

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

# CSO Order on Consent Quarterly Progress Report

Fourth Quarter 2020 (October 1st – December 31st)

January 30, 2021

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# **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 was modified April 14, 2008, September 3, 2009, March 8, 2012, and March 26, 2015 (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 Order's milestones between **October 1, 2020** and **December 31, 2020**. DEP continued to make progress in the planning, design, and construction of its CSO facilities during this quarter, as documented in this report. As required by the Order, DEP and DEC held a Quarterly Progress Meeting on **December 9, 2020** for the **third** quarter of 2020 and is scheduled to hold a Quarterly Progress Meeting on **March 24, 2021** to discuss issues related to the Order and review milestones met during the **fourth** quarter of 2020.

On March 19, 2020, DEP submitted a Notice of Force Majeure for the CSO Order due to the COVID-19 pandemic. DEP is monitoring for any related impacts to CSO Order milestones and to notify DEC in a timely manner in accordance with the terms of the CSO Order. Any delays or potential delays that have been identified are discussed in this report.

As a direct result of the economic impacts of COVID-19 on New York City finances and the ongoing uncertainty of long-term impacts, DEP is facing multiple fiscal pressures including; a) Deferred spending for critical infrastructure projects from FY 2020; b) Projected potential fiscal impacts of COVID-19 and projected impacts to revenue; and c) DEP priority to maintain sufficient funding for critical infrastructure projects necessary for the ongoing operation and maintenance of the DEP's water and wastewater treatment and conveyance systems, including the Wastewater Resource Recovery Facilities (WRRFs). Given the current fiscal uncertainty and projected potential reduction in revenue caused by COVID-19, DEP must seek to allocate budget resources to reflect expected revenue, balanced with the affordability of water rates for DEP ratepayers. In order to respond to these issues and responsibly allocate resources, DEP is engaged in an ongoing effort to evaluate funding for all projects in the current and upcoming fiscal years to prioritize projects critical to DEP's core mission to provide clean drinking water and collect and treat wastewater during dry and wet weather to protect water quality in and around New York City in accordance with the regulatory requirements of the Safe Drinking Water Act and Clean Water Act. To the extent any funding constraints 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
October 9, 2020	Jamaica Bay	Appendix A, XII. Jamaica Bay CSO, K. 26 <sup>th</sup> Ward Preliminary Treatment Reliability Improvements 9. Construction Completion PSTs #1-4 – DEC determines the expansion joint Force Majeure to be valid
October 19, 2020	Citywide GI	DEC extends the period for informal negotiations surrounding the BB05 Force Majeure determination to February 1, 2021.
October 30, 2020	Bronx River	Appendix A, X Bronx River CSO, B. B. Bronx River Hydraulic Relief at HP-007 and HP-009, 2. Design Completion – DEP submits proposed modifications to design scope
October 30, 2020	Citywide GI	DEP submits updates regarding Force Majeure impacts to green infrastructure milestone compliance, including delays to the Green Infrastructure 2015 Contingency Plan.
November 2, 2020	Jamaica Bay	Appendix A, XII. Jamaica Bay CSO, B. 26 <sup>th</sup> Ward HLSS 9. Construction Completion Phase II – DEP submit a modification request due to extend construction completion date due to NYCHA steam pipe interference.
November 5, 2020	Jamaica Bay	Appendix A, XII. Jamaica Bay CSO, K. 26 <sup>th</sup> Ward Preliminary Treatment Reliability Improvements 9. Construction Completion PSTs #1-4 – DEP submitted modification request to extend construction completion date due to expansion joint issues.
November 25, 2020	Jamaica Bay	Appendix A, XII. Jamaica Bay CSO, B. 26th Ward HLSS 9. Construction Completion Phase II – DEC responds to DEP's modification request and will use enforcement discretion until June 2021
December 7, 2020	Westchester Creek	Appendix A, IX. Westchester Creek CSO, A. Modifications to CSO- 29/29A, 4. Construction Completion – DEC accepts DEP certification of construction completion of August 28, 2020.
December 23, 2020	Jamaica Bay	Appendix A, XII. Jamaica Bay CSO, B. 26 <sup>th</sup> Ward HLSS 9. Construction Completion Phase II – DEC provides an extension to construction completion milestone to January 6, 2022

### **Milestone Actions This Quarter**

Location	Item Description	Milestone Date	Action Required	Status
Citywide GI	Certification of 1.5% milestone	Dec 2020	Certification	FM submitted due to COVID- 19 and related delays. Full extent of these delays is unknown and DEP will keep DEC apprised. DEP intends to submit a modification request
Citywide GI	Certification of the 4% milestone	Dec 2020	Certification	DEP intends to submit a Contingency Plan by June 30, 2021

## **Milestone Actions Next Quarter**

Location	Item Description	Milestone Date	Action Required	Status
		None		

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

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
		<ul> <li>DEP submitted FM 5/14/18</li> <li>DEP provided additional info on 3/11/19</li> <li>DEC acknowledged valid FM on 06/05/19</li> <li>DEP submitted a Modification</li> </ul>	Force Majeure - NYCHA Steam pipe interferences Force Majeure -		
Jamaica Bay	26 <sup>th</sup> Ward HLSS Phase II	Request on 11/2/20 • DEC response to Modification Request and will use enforcement discretion.	COVID-19 and related delays	Dec 2020 (Construction Completion)	DEC will exercise enforcement judgement until 6/30/2021
		<ul> <li>DEP submitted an additional FM on 3/19/20</li> <li>DEC responded on 3/26/20 requested additional information</li> <li>DEC acknowledged valid FM on 09/21/20</li> </ul>			
Jamaica Bay	26 <sup>th</sup> Ward HLSS Phase III	<ul> <li>DEP submitted MR 3/1/19</li> <li>DEP provided additional info on 8/14/19</li> </ul>	Buckeye Fuel Pipe Interferences, Cover Issues	Mar 2019 (Design Completion)	Full extent of the delay has not yet been identified and DEP will keep DEC apprised.

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
Bowery Bay/EROW	Area-wide ROW Green Infrastructure in BB-005 CSO Tributary Area	<ul> <li>DEP submitted FM 6/26/19</li> <li>DEP submitted extension request for informal negotiations on 9/30/20</li> <li>DEC extended period for informal negotiations until 2/1/21.</li> </ul>	No awardable bids received	December 2020 (NTP)	DEC denied FM claim. DEP and DEC are in negotiations concerning the DEC determination.

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
Jamaica Bay	<ul> <li>DEP submitted FM on 12/20/19</li> <li>DEC responded on 1/13/20 and requested additional information</li> <li>DEP submitted additional information on 3/13/20</li> <li>DEP submitted additional information on 9/11/20</li> <li>DEC acknowledged FM to be valid on 10/9/20</li> </ul>		Force Majeure- deteriorated expansion joints in PST-4 and other PSTs	Jan 2022	On December 23, 2020, DEC approved an extension of
	an additiona FM on 3/19/ DEC respond on 3/26/20 requested additional information DEP submitt additional information 5/26/20 DEP updated the FM on 8/11/20 DEC acknowledge FM to be val	requested additional information • DEP submitted additional information on 5/26/20 • DEP updated the FM on 8/11/20	Force Majeure - COVID-19 and related delays	(Construction Completion)	370 days for Appendix A, Milestone XII.C.9.

Westchester Creek	Modifications to CSO-29 and CSO-29A	<ul> <li>DEP submitted FM on 3/11/19 on differing bedrock elevations at CSO-29</li> <li>DEC acknowledged valid FM 7/1/19</li> <li>DEP submitted updated FM on 1/31/20 with a delay and request of 121 additional days.</li> <li>DEC responded to request on 3/2/20 and granted a 136- day extension to 7/9/20</li> </ul>	Force Majeure - unanticipated differing bedrock elevations delays		
		<ul> <li>DEP submitted an additional FM on 3/19/20</li> <li>DEC responded on 3/26/20 requested additional information DEP submitted additional information on 5/26/20</li> <li>DEC responded to FM delay on 6/10/20 and requested additional information.</li> <li>DEP submitted modification on 7/30/20</li> <li>DEC responded on 8/3/20 granting an extension for construction completion to 9/1/20</li> </ul>	Force Majeure - COVID-19 and related delays	September 1, 2020 (Construction Completion)	DEC accepted DEP's certification of construction completion on 12/7/20

Location	Item Description	Action(s)	Reason for Action(s)	Milestone Date	Status
Citywide	Open Waters/ Citywide LTCP	<ul> <li>DEP submitted an additional FM on 3/19/20</li> <li>DEC responded on 3/26/20 requested additional information</li> <li>DEC responds to DEP's Mod Request on 8/3/20</li> </ul>	Force Majeure - COVID-19 and related delays	May 2020	DEP submitted LTCP on 9/30/20
Citywide GI	Certification of 2015 milestone (1.5%)	<ul> <li>DEP submitted a mod request on 11/27/19</li> <li>DEC responded on 12/10/19</li> <li>DEP submitted a FM on 4/20/20.</li> <li>DEC responded on 4/30/20.</li> <li>DEP provided an additional update on 10/30/20.</li> </ul>	Force Majeure – COVID-19 and related delays	<del>December 31, 2019</del> December 31, 2020	Modified milestone will be needed due to FM. DEP intends to request a modification once the full extent of the delays has been identified.
DEP submitter a FM notice of 3/19/29 for a active/open milestones     All open/     DEC responder to FM notice milestones     3/23/20 and requested further review in 60 days by		<ul> <li>DEP submitted a FM notice on 3/19/29 for all active/open milestones</li> <li>DEC responded to FM notice on 3/23/20 and requested further review in 60 days by DEP to assess</li> </ul>	Force Majeure COVID-19 - with potential delays due to ongoing pandemic	Multiple	Full extent of the delay has not yet been identified and DEP will keep DEC apprised on a project by project basis

# 2. Construction Contracts



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	Projected Completion	% of Time Elapsed	% of Construction Completed <sup>(1)</sup>
Jamaica Bay Tributaries	Bergen Basin 18" Sanitary Sewer	Jan 2019	Oct 2021	Sept 2020	71%	100%
Westchester Creek	Modifications to CSO-29 & 29A	Dec 2015	Sept 2020	Sept 2020	100%	100%
Jamaica Bay	26 <sup>th</sup> Ward HLSS Phase 1	Mar 2016	Dec 2018	Dec 2018	100%	100%
	26 <sup>th</sup> Ward HLSS Phase 2A	Sept 2017	Jun 2021	Jan 2021	95%	95%

Location	Item Description	Notice to Proceed	Construction Completion Milestone	Projected Completion	% of Time Elapsed	% of Construction Completed <sup>(1)</sup>
	26 <sup>th</sup> Ward HLSS Phase 2B	Sept 2017	Jun 2021	Oct 2021	93%	99%
	26 <sup>th</sup> Ward HLSS Phase 3	Mar 2020	Dec 2022	Dec 2022	-	-
	26 <sup>th</sup> Ward PSTs 1-5	Jan 2016	Jan 6, 2022	Aug 2021	118%	87.4%
	Rockaway WRRF Conveyance		Dec 2017	Pending Mod Request and negotiation resolution	-	-

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



# 3. 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 intends to submit a modification request for the design completion milestone and likely subsequent milestones.

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

Alley Creek CSO	DEC Approved Milestones <sup>(1)</sup>	Status
1. Initiate Final Design	Sept 2018	Certified by DEP Oct 2, 2017
2. Design Completion	Sept 2021 <sup>(1)</sup>	BODR submitted to DEC Design on hold
3. Notice to Proceed to Construction	Sept 2022 <sup>(1)</sup>	TBD Pending Design Completion
4. Construction Completion	Sept 2024 <sup>(1)</sup>	TBD Pending Design Completion

<sup>(1)</sup> 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.

	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 <sup>th</sup> Avenue	Regulator BB-02. Berrian Blvd and 19 <sup>th</sup> Ave between 43 <sup>rd</sup> St. and 45 <sup>th</sup> St.	Five of ten regulators along 108 <sup>th</sup> 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	Dredging Complete on 7/10/17 – Construction completed on 8/16/18. Currently in 2-year maintenance period.

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

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

# 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 <sup>(1)</sup>	Status
1. Initiate Final Design	Jul 2021	Force Majuere Submitted 9-16-20 – Delay Expected
2. Design Completion	Jun 2025	TBD Pending Design Start
3. Notice to Proceed to Construction	Jul 2026	TBD Pending Design Completion
4. Construction Completion	June 2035	TBD Pending Design Completion

<sup>(1)</sup> 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-R0 and Division Chamber 3, Approved on March 7, 2017

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

Flushing Creek CSO	DEC Approved Milestones <sup>(1)</sup>	Status
1. Initiate Final Design	Dec 2018	Certified by DEP on Feb 8, 2019
2. Design Completion	Sept 2022	Design in progress 30% design
3. Notice to Proceed to Construction	Sept 2023	TBD Pending Design Completion
4. Construction Completion	Dec 2025	TBD Pending Design Completion

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

# 6. Jamaica Tributaries CSO

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.

	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 <sup>th</sup> Ave between 126 and 129 Streets
Construction Cost	\$20,256,909	\$6,853,955	\$4,990,000
Status	Completed	Completed	In-Construction
Other Issues			

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

	This Quarter	Next Quarter
Parallel 48-inch Siphon/Interceptor	• Certified completion on 2/28/17	
18-inch Sanitary Sewer in 150 <sup>th</sup> Avenue	<ul> <li>DEC accepted certification of completion on 7/6/20</li> </ul>	

# 7. 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.

	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		

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

	This Quarter	Next Quarter
Enhanced Aeration 2	Complete	
Bending Weirs / Floatables Control	<ul> <li>DEP submitted Post Construction Monitoring on 8/19/2019</li> </ul>	

# 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
1. Initiate Final Design	Jul 2021	DEP Selected Consultant Procuring Contract
2. Design Completion	Dec 2024	TBD Pending Design Start
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 preparing RFP
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



# 8. Westchester Creek CSO

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.

	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 <i>increase</i> 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		

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

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

# 9. Bronx River CSO

Bronx River LTCP, Bronx River Hydraulic Relief at HP0007 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 <sup>(1)</sup>	Status
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
3. Notice to Proceed to Construction	Sept 2023	TBD Pending Design Completion
4. Construction Completion	Sept 2026	TBD Pending Design Completion

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



# **10. Hutchinson River CSO**

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 <sup>(1)</sup>	Status
1. Initiate Final Design, Extension and Floatables Control	Sept 2018	Design Initiated 8/15/2018
2. Design Completion	Sept 2022	Design in progress <5% design
3. Notice to Proceed to Construction	Sept 2023	TBD Pending Design Completion
4. Construction Completion	Mar 2026	TBD Pending Design Completion
1. Initiate Final Design, Extension Disifection	Sept 2022	Design Initiated 8/15/2018
2. Design Completion	Mar 2026	Design in progress <5% design
3. Notice to Proceed to Construction	Mar 2027	TBD Pending Design Completion
4. Construction Completion	Mar 2030	TBD Pending Design Completion

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



The Jamaica Bay CSO Facility Planning area includes the drainage areas of the 26<sup>th</sup> 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 WWTP Conveyance Improvements	26 <sup>th</sup> Ward High Level Sewer Separation	26 <sup>th</sup> Ward Wet Weather Stabilization
Contract ID	Project not yet initiated	CS-FC-SEW	26W-12(CO 128) 26W-21, 26W-20
Plan Elements	Achieve 2xDDWF at WWTP	Remove storm water contribution from 285 acres from the combined sewer system	Low Level MSPs High Level MSPs PST#5 PST1-4 Stabilization
Location	Rockaway WWTP, Queens	Fresh Creek, Brooklyn	26 <sup>th</sup> Ward WWTP, Brooklyn
Construction Cost	TBD	\$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 <b>\$152 million</b>
Status	RK sewer system maximizes wet weather flow to WRRF. Project not yet initiated. In discussions with DEC.	Phase 1A construction completed, with variance from approved design Phase 2 is in construction Phase 3 design is paused pending engineering evaluation and analysis of the impacts of	Completed (LLMSPs) Completed (26W-21) In Construction (26W-20)

	eliminating the Phase 3	
	component of the project.	
	For Phase 2B (SE855): NYCHA	
	steam pipes were discovered	
	during construction that interfere	
	with storm/high level storm	
	sewers in four locations.	
	DEP and DDC hired consultant to	
	perform design for NYCHA steam	
	pipes offset. For Phase 3A	
	(SE856): it was previously	
	identified interferences with	
	Buckeye Pipelines in four	
	locations. Preliminary design	
	around Buckeye Fuel Lines is	
Other Issues	prepared by DDC and submitted	
	to Buckeye Partners, L.P. Buckeye	
	requested that DDC include their	
	existing utility locations on the	
	design drawings. DEP review of	
	the preliminary design drawings is	
	complete. DDC is incorporating	
	DEP comments and will then	
	submit revised drawings for	
	Buckeye review. For Phase 3B	
	(SE857): low cover issues have	
	been addressed and a preliminary	
	design review has been	
	completed by DEP.	

	This Quarter	Next Quarter
	<ul> <li>Design support for Phase 2B to resolve NYCHA Steam Pipe Interferences</li> </ul>	<ul> <li>Continue/Complete design for Phase 2B associated with NYCHA Steam Pipe Interferences</li> </ul>
26 <sup>th</sup> Ward High Level Sewer Separation	• Continue design of Phase 3	<ul> <li>Design of Phase 3 is paused pending engineering evaluation and analysis of the impacts of eliminating the Phase 3 component of the project.</li> </ul>
26 <sup>th</sup> Ward Preliminary Treatment Reliability Improvements	Continued DSDC	Continuation of DSDC

	This Quarter	Next Quarter
	• <u>Phase 2A (SE853)</u>	<u>Phase 2A (SE853)</u>
	Completed work in Q2:	• Complete last 50 LF of
	<ul> <li>6/24/2020</li> <li>Completed installation of stelcor piles in Louisiana Avenue between Stanley Avenue and Wortman Avenue</li> <li>Completed Installation of SB Storm Sewer in Louisiana Avenue between Stanley Avenue and Wortman Avenue</li> </ul>	Storm Sewer in the intersection of Louisiana Avenue and Flatlands Avenue Provide DEP with substantial Completion Letter Complete Final Inspection Checklist
26 <sup>th</sup> Ward High Level Sewer Separation	<ul> <li>Completed installation of catch basins and chutes on Louisiana Avenue/Wortman Avenue intersection</li> <li>Continue sidewalk and pavement restoration throughout scope of work</li> </ul>	
	Phase 2B (SE855)	<u>Phase 2B (SE855)</u>
	<ul> <li>DEP continues to explore options to resolve the NYCHA Steam Pipe Issue.</li> <li>DEP and DDC are evaluating feasibility of NYCHA steam facilities relocation. The lack of records and age of the infrastructure makes this particularly challenging.</li> <li>Road Restoration site-wide</li> <li>Catch basin and chute installation at various locations</li> <li>Completed installation of 12" Water Main in intersection of Snediker Avenue and Stanley Avenue</li> <li>Completed work on 13'Wx4'H SB Storm Sewer in East 108<sup>th</sup> Street</li> </ul>	<ul> <li>DEP and DDC evaluation of the NYCHA steam pipe relocations.</li> <li>DDC is in the process of designing the sewers at the NYCHA Steam Pipe Crossings. The finished designs are expected at the end of March 2021.</li> <li>Road Restoration Sitewide</li> <li>Catch Basin and Chute Connection installation in various locations</li> </ul>

	This Quarter	Next Quarter
	<ul> <li>between Flatlands Avenue and Stanley Avenue and on Stanley Avenue between East 108<sup>th</sup> Street and Snediker Avenue</li> <li>Completed work on 53"Wx34"H Storm Sewer on Stanley Avenue between Snediker Avenue and Williams Avenue</li> <li>Completed installation of 8" and 20" Water Mains in Snediker Avenue between Stanley Avenue and Dewitt Avenue</li> </ul>	• Perform TV inspection for sewer system
26 <sup>th</sup> Ward Preliminary Treatment Reliability Improvements	<ul> <li>PST work (26W-20):</li> <li>Completed rehabilitation of expansion joints under Change Order# 103, construction of concrete structures, and installation of sludge collector system in PST-3. Successfully brought PST-3 back online.</li> <li>Continued demolition and rehabilitation of expansion joint in PST-2 including rebuilding the concrete joint face at all expansion joint locations. Continued PST-2 concrete rehabilitation and installation of sludge collector system. Started construction of effluent troughs and scum troughs. Demolished PST-2 influent channel and started construction of PST-2 influent box.</li> <li>Installed 42" x 42" sluice gate at FDS for PST-2.</li> <li>Dropped and cleaned PST-1. Demolished temp. 20" and 42" RS pipe feeding PST-1 influent channel and influent gates. Also in PST-1 began demolition of existing collector system and existing concrete structures, concrete rehabilitation, and CO-103 demolition of existing expansion joints.</li> </ul>	<ul> <li>PST work (26W-20):</li> <li>CO-103 work: Continue rehabilitation of expansion joints in PST-2 (weather permitting). Continue demolition of existing expansion joints in PST-1. Start installation of Phyzite (water stop joint seal) in PST-1 including rebuilding the concrete joint face at all expansion joint locations in PST-1.</li> <li>Continue PST-1 demolition of existing collector system and concrete rehabilitation work. Start installation of collector system equipment.</li> <li>Continue rehab of PST-2 and installation of sludge collection equipment.</li> <li>Complete new influent box for PST-2 and start new influent box for PST-1.</li> <li>Start construction of West Stair, 48-inch RS and Areaways.</li> <li>Replace existing Sludge Pumps #1, 2, and 3 in PSG.</li> <li>Continue 2nd floor Supervisor's Personnel area work.</li> </ul>

This Quarter	Next Quarter
Demolished existing seal water pipe to Primary Sludge Pumps 1-3 in PSG and installed temp. seal water tubing. Demolished DC-5W and DC-5E in PSG. Completed excavation for existing 86" GTO and started abating PCB coating on GTO piping. Completed installing piles for West stair, 48-inch RS and Areaways. Installed curtain wall west of P&BH couth Entrance. Continued 5KV conduit installation to 8NR Building. Continued 2nd floor Supervisor's Personnel area work. Completed repairing crisscrossed eeders to MCC-4N. Graded, placed concrete for site curbs and sidewalks east and south of PST- 5 and around Secondary Bar Screens. Placed asphalt pavement north of MCC-25 and south of IGB, east and couth of PST-5, and the East Road rom BNR to P&BH Loading Dock	<ul> <li>Continue to install permanent 78" FM pipe.</li> <li>Complete 5KV conduit installation to BNR Building.</li> <li>Demolish Seal Water System in PSG.</li> <li>Install conduits and wire to GTO flowmeter in MV-2.</li> </ul>

# 12. Wards Island WRRF Headworks Wet Weather Improvements

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).

	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

	This Quarter	Next Quarter
MSP Replacement	Complete	
Bar Screen Replacement	Complete	

	This Quarter	Next Quarter
MSP Replacement	<ul> <li>Completed reconstruction of the 6<sup>th</sup> MSP (MSP#3 on July 24, 2019)</li> </ul>	<ul> <li>DEC inspection of replacement work</li> </ul>
Bar Screen Replacement		

# **13. Environmental Benefit Projects**

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 summarized below, 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 preparing certification to submit to DEC.

#### New York Hospital Green Roof

#### Manhattan College

\$660,440 for the installation of a 14,666-sq- ft modular green roof project. It will be designed to control runoff from a 1 to 1.5-inch rainfall on a half-acre roof.

*Status:* Monitoring Complete *Invoiced to Date:* \$555,161.

#### Rego Park Green Streets

#### NYC Audubon Society

\$580,245 for Green Street stormwater capture system that will retrofit an impervious surface and replace it with permeable pavement and vegetation to capture runoff from 7,753-sq-ft tributary area.

Status: Monitoring Complete Invoiced to Date: \$730,128





#### ➤ Two Sponge Park<sup>™</sup> Bioretention Basins

#### Regional Plan Association

\$600,000 for bioretention basins under the Long Island Expressway near the Van Wyck Expressway. One basin has the capacity to treat 1,280 gallons, and the second basin has the capacity to treat 2,460 gallons of runoff. Monitoring at this site has ended, discussion with NYC Parks to take over maintenance.

*Status:* Monitoring Complete *Invoiced-to-Date:* \$481,215

#### 6<sup>th</sup> Street Green Corridor Project

#### Gowanus Canal Conservancy

\$583,470 to build 11 curbside swales ranging from 400 to 1,200 sf along 6th St from 2nd Ave to 4<sup>th</sup> Ave in Brooklyn. The project will capture one inch storm runoff generated within the eleven-swale area, which consists of over 35,400 sf of street and sidewalk surfaces.

Status: Monitoring Complete Invoiced-to-Date: \$583,829

#### Treatment Wetland and Rain Garden City Parks Foundation

\$504,340 for treatment wetlands and rain gardens for treating stormwater entering Meadow Lake. This project will construct a 10,000-sf treatment wetland that will receive runoff from two one-acre portions of a parking area in Flushing Meadows Corona Park. The treatment wetland is designed to capture over 76,000 gallons of water generated by each 1.2 -inch rainstorm.

*Status:* Monitoring Complete *Invoiced to Date:* \$497,263

#### Green Infrastructure

#### Drexel University

\$893,493 to design, construct and monitor a variety of green infrastructure stormwater capture technologies that also promote ecosystem services in the Bronx River watershed. Project construction completed at Bronx High School of Science and Flushing International High School.

*Status:* Monitoring Complete *Invoiced to Date:* \$ 859,373









# 14. Green Infrastructure Program

The 2012 CSO Consent Order sets forth schedule and stormwater capture targets and other requirements for the program to reduce runoff and CSO 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, 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 expanding array of tools. As right-of-way implementation continues and reaches its fullest extent over the long term, DEP will increasingly rely on other, more site-specific opportunities on public and private property. Over time, the proportion



**Curbside Rain Garden (Bioswale)** 



**Stormwater Greenstreet**
of program resources devoted to implementation will shift from right-of-way to public property retrofits and other types of green infrastructure tools.

During the **Fourth Quarter of 2020**, planning, design and construction work continued in three Green Infrastructure (GI) Program initiatives and are generally summarized below.

- Ongoing Area-wide GI contracts to design and build thousands of curbside rain gardens and Stormwater Greenstreets. Design and construction contracts are being implemented in multiple phases.
- Ongoing siting, design and construction of public property retrofits in coordination with City agency and non-profit partners.
- Ongoing design and construction of GI Grant Program projects on private property.



**Playground Retrofit** 



Porous Pavement – Queens College Green Infrastructure Grant Program

### **Status of Green Infrastructure Assets and Greened Acres**

Watershed	Total Green Infrastructure Assets	Total Greened Acres
Alley Creek	0	0
Bronx River	474	59
Coney Island Creek	2	1
East River / Open Waters	883	195
Flushing Bay	764	78
Flushing Creek	1,654	165
Gowanus Canal	116	13
Hutchinson River	213	42
Jamaica Bay & Tributaries	4,224	514
Newtown Creek	1,476	141
Westchester Creek	226	21
Total	10,032	1,230

		Status as c	of January 22, 2021		Projected/Actual Completion Date as of January 2021	
Waterbodies	Area-Wide ROW Project	Number of Bids	Issued/Anticipated NTP Date	Reported Completion Date [1]		
Flushing Creek	TI-011	Construction Bid 1	Jun-16	Dec-19	Jun-17	
Flushing Creek		Construction Bid 2	Sep-18	Dec-19	Jun-20	
Newtown Creek	BB Cluster	Construction Bid 1	Jan-17	Dec-19	Mar-19	
Newtown creek	BB Cluster	Construction Bid 2	Aug-19	Dec-19	Dec-20	
		Construction Bid 1	Aug-16		Dec-17	
		Construction Bid 2	Jan-19		Jul-20	
Jamaica Bay	JAM-003	Construction Bid 3	Jul-19	Dec-19	Jun-20	
		Construction Bid 4	Dec-20		Jun-22	
		Construction Bid 5	Dec-19		Apr-21	
EROW/Wallabout	NCB-014	Construction Bid 1	Sep-18	Dec-20	Dec-19	
EROW/Wallabout		Construction Bid 2	Dec-19	Dec-20	Jul-21	
EROW/Bowery	BB-005	Construction Bid 1	TBD	Dec-20	TBD	
Вау		Construction Bid 2	TBD	Dec-20	TBD	
Westchester	HP-014/033/016	Construction Bid 1	Jul-19	Dec-20	Dec 20	
Creek		Construction Bid 2	Jul-19	Dec-20	Dec-20-	
		Construction Bid 1	Sep-19		Dec-20	
		Construction Bid 2	Mar-21		Sep-22	
Eluching Crook	TI-010	Construction Bid 3	Dec-19	Dec-20	Dec-21	
Flushing Creek	11-010	Construction Bid 4	Dec-19	Dec-20	Dec-21	
		Construction Bid 5	Jun-20		Dec-21	
		Construction Bid 6	Dec-19		Apr-21	
Bronx River	HP-007/004/002	Construction Bid 1	Nov-19	Dec-20	Dec-20	
BIOIIX RIVER		Construction Bid 2	Nov-19	Dec-20	Dec-20	
Jamaica Bay	26W-005/004	Construction Bid 1	Dec-19	Dec-20	Dec-20	

### Status of Green Infrastructure 1.5% Contingency Plan Projects<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The information in the above Table is correct as of January 22, 2021.

Construction	n Bid 2 Dec-19	Dec-20
Construction	n Bid 3 Dec-19	Dec-20
Construction	n Bid 4 Dec-19	Dec-20
Construction	n Bid 5 Dec-19	Dec-20

[1] The Anticipated Construction Completion date as reported in the June 27, 2016 Contingency Plan

### **15. 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**

Due to the COVID-19 pandemic, DEP did not have any LTCP specific public meetings in **Quarter 4**. A Green Infrastructure Grant Program virtual workshop on December 9, 2020 with 22 attendees.

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.



	Decision	DEP Responsible Personnel					
Planning Area	Project	Bureau	PM	AM			
Alley Creek	CSO-AC-DF-DES: Alley Creek CSO Disinfection	BEDC	Osit	Romano			
Inner Harbor	CSO-GC: Flushing Tunnel	BEDC	Clarke	Joseph			
	CSO-GC: Gowanus PS	BEDC	Clarke	Joseph			
Flushing Bay	CSO-DRDG: Dredging	BEDC	Tysvaer	Sewgobind			
	CS-FB-LLD: Low-Lying Sewers	BWSO	Gordon	Dopson			
	CS-FB-LLD R2 Weir	BWT	TBD	TBD			
	CS-FB-BWR: Regulators	BEDC	Tysvaer	Gordon			
	CSO-FC-FB-DES: Flushing CSO Floatables Control	BEDC	Tysvaer	Betemit			
	CSO-FC-DF-DES: Flushing CSO Disinfection Facility	BEDC	Tysvaer	Betemit			
	CSO-FB-TUN: Flushing Bay CSO Storage Tunnel	BEDC	Osit	Liu			
Jamaica Tributaries	18" Sanitary Sewer in 150th Avenue	BWSO	Gordon	Dopson			
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	BEDC	Tysvaer	Ekhlas			
Westchester Creek	CS-ER-WCM: Modifications to CSO-29 / 29A	BEDC	Tysvaer	Betemit			
	CS-ER-WCP: Pugsley Creek Parallel Interceptor	BWSO	Proscia	DeGrace			
Bronx River	CSO-BXR-DES: Bronx River LTCP	BEDC	Solimando	Lochner			
Hutchinson River	CSO-HR-DF-DES: Hutchinson River Disinfection	BEDC	Tysvaer	Szeto			
Jamaica Bay	CS-FB-SEW: 26th Ward / Fresh Creek HLSS	BWSO	Gordon	Dopson			
	26W-20: 26th Ward Wet Weather Stabilization	BEDC	Solimando	Heim			
	26W-21: 26th Ward High Level MSPs	BEDC	Solimando	Heim			
Wards Island	Reconstruction of MSP	BWT	Anderson	Anderson			
EBP	Environmental Benefit Projects	BEPA	McLaughlin	Chen			
LDP		DEIX	interace.				

# 17. Overview of LTCP Program

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 & Bay <sup>1</sup>	June 2018	DEC provided supplemental comments document 10/11/19
11	Citywide/Open Waters <sup>2</sup>	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



# 18. Status of LTCP Development

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

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	$\bigcirc$	Ø	0	0	$\bigcirc$	Ø	Ø	Ø	0		
Sampling	$\bigcirc$		$\bigcirc$			$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Modeling	$\bigcirc$	$\bigcirc$	$\bigcirc$			$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Alternatives Development	$\bigcirc$	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
LTCP Development	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Public Participation					$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
Approval Date	Mar 2017	Aug 2017	Mar 2017	Mar 2017	Mar 2017	Mar 2017	Apr 2018	Mar 2017	Jun 2018	Pending	Pending
	LE	GEND:	LEGEND: 🥝 = Completed 🦲 = In Progress 🔲 = Not Initiated								

#### **LTCP Activity Status**

<sup>1</sup>Final 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. <sup>2</sup>Final 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.

<sup>3</sup>Final Hutchinson River LTCP submitted to DEC in September 30, 2014. DEC Comments Letter received January 14, 2015. Supplemental Documentation submitted April 14, 2015.
<sup>4</sup>Final Flushing Creek LTCP submitted to DEC in December 30, 2014. DEC Comments Letter received January 23, 2015. Supplemental Documentation submitted May 22, 2015.
<sup>5</sup>Final Bronx River LTCP submitted to DEC in June 30, 2015. DEC Comments Letter received August 24, 2015. Supplemental Documentation submitted September 23, 2015.
<sup>6</sup>Final Gowanus Canal LTCP submitted to DEC in June 30, 2015. DEC Comments Letter received August 5, 2015. Supplemental Documentation submitted September 8, 2015.
<sup>7</sup>Final 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 response letter on February 2, 2018.
<sup>8</sup>Final Flushing Bay LTCP submitted to DEC in December 31, 2016.

<sup>9</sup>Final Newtown Creek LTCP submitted to DEC in June 30, 2017. DEC Comments Letter received November 4, 2017. DEP submitted response letter January 8, 2018.

<sup>10</sup>Jamaica 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 under DEC review.



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