

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

CSO Order on Consent Quarterly Progress Report

Second Quarter 2022

(April 1st – June 30th)

July 31, 2022

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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 was modified several times since 2005 including March 8, 2012 (collectively, the "CSO Order"). Pursuant to the Order, the City is required to submit quarterly status reports to DEC ("Quarterly Reports") describing actions taken toward achieving compliance with the 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, 2022** and **June 30, 2022**. 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 **June 22, 2022** for the **first** quarter of **2022** and is scheduled to hold a Quarterly Progress Meeting on **September 21, 2022** to discuss issues related to the CSO Order and review milestones met during the **second** quarter of 2022.

On March 19, 2020, DEP submitted a Notice of Force Majeure for the CSO Order due to the COVID-19 pandemic. DEP continues to monitor for any related impacts to CSO Order milestones, including supply chain delays related to the pandemic. To the extent any delays due to COVID-19 may impact future compliance with the milestones covered in this Quarterly Report, DEP will notify DEC and make best efforts to mitigate any delays.

Reportable Activity This Quarter

Date	Location	Event Description
6/2022	Citywide GI	GI 4% Contingency Plan informal negotiation extension request approved by DEC, extending time for informal discussions to August 31, 2022
73/2022	Flushing Bay	DEC accepts extension of FB CSO Tunnel informal discussions to 7/31/2022

Date	Location	Event Description
6/2022	Jamaica Bay	DEC acknowledges reclassification of Rockaway WRRF outfalls listed under SPDES permit, fulfilling Paragraph IV.E of the CSO Order
6/2022	Alley Creek	DEC acknowledged DEP's amended modification request for Alley Creek CSO facility and requests further modifications be provided by 7/15/2022
6/2022	Jamaica Bay	DEP provided DEC with requested Ribbed Mussel research activities on 6/1/2022

Milestone Actions This Quarter (April 1 – June 30, 2022)

Location	Item Description	Milestone Date	Action Required	Status
Jamaica Bay	26 th Ward PST Improvements a Construction	and 10/27/2021	Certification of Milestone Completion	Complete, DEC approved on 2/22/2022

Milestone Actions Next Quarter (July 1 – September 30, 2022)

Location	Item Description	Milestone Date	Action Required	Status
Flushing Bay	Initiate Final Design of CSO Tunnel	9/30/2022	Extended Milestone Date	Modification requests submitted and DEC using enforcement discretion pending informal discussions. DEP anticipates having completed informal discussions.
Alley Creek LTCP	Design Completion NTP to Construction	9/30/2022 9/30/2022	Extended Milestone Date	DEP to submit an amended modification request by August 15, 2022
Bronx River LTCP	Design Completion for Conveyance Improvements and Floatables Control at HP-011	9/30/2022		DEP submitted a modification request to eliminate work associated with HP-007 and is currently updating modeling analysis to support request

Hutchinson River LTCP	Design Completion for HP-024 outfall facility	9/30/2022	DEP submitted a modification request to eliminate disinfection and replace with storage. DEP is updating this modification request and will submit to DEC.
Flushing Creek LTCP	Design Completion for Floatables and Disinfection Facilities	9/30/2022	DEP is preparing a modification request to separate floatables and disinfection projects and request an extension of the disinfection consistent with BODR.

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

Location	Item Description	Action(s)	Reason for Action(s)	Milest	one Date	Status
Alley Creek LTCP	Alley Creek CSO Retention Facility Disinfection System	DEP and DEC are in discussions concerning DEP's amended modification request dated April 14, 2022. DEC exercising enforcement discretion for the March 2022 design completion milestone through August 15, 2022.	To evaluate a identify an appropriate		Design Completion March 2022	DEP to submit an updated modification request by August 15, 2022.

Location	Item Description	Action(s)	Reason for Mile	estone Date	Status
All Locations	All open/ active milestones	DEP submitted a FM notice on 3/19/20 for all active/open milestones DEC responded to FM notice on 3/23/20 and requested further review in 60 days by DEP to assess impacts.	Force Majeure COVID-19 – with potential delays due to ongoing pandemic	Multiple	DEP continues to monitor for any delays due to the ongoing pandemic. If any delay is identified, DEP will submit an updated notice to DEC.
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	DEP is performing additional water quality model runs to clarify any impact of eliminating the HP-007 element of the project
Hutchinson River	Disinfection Project	DEP submitted a modification request on 3/16/2021 to eliminate disinfection and replace it with a 2.8 MG Storage Conduit and DEP responded on 4/6/2021 requesting additional information.	DEP has identified some concerns about complexities of operating an interim CSO disinfection system at this location and believes a storage alternative will be more cost effective.	9/30/2022	DEP presented findings to DEC on 6/8/2022 to support DEP's modification request. DEP is preparing a written response to the DEC comment letter. DEP anticipates that a modification to the milestone schedule will be needed based on the BODR submittal. DEP is preparing to submit such request within 60 days of the design completion milestone.

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
Flushing Creek	Disinfect ion and floatable s control project	Split the approved Flushing Creek LTCP project for floatables control and disinfection into 2 separate projects and set of milestones	Disinfection element of the Work requires property acquisition to accommodate DEC's addition of dechlorination to the recommended Flushing Creek LTCP. DEP has identified three properties that DEP must acquire prior to completion of design to accommodate both disinfection and dechlorination at the Flushing Bay CSO Retention Facility.	Design Completion: 9/30/2022	DEP is preparing a modification request to be submitted to DEC within 60 days of the design completion milestone



The CSO Order contains milestones and schedules governing the planning, design and construction of DEP's Citywide CSO Program. Numerous CSO-related facilities will be constructed to reduce combined sewage discharges to the receiving waters surrounding the City. The table below identifies, by percentage, the estimated amount of construction that has been performed on projects that are in progress.

Location	Item Description	Notice to Proceed	Construction Completion Milestone	Actual/Projected Completion	% of Time Elapsed	% of Construction Completed ⁽¹⁾
Jamaica Bay Tributaries	Bergen Basin 18" Sanitary Sewer	Jan 2019	Oct 2021	Sept 2020	78%	100%
	26 th Ward HLSS Phase 1	Mar 2016	Dec 2018	Dec 2018	100%	100%
Jamaica Bay	26 th Ward HLSS Phase 2A	Sept 2017	Dec 2021	Jan 2021	100%	100%
	26 th Ward HLSS Phase 2B	Sept 2017	Dec 2021	Dec 2021	100%	99%
Jamaica Bay	26 th Ward HLSS Phase 3	Mar 2020	Dec 2022			

Location	Item Description	Notice to Proceed	Construction Completion Milestone	Actual/Projected Completion	% of Time Elapsed	% of Construction Completed ⁽¹⁾
	26 th Ward PSTs 1-5	Jan 2016	Jan 6, 2022	Oct 2021	100%	92%

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



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 an amended modification request April 14, 2022 and is in discussions with DEC concerning that modification request and evaluation and identification of an appropriate alternative to disinfection.

Alley Creek CSO Schedule, CSO-AC-DF-DES

Alley Creek CSO	DEC Approved Milestones ⁽¹⁾	Status
Initiate Final Design	Sept 2018	Certified by DEP Oct 2, 2017
2. Design Completion	Sept 2021⁽¹⁾ Sept 2022 ⁽¹⁾	BODR Completed, 10% Design TBD pending discussions with DEC on alternatives to disinfection
Notice to Proceed to Construction	Sept 2022 ⁽¹⁾	TBD Pending Design Completion
4. Construction Completion	Sept 2024 ⁽¹⁾	TBD Pending Design Completion

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



Gowanus Canal CSO LTCP Approved on March 29, 2017

- February 27, 2015 DEP certified construction completion of the Flushing Tunnel Modernization and Pump Station Reconstruction as of December 24, 2014 and June 20, 2014 respectively.
- April 13, 2015 DEC accepted DEP's certification of construction completion in accordance with the CSO Order.
- DEP continues to operate the Flushing Tunnel in accordance with its operational plan.
- DEP completed a project to mitigate foam from the Gowanus Canal Flushing tunnel as of January 3, 2020.



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.

Construction Contracts

	Tallman Island Flushing Interceptor	Divert Low-Lying Sewers / Raise Weir BB-R02	Regulator Modifications	Environmental Dredging
Contract ID	TBD	CS-FB-LLD	CS-FB-BWR	CSO-DRDG DRG-FB
Plan Elements	Monitor Flushing Interceptor sag in Ulmer Street and address if periodic monitoring indicates necessity	Divert Low Lying sewers in vicinity of Bowery Bay WRRF. Raise weir at regulator BB-02	Bowery Bay High Level Interceptor regulator modifications at ten regulators	Environmental Dredging of Flushing Bay
Location	From MH 45 at Whitestone Expressway to MH 29 at Ulmer Street and 25 th Avenue	Regulator BB-02. Berrian Blvd and 19 th Ave between 43 rd St. and 45 th St.	Five of ten regulators along 108 th street, Ditmars Blvd and the LaGuardia Airport site	Proximate to CSO Outfalls BB-006 and BB-008
Construction Cost	TBD	\$5,610,000	\$28,959,345	\$37,560,000
Status	Next scheduled survey in 2022	Certified Complete on 9/11/2017	Certified Complete on 6/8/2018	Completed on 8/16/18.

Design Activity Summary

	This Quarter	Next Quarter
Divert Low-Lying Sewers / Raise Weir BB-R02	• Complete	
Regulator Modifications	• Complete	

Construction Activity Summary

	This Quarter	Next Quarter
Divert Low-Lying Sewers / Raise Weir BB-R02	Certified completion on 9/11/2017	
Regulator Modifications	 Certified completion on 6/8/2018 	
Environmental Dredging	 Certified completion on 8/16/2018. Finished 2-year maintenance period DEC accepted Certificate of Construction Completion on 10/29/2018 	

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

Flushing Bay CSO Schedule, CSO-FB-TUN

Flushing Bay CSO	DEC Approved Milestones ⁽¹⁾	Status
1. Initiate Design	Jul 2021 Sept 2022 ⁽¹⁾	Proposed CSO Order Modification to be sent to DEC
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 based on additional facility planning.

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

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

Flushing Creek CSO	DEC Approved Milestones	Status
1. Initiate Final Design	Dec 2018	Certified by DEP on Feb 8, 2019
2. Design Completion	Sept 2022	Design in progress – Delays anticipated due to land acquisition needed to site disinfection system. Modification request to be submitted and project to be broken into two (2) separate projects.
3. Notice to Proceed to Construction	Sept 2023	TBD Pending Design Completion
4. Construction Completion	Dec 2025	TBD Pending Design Completion

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



The Jamaica Tributaries CSO Facility Planning area includes the drainage area of the Jamaica WRRF and its associated sewers and pumping stations. The receiving waters of the study area are Bergen, Thurston, Shellbank, and Hawtree Basins, which are located along the eastern shore of Jamaica Bay on either side of JFK International Airport.

Construction Contracts

	Parallel 48-inch Siphon / Interceptor	Bending Weirs	Bergen Basin 18" Sewer
Contract ID	CS-JA-BBS	CS-JA-BWR	SEQ002714
Plan Elements	Parallel 48-inch Sewer	Bending Weirs	18-inch Sanitary Sewer
Location	Belt Parkway Queens	Regulator J6 on the East Interceptor and regulators J3 and J14 on the West Interceptor	150 th Ave between 126 and 129 Streets
Construction Cost	\$20,256,909	\$6,853,955	\$4,990,000
Status	Completed	Completed	Completed
Other Issues			

Design Activity Summary

	This Quarter	Next Quarter
Parallel 48-inch Siphon/Interceptor	NA- Complete	
Bergen Basin 18" Sewer	NA- Complete	

Construction Activity Summary

	This Quarter	Next Quarter
Parallel 48-inch Siphon/Interceptor	• Complete as of 2/28/17	
18-inch Sanitary Sewer in 150 th Avenue	• Complete as of 7/6/20	



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.

Construction Contracts

	Enhanced Aeration 2	Bending Weirs / Floatables Control
Contract ID	CSO-NC-3	CS-NC-REG & FLO
Plan Elements	Enhanced Aeration	Floatable Controls and Overflow Reduction
Location	East Branch and Upper Newtown Creek	Dutch Kills, Maspeth Creek, English Kills and East Branch
Construction Cost	\$16,704,250 (G+E+H Contract amounts together)	\$43,763,292
Status	Certified Complete – 6/9/18	Certified Complete – 11/22/2017
Other Issues		

Design Activity Summary

	J	
	This Quarter	Next Quarter
Enhanced Aeration 2	NA - Complete	
Bending Weirs / Floatables Control	NA - Complete	

Construction Activity Summary

		This Quarter	Next Quarter
Enhanced Aeration 2	•	Complete	
Bending Weirs / Floatables Control	•	Post Construction Monitoring Completed 8/19/2019	

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

Newtown Creek CSO Schedule

Borden Ave Pumping Station Expansion	DEC Approved Milestones	Status
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	TBD Pending Design Completion
4. Construction Completion	Sep 2029	TBD Pending Design Completion

CSO Storage Tunnel	DEC Approved Milestones	Status
1. Initiate Final Design	Jun 2025	DEP Procuring Contract
2. Design Completion	May 2028	TBD Pending Design Start
3. Notice to Proceed to Construction	Aug 2030	TBD Pending Design Completion
4. Construction Completion	Jun 2042	TBD Pending Design Completion



The Westchester Creek CSO Facility Planning area includes a portion of the Hunts Point WRRF drainage area, its associated sewers, and pumping stations that discharge to Westchester Creek and Pugsley Creek in the Bronx.

Construction Contracts

	Modifications to CSO-29 and CSO-29A	Pugsley Creek Parallel Interceptor Start from CSO-24
Contract ID	CS-ER-WCM	CS-ER-WCP
Plan Elements	Improve flow control structures in sewers to convey more flow to the Hunts Point WRRF	Reduce CSO discharges to Pugsley Creek, which would otherwise increase because of the conveyance improvements at Eastchester Road
Location	Eastchester Road, Bronx	Classon Point, Bronx
Construction Cost	\$18.9 Million	\$85.1 Million
Status	Completed	Completed
Other Issues		

Design Activity Summary

	This C	Quarter	Next Quarter
Modifications to CSO-29	•	Completed	
and CSO-29A			
Pugsley Creek Parallel Interceptor Start from CSO-24	•	Completed	

Construction Activity Summary

	This Quarter	Next Quarter
Modifications to CSO-29 and CSO-29A	• Completed	
Pugsley Creek Parallel Interceptor Start from CSO-24	 Completed 	



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

Bronx River CSO Schedule, CSO-BXR-DES

Bronx River CSO	DEC Approved Milestones	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 - Under DEC review
3. Notice to Proceed to Construction	Sept 2023	TBD Pending Design Completion
4. Construction Completion	Sept 2026	TBD Pending Design Completion

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

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



Hutchinson River LTCP, CSO Outfall HP-024 Extension and Floatables Control Facilities, CSO Outfall HP-024 Extension Disinfection, Approved on March 7, 2017

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

Hutchinson River CSO	DEC Approved Milestones ⁽¹⁾	Status ⁽²⁾
Initiate Final Design, Extension and Floatables Control	Sept 2018	Design Initiated 8/15/2018
2. Design Completion	Sept 2022	DEP submittedmodifications to design scope on 3/16/21 - Under DEC review
3. Notice to Proceed to Construction	Sept 2023	TBD Pending Design Completion
4. Construction Completion	Mar 2026	TBD Pending Design Completion
Initiate Final Design, Extension Disifection	Sept 2022	Design Initiated 8/15/2018
2. Design Completion	Mar 2026	DEP submitted modifications to design scope on 3/16/21 - under DEC review
3. Notice to Proceed to Construction	Mar 2027	TBD Pending Design Completion
4. Construction Completion	Mar 2030	TBD Pending Design Completion

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

⁽²⁾ Pending modification request to eliminate disinfection and construct storage conduit. Currently the CSO Order has two distinct projects, but it is being designed and will be constructed pursuant to one contract.



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

Rockaway WRRF - Consent Order Modification Compliance Schedule

Order Modification was effective May 25, 2021

Note: DEP received the executed Order on June 23, 2021.

Jamaica Bay CSO	DEC Approved Milestones	Status
DEP shall send a letter to DEC requesting the removal of outfalls	June 24, 2021	Submitted July 16, 2021
2. DEP submit an inspection report documenting inspections conducted of the outfalls and diversion and regulator/tide gate chambers	November 21, 2021	Submitted November 19, 2021
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	Due 4 years from effective date of the Order
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	Due 3 years from effective date of the Order
5. Submit permit modification request to remove/redesignate as an MS4 outfall currently SPDES-designated CSO outfalls ROC-009, ROC-013, ROC-014, ROC-032, and ROC-033	Due 90 days from approval of Inspection Report	Incorporated into proposed modified SPDES permit-
6. Permanently seal tide gate chambers connected to active stormwater outfalls as identified in the Inspection Report	May 25, 2024	Due 3 years from effective date of the Order

Construction Contracts

	26 th Ward High Level Sewer Separation	26 th Ward Wet Weather Stabilization
Contract ID	CS-FC-SEW	26W-12(CO 128) 26W-21, 26W-20
Plan Elements	Remove storm water contribution from 285 acres from the combined sewer system	Low Level MSPs High Level MSPs PST#5 PST1-4 Stabilization
Location	Fresh Creek, Brooklyn	26 th Ward WWTP, Brooklyn
Construction Cost	\$58 million for Phase 1A; \$90.6 million for Phases 2A and 2B; 235.5 million for Phases 3A and 3B (estimated)	LLMSP \$7.6 million 26W-21 \$17.3 million 26W-20 \$ 155.8 million
Status	Phase 1A construction completed, with variance from approved design Phase 2 construction is complete. Phase 3 deleted from the Order on July 19, 2021.	Completed (LLMSPs) Completed (26W-21) In Construction (26W-20)
Other Issues	Completed Phase 2 Phase 3 removed from Consent Order	

Design Activity Summary

	This Quarter	Next Quarter
26 th Ward High Level Sewer Separation	 Design for Phase 2 – Complete Design of Phase 3 is cancelled following DEC acknowledgement of project Cancellation on 07/19/2021 	
26 th Ward Preliminary Treatment Reliability Improvements	• Complete	

Construction Activity Summary

	This Quarter	Next Quarter
26 th Ward High Level Sewer Separation	 Phase 2A (SE853) Certified Construction Completion on December 6, 2021 Phase 2B (SE855) Certified Construction Completion on December 6, 2021 	
26 th Ward Preliminary Treatment Reliability Improvements	 PST work (26W-20): Milestone certified completed 10/27/2021 	



The Wards Island WRRF Headworks Wet Weather Improvements consist of work done at the WRRF to increase its wet weather handling capacity. The projects described in this section 3.7 were added to the 2012 CSO Order through a modification effective March 26, 2015 (DEC Case No. CO2-20140314-01).

Construction Contracts

	MSP Reconstruction	Bar Screen Replacement
Contract ID	WI - 288(R)	WI – 280
Plan Elements	Reconstruction of Six (6) MSPs	Replace Bar Screens at Bronx and
		Manhattan Grit Chambers
Location	Wards Island WRRF	Wards Island WRRF
Status	Completed	Completed
Construction Cost	\$5,292,653	\$13,715,000
Other Issues	None	None

Design Activity Summary

	This Quarter	Next Quarter
MSP Replacement	• Complete	
Bar Screen Replacement	• Complete	

Construction Activity Summary

	This Quarter	Next Quarter
MSP Replacement	 Completed reconstruction of the 6th MSP (MSP#3 on July 24, 2019) 	•



DEP has undertaken these projects in connection with the settlement of a New York State and DEC enforcement action. The Environmental Benefit Projects (EBPs) are funded by DEP and designed to abate CSOs and/or address wet weather water quality impacts from CSOs and to benefit the waters in and around New York City.

The 2008 modifications to the CSO Consent Order require not less than \$4 million worth of DEP-funded Environmental Benefit Projects (EBPs) designed to abate CSOs and/or address wet weather water quality impacts from CSOs and to benefit the waters in and around New York City. In addition to the EBPs, the 2012 Order requires that \$2 million in EBP funding be allocated toward the Hutchinson River and Newtown Creek Neighborhood Demonstration Areas. That funding commitment was met and the Demonstration Area projects are now complete.

DEP completed monitoring for all six EBPs and has disbursed all payments to the EBP grantees. In November 2020, DEP submitted all close-out materials for the EBPs to DEC. On December 1, 2020, DEC confirmed receipt of the close-out materials. On December 14, 2020, the final grantee payment was received.



The 2012 CSO Consent Order sets forth schedule and stormwater capture targets and other requirements for the program to reduce CSO volume through the use of green infrastructure.

Program Implementation

DEP has identified Priority Areas based on several criteria, such as annual CSO volume, frequency of CSO events, and projected benefits of projects constructed through DEP's Waterbody/Watershed Facility Plans or other system improvements planned. DEP also notes outfalls in close proximity to existing and future public access locations. DEP continues to review and expand the Priority Areas to ensure sufficient green infrastructure implementation to meet the 2030 goal set forth in the Order.

The identification of Priority Areas has enabled DEP to focus resources on specific CSO tributary areas, to analyze all potential opportunities, to saturate these areas with green infrastructure as much as possible, and to achieve efficiencies in design and construction.

DEP has initially focused primarily on the Area-wide rightof-way contracts building curbside rain gardens, infiltration basins, Stormwater Greenstreets, and porous paving. DEP's standardized designs and procedures have been critical to supporting the systematic implementation of green infrastructure at a wide scale. DEP expects to continue green infrastructure implementation using an expanded array of tools. While right-of-way implementation has been the greatest focus of the first decade of the Program, DEP is making significant advancements into other implementation areas as well,





expanding public on-site retrofits on schools, parks and housing properties, advancing new stormwater regulations, exploring daylighting opportunities in the Bronx, and implementing stormwater recovery and reuse projects.

During the **Second Quarter of 2022**, planning, design and construction work continued in several Green Infrastructure (GI) Program initiatives and are generally summarized below.

- ROW Ongoing Area-wide GI contracts to design and build thousands of curbside rain gardens, infiltration basins, stormwater Greenstreets, and porous pavements in NYC's streets and sidewalks. Design and construction contracts are being implemented in multiple phases.
- Public Property Retrofits Ongoing siting, design and construction of public property retrofits in coordination with City agency and non-profit partners.
- Green Infrastructure Grant Program Ongoing design and construction of GI Grant Program projects on private property.
- Private Incentives Retrofit Program Branded as Resilient NYC Partners, program seeks to implement green infrastructure on private property to manage 200 greened acres over five years. Property owner engagement is ongoing.
- Large-scale Street Medians Ongoing siting and design by DEP's in-house green infrastructure design team, which focuses on large-volume capture opportunities within public medians with the added benefit of localized flooding alleviation; construction is also ongoing.
- Stormwater Reduction & Reuse Ongoing design for Central Park and Prospect Park stormwater reuse projects that reduce potable demand and CSOs
- Tibbetts Brook and Van Cortlandt Lake Park Improvements
 Ongoing design for Tibbetts Brook daylighting project,
 anticipated to be the Program's largest green infrastructure
 project to-date providing significant CSO reduction and
 community benefits

Unified Stormwater Rule – amendments to Chapters 31 and 19.1 of Title 15 of the Rules of the City of New York (RCNY)





and New York City Stormwater manual published as effective on February 15, 2022.

Status of Constructed Green Infrastructure Assets and Greened Acres

Watershed	Total Green Infrastructure Assets	Total ROW Linear Feet Porous Pavement	Total Greened Acres
Alley Creek	4	-	1
Bronx River	428	-	130
Coney Island Creek	55	-	13
East River / Open Waters	1,486	-	539
Flushing Bay	814	6,145	99
Flushing Creek	2,071	-	264
Gowanus Canal	142	-	27
Hutchinson River	209	5,402	33
Jamaica Bay & Tributaries	4,599	3,544	770
Newtown Creek	1,515	2,349	189
Westchester Creek 230		-	30
Total	11,553	17,440	2,094

Status of 1.5% Green Infrastructure Application Rate¹

On December 30, 2021 DEP submitted the Green Infrastructure 1.5% Application Rate Certification to DEC. The table below lists the constructed assets and corresponding greened acres and CSO volume reduction to meet the 1.5% application rate of 1,181 greened acres and 507 MGY pursuant to the Order and set forth in the Contingency Plan

Waterbody	Outfalls	Greened Acres (ac-in)	Annual CSO Volume Reduction (MGY)
Bronx River	HP-004	11.9	5.1
	HP-007	52.1	22.3
	HP-008	3.4	1.4
	HP-009	1.8	0.8
Flushing Bay	BB-006	29.8	12.8
	BB-008	22.3	9.6
Flushing Creek	TI-010	185.9	79.8
	TI-011	19.6	8.4
	TI-022	5.8	2.5
Gowanus Canal	OH-005	0.1	0.0
	OH-007	3.1	1.3
	RH-034	3.7	1.6
Hutchinson River	HP-023	2.3	1.0
	HP-024	8.7	3.7
Jamaica Bay and Tributaries	26W-003	91.1	39.1
	26W-004	44.2	19.0

¹ The information in the above Table is correct as of October 25, 2021.

	26W-005	322.7	138.5
	CI-004	0.1	0.0
	JAM-003	130.4	55.9
	JAM-003a	15.6	6.7
	JAM-005	18.3	7.8
	JAM-006	0.1	0.0
Newtown Creek	BB-009	16.3	7.0
	BB-013	0.2	0.1
	BB-026	15.1	6.5
	NCB-015	67.4	28.9
	NCB-083	0.2	0.1
	NCQ-029	2.4	1.0
	NCQ-077	25.8	11.1
Westchester Creek	HP-012	1.0	0.4
	HP-014	10.0	4.3
	HP-015	0.1	0.0
	HP-016	1.6	0.7
	HP-033	5.2	2.2
Total Waterbody		1118.2	479.7
East River / Open Waters	HP-002	2.6	1.1
	NCB-013	0.7	0.3
	NCB-014	66.3	28.5
	NCB-027	0.3	0.1

	NCM-052	0.1	0.0
	RH-005	4.2	1.8
	WIM-012	0.1	0.0
Total		1192.4	511.6

Notes: Summary table provided for informational purposes; greened acres and annual CSO volume reduction exceeding the 1.5% application rate milestone will be applied toward the 4% application rate milestone

Status of Green Infrastructure 4% Contingency Plan Projects

DEP submitted a Contingency Plan for the 4% Green Infrastructure milestone on June 30, 2021 (4% Contingency Plan). DEC conditionally approved the 4% Contingency Plan on August 23, 2021 (DEC Determination). DEP is reviewing the DEC Determination. **The table below provides the status of the projects included in the 4% Contingency Plan.**

Priority Waterbody	Project	Current Status	Anticipated Construction Completion Date		
EROW	OH-015 Areawide ROW – Phase 1	Survey	December 31, 2025		
EROW	OH-015 Areawide ROW – Phase 3	Survey	December 31, 2025		
EROW	TI-03/23 Areawide ROW	Awarded	December 31, 2025		
Jamaica Bay	CI-005 Areawide ROW – Phase 1	NTP	December 31, 2025		
Coney Island Creek, EROW, Gowanus, Jamaica Bay	Expanded Public Onsite – GI-CONS-01	Awarded	December 31, 2025		
Alley Creek, EROW, Gowanus, Jamaica Bay	Expanded Public Onsite – GI-CONS-02	Bid procurement	December 31, 2025		
Various	Private Incentives Retrofit Program – "Resilient NYC Partners" – Phase 1	Ongoing	December 31, 2025		
EROW Central Park Stormwater Recovery and Reuse		50% design	December 31, 2025		
EROW	Prospect Park Stormwater Recovery and Reuse	50% design	December 31, 2025		



*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	June 8, 2022	Virtual	101		

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.

		DEP Responsible Personnel			
Planning Area	Project	Bureau	PM	AM	
Alley Creek	CSO-AC-DF-DES: Alley Creek CSO Disinfection		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	CSO-NC-4: Dutch Kills, Lower Newtown	BEDC	Tysvaer	Ekhlas	
	CSO-NC-3: East Branch, Upper Newtown	BEDC	Tysvaer	Ekhlas	
	CSO-NC-2: Enhanced Aeration Lower English Kills	BEDC	Tysvaer	Adabi	
	CS-NC-REG&FLO: Regulators / Floatables Control		Tysvaer	Ekhlas	
Bronx River	CSO-BXR-DES: Bronx River LTCP	BEDC	Solimando	Sadat	
Hutchinson River	CSO-HR-DF-DES: Hutchinson River Disinfection	BEDC	Tysvaer	Szeto	
Jamaica Bay	CS-FB-SEW: 26th Ward / Fresh Creek HLSS	BWSO	Gordon	Proscia	
	26W-20: 26th Ward Wet Weather Stabilization	BEDC	Solimando	Heim	
26W-21: 26th Ward High Level MSPs		BEDC	Solimando	Heim	
EBP	EBP Environmental Benefit Projects		McLaughlin	Chen	
GI	Green Infrastructure	BEPA	Enoch	Kocovic	



The goal of each Long-Term Control Plan (LTCP) is to identify appropriate CSO controls necessary to achieve waterbody-specific quality standards, consistent with EPA's 1994 CSO Policy and subsequent guidance.

LTCP Milestones

	CSO Watershed	LTCP Milestone	Status
1	Alley Creek	June 2013	Approved 3/7/17
2	Westchester Creek	June 2014	Approved 8/1/17
3	Hutchinson River	September 2014	Approved 3/7/17
4	Flushing Creek	December 2014	Approved 3//7/17
5	Bronx River	June 2015	Approved 3/7/17
6	Gowanus Canal	June 2015	Approved 3/29/17
7	Coney Island Creek	June 2016	Approved 4/4/18
8	Flushing Bay	December 2016	Approved 3/7/17
9	Newtown Creek	June 2017	Approved 6/27/18
10	Jamaica Tributaries & Bay¹	June 2018	DEC provided supplemental comments document 10/11/19
11	Citywide/Open Waters	May 2020	DEC Review

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.

New York City CSO Watersheds





The status of all Long-Term Control Plan development is described below. All Waterbody/Watershed Facility Plans (WWFPs) have been approved.

LTCP Activity Status

CSO Watershed	Alley Creek1	Westchester Creek2	Hutchinson River3	Flushing Creek4	Bronx River5	Gowanus Canal6	Coney Island7	Flushing Bay8	Newtown Creek9	Jamaica Bay10	Citywide/ Open Waters
LTCP Due Date	June 2013	Jun 2014	Sept 2014	Dec 2014	Jun 2015	Jun 2015	Jun 2016	Dec 2016	Jun 2017	Jun 2018	May 2020
Waterbody Startup											
Sampling	((((((((S)		
Modeling	(S)	(((S)	((S)	(S)	(S)	(S)	(S)
Alternatives Development	(S)	(((S)	((S)	((S)	(S)	(S)
LTCP Development	(S)	(((S)	(()	(S)	(S)	(S)	(S)	(S)
Public Participation	(((
Approval Date	Mar 2017	Aug 2017	Mar 2017	Mar 2017	Mar 2017	Mar 2017	Apr 2018	Mar 2017	Jun 2018	Pending	Pending

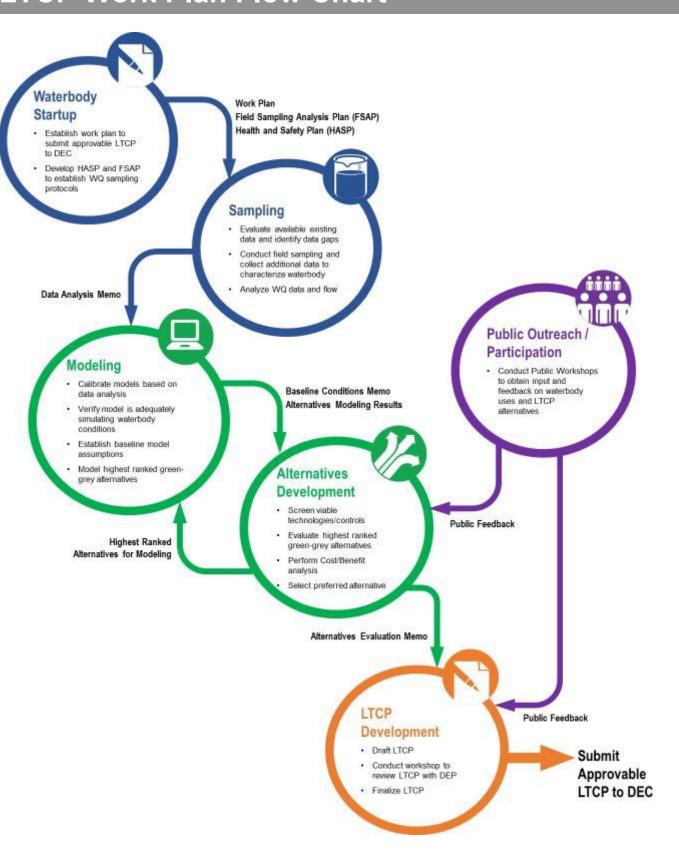
¹Final Alley Creek LTCP previously submitted to DEC June 30, 2013. Received DEC Determination Letter in December 12, 2013. DEP filed Article 78 proceeding on February 21, 2014. LTCP resubmitted to DEC on June 30, 2014. DEC Comments Letter received January 23, 2015. Supplemental Documentation submitted May 6, 2015.

²Final Westchester Creek LTCP submitted to DEC in June 30, 2014. DEC Comments Letter received September 22, 2014. Response Letter submitted November 24, 2014. Additional DEC Comments Letter received January 14, 2015. Response Letter and Supplemental Documentation submitted April 14, 2015. DEC Comment Letter received June 6, 2017. Response Letter submitted July 11, 2017.

³Final Hutchinson River LTCP submitted to DEC in September 30, 2014. DEC Comments Letter received January 14, 2015. Supplemental Documentation submitted April 14, 2015. ⁴Final Flushing Creek LTCP submitted to DEC in December 30, 2014. DEC Comments Letter received January 23, 2015. Supplemental Documentation submitted May 22, 2015. ⁵Final Bronx River LTCP submitted to DEC in June 30, 2015. DEC Comments Letter received August 24, 2015. Supplemental Documentation submitted September 23, 2015. ⁶Final Gowanus Canal LTCP submitted to DEC in June 30, 2015. DEC Comments Letter received August 5, 2015. Supplemental Documentation submitted September 8, 2015. ⁷Final Coney Island Creek LTCP submitted to DEC in June 30, 2016. DEC Comments Letter received August 17, 2016. Response Letter submitted September 16, 2016. DEC Comments Letter received April 6, 2017. Response Letter submitted October 2, 2017. DEP issued letter to DEC on December 5, 2017 based on discussions during October 18,2017 DEC/DEP Technical Meeting. DEC Comments Letter received December 31, 2016. ⁸Final Flushing Bay LTCP submitted to DEC in December 31, 2016.

⁹Final Newtown Creek LTCP submitted to DEC in June 30, 2017. DEC Comments Letter received November 4, 2017. DEP submitted response letter January 8, 2018. ¹⁰Jamaica Bay and Tributaries LTCP submitted June 30, 2018. DEC Comment Letter dated December 21, 2018. Response Letter submitted March 1, 2019. Supplemental Documentation submitted August 14, 2019. DEC Comment Letter dated October 11, 2019.

LTCP Work Plan Flow Chart





All LTCPs have either been approved or are under DEC review.



DEP submitted the Citywide/Open Waters LTCP on September 30, 2020.