Location</i>	Eastchester Road, Bronx	Classon Point, Bronx
<i>Actions</i>	Design	Continue Design at DDC
<i>Construction Cost</i>	<b>\$15.3 Million</b>	\$65.8 Million (Estimated)
<i>Status</i>	<b>Final Design completed and submitted to DEC</b>	Preparation of design drawings to commence
<i>Other Issues</i>		

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



## 1.9. Bronx River CSO

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

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

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

**Table 13 – Bronx River CSO Project**

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

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

### 1.10. 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 Project**

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

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

## 1.11. Jamaica Bay CSO

The Jamaica Bay CSO Facility Planning area includes the drainage areas of the 26<sup>th</sup> 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 26<sup>th</sup> 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

- 26<sup>th</sup> Ward High Level Sewer Separation
  - Preparation of design drawings has started for Phases 1a and 1b (SE-851, SE-852), which include sewer work in the vicinity of East 108th Street between Flatlands Avenue and the outfall at Avenue K, and on Vandalia Avenue from Pennsylvania Avenue to the outfall west of Louisiana Avenue.
  - **Drainage Plan has been amended. TV inspection reports have been reviewed and additional sewer work added to project.**
  - 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.
- 26<sup>th</sup> 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) 90% design expected 8/1/14.**
  - **HLMSWP work (26W-21) 100% design Currently with DEP legal for review.**
  - **Currently utilizing approximately 65% of existing 26W-20 design in the design effort.**

### Construction Work Performed During This Quarter

- Hendrix Street Canal Dredging

- **Submitted Post Dredge Monitoring Report No. 3 to DEC.**
- **Completed benthic and bathymetric survey fieldwork and completed ambient odor monitoring at the Canal to allow for preparation of Post Dredge Monitoring Report No.4.**
- Preparation of third Post Dredge Monitoring Report.
- 26<sup>th</sup> Ward Wet Weather Stabilization (LL MSPs)
  - Continued with the replacement of Pump #4.
  - Installed all three resistor drives.

Anticipated Design Activities for Next Quarter

- 26<sup>th</sup> Ward Wet Weather Stabilization (26W-20/21)
  - Finalize BODRs and continue working through detailed design.
- 26<sup>th</sup> Ward High Level Sewer Separation
  - Preparation of design plans for Phases 1a and 1b to continue.
  - 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 the fourth Post Dredge Monitoring Report to DEC.**
- 26<sup>th</sup> Ward Wet Weather Stabilization (LL MSPs)
  - Complete startup and testing of Pump #4.
  - Start demolition of Pump #5.

**Table 15 – Jamaica Bay CSO Projects**

	<i>Hendrix Creek Dredging</i>	<i>Rockaway WWTP Conveyance Improvements</i>	<i>26<sup>th</sup> Ward HLSS</i>	<i>26<sup>th</sup> 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 <sup>th</sup> 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)	\$7.6 million \$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 Design (26W-20/21)
<i>Other Issues</i>				<b>New design contract necessitates modifications to milestone dates.</b>

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

## 1.12. 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 and no new invoices have been submitted.

- **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. Construction is scheduled to start in August 2014 and be completed by October 2014. The total project value is \$448,803; \$75,000 has been invoiced to date as work was stalled for a period of time. New invoices are expected submitted by the next Quarterly Report.

- **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 Fall 2013. The total project value is \$600,000; \$406,213 has been invoiced through November 2013.

- **Gowanus Canal Conservancy**

The 6th Street Green Corridor Project will build a series of curbside swales ranging from 400 square feet to 1,200 square feet along 6th Street and 2nd Avenue in Brooklyn. 100% designs have been developed completely. **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 are to be completed by the next period, along with the installation of monitoring equipment. The total project value is \$583,470 (\$873,470 including EPA Grant); \$292,536 has been billed through April 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 and will resumed May 2014 **with the segregation and removal of the differing soil. Site grading is expected to be completed by July, with wetland planting to start immediately after. Installation of upland vegetation will occur during the Fall planting window. The total project value is \$504,340; \$252,279 has been invoiced through May 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 and alternative sites are being developed by Drexel University in coordination with Villanova University. **Alternative site(s) list has been completed and include the following: Bronx High School of Science, and the Bronx County Courthouse. We have met with the principal and custodial staff of Bronx Science and are currently working with the NYC Department of Education (DOE) to finalize and progress the designs at this location.** The total project value is \$893,493; \$75,000 has been invoiced to date.

**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>
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: <b>\$1,091,409</b> This Qtr: <b>\$39,574</b> Next Qtr: \$300,000	Budget: \$583,470 JTD: <b>\$292,536</b> This Qtr: <b>\$11,752</b> Next Qtr: \$200,000	Budget: \$250,000 JTD: \$223,244 This Q: \$0 Next Qtr: \$0
Status:	Alternative BMP site location review underway	Manhattan College and RPA completed construction and Unisphere will be complete by June 2014. NYC Audubon is updating 90% designs to reflect soil infiltration investigation	Project was bid and contractor selected – construction scheduled to start by May 2014	Contracts expire Jun 30 2013
Other Issues:	Subsurface Drainage	None	None	Working with Riverkeeper to close out their contract.

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



## **2012 Order - EBP Green Infrastructure Grant Program Projects**

The 2012 Order requires the extension of DEP's existing Green Infrastructure Grant Program and a commitment to use no less than \$3 million of EBP funds to expand the GI Grant Program over a three year period from 2012-2014. DEP identifies how it will commit the total funds in \$1 million increments by the end of each calendar year as part of the EBP Grant Plan. DEP committed a total of **\$2,013,548** under the Environmental Benefits Program (EBP) to five grantees of the Green Infrastructure Grant Program by December 31, 2013.

### **2012 Projects:**

- **Albert Einstein College of Medicine**

The College will construct a 12,589 square foot green roof on campus, located in the Westchester Creek watershed. The roof is designed to manage 0.47 acres of impervious area, and its 1" volume capacity is 2,830 cubic feet. **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.

### **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 <sup>th</sup> 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	<b>\$442,912</b>	\$658,497	\$236,308
<i>Status:</i>	In Construction	Construction Complete	<b>Design Review</b>	<b>Design Review</b>	In Construction
<i>Other Issues:</i>	None	None	None	None	None
<i>Total:</i>	<b>2012</b>			<b>2013</b>	
	<b>\$1,271,382</b>			\$894,805	

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

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

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

**Table 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	\$625,900	None
<i>Area 2 ROW &amp; Onsite</i>	26W-003	Jamaica Bay	Post-construction monitoring	NA	\$1,449,393	None
<i>Area 3 ROW &amp; Onsite</i>	NCB-015	Newtown Creek	Post-construction monitoring	EBP	\$1,571,073	None

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

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

During the First 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 Priority Waterbodies: Bowery Bay, Bronx River, Flushing Bay, Flushing Creek, Gowanus Canal, Hutchinson River, Jamaica Bay, Newtown Creek, and Westchester Creek.

#### Design and Construction Work Performed During This Quarter

- Right-of-way Area-wide Green Infrastructure Contracts:
  - Continued design in 17 Priority CSO Tributary Areas.
  - Continued construction in three Priority CSO Tributary Areas.
- Public Onsite Retrofit Program:
  - **Continued design of two onsite projects.**
  - **Continued 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 the remaining 2011, 2012, and 2013 grant recipients.

#### Anticipated Design and Construction Activities for Next Quarter

- Right-of-way Area-wide Green Infrastructure Contracts:
  - Continue design in 17 Priority CSO Tributary Areas.
  - Continue construction in three Priority CSO Tributary Areas.
  - **Begin construction in five Priority CSO Tributary Areas.**

- **Public Onsite Retrofit Program:**
  - Complete construction of two onsite projects.
  - Continue identification of onsite projects with NYCDPR, NYCHA, DOE/SCA and Trust for Public Land, and NYCHHC.
- **Green Infrastructure Grant Program:**
  - **Continue funding agreement and design reviews for the remaining 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 **Second 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

- April 3, 2014: Green Infrastructure Grant workshop (35 attendees)
- April 9, 2014: Green Infrastructure Grant workshop (30 attendees)
- April 11, 2014: Presentation to Building Managers Association (25 attendees)
- April 21, 2014: Meeting with New York League of Conservation Voters (5 attendees)
- May 12, 2014: S.W.I.M. public meeting (17 attendees)
- May 15, 2014: Assembly member Lentol Small Business Resource Fair (50 attendees)
- June 10, 2014: Water Infrastructure Steering Committee Meeting (19 attendees)
- June 17, 2014: DEP Summer Interns Presentation (45 attendees)
- June 24, 2014: Meeting with City Councilmember Lander (5 attendees)

### LTCP Education and Outreach Activities

- April 24<sup>th</sup>, 2014, DEP presented to Coop City (Riverbay Corporation) Legislative Committee on the Hutchinson River Long Term Control Plan. Approximately 20 members attended this meeting.
- On May 7<sup>th</sup>, 2014, DEP held a public meeting to present draft alternatives for the Westchester Creek Long Term Control Plan at the Herbert Lehman High School in the Bronx. The meeting was advertised in newspapers, posted on the DEP LTCP website and emailed to stakeholders. Approximately 10 attendees from the public as well as representatives from DEC and DEP were present.
- On June 11, 2014 – DEP held a public meeting for the Flushing Creek Long Term Control Plan at the PS 20 John Bowne in Queens. Twenty stakeholders from 14 different non-profit, community, planning, environmental, economic development, governmental organizations and the broader public attended the event, and two reporters from local Queens papers.

### **Planned Activities Not Conducted During This Quarter**

- DEP conducted all planned activities this quarter.

### **Summary of Comments Received**

DEP received 21 emails from citizens and citizen group representatives in the second quarter of 2014. Two of these emails were for people who wanted to RSVP for the Westchester Creek meeting on LTCP draft alternatives held on May 7<sup>th</sup>, 2014. Two emails were from a citizen claiming to live in Westchester County and complaining about dry weather discharges into the Hutchinson River in Westchester County. Four emails were from citizens who had signed a Friends of Ferry Point Park petition to “Upgrade East Bronx Waterways to Swimmable/Edible Fishing”. One email was from a Friends of Ferry Point Park representative discussing the Corridor Area study in Hutchinson River. Six emails were from people who wanted to RSVP for the Flushing Creek meeting held on June 11<sup>th</sup>, 2014. One email was from the Principal of the Pelham Lab High School in the Bronx. He was interested in a green roof and in funds to provide access to the headway of Westchester Creek. One email was from someone who wanted to be removed from the mailing list. Four people wanted to be added to the mailing list. These emails were from representatives from Friends of Ferry Point Park, Department of Parks, the Metropolitan Waterfront Alliance, Pratt Center, Friends of Flushing Creek, Save the Sound, Empire Dragon Boat Team, NRDC, Pelham Lab School, DEP, and Hazen & Sawyer.

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

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



## 6.0 Other Issues

Action Items generated during the **June 2, 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>
Alley Creek	DEP DEC and DEP	<ul style="list-style-type: none"> <li>Send revised sections during week of June 2</li> <li>Conduct telecom to discuss WQSs for Alley Creek and Westchester Creek LTCPs to be used for recovery time and percent attainment analyses</li> </ul>	Completed Completed
	DEP	<ul style="list-style-type: none"> <li>Confirm status of sampling at Alley Creek</li> </ul>	Completed
Inner Harbor	DEP	<ul style="list-style-type: none"> <li>Provide a preliminary redesign/description of flow monitoring system for RH-034 at Gowanus Canal</li> </ul>	Completed
	DEC	<ul style="list-style-type: none"> <li>Respond to force majeure update for Hurricane Sandy impacts to Gowanus Canal FT/PS</li> </ul>	In Progress
	DEP	<ul style="list-style-type: none"> <li>Provide separate certifications for Gowanus Canal FT and PS; certification for FT must include an interim operating plan for FT to ensure bar screen does not adversely impact performance</li> </ul>	In Progress
	DEC	<ul style="list-style-type: none"> <li>Provide inspection checklist for Gowanus Canal FT by June 6</li> </ul>	Completed
	DEP	<ul style="list-style-type: none"> <li>Provide operational data on inflatable dams</li> </ul>	In Progress
Jamaica Bay	DEC	<ul style="list-style-type: none"> <li>Provide revised CSO Order mod for 26<sup>th</sup> Ward NOV and Wards Island interim limits</li> </ul>	In Progress
	DEP	<ul style="list-style-type: none"> <li>Provide final design for 26<sup>th</sup> Ward HLMSPs and PSTs as soon as completed, rather than milestone date of December 2014</li> </ul>	In Progress
Flushing Bay	DEP	<ul style="list-style-type: none"> <li>Provide updates on status of Flushing interceptor flow monitoring and conceptual design</li> </ul>	Completed
	DEP	<ul style="list-style-type: none"> <li>Confirm when inspection of sagging section of Flushing interceptor will be conducted</li> </ul>	In Progress
	DEP	<ul style="list-style-type: none"> <li>Send letter outlining anticipated schedule for Flushing Bay dredging design and procurement</li> </ul>	In Progress
EBPs	DEP	<ul style="list-style-type: none"> <li>Provide proposals for use of \$27K from Newtown Creek GI and Bronx River block study projects</li> </ul>	Completed
Misc	DEP	<ul style="list-style-type: none"> <li>Send letter changing CSO Consent Order manager to Keith Beckmann</li> </ul>	Completed

## 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.
  - 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.**
  - 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.
    - An intensive dry weather water quality sampling run was conducted in Coney Island Creek March 2014. Harbor Survey continues to conduct post construction monitoring in the Creek.
  - Hutchinson River LTCP : September 2014
    - The Water Quality and Sewer System Report to support the waste load allocation was submitted to DEC in June 2013 in accordance with the Order. This report will be revised and resubmitted next Quarter based on revisions to the Westchester County landside loadings that were developed using the County's modeling framework.
    - **Initial sections of the Hutchinson River LTCP were drafted. Continued Alternatives analyses and modeling for the submittal of the Hutchinson River LTCP.**
  - 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 was initiated.**
  - Bronx River LTCP: June 2015
    - **Initiated extensive receiving water and sewer sampling program.** Review of available WQ data indicates high levels of bacteria crossing over the City line.
  - Gowanus Canal: June 2015

- **Continued alternatives analysis this Quarter.**
- **Finalizing sampling plan and anticipate initiating receiving water and sewer sampling in July.**
- Westchester Creek LTCP: June 2014 (modified date)
  - **Submitted LTCP to DEC on June 30, 2014.**
  - **Public Meeting to review alternatives held on May 7, 2014.**
- Jamaica Tributaries and Bay: June 2016
- Newtown Creek: June 2017
- Flushing Bay: June 2017
  - **Receiving water sampling for Flushing Bay has been integrated into the Flushing Creek sampling program and was completed in the last Quarter.**
- Citywide: December 2017
- All Waterbody/Watershed Facility Plans (WWFPs) have been approved.