



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

CSO Order on Consent
Quarterly Progress Report
First Quarter 2024
(January 1st – March 31st)

April 30, 2024

Table of Contents

1. Executive Summary.....	3
2. Baseline CSO LTCP Projects	7
3. Overview of LTCP Program	9
3.1 Alley Creek CSO	10
3.2 Inner Harbor CSO	12
3.3 Flushing Bay CSO	13
3.4 Jamaica Bay and Tributaries CSO.....	16
3.5 Newtown Creek CSO	20
3.6 Bronx River CSO	22
3.7 Hutchinson River CSO.....	24
3.8 Citywide/Open Waters CSO	25
4. Appendix C State of Good Repair	27
5. Green Infrastructure Program.....	30
6. Community Relations	35
7. Key DEP Personnel	36



1. Executive Summary

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 **January 1, 2024** and **March 31, 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 **February 27, 2024** for the **fourth** quarter of **2023**.

Reportable Activity This Quarter

Date	Location	Event Description
1/30/2024	Inner Harbor	DEC requested a detailed timeline for dates of design submittals to U.S. EPA for the Gowanus Superfund CSO tanks along with the permit applications within 45 days.
3/5/2024	Flushing Bay	Submitted Rikers Island Feasibility Study
3/21/2024	Flushing Bay	Submitted Decision Matrix for Use of Rikers Island for Construction of New WRRF
5/10/2024	Flushing Creek	NOV issued for milestones and Dispute Resolution Underway

Date	Location	Event Description
		V.F.2, V.F.3, and V.F, TI-010 Disinfection at Flushing Creek CSO Retention Tank and Diversion Chamber 5 and TI-011 Outfall Disinfection, Floatables Control at TI-R09 and Diversion //Chamber 3. Extension of Dispute Resolution Timeframe was submitted on 2/16/2024, requesting additional 60 days for informal negotiations to 5/10/2024.

Milestone Actions This Quarter (January 1 – March 31, 2024)

Location	Item Description	Milestone Date	Action	Status
Flushing Bay	Engineering Design Report	12/2023	Submit	Submitted
Flushing Bay	Reconstruction of North River Primary Settling Tanks	12/2023	BODR	Submitted
Flushing Bay	Rikers Island Feasibility Study	3/28/2024	Submit	Submitted to DEC 3/5/2024
Flushing Bay	Decision Matrix for Rikers Island Use	3/28/2024	Submit	Submitted to DEC 3/21/2024

Milestone Actions Next Quarter (April 1 – July 31, 2024)

Location	Item Description	Milestone Date	Action Required	Status
Alley Creek	Wetlands Monitoring and Design	2/2024	Submit	DEP submitted to DEC on 2/24/2024 (Field Season One). DEC sent acknowledgment letter on 3/4/2024.
SOGR Appendix C	Reconstruction of Primary Settling Tanks at	3/2024	NTP	DEP submitted a force majeure on 2/12/2024, due to two low bidders withdrawing their bids.

	Bowery Bay WRRF			Request for 45 day extension from NTP date.
SOGR Appendix C	Reconstruct tide gates/effluent chambers at the Spring Creek CSO Retention Facility	3/2024	Construction Completion	DEP to respond to DEC's modification request response letter by 5/17/2024

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 to respond by 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 requesting additional data.	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 1/31/2024 5/31/2024	DEP to resubmit modification request to eliminate HP-007. DEC approved enforcement discretion extension to 5/31/2024.
Flushing Creek	Disinfection	DEP submitted modification request on 7/29/2024. DEC responded on 12/11/2023 denying modification request and an NOV for design	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	On 12/11/2023, DEC sent a Determination denying DEP's modification request and an NOV for design completion of the disinfection project. DEP responded on

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
		completion of Disinfection project.			12/15/2023 disputing DEC Determination and requesting informal discussions in accordance with the dispute resolution provision of the Order and an extension of time to file an Article 78 was granted on 12/19/2023. Based on productive discussions, the timeframe to complete informal discussions and to file an Article 78 has been extended, currently through 5/10/2024.
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



2. Baseline CSO LTCP Projects

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. Flushing Bay	V.A.4 Whitestone Interceptor	12/12/2014	\$22.0M
	V.A.9 Flushing Interceptor	Deleted	N/A
	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 Tributaries	VI.A.4 Parallel 48-inch Siphon/Interceptor	2/24/2017	\$20.2M
	VI.B.4 Bending Weirs	5/26/2016	\$6.8M

Location	Item Description	Construction Completion Certification Date	Project Cost
VIII. Newtown Creek	VIII.A.4 Enhanced Aeration in East Branch and Upper Newtown Creek	6/8/2018	\$16.7M
	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. Westchest er Creek	IX.A.4 Modifications to CSO-29 and CSO-29A	8/28/2020	\$18.9M
	IX.B.4 Pugsley Creek Parallel Interceptor start from CSO-24	1/23/2020	\$85.1M
XII. Jamaica Bay	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	\$90.6M
	XII.B.5 26 th Ward HLSS Phase 2B	10/31/2021	
	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 Island	XIV.A.2 Reconstruction of Main Sewage Pumps	8/16/2019	\$5.2M
	XIV.B.3 Bar Screen Replacement	1/6/2017	\$13.7M

3. Overview of LTCP Program

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.



3.1 Alley Creek CSO

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	DEC Approved Milestones	Status
1. Initiate Final Design	Sept 2018	Certified by DEP on 10/2/2017
2. Design Completion	Mar 2022 Mar 2026	Revised Milestone approved
3. Notice to Proceed to Construction	Sept 2022 Mar 2024	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.**

Alley Creek Wetlands Monitoring

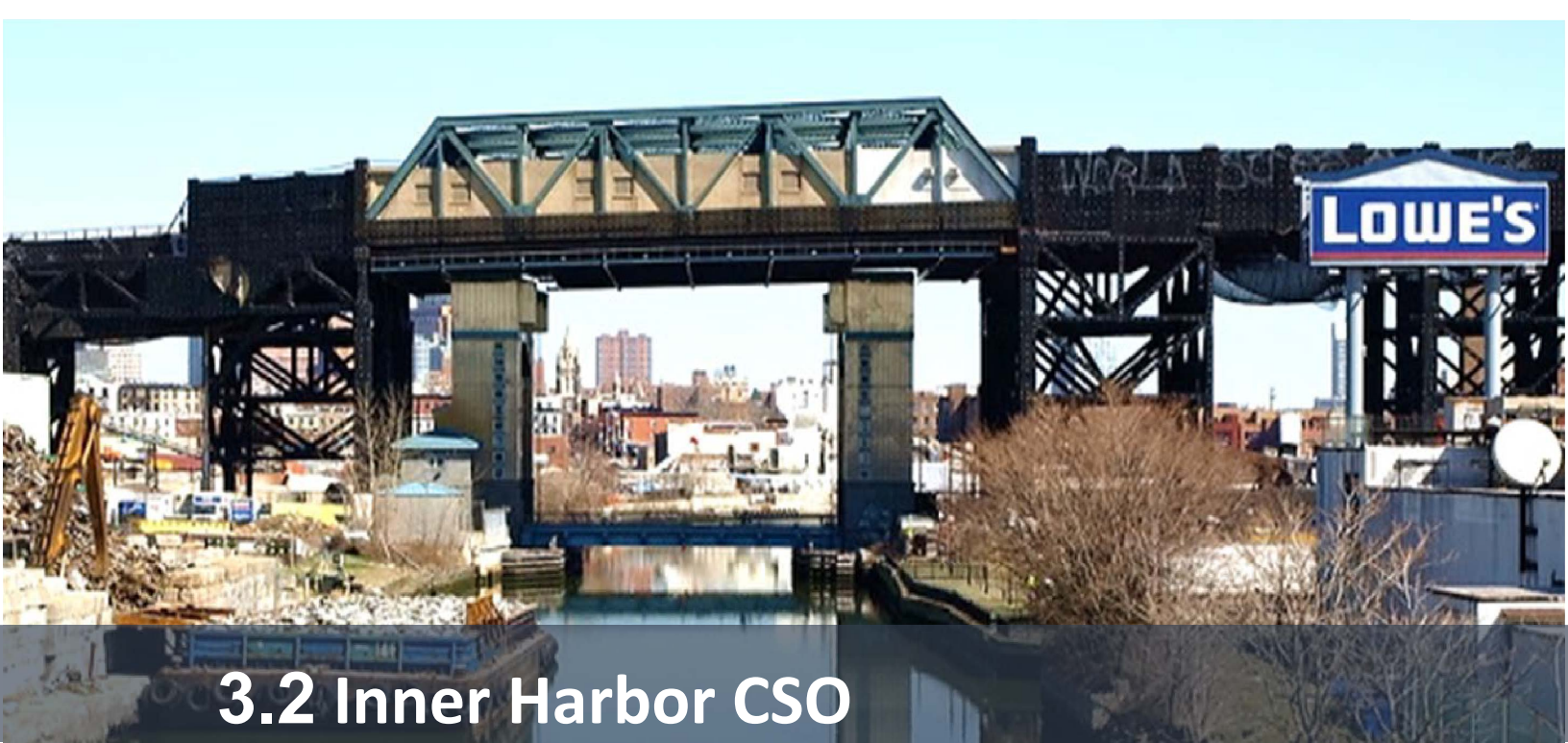
Alley Creek CSO	DEC Approved Milestones ⁽¹⁾	Status
Submit Literature Review	Nov 2022	Completed
Start Wetlands Monitoring	Jul 2023	Completed
Submit Wetlands Monitoring Progress Reports	Feb 2024	Completed
Submit Approvable Wetlands BODR	Nov 2024	Underway, On schedule
Submit Wetlands Monitoring Final Report	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 have had some internal meetings with 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 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 to discuss results. DEP is considering some additional follow up questions from the DEC.**

Alley Creek Oakland Ravine Daylighting Feasibility Study

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



3.2 Inner Harbor CSO

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.

3.3 Flushing Bay CSO

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. DEP is reviewing..

Flushing Bay CSO Schedule, CSO-FB-TUN

Flushing Bay CSO	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	Completed
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 5/10/2024.

Floatables Control is in the pre-mobilization stage. The Bending Weir submittal has been approved and fabrication will begin next quarter. This is a critical item as there is a 200-day lead time associated with the bending weir fabrication. 60% Design documents for Flushing Disinfection were submitted on March 15th. DEP's internal review process is on-going. The ULURP Pre-Application and EAS are under DEP review.

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

Flushing Creek CSO	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.
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.

3.4 Jamaica Bay and Tributaries CSO

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 DEP is awaiting DEC checklist to close this out. DEP is preparing a wet weather operating plan (WWOP) for the Rockaways and will also be providing DEC a hydraulic analysis for the Rockaway WRRF prior to the WWOP submittal.**

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	Underway, On schedule
5. Permanently seal tide gate chambers connected to active stormwater outfalls	May 25, 2024	Underway, On schedule

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-way is anticipated by the end of May 2024. .**

Jamaica Bay and Tributaries Schedule

E. Dredging of Bergen Basin	DEC Approved Milestones	Status
1. Initiate Final Design	Jul 2025	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

F. Installation of Ribbed Mussels in Bergen and Thurston 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	
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 Completion¹ 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 Plan³				
		Jun 2036	Pending DEP assessment of wetland restoration progress	

**3. Construction Completion⁴ 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.



3.5 Newtown Creek CSO

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 advancing with expected DEP acceptance in June.

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.

Newtown Creek CSO Schedule

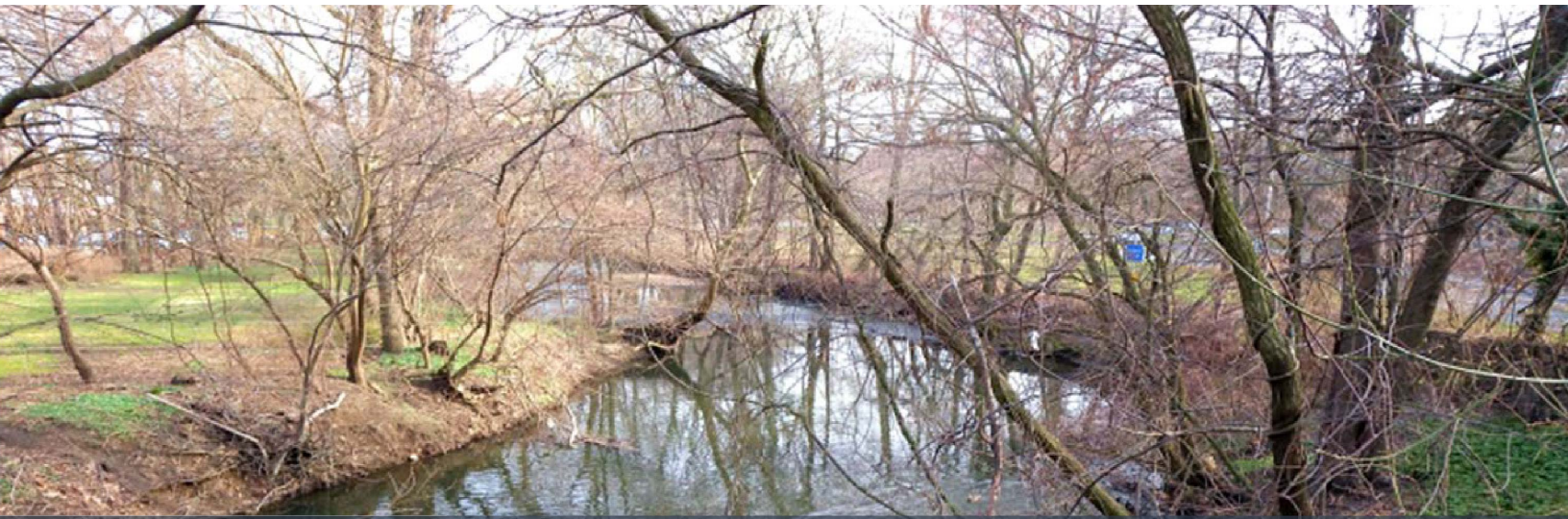
Borden Ave Pumping Station Expansion	DEC Approved Milestones⁽¹⁾	Status
1. Initiate Final Design	Jul 2021	Complete 7/29/2021
2. Design Completion	Dec 2024	Design In Progress

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.



3.6 Bronx River CSO

Bronx River LTCP, Bronx River Hydraulic Relief at HP-007 and 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 quantify 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.**

HP-011 and HP-009 contractors are obtaining necessary permits to start field activities in addition to submitting and receiving design approvals for the contact items. They have completed field investigations to prepare the submittals. Both contractors are mobilizing in April and will start contractual activities.

Bronx River CSO Schedule, CSO-BXR-DES

Bronx River CSO	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 and discussions are ongoing to eliminate HP-007.

4. Construction Completion	Sept 2026	TBD
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- (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.



3.7 Hutchinson River CSO

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

60% design ongoing. Presented project to PDC for conceptual approval last quarter. DEP expected to be able to conduct physical model testing in the next quarter.

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

Hutchinson Rive CSO	DEC Approved Milestones	Status
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



3.8 Citywide/Open Waters CSO

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.

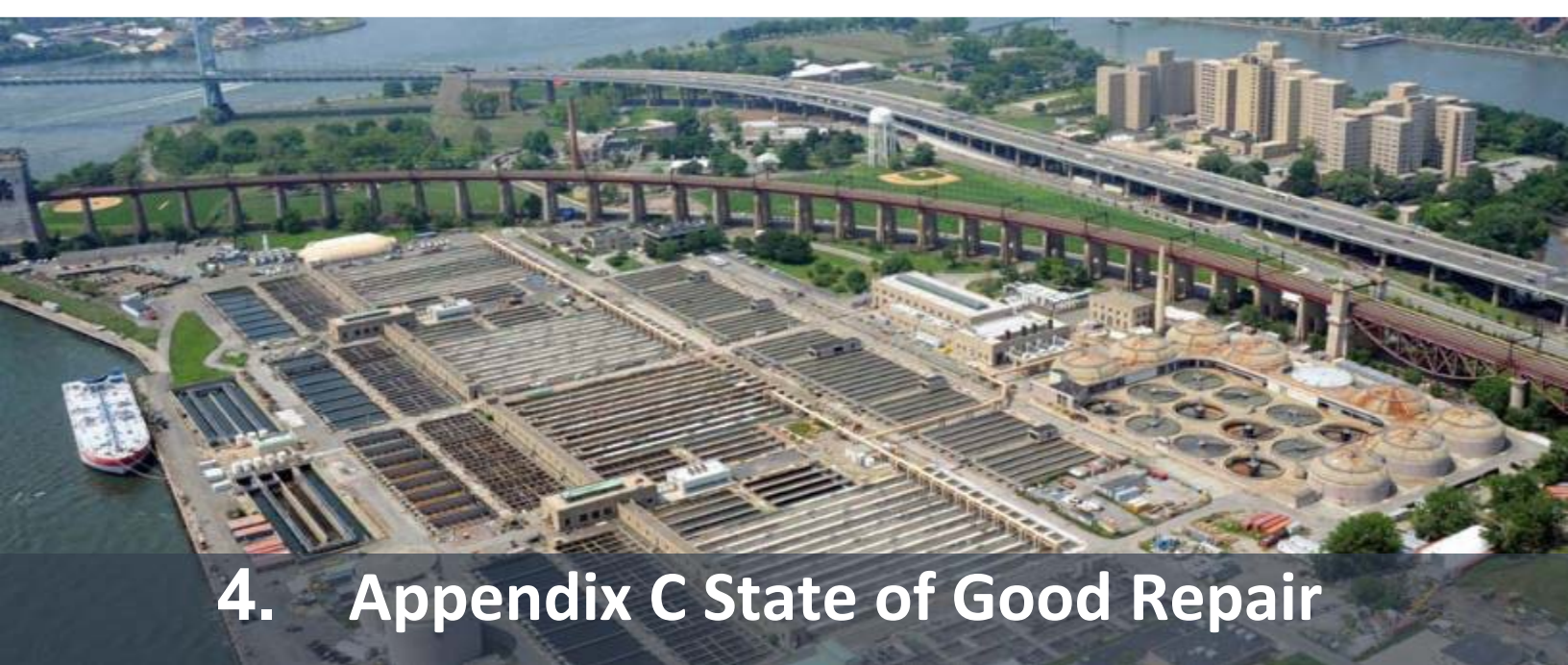
Coordinating with DDC on taking on all of the Citywide CSO projects and Capital Procurement Initiation forms were submitted to DDC and funding is in place.

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



4. Appendix C State of Good Repair

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.

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	12/2022	Completed
2. Design Completion	12/2021	12/2021
3. NTP Construction	3/2024	04/15/2024
4. Construction Completion	1/2029	On Schedule
B. Replacement of Existing Emergency Generators at Bowery Bay WRRF (BB-220)		
1. Submit Approvable BODR	12/2026	On Schedule
2. Design Completion	TBD	
3. NTP Construction	TBD	
4. Construction Completion	TBD	
C. Replacement of Digesters at Hunts Point WRRF (HP-238)		
1. Submit Approvable BODR	12/2022	Completed
2. Design Completion	6/2021	Completed
3. NTP Construction	4/2022	Completed30
4. Construction Completion	8/2028	% complete
D. Reconstruction of Sludge Handling Equipment at Hunts Point WRRF		
1. Submit Approvable BODR	12/2025	Preliminary Design
2. Design Completion	TBD	ongoing, on
3. NTP Construction	TBD	schedule for
4. Construction Completion	TBD	

Project	DEC Approved Milestones	Status
		BODR submission
E. Reconstruction of Primary Settling Tanks at North River WRRF (NR-111)		
1. Submit Approvable BODR	12/2023	Completed
2. Design Completion	2/2024	Completed
3. NTP Construction	12/2024	On Schedule
4. Construction Completion	6/2032	On Schedule
F. Rehabilitation of North River WRRF Influent and Effluent Gates and Bar Screens (NR-129)		
1. Submit Approvable BODR	12/2027	On Schedule
2. Design Completion	TBD	
3. NTP Construction	TBD	
4. Construction Completion	TBD	

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	9/2022	Complete
2. Design Completion	10/2017	Complete
3. NTP Construction	5/2021	Complete
4. Construction Completion	3/2024	CC -Delayed – Pending Mod
H. Replace main sewage pumps at the Rockaway WRRF		
1. Submit Approvable BODR	6/2025	Preliminary Design
2. Design Completion	TBD	ongoing, on
3. NTP Construction	TBD	schedule to
4. Construction Completion	TBD	submit BODR.
I. Reconstruct fender and bulkhead at the Rockaway WRRF		
1. Submit Approvable BODR	12/2026	Design-Build
2. Design Completion	TBD	procurement
3. NTP Construction	TBD	ongoing, on
4. Construction Completion	TBD	schedule to
submit BODR.		
J. Reconstruct heating system and greenhouse gas reduction at the Coney Island WRRF		
1. Submit Approvable BODR	12/2026	On Schedule
2. Design Completion	TBD	
3. NTP Construction	TBD	

Project		DEC Approved Milestones	Status
4. Construction Completion		TBD	
K.	Install 13 new centrifuges at the 26th Ward WRRF		
	1. Submit Approvable BODR	12/2026	On Schedule
	2. Design Completion	TBD	
	3. NTP Construction	TBD	
	4. Construction Completion	TBD	
L.	Reconstruct power distribution equipment at the Rockaway WRRF		Preliminary Design ongoing, on schedule to submit BODR.
	1. Submit Approvable BODR	12/2025	
	2. Design Completion	TBD	
	3. NTP Construction	TBD	
	4. Construction Completion	TBD	



5. Green Infrastructure Program

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.

Instead of Greened Acres, DEP now reports on CSO volume reduction by first calculating annual stormwater capture volume using practice-specific Stormwater Capture Equivalency Rates, then converts the stormwater volume to CSO volume reduction by applying Waterbody Drainage Area Specific Equivalency Rates, which represents 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

Watershed	2023 Total Asset Count in CSO Areas	2023 SW Capture (MGY)	Waterbody ER (SW MGY/CSO MGY)	2023 CSO Volume Reduction (MGY)
Alley Creek	11	2	2.75	1
Bronx River	490	70	3.67	30
Coney Island Creek	69	5	2.35	2
East River/Open Waters	2906	247	2.75	131
Flushing Bay	893	64	1.73	51
Flushing Creek	2238	228	1.87	119

Gowanus Canal	177	15	1.25	5
Hutchinson River	218	155	1.91	89
Jamaica Bay & Tribs	4735	600	2.75	162
Newtown Creek	1723	147	1.72	86
Westchester Creek	263	17	5	4
Total¹	13723	1549	-	680

Implementation Update

During Quarter 1 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

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.

¹ Sum may not add up to total due to rounding

Project	Status
Hillside Ave, Winchester Blvd and Martin Van Buren	In construction
N/S Conduit from 83 rd Street to 88 th Street	In design
N/S Conduit from Grant Av to Sutter Av	In design
Union Turnpike between Metropolitan Ave and 71 st Road	In procurement
Springfield Blvd from Lucas Street and Merrick Blvd	In procurement
Francis Lewis Blvd between 21 Rd and 20 Ave	In procurement
Howard Ave Green Street Median Project (between Sutter Ave and Eastern Pkwy, Brooklyn)	In design
Kings Highway Green Street Median Project (Between Farragut Rd and Ave D, Brooklyn)	In design
Baychester Ave Green Street Median Project (Between Bay Plaza Blvd and Hutchinson River Pkwy, Bronx)	In design
Randall Ave Green Street Median Project (Between Rosedale Ave and Metcalf Ave, Bronx)	In design

Private Property Incentives

Through the 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 has been recently constructed and is awaiting spring 2024 planting.

Through Resilient NYC Partners, DEP funds retrofit drainage improvements such as subsurface storage, porous pavement, and rain gardens for properties with large areas of impervious surface, which is ongoing. To date, two projects have been completed under this program. A project at Green-Wood cemetery is in construction and planning for spring 2024 planting. Pratt has a project in design.

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.

Daylighting

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

- Advanced interagency coordination and design development with final design anticipated to be completed in 2024.
- Held meetings and a site visit with the Tibbetts Advisory Group in 2023.
- Received Preliminary Approval and unanimous support of Public Design Commission in August 2023.
- Completed City Environmental Quality Review and released Environmental Assessment Statement in January 2024.

- CSX property acquisition by August 2024 - closing is currently scheduled in June.
- Metro North easement acquisition in process - discussions with MTA are productive and ongoing.
- Registered contract to begin Phase 1 lake restoration – with work anticipated to begin in Summer 2024.

Projects Toward Next CSO Volume Milestone

The table below provides the status of projects currently underway and contributing to the CSO volume reduction milestone of 700-800 million gallons per year (MGY) by December 31, 2030.

Waterbody Drainage Area	Program Area	Project	Current Status
East River/Open Waters (EROW)	ROW	OH-015 Areawide ROW-Phase 1	Advanced design
EROW	ROW	OH-015 Areawide ROW-Phase 2	In construction
EROW	ROW	OH-015 Areawide ROW-Phase 3	Advanced design
EROW	ROW	TI-03/23 Areawide ROW	In construction
Jamaica Bay	ROW	CI-005 Areawide ROW-Phase 1	In construction
Jamaica Bay	ROW	CI-005 Areawide ROW-Phase 2	In construction
Jamaica Bay	ROW	CI-005 Areawide ROW-Phase 3	In construction
Coney Island Creek, EROW, Gowanus, Jamaica Bay	Onsite	Expanded Public Onsite-GI-CONS-01	In construction
Alley Creek, EROW, Gowanus, Jamaica Bay	Onsite	Expanded Public Onsite-GI-CONS-02	In construction
EROW	Cloudburst	Clinton Houses	In design
Various	Private Incentives	Resilient NYC Partners – Phase 1	Ongoing
EROW	Special Projects	Central Park Stormwater Recovery and Reuse	50% design

EROW	Special Projects	Prospect Park Stormwater Recovery and Reuse	In construction procurement
Various	Onsite	Public Onsite GI-H-CONS-1	In construction
Various	Onsite	Public Onsite GI-H-CONS-2	In construction
Various	Onsite	Expanded Public Onsite-GI-CONS-03	In construction procurement
Various	Onsite	Expanded Public Onsite-GI-CONS-04	Designs complete
Various	Onsite	Expanded Public Onsite-GI-CONS-05/5A	In construction procurement
Various	Onsite	Expanded Public Onsite-GI-CONS-06	Designs complete
Various	Onsite	Expanded Public Onsite-GI-CONS-07	Designs complete
EROW	Daylighting	Tibbetts Brook Daylighting	In design



6. Community Relations

**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 Spring Workshop	March 6, 2024	Virtual	22

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.



7. Key DEP Personnel

DEP Bureau and corresponding Portfolio Manager and Accountable Manager.

Planning Area	Project	DEP Responsible Personnel		
		Bureau	PM	AM
Alley Creek	CSO-AC-DF-DES: Alley Creek CSO Disinfection	BEDC	Osit	-
Flushing Bay	CSO-FC-FB-DES: Flushing CSO Floatables Control	BEDC	Tysvaer	Harvey
	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	BEDC	Tysvaer	Edden
	CS-NC-BAP: Borden Ave PS Expansion	BEDC	Tysvaer	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	BEPA	McLaughlin	TBD
	CS-JB-WET: Wetland Restorations	BEPA	McLaughlin	TBD
	BB-DRDG: Bergen Basin Dredging	TBD	TBD	TBD
GI	Green Infrastructure	BEPA	Enoch	Kocovic
Flushing Bay SOGR	BB-216: Reconstruction of Primary Settling Tanks at Bowery Bay WRRF	BEDC	M. Osit	S. Liu
	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

Jamaica Bay SOGR	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
	R-151: Reconstruct fender and bulkhead at the Rockaway WRRF	BEDC	Y. Ma	Y. Ma
	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