

DEC Case# CO2-20110512-25, Modification to CO2-20000107-8

CSO Order on Consent Quarterly Progress Report

Second Quarter 2024

(April 1st – June 30th)

July 30, 2024

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The City of New York (the "City"), the New York City Department of Environmental Protection (DEP), and the New York State Department of Environmental Conservation (DEC) entered into the Combined Sewer Overflow Order on Consent (DEC Case # CO2-20000107-8) on January 14, 2005, which has been modified several times since 2005 including, April 14, 2008, September 3, 2009, March 8, 2012, March 26, 2015, and June 29, 2023 (collectively, the "CSO Order"). Pursuant to the CSO Order, the City is required to submit quarterly status reports to DEC ("Quarterly Reports") describing actions taken toward achieving compliance with the CSO Order during the prior three-month period.

This Quarterly Report summarizes DEP's actions and activities toward complying with the CSO Order's milestones between **April 1, 2024** and **June 30, 2024**. 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 CSO Order, DEP and DEC held a Quarterly Progress Meeting on **May 29, 2024** for the **first** quarter of **2024**.

Reportable Activity This Quarter

Date	Location	Event Description
4/17/2024	Flushing Bay	DEC provided comments for Flushing Bay Tunnel Conceptual Engineering Report. DEC/DEP Tech meeting held on 6/28/2024.
5/14/2024	Jamaica Bay	Construction Completion Certification of permanent closure of Rockaway Tide Gate Chambers
5/17/2024	SOGR Spring Creek	DEP provided updated responses for Reconstruction of Tide Gates/Effluent Chambers Construction Completion milestone modification. DEC responded on 7/29/2024 and determined that DEP needs to submit separate FM requests for each site

Date	Location	Event Description
		condition. Anchor Bolts - 47 days extension (9/14/2024), Work or contractor constraints are not valid FM events.
5/28/2024	SOGR North River	DEC completed 30-day Public Notice of Appendix C, I. State of Good Repair Projects, E. Reconstruction of Primary Settling Tanks at NR WRRF Milestones establishment
5/28/2024	SOGR Bowery Bay	DEP submitted Construction NTP milestone for Reconstruction of Primary Settling Tanks at BB WRRF and provided update on force majeure regarding lower bidder withdrawal.
5/29/2024	Bronx River	DEC approved Sampling and Monitoring Plan for Appendix A, milestone X.B, Bronx River Hydraulic Relief and approved modification to remove HP-07 scope and add WQ sampling milestone requirements
6/10/2024	Flushing Bay	DEC provided an assessment with comments and directives regarding the Settlement Survey and Structural Assessment of Ulmer Street Interceptor
6/17/2024	Jamaica Bay	DEC acknowledge receipt of updated WWOP for Rockaway WWRF in accordance with Appendix A milestone date and final acceptance of Milestone Completion, Appendix A, XII. JB CSO, A. Rockaway Outfall closure

Milestone Actions This Quarter (April 1 – June 30, 2024)

Location	Item Description	Milestone Date	Action	Status
Jamaica Bay	Submit Updated WWOP for Rockaway WWTP	5/2024	Submit	Acknowledgement letter received on 5/28/2024
Jamaica Bay	Permanently Seal Tide Gate Chambers Connected to Active Stormwater Outfalls	5/2024	Submit	Completed and Approved

Milestone Actions Next Quarter (July 1 – September 30, 2024)

Location	Item Description	Milestone Date	Action Required	Status
Bronx River CSO	Sampling and Monitoring Plan	7/2024	Initiate Bronx River Sampling Program	Initiated in 7/2024

Pending Modification Requests (MR) and Open Force Majeure Event Claims (FM)

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
Spring Creek	App C SOGR	DEP submitted modification request to extend Construction Completion date from 3/2024 to 9/2025	Unforeseen protruding anchor bolts and cracks in tide gate thimble	3/31/2024	DEP submitted modification request on 1/31/2024. On 2/28/2024, DEC requested a further detailed basis for the extension of the construction completion milestone to 9/30/2025. DEP responded on 5/17/2024.
Bronx River	Conveyance Improvements	DEP submitted a modification request on October 30,2020 to eliminate a portion of the design scope of work and DEC responded on 12/4/2020	During design DEP determined that the HP-007 element of the proposed project would result in only minor CSO reductions.	Design Completion: 9/30/2022 HP-009, HP- 011 Informal discussions extended to 5/31/2024	Modification request to eliminate HP-007 approved with additional WQ milestones approved.

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
		requesting additional data.			
Flushing Creek	Disinfection	DEP submitted modification request on 7/31/2022. DEC responded on 12/11/2023 denying modification request and an NOV for design completion of Disinfection project.	Extending the V.F.2, V.F.3, and V.F.4 milestones for the disinfection project by 2.9, 3.2, and 4 years	Design Completion: 9/30/2022	DEP r An Article 78 was granted on 12/19/2023 and based on productive discussions, the timeframe to complete informal discussions and to file an Article 78 has been extended.
Flushing Creek	Floatables Control	DEP submitted a Notice of Force Majeure for milestone V.F.3 on 9/29/2023 related to an unexpected bid withdrawal for the floatables control project.	DEC granted extension date for milestone V.F.3 from 9/30/2023 to 11/30/2023.	Construction Completion: 11/22/2025	OTCW was submitted on 11/30/2023. DEC acknowledged milestone completion on 1/4/2024.



The CSO Order contains milestones and schedules governing the planning, design and construction of DEP's Citywide CSO Program. Appendix A of the CSO Order includes schedules for construction projects that were identified as part of earlier CSO Waterbody/Watershed Facilities Planning, and were included in the baseline conditions for the subsequent waterbody-specific and Citywide/Open Waters LTCP that were approved by DEC. Those baseline projects have all been completed. The baseline projects and their certified construction completion dates are presented in the table below.

Baseline CSO LTCP Grey Projects - Completed

Location	Item Description	Construction Completion Certification Date	Project Cost
	V.A.4 Whitestone Interceptor	12/12/2014	\$22.0M
	V.A.9 Flushing Interceptor	TBD	TBD
V. Flushing Bay	V.B.4 Divert Low Lying Sewers/Raise Weir BB-R02	10/10/2017	\$5.6M
	V.C.5 Regulator Modifications	6/8/2018	\$28.9M
	V.D.3 Environmental Dredging of Flushing Bay	3/30/2017	\$37.5M
VI. Jamaica	VI.A.4 Parallel 48-inch Siphon/Interceptor	2/24/2017	\$20.2M
Tributaries	VI.B.4 Bending Weirs	5/26/2016	\$6.8M

Location Item Description		Construction Completion Certification Date	Project Cost
	VIII.A.4 Enhanced Aeration in East Branch and Upper Newtown Creek	6/8/2018	\$16.7M
VIII. Newtown Creek	VIII.B.4 Enhanced Aeration in Dutch Kills and Lower Newtown Creek	1/19/2014	\$26.1M
	VIII.C.4 Bending Weirs/Floatables Control	11/9/2017	\$43.7M
IX.	IX.A.4 Modifications to CSO-29 and CSO-29A	8/28/2020	\$18.9M
Westchest er Creek	IX.B.4 Pugsley Creek Parallel Interceptor start from CSO-24	1/23/2020	\$85.1M
	XII.A.1 Rockaway WWTP Deliver/Treat 2XDDWF	Modified	N/A
	XII.B.5 26 th Ward HLSS Phase 1	11/26/2018	\$58M
	XII.B.5 26 th Ward HLSS Phase 2A	10/31/2021	400 514
XII.	XII.B.5 26 th Ward HLSS Phase 2B	10/31/2021	\$90.6M
Jamaica Bay	XII.C.3 26 th Ward WPCP Low Level Main Sewage Pumps	4/3/2015	\$7.6M
	XII.C.7 26 th Ward WPCP High Level Main Sewage Pumps	9/1/0/2018	\$17.3M
	XII.C.9 26 th Ward WPCP Improvements to PSTs 1-4 and Construction of PST 5	10/27/2021	\$155.8M
XIV. Wards	XIV.A.2 Reconstruction of Main Sewage Pumps	8/16/2019	\$5.2M
Island	XIV.B.3 Bar Screen Replacement	1/6/2017	\$13.7M



The 10 Waterbody-Specific LTCPs and the one Citywide/Open Waters LTCP included in Appendix A of the Consent Order have all been completed and approved by DEC. The submittal dates and DEC approval dates are summarized in the table below. The following sub-sections present the status of implementation of the LTCPs.

CSO LTCP Milestones

	CSO Watershed	LTCP Submittal	Status
1	Alley Creek	June 2013	Approved 3/7/2017*
2	Westchester Creek	June 2014	Approved 8/1/2017
3	Hutchinson River	September 2014	Approved 3/7/2017*
4	Flushing Creek	December 2014	Approved 3/7/2017*
5	Bronx River	June 2015	Approved 3/7/2017*
6	Gowanus Canal	June 2015	Approved 3/29/2017
7	Coney Island Creek	June 2016	Approved 4/4/2018
8	Flushing Bay	December 2016	Approved 3/7/2017*
9	Newtown Creek	June 2017	Approved 6/27/2018
10	Jamaica Tributaries & Bay	June 2018	Approved 1/31/2023
11	Citywide/Open Waters 1,2	May 2020	Approved 7/10/2023

^{*} DEP disputed approval on 4/10/2017 due to the inclusion of terms in approval letters not consistent with LTCPs as submitted to DEC; DEC issued clarifying letter dated 5/9/2017 that resolved the dispute.

¹⁾ Citywide/Open Waters include Harlem River, Hudson River, East River, and Upper and Lower New York Bay. Modification Request for extension of Citywide/Open Waters LTCP to December 31, 2018 approved by DEC on June 27, 2017.

²⁾ Additional Modification Request for an extension of Citywide/Open Waters LTCP to May 30, 2020 approved by DEC on March 23, 2020.



Alley Creek LTCP, Alley Creek CSO Retention Facility Disinfection System, Approved on March 7, 2017

Design is on hold while DEP evaluates alternatives to disinfection based on additional facility planning for the disinfection facility. DEP submitted a modification request on January 31, 2022 and subsequent amendments to the modification request with the latest in June 2023 while also engaging in extensive discussions with DEC concerning that modification request and evaluation and identification of an appropriate alternative to disinfection. DEP has proposed deferring construction of the disinfection facilities to allow additional time to assess an Oakland Lake stormwater diversion and constructed wetlands as potential substitute projects to disinfection. The proposed modified milestones were publicly noticed in the ENB on June 14, 2023, and DEC approved on July 18, 2023.

Alley Creek CSO Retention Facility Disinfection System

Alley Creek CSO, B.	DEC Approved Milestones	Status
Initiate Final Design	Sept 2018	Certified by DEP on 10/2/2017
2. Design Completion	Mar 2022 Mar 2026	Revised Milestone approved
Notice to Proceed to Construction	Sept 2022 Mar 202 7	Revised Milestone approved
4. Construction Completion	Sept 2024 Mar 2029	Revised Milestone approved

Alley Creek Status of Non-construction Projects

Alley Creek Wetlands Monitoring:

The installation of the water quality instrumentation began in October 2022. Preliminary monitoring and calibration of the instrumentation was completed in Spring 2023. Official data collection, including water, sediment and groundwater sampling started July 1, 2023, and continued for two to three times a month through September 2023 (May through September is growing season). Monitoring is monthly during October and November 2023. At least half of the water and sediment quality samples were taken within 24 to 48-hours of a wet-weather event. DEP submitted the wetlands monitoring report on 2/24/2024 and met with DEC on 3/5/2024 to go over findings and next steps and discussed at technical meeting on 6/28/2024.

Alley Creek Wetlands Monitoring

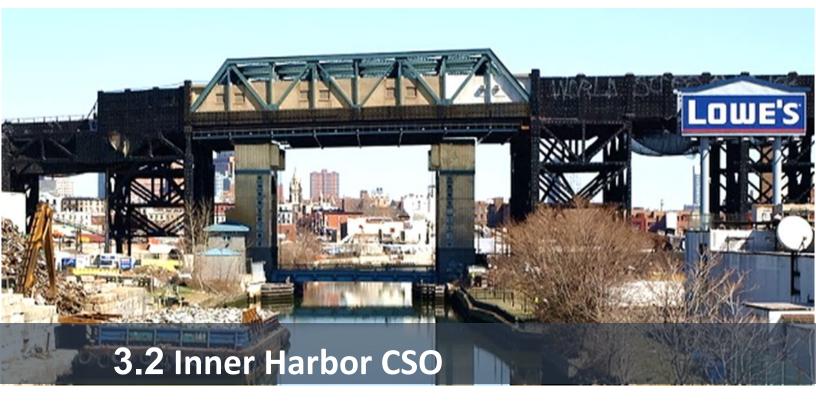
Alley Creek CSO, C.		DEC Approved Milestones ⁽¹⁾	Status
1.	Submit Literature Review	Nov 2022	Completed
2.	Start Wetlands Monitoring	Jul 2023	Completed
3.	Submit Wetlands Monitoring Progress Reports	Feb 2024	Completed
4.	Submit Approvable Wetlands BODR	Nov 2024	Underway, On schedule
5.	Submit Wetlands Monitoring Final Report	Feb 2025	Underway, On schedule

Alley Creek Stormwater Diversion Feasibility Study:

The Alley Creek stormwater diversion study is currently underway and DEP has completed site investigations, refinements to the InfoWorks models based on data collected, flow monitoring and landside model calibration, and preliminary alternative analysis. DEP has conducted internal workshops and has had some internal meetings with NYC Parks Department to discuss the viability of this project and impacts to Oakland Lake and Ravine. DEP submitted the flow monitoring and model validation report to DEC in October 2023 and has discussed with DEC. DEP conducted some additional water quality modeling to compare the projected water quality attainment for the proposed modifications as compared to the originally approved disinfection and met with DEC on 3/5/2024 and on 6/28/2024 to discuss results and address DEC comments.

Alley Creek Oakland Ravine Daylighting Feasibility Study

Alley Creek CSO, D.	DEC Approved Milestones	Status
Start Technical Feasibility Study	Nov 2022	Completed
Submit Approvable Technical Feasibility Study	Nov 2024	Underway, On schedule



Gowanus Canal CSO LTCP Approved on March 29, 2017

- No projects were recommended in the LTCP as approved.
- Under the EPA Superfund Program, CSO storage tanks are being implemented for outfalls RH-034 and OH-007.



The Flushing Bay CSO Facility Planning area includes the portions of the Tallman Island WRRF and the High Level Interceptor of the Bowery Bay WRRF drainage areas, associated sewers, and pumping stations that discharge to Flushing Bay and Flushing Creek in Queens.

Flushing Bay LTCP, Flushing Bay 25 MG CSO Storage Tunnel, Approved on March 7, 2017

The Conceptual Engineering Report for the Flushing Bay CSO Storage Tunnel was submitted to the DEC on 12/28/2023 and it included an assessment of necessary property acquisition needs, review of geotechnical investigation, project layout schematics, including potential locations of dewatering pump station and tunnel alignment, and basis for cost estimate and schedule. DEC provided comments on 4/17/2024 outside the current reporting period. DEC/DEP Tech meeting held on 6/28/2024 to discuss comments and written response due to DEC on 7/31/2024.

Flushing Bay CSO Schedule, CSO-FB-TUN

Flushing Bay CSO, G.	DEC Approved Milestones	Status
1. Initiate Design	7/31/2022	Completed
1a. Submit Approvable Engineering Design Report	12/31/2023	Completed
1b. Submit Rikers Island Feasibility Study	3/28/2024	Completed
1c. Submit Decision Matrix for use of Rikers Island for construction of new WRRF	3/28/2024	DEC requested that DEP resubmit updated letter.
1d. Provide final decision for use of Rikers Island for construction of new WRRF	12/31/2024	12/31/2024

2. Design Completion	Jun 2025 ⁽¹⁾	TBD Pending Design Start
3. Notice to Proceed to Construction	Jul 2026 ⁽¹⁾	TBD Pending Design Completion
4. Construction Completion	June 2035 ⁽¹⁾	TBD Pending Design Completion

⁽¹⁾ Milestone dates may be subject to revision by DEC upon its approval of the Engineering Design Report (Item V.G.2)

Flushing Creek LTCP, TI-010 Outfall Disinfection at CSO Retention Tank and Diversion Chamber 5, TI-011 Outfall Disinfection, Floatables Control at TI-R09 and Division Chamber 3, Approved on March 7, 2017

Floatables Control construction was bid on 7/28/23. The lowest bidder withdrew on 9/11/23 and DEP moved forward with awarding the Contract to the 2nd Lowest Bidder, Northeast Remsco. On 09/29/23, DEP notified DEC that this is a 45-day force majeure delay to the NTP milestone. Flushing Creek Disinfection is progressing towards 60% Design as discussed at the Technical Meeting held with DEC on September 18, 2023. DEC accepted this force majeure but said a formal determination of delays can't be made until an NTP is issued. The NTP for the floatables control was issued on 11/30/23.

DEC issued a DEC Determination denying DEP's prior modification request and issued an NOV on 12/12/2023 and DEP responded on 12/15/2023 to initiate dispute resolutions and requested an extension of the time for informal discussions and to file an Article 78 that DEC granted on 12/19/2023 to continue informal discussions and extend the time to file an Article 78 to 3/11/2024. Since that time, the timeframe for concluding informal discussions and to file an Article 78 have been extended through 7/31/2024.

The Floatables Control schedule is being driven by the fabrication of the Bending Weir which has an approximate 200-day lead time. The contractor is to install the support of excavation for counter-weight chamber in the next quarter. The 60% Design review for Flushing Disinfection was completed. The 90% design is progressing with sewer inspections and geotechnical inspections to be completed next quarter. The ULURP Pre-Application was submitted and internal DEP review of the EAS has been completed.

Flushing Creek CSO Schedule, CSO-FC-FB-DES

Flushing Bay CSO, F.	DEC Approved Milestones ⁽¹⁾	Status
1. Initiate Final Design	Dec 2018	Certified by DEP on Feb 8, 2019
2. Design Completion	Sept 2022	Modification request submitted proposing to break project into two (2) separate projects for Floatables Control element and Disinfection element with modified milestone schedule for disinfection. Pending dispute

		resolution timeframe for issued NOVs.
3. Notice to Proceed to Construction	Sept 2023	NTP for Floatables Control issued on 11/30/2023. DEC modified NTP Milestone to 11/30/23 per 1/4/2024 correspondence. NTP for disinfection element pending dispute resolution for issued NOVs. DEC/DEP Tech meeting held on 6/28/2024.
4. Construction Completion	Dec 2025	Floatables on schedule but disinfection is TBD.

⁽¹⁾ Milestone dates may be subject to revision by DEC based on additional facility planning.



The Jamaica Bay and Tributaries CSO Facility Planning area includes the drainage areas of Jamaica, 26th Ward, Coney Island, and Rockaway WRRFs and their associated sewers and pumping stations. The receiving waters of the study area include Bergen, Thurston, Shellbank, and Hawtree Basins, Fresh Creek, Hendrix Creek, Spring Creek, and the open waters of Jamaica Bay.

The modified order became effective as of May 25, 2021 and was executed on June 23, 2021.

On July 16, 2021, DEP submitted the Outfall Removal letter to DEC. DEC acknowledged receipt and approved the letter on July 19, 2021. On November 19, 2021, DEP submitted an inspection report documenting inspections conducted of the outfalls and diversions and regulators/tide gate chambers. DEC plans to formally accept this inspection report once the last tide gate chamber (D-3) has been sealed and inspected by DEC. On June 17, 2022, DEP submitted a certification letter stating that the Outfall Removal letter and Inspection Report were previously submitted to DEC and that the outfalls have been changed in the new SPDES permits. DEC acknowledged receipt of the certification letter on June 27, 2022. The last of the Outfalls, D-3 was sealed on 3/6/2024 and DEC issued milestone completion on 6/17/2024. DEP submitted wet weather operating plan (WWOP) and hydraulic analysis for the Rockaway WRRF on May 24, 2024.

Rockaway WRRF - Consent Order Modification Outfall Removal, Closure, Reclassification

Jamaica Bay CSO Modification	DEC Approved Milestones	Status
3. Complete an inflow and infiltration study (2020 Rockaway I&I) and submit the results of the study to DEC (I&I Report)	May 25, 2025	Underway, On schedule
4. Evaluate the maximum amount of flow that can be processed through full treatment at the WRRF. Submit an updated Wet Weather Operating Plan (WWOP)	May 25, 2024	Submitted
5. Permanently seal tide gate chambers connected to active stormwater outfalls	May 25, 2024	Completed

Jamaica Bay and Tributaries LTCP, Dredging of Bergen Basin, Installation of Ribbed Mussels in Bergen and Thurston Basin, Jamaica Bay and Tributaries Wetlands and Marsh Island Restoration, Approved on January 31, 2023

DEP has been coordinating with DDC to perform the dredging at the head end of Bergen Basin using an existing contract to construct a new outfall at the head end of Bergen Basin that also required a small dredging component. The proposed LTCP dredge is an order of magnitude greater, DEP is on a parallel path of coordinating with DDC but also drafting a new RFP that would include scopes of work for both dredging and ribbed mussels.

Funding in the amount of \$1.1M has been provided to the United States Army Corps of Engineers (USACE) for the City's cost share for the Design of Stony Creek Marsh Island. \$4.5M has also been provided as the City's cost share for the construction of the USACE's perimeter Spring Creek North Wetland project. In addition, Design Agreements in the amount of \$1.225M for Duck Point Marsh Island and the Fresh Creek perimeter wetland in the amount of \$1.750M have been finalized and awaiting signature to be submitted to the USACE.

Currently there are five mussel string installations within Bergen Basin. For the mussel count, approximately 2,800 are in situ within Bergen, additional mussels are scheduled to be moved to Bergen Basin in early spring 2024. An in-situ flow-way rig is currently being constructed at Stony Brook University's **Southold** Research Facility. The in-situ flow-way rig will enable DEP to measure water quality improvements over multiple flood and ebb tides. This in-situ flow-way rig is approximately 26' x 26' and will have four flow-ways with each flow-way capable of handling 5,760 mussels for a total of 23,040 mussels. This is in addition to the 2,800 currently on the string installations. The in-situ rig flow-way and string installations will be part of a single unit in assessing water quality improvements. Trials of various mussel densities will be tested along with a control (shells only/no live mussels) as well as duplicate densities in multiple flow-ways to determine average bacterial uptake. **Deployment of the in-situ rig flow-ways was completed in June 2024 and a site visit with DEC is being coordinated.**

Jamaica Bay and Tributaries Schedule

E. Dredging of Bergen Basin	DEC Approved Milestones	Status
1. Initiate Final Design	Jul 2025	DEP Tracking Potential Delay
2. Final Design Completion with CPM Analysis	Jan 2027	Pending design start
3. Notice to Proceed to Construction	Jul 2028	Pending completion of design
4. Construction Completion	Jan 2031	Pending NTP

Musse	tallation of Ribbed els in Bergen and ton Basin	DEC Approved Milestones ⁽¹⁾	Status
1.	Thurston Basin		
a.	Initiate Final Design	Jan 2025	Assessing a change to existing planning contract to perform this final design – DEP tracking potential delay
b.	Final Design Completion with CPM Analysis	Jan 2027	Pending design start
c.	Notice to Proceed to Construction	Jul 2028	Pending design completion
d.	Submit Approvable Maintenance Plan	Jan 2031	Pending NTP
e.	Construction Completion	Jul 2031	Pending NTP
2.	Bergen Basin		
a.	Initiate Final Design	Jul 2029	DEP expects to comply
b.	Final Design Completion with CPM Analysis	Jul 2031	Pending design start
C.	Notice to Proceed to Construction	Jan 2033	Pending design completion
d.	Submit Approvable Maintenance Plan	Jul 2035	Pending NTP
e.	Construction Completion	Jan 2036	Pending NTP

G. Jamaica Bay and Tributaries Wetlands and Marsh Island Restoration	DEC Approved Milestones ⁽¹⁾	Status
1. Construction Completion ¹ of 25 Equivalent Acres of Wetlands Restoration Projects funded by DEP	Dec 2030 ²	No Delays expected based on current design agreements with USACE

2. Submit Interim Review and Approvable Contingency Plan ³	Jun 2036	Pending DEP assessment of wetland restoration progress
3. Construction Completion ⁴ of 50 Equivalent Acres of Wetlands Restoration Projects funded by DEP	Dec 2040	Pending DEP assessment of wetland restoration progress

- 1. Construction Completion for this milestone shall be determined by the Wetlands Restoration Projects that have been constructed, are currently under construction or will be constructed under a contract that has been issued a notice to proceed to construction (or USACE equivalent).
- 2. An Approvable Contingency Plan shall be submitted by the City by June 2031 if Appendix A milestone XII.G.1 is not met. The Contingency Plan shall include a schedule for completion of Wetlands Restoration Projects to ensure achievement of Appendix A milestone XII.G.3.
- 3. An Approvable Contingency Plan shall be submitted by the City if the Interim Review determines that a minimum of 50 equivalent acres of Wetlands Restoration Projects will not be completed by December 2040.
- 4. Construction Completion is defined under the CSO Order, Paragraph III.H.



The Newtown Creek CSO Facility Planning area includes the portions of the Newtown Creek WRRF and the Low Level Interceptor of the Bowery Bay WRRF drainage areas that discharge to Newtown Creek, English Kills, Dutch Kills, Whale Creek, Maspeth Creek and the East Branch along the Brooklyn-Queens border.

Newtown Creek LTCP, Borden Avenue Pump Station Expansion, 62.5% CSO Storage Tunnel, Approved on June 27, 2018

Design of the Borden Avenue Pump Station Expansion and new forcemain from Borden Avenue Pump station to Newtown Creek is advancing. The tunneling design has identified two preferred routes and currently identifying property acquisition for the drop shafts and have had some preliminary discussions with DSNY.

The Basis of Design Report for the Borden Avenue Pumping Station Expansion has been finalized. **30% Design** is currently under internal DEP review.

For the CSO Storage Tunnel, the Draft Facility Plan has been submitted for DEP review. Sites for pump station and drop shafts have been identified and property acquisition discussions with property owners has been initiated. DEP expects that in the next quarter the Facility Plan will be finalized and Draft BODR will be submitted for DEP review.

On 7/1/2024 DEP submitted a request to DEC to modify the approved recommended plan in the Newtown Creek Combined Sewer Overflow (CSO) LTCP to expand the CSO Storage Tunnel Volume from 39 MG to 50 MG, and to eliminate the Borden Avenue Pump Station (BAPS) Expansion.

Newtown Creek CSO Schedule

Borden Ave Pumping Station Expansion	DEC Approved Milestones ⁽¹⁾	Status
1. Initiate Final Design	Jul 2021	Complete 7/29/2021

2. Design Completion	Dec 2024	Design In Progress
3. Notice to Proceed to Construction	Sept 2025	Pending Design Completion
4. Construction Completion	Sep 2029	Pending Design Completion

⁽¹⁾ Milestone dates may be subject to revision by DEC based on additional facility planning.

CSO Storage Tunnel	DEC Approved Milestones ⁽¹⁾	Status
1. Initiate Final Design	Aug 2022	Design initiated on 8/30/2022
2. Design Completion	Dec 2028	Design in Progress
3. Notice to Proceed to Construction	Dec 2029	Pending Design Completion
4. Construction Completion	Dec 2040	Pending Design Completion

⁽¹⁾ Milestone dates may be subject to revision by DEC based on additional facility planning.



Bronx River LTCP, Bronx River Hydraulic Relief at HP-009, Bending Weir and Baffle at HP-011, Approved on March 7, 2017

Construction NTP for HP-011 was issued on September 29, 2023 to Railroad Construction Co. Construction NTP for HP-009 was issued on September 29, 2023 to JR Cruz Corp. DEC requested that DEP resubmit modification request to eliminate HP-007 scope of the project and include a proposed schedule to seek to quantity causes of non-attainment in the freshwater section of the Bronx River and as warranted and commit to corrective actions depending on the outcome of the study. DEC has granted an extension to continue informal negotiations and DEP/DEC have scheduled a meeting for 4/29/2024 to discuss sampling plan and finalize the modification request. -DEC approved Sampling and Monitoring Plan on 5/29/2024, which entails the addition of three new milestones to the CSO Order and removed HP-007 scope.

HP-011 and HP-009 both contractors obtained required permits and started construction work. HP-011 contractor is relocating local utilities in preparation for shaft construction. HP-009 contractor has completed site preparation for construction of Shafts.

Bronx River CSO Schedule, CSO-BXR-DES

Bronx River Hydraulic Relief at HP-009, Bendig Weir and Baffle at HP-011	DEC Approved Milestones ⁽¹⁾	Status ⁽²⁾
1. Initiate Final Design	Sept 2018	Design Initiated 8/27/2018
2. Design Completion	Sept 2022	DEP submitted modifications to design scope on 10/30/2020 and milestone modification request - Under DEC review. Certified design completion for HP-009 and HP-011.

3. Notice to Proceed to Construction	Sept 2023	Both NTP for HP-009 and HP-011 were issued on 9/29/2023. DEC issued milestone completion on 10/10/2023 for HP-011 and HP-009,
4. Construction Completion	Sept 2026	TBD
Quantification of Loadings & Sources of Non-Attainment in Freshwater Portion of Bronx River		
a. Submit approvable Bronx River Sampling Plan	May 2024	Completed
b. Initiate Bronx River Sampling Program	Jul 2024	Initiated, 7/2024
c. Final Report with Conclusions & Recommendatuibs	Jan 2026	TBD

⁽¹⁾ Milestone dates may be subject to revision by DEC based on additional facility planning.

⁽²⁾ Pending outstanding modification request to eliminate a portion of the approved scope of work.



Hutchinson River LTCP, CSO Outfall HP-024 2.8 MG Storage Conduit with Floatables Control, Approved on March 20, 2023

60% design ongoing. Commenced physical model testing in this quarter. Submitted traffic analysis to DOT as part of EAS.

Hutchinson River CSO Schedule, CSO-HR-DF-DES

Hutchinson Rive CSO	DEC Approved Milestones Stat	
1. Initiate Final Design	Sept 2018	Design Initiated, 8/15/2018
2. Design Completion	March 2027	Design In Progress
3. Notice to Proceed to Construction	August 2028	Pending Design Completion
4. Construction Completion	July 2033	Pending Design Completion



Citywide/Open Waters LTCP, CSO Outfalls NR-040, NR-038, NR-046, RH-005, RH-014, TI-003, TI-023, and OH-015 regulator modifications/hydraulic capacity enhancements; CSO Outfall PR-013 Hannah Street Pump Station bypass connection. Approved on July 7, 2023.

Coordinating with DDC to oversee all of the Citywide CSO projects and Capital Procurement Initiation forms were submitted to DDC and funding is in place.

Citywide/Open Waters CSO Schedule

Optimization and/or Modification of Regulators for CSO Outfalls 040, NR-038, NR- 046, RH-005, RH-014, TI-003, TI- 023, and OH-015 ¹	DEC Approved Milestones	Status
1. Initiate Final Design	July 2025	No delays expected
2. Final Design Completion with CPM Analysis	July 2028 Pending Design Initiation	
3. Notice to Proceed to Construction	January 2030	Pending Design Completion
4. Construction Completion	January 2033	Pending Design Completion

¹Per the July 2023 LTCP Supplemental Documentation, Table 8.8-1, the optimizations or modifications to be completed shall include: increased orifice sizes for regulators NR-26A, NR-28, and NR-029A, increased orifice size and enlargement of branch interceptor downstream of regulator TI-10B, bending weir for regulator TI-13, weir modification for regulator RH-20A, weir modification, increased orifice size, and enlarging branch interceptor connection at regulator RH-13, and automated control gate for regulator OH-9C.

Installation of Hannah Street Pump Station Bypass	DEC Approved Milestones	Status
1. Initiate Final Design	July 2025	No delays expected
2. Final Design Completion with CPM Analysis	July 2028	Pending Design Initiation
3. Notice to Proceed to Construction	January 2030	Pending Design Completion
4. Construction Completion	January 2033	Pending Design Completion



Appendix C: State of Good Repair Projects (Flushing Bay CSO Order Modification), Approved on September 22, 2022

DEP submitted additional requested information for the BB-216 plans and specs as requested by DEC. DEP submitted plans and specs for BB-216 on 2/29/2024 and DEC provided comments on April 22, 2024. **DEP provided OTCW and NTP for Construction Completion Certification on 5/28/2024.** An updated OTCW was submitted on 7/17/2024 stating that no delay to schedule is anticipated.

State of Good Repair Project Schedule

Project	DEC Approved Milestones	Status
A. Reconstruction of Primary Settling Tanks at Bowery Bay WRRF (BB- 216) 1. Submit Approvable BODR 2. Design Completion 3. NTP Construction 4. Construction Completion	12/2022 12/2021 3/2024 1/2029	Completed Completed Completed On Schedule
B. Replacement of Existing Emergency Generators at Bowery Bay WRRF (BB-220) 1. Submit Approvable BODR 2. Design Completion 3. NTP Construction 4. Construction Completion	12/2026 TBD TBD TBD	On Schedule
C. Replacement of Digesters at Hunts Point WRRF (HP-238) 1. Submit Approvable BODR 2. Design Completion 3. NTP Construction 4. Construction Completion	12/2022 6/2021 4/2022 8/2028	Completed Completed Completed 30% complete

Projec	t	DEC Approved Milestones	Status
Equipment at Hu 1. Submit 2. Design 3. NTP Co	of Sludge Handling unts Point WRRF Approvable BODR Completion nstruction uction Completion	12/2025 TBD TBD TBD	Preliminary Design ongoing, on schedule for BODR submission
Tanks at North R 111) 1. Submit 2. Design 3. NTP Co	of Primary Settling Liver WRRF (NR- Approvable BODR Completion Instruction Liction Completion	12/2023 2/2024 12/2024 6/2032	Completed Completed DEP tracking delay DEP tracking delay
and Bar Screens 1. Submit 2. Design 3. NTP Co	nd Effluent Gates	12/2027 TBD TBD TBD	On Schedule

Appendix C: State of Good Repair Projects (Jamaica Tributaries CSO LTCP), Approved on September 22, 2022

DEP is preparing response to DEC comments on the Spring Creek CSO Tide Gates force majeure and modification requests.

State of Good Repair Project Schedule

Project	DEC Approved Milestones	Status
G. Reconstruct tide gates/effluent chambers at the Spring Creek CSO Retention Facility WRRF (26W-149) 1. Submit Approvable BODR 2. Design Completion 3. NTP Construction 4. Construction Completion	9/2022 10/2017 5/2021 3/2024	Complete Complete Complete CC -Delayed – Pending Mod
H. Replace main sewage pumps at the Rockaway WRRF	6/2025	

Proj	ect	DEC Approved Milestones	Status
ВОГ		TBD TBD	Preliminary Design ongoing, on schedule to submit BODR.
	ign Completion Construction	TBD	
	struction		
Com	npletion		
I. Reconstruct and bulkhea WRRF	: fender ad at the Rockaway		
	mit Approvable	12/2026	Design-Build procurement ongoing, on
BOD 2. Desi	or ign Completion	TBD TBD	schedule to submit BODR.
	Construction	TBD	
4. Con	struction npletion		
and greenho at the Cone	: heating system ouse gas reduction y Island WRRF mit Approvable		
BOD 2. Desi	OR ign Completion	12/2026 TBD TBD	On Schedule
4. Con	Construction struction ppletion	TBD	
	ew centrifuges at		
the 26th Wa 1. Sub BOD	mit Approvable	12/2026 TBD	On Schedule
	ign Completion	TBD	
	Construction struction	TBD	
	ipletion		
L. Reconstruct	power		
	equipment at the		
Rockaway V 1. Sub BOD	mit Approvable	12/2025	Preliminary Design ongoing, on
	ign Completion	TBD TBD	schedule to submit BODR.
3. NTP 4. Con	Construction struction	TBD	
Com	npletion		



Program Overview

The 2023 Citywide Green Infrastructure Modification to the CSO Consent Order (Modified CO: CO 2-20230228-38), effective June 29, 2023, sets forth the schedule, capture targets, expenditure targets and other requirements for the program to reduce CSO volume in combined sewer areas with green infrastructure and to construct green infrastructure assets citywide to manage stormwater. Major changes between the 2012 CSO Order and the 2023 Citywide Green Infrastructure Modification include expanding the definition of green infrastructure, extending the NYC Green Infrastructure Program's timeline, updating the Program's certification metrics and interim milestones, and increasing the Program's total funding commitment to include resiliency projects. The Program's regulatory goal is to reduce CSOs by 1.67 billion gallons per year (BGY) in combined sewer areas by December 2040 and, building on current investments, expend \$3.5 billion on green infrastructure in both combined and separately sewered areas by December 2045.

In previous reporting years, DEP used a concept called Greened Acres, which is the volume of runoff managed by a green infrastructure practice if the stormwater is spread out at a depth of 1" over an impervious area. DEP now reports on CSO volume reduction by first calculating annual stormwater capture volume using practice-specific Stormwater Capture Equivalency Rates, then converting the stormwater volume to CSO volume reduction by applying Waterbody Drainage Area Specific Equivalency Rates, which represent how much stormwater needs to be managed to reduce the resulting CSO volume in each LTCP waterbody. The table below provides the total assets and CSO volume reductions by waterbody as reported in the 2023 NYC Green Infrastructure Annual Report. The next update to this table will be published in the 2024 NYC Green Infrastructure Annual Report.

Cumulative Green Infrastructure in CSS Areas from 2012-2023

Waterbody Drainage Area	Number of Assets	Managed Acres ¹	Stormwater Managed (MGY)	SW to CSO Equivalency Rate (SW MGY/CSO MGY)	CSO Volume Reduc ed (MGY)
Alley Creek	11	2	2	2.75	1

¹ Managed Acres = an area equivalent to one acre of impervious surface covered by one-inch of stormwater for distributed ROW assets (rain gardens, infiltration basins, stormwater greenstreets) and tributary drainage area for ROW porous pavement and all other assets.

Bronx River	490	125	70	3.67	30
Coney Island Creek	69	9	5	2.35	2
East	09	9	3	2.55	2
River/Open					
Waters	2906	655	247	2.75	131
Flushing Bay	893	92	64	1.73	51
Flushing Creek	2238	285	228	1.87	119
Gowanus	2230	203	220	1.07	113
Canal	177	31	15	1.25	5
Hutchinson River	218	166	155	1.91	89
Jamaica Bay & Tribs	4735	747	600	2.75	162
Newtown Creek	1723	220	147	1.72	86
Westchester	262	20	47	F	4
Creek	263	30	17	5	4
Total ²	13723	2363	1549	-	680

Implementation Update

During Quarter 2 of 2024, planning, design, and construction work continued in several NYC Green Infrastructure Program initiatives and are summarized by program area below. For more information on the Program, including an interactive map, visit: https://www.nyc.gov/site/dep/water/green-infrastructure.page

Right-of-Way

Area-wide GI contracts to design and build thousands of curbside rain gardens, infiltration basins, stormwater green streets, and porous pavement in NYC's streets and sidewalks are being implemented in multiple phases. Design is ongoing for porous pavement in the Bronx and nearing final completion in Brooklyn. Construction is ongoing for rain gardens, infiltration basins, and porous pavement. Additional project details for active ROW contracts are included in the projects towards the next CSO volume milestone table.

Public Property Retrofits

Siting, design, and construction of public property retrofits in coordination with City agency and non-profit partners is ongoing. Additional project details for active public property contracts are included in the projects towards the next CSO volume milestone table.

Phase	Parks and Playgrounds	Public Schools	NYCHA Housing	Other Public
Constructed/In Construction	98	81	29	8
Design	56	25	18	2

² Sum may not add up to total due to rounding

Large-scale Medians

Siting and design by DEP's in-house green infrastructure design team focusing on large-volume capture opportunities within public medians with the added benefit of localized flooding alleviation is ongoing; construction is also ongoing. To date, 2 median projects have been constructed. Details on active projects are summarized in the table below.

Project	Status	% Design or Construction Progress ³
Hillside Ave, Winchester Blvd and Martin Van Buren	In construction	98%
Union Turnpike between Metropolitan Ave and 71st Road	In construction procurement	
Springfield Blvd from Lucas Street and Merrick Blvd	In construction procurement	
Francis Lewis Blvd between 21 Rd and 20 Ave	In construction procurement	
Howard Ave Green Street Median Project (between Sutter Ave and Eastern Pkwy, Brooklyn)	In design	30%
Kings Highway Green Street Median Project (Between Farragut Rd and Ave D, Brooklyn)	In design	30%
Baychester Ave Green Street Median Project (Between Bay Plaza Blvd and Hutchinson River Pkwy, Bronx)	In design	30%
Randall Ave Green Street Median Project (Between Rosedale Ave and Metcalf Ave, Bronx)	In design	30%

Private Property Incentives

Through the GI Grant Program, DEP funds design and construction costs for green roof retrofits, which is ongoing. Since 2011, \$14M has been committed to 34 property owners. One project finished construction with plantings completed in spring 2024.

Through Resilient NYC Partners, DEP funds stormwater management retrofits such as subsurface storage, porous pavement, and rain gardens for properties with large areas of impervious surface, which is ongoing. To date, six projects at four separate properties have been completed under this program. Projects at T. Mina Supply Inc. (Queens), Green-Wood Cemetery (Brooklyn), and Pratt Institute (Brooklyn) were completed in June 2024, and additional retrofits at Pratt Institute will be completed by August 2024. Construction at Flushing Hospital in Queens is anticipated to begin in August and be completed by mid-fall.

Stormwater Regulations

These projects are constructed by public and private property owners in compliance with Chapters 31 and 19.1 of Title 15 of the Rules of the City of New York, including the 2022 Unified Stormwater Rule and New York City Stormwater manual published as effective on February 15, 2022.

³ Progress for projects in Design reflect Design Submittals, and for projects In Construction the % construction progress based on construction contract duration.

Daylighting

Design for Tibbetts Brook daylighting project is ongoing and is anticipated to be the Program's largest green infrastructure project to-date providing significant CSO reduction and community benefits; additional project updates provided below.

- Advanced interagency coordination and design development with final design anticipated to be completed in fall 2024.
- Finalized acquisition of CSX property in June 2024 in accordance with Purchase and Sale Agreement between NYC and CSX
- Advanced progress on Metro North easement acquisition. ULURP for easement acquisition received unanimous approval from City Planning Commission in June 2024 with anticipated completion in August 2024
- Registered contract to begin Phase 1 lake restoration with work anticipated to begin in Summer 2024.

Projects Toward Next CSO Volume Milestone

As indicated in the Cumulative Green Infrastructure table, DEP has achieved the 2025 CSO milestone of 669 MGY CSO Reduction. The table below provides the status of projects currently underway during this quarter and contributing to the CSO volume reduction milestone of 700-800 million gallons per year (MGY) by December 31, 2030.

CSO Volume

Current Status

% Design or

Construction

Progress⁴

100%

31%

100%

99%

Statuses:

Waterbody

- 1. Geotech
- 2. Survey
- 3. Design
- 4. Construction procurement

GI Practice Class or

- 5. In construction
- 6. Completed

Drainage Area Estimate (MGY) **Program** East River/Open **ROW Porous** OH-015 Areawide 15-33 Design **ROW-Phase 1** Waters (EROW) **Pavement EROW ROW Porous OH-015 Areawide** 16-18 In construction **ROW-Phase 2 Pavement EROW ROW Porous OH-015** Areawide 24-36 Design **Pavement ROW-Phase 3 EROW ROW Rain Gardens** TI-03/23 Areawide 9-11 In construction and Stormwater **ROW**

Project

⁴ Progress for projects in Design reflect Design Submittals, and for projects In Construction the % construction progress based on construction contract duration.

	Green Streets, ROW Infiltration Basins				
Jamaica Bay	ROW Rain Gardens and Stormwater Green Streets, ROW Infiltration Basins	CI-005 Areawide ROW-Phase 1	9-11	In construction	100% - Substantial Completion April 2024
Jamaica Bay	ROW Rain Gardens and Stormwater Green Streets, ROW Infiltration Basins	CI-005 Areawide ROW-Phase 2	14-16	In construction	44%
Jamaica Bay	ROW Rain Gardens and Stormwater Green Streets, ROW Infiltration Basins	CI-005 Areawide ROW-Phase 3	16-18	In construction	39%
Coney Island Creek, EROW, Gowanus, Jamaica Bay	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS-01	2-3	In construction	52%
Alley Creek, EROW, Gowanus, Jamaica Bay	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS-02	3-5	In construction	31%
EROW	Cloudburst	Clinton Houses	0.3-0.5	Design	75%
Various	Private Onsite Retention and Detention	Resilient NYC Partners –Phase 1	2-5	Ongoing	
EROW	Special Projects	Central Park Stormwater Recovery and Reuse	2-4	Design	50%
EROW	Special Projects	Prospect Park Stormwater Recovery and Reuse	10-12	In construction procurement	
Various	Public Onsite Retention and Detention	Public Onsite GI-H- CONS-1	1-2	In construction procurement	
Various	Public Onsite Retention and Detention	Public Onsite GI-H- CONS-2	2-4	In construction procurement	

Various	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS-03	2-4	In construction	7%
Various	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS-04	2-5	Design	100%
Various	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS- 05/5A	3-5	In construction procurement	
Various	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS-06	1-2	Design	100%
Various	Public Onsite Retention and Detention	Expanded Public Onsite-GI-CONS-07	1-2	Design	100%
EROW	Special Projects	Tibbetts Brook Daylighting	215-220	Design	75%
Various	2022 USWR Retention and Detention ⁵	Development and redevelopment SMPs	6-30	TBD	

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 $^{^{\}rm 5}$ Estimates of CSO volume reduction for stormwater regulations will be updated on an annual basis.



*Public Participation Plan meeting photo taken prior to 3/2020, pre-COVID-19 distancing requirements.

DEP's Public Participation Plan was released to the public on **June 26, 2012** and describes the multi-pronged tools and activities DEP will utilize to inform and involve diverse stakeholders and the broader public throughout the LTCP process. The Plan provides a framework for communicating with and soliciting input from interested stakeholders on water quality and the challenges and opportunities for CSO controls.

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.

LTCP and Green Infrastructure Education & Outreach Meetings

Outreach Meeting	Date	Outreach Type	No. of Attendees
Green Infrastructure Grant Program Summer Workshop	June 5, 2024	Virtual	11

Updates on the LTCP Program including the submission of the Open Waters/Citywide LTCP are being shared with the public through the DEP website at nyc.gov/dep/ltcp.



DEP Bureau and corresponding Portfolio Manager and Accountable Manager.

	Project		DEP Responsible Personnel		
Planning Area			PM	AM	
Alley Creek	CSO-AC-DF-DES: Alley Creek CSO Disinfection	BEDC	Osit	-	
	CSO-FC-FB-DES: Flushing CSO Floatables Control	BEDC	Tysvaer	Harvey	
Flushing Bay	CSO-FC-DF-DES: Flushing CSO Disinfection Facility	BEDC	Tysvaer	Harvey	
	CSO-FB-TUN: Flushing Bay CSO Storage Tunnel	BEDC	Osit	Liu	
Newtown Creek	CS-NC-CST: CSO Storage Tunnel CS-NC-BAP: Borden Ave PS Expansion	BEDC BEDC	Tysvaer Tysvaer	Edden Harvey	
Bronx River	CS-BXR-009, CS-BXR-011: Hydraulic Relief at HP-009, Bending Weir and Baffle at HP-011	BEDC	A. Ng	Sadat	
Hutchinson River	CSO-HR-DF: Hutchinson River 2.5MG Conduit and Floatables Control	BEDC	Tysvaer	Szeto	
Jamaica Bay	CS-JB-MUS: Ribbed Mussels CS-JB-WET: Wetland Restorations BB-DRDG: Bergen Basin Dredging	BEPA BEPA TBD	McLaughlin McLaughlin TBD	TBD TBD TBD	
GI	Green Infrastructure	BEPA	Enoch	Kocovic	
	BB-216: Reconstruction of Primary Settling Tanks at Bowery Bay WRRF	BEDC	M. Osit	S. Liu	
Flushing Bay SOGR	BB-220: Replacement of Existing Emergency Generators at Bowery Bay WRRF	BEDC	M. Osit	S. Liu	
	HP-238: Replacement of Digesters at Hunts Point	BEDC	Y. Ma	S. Joseph	
	HP-239: Reconstruction of Sludge Handling Equipment at Hunts Point WRRF	BEDC	Y. Ma	S. Czernel	
	NR-111: Reconstruction of Primary Settling Tanks at North River WRRF	BEDC	M. Osit	F. Giardina	
	NR-129: Rehabilitation of North River WRRF Influent and Effluent Gates and Bar Screens	BEDC	M. Osit	F. Giardina	

	26W-149: Reconstruct tide gates and effluent chambers at the Spring Creek CSO Retention Facility WRRF	BWT	J. Hoffman	A. Garuba
	RO-2: Replace main sewage pumps at the Rockaway WRRF	BEDC	Y. Ma	Y. Ma
Jamaica Bay	R-151: Reconstruct fender and bulkhead at the Rockaway WRRF	BEDC	Y. Ma	Y. Ma
SOGR	CI-124: Reconstruct heating system and greenhouse gas reduction at the Coney Island WRRF	BWT	J. Hoffman	A. Garuba
	26W-144: Install 13 new centrifuges at the 26th Ward WRRF	BEDC	A. NG	R. D'Attile
	R-156: Reconstruct power distribution equipment at the Rockaway WRRF	BEDC	Y. Ma	S. Joseph