

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Bureau of Water Compliance  
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June 27, 2018

## SENT VIA EMAIL

Mr. Keith Mahoney, P.E.  
Acting Program Manager - LTCP  
Bureau of Wastewater Treatment  
New York City Department of Environmental Protection  
96-05 Horace Holding Expressway  
Corona, NY 11368

Re: Order on Consent ("CSO Order"), DEC Case #CO2-20110512-25 modification to DEC Case #CO2-20000107-8, Appendix A  
VIII. Newtown Creek CSO, M., Submit Approvable Drainage Basin Specific LTCP for Newtown Creek

## **DEPARTMENT APPROVAL**

Dear Mr. Mahoney:

Pursuant to the referenced Order on Consent, the New York City Department of Environmental Protection (City) submitted, on June 30, 2017, the Newtown Creek Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP) to the New York State Department of Environmental Conservation (Department) in accordance with the milestone set forth in Appendix VIII.M of the CSO Consent Order. The Department provided comments on the submittal on November 11, 2017, and the City submitted responses to the Department's comments on January 8, 2018 and April 30, 2018. The Department hereby approves the June 2017 Newtown Creek CSO LTCP, which includes the LTCP submittal received on June 30, 2017, along with changes to the LTCP outlined in the City's letters dated January 8, 2018 and April 30, 2018. Please find enclosed a stamped copy of the cover of the approved June 2017 Newtown Creek CSO LTCP.

The alternative selected in the June 2017 Newtown Creek CSO LTCP, and January 8, 2018 and April 30, 2018 letters, consists of a 26 million gallon per day (MGD) expansion of the Borden Avenue pump station (BAPS), and a deep CSO storage tunnel (which may have a 19 to 30 foot interior diameter with lengths ranging from 7,570 to 18,800) to capture 62.5

percent of the CSO from CSO outfalls NC-015, NC-083, and NC-077, during an average rainfall year, with pump back to Newtown Creek wastewater treatment plant. The milestones for completion of the BAPS expansion and storage tunnel, based on the schedule shown in Figures 9-1 and 9-2 of the June 2017 Newtown Creek CSO LTCP, are set forth below. These milestones are hereby incorporated into the CSO Consent Order Appendix A:

<b>Borden Avenue Pump Station Expansion</b>	
Initiate Final Design	July 2021
Final Design Completion with CPM Analysis	December 2024
Notice to Proceed to Construction	September 2025
Construction Completion	September 2029

<b>62.5% CSO Storage Tunnel</b>	
Initiate Final Design	June 2025
Final Design Completion with CPM Analysis	May 2028
Notice to Proceed to Construction	August 2030
Construction Completion	June 2042

In response to the Department's comments on the LTCP, the City evaluated floatables control at three additional CSO outfalls (BB-009, NCQ-029, and BB-013) and determined that the installation of floatables control was feasible at BB-009, possibly feasible at NCQ-029, and not feasible at BB-013. To confirm if floatables control is warranted at outfalls BB-009 and NCQ-029, the City shall conduct pre-construction monitoring to characterize the floatables discharged from outfalls BB-009 and NCQ-029. Towards that end, the City shall submit by August 31, 2018 an approvable floatables monitoring plan for these two outfalls as well as for floatables post-construction monitoring for CSO outfalls BB-026, NCQ-077, NCB-083, and NCB-015. This milestone is hereby incorporated into the CSO Consent Order Appendix A. Based on the outcomes of the floatables monitoring, the Department will determine if additional floatables control is justified at outfalls BB-009 and NCQ-029.

<b>Floatables Monitoring Plan for BB-009 and NCQ-029</b>	
Submittal Approvable Floatables Monitoring Plan	August 31, 2018

Overall, the selected alternative will optimize the existing capacity of the system to treat wet weather flow during rainfall events, and from the storage tunnel after such events. Any additional storage beyond the selected alternative would require new on-site or off-site treatment capacity. The selected alternative also builds upon the CSO mitigation and reduction projects that the City has already completed. These projects include:

1. Expanding wet weather treatment capacity of the Newtown Creek wastewater



- treatment plant<sup>1</sup> to 700 million gallons per day to capture and treat more CSO;
2. Upgrading of the capacity of the Brooklyn-Queens and Manhattan pump stations to 400 million gallons per day each to convey more wet weather to the treatment plant;
  3. Installing bending weirs and underflow baffles at regulators for the four largest CSO outfalls to capture floatables and increase the amount of flow directed for treatment;
  4. Installing in-stream aeration in portions of Newtown Creek and its tributaries to improve water quality to support aquatic species and reduce odors; and
  5. Installing around 1400 green infrastructure assets in the Newtown Creek drainage basin to capture storm water prior to it entering the combined sewer system.

The completed projects have reduced CSO by 473 million gallons per year for an average rainfall year. The total cost for the completed projects, minus the wastewater treatment plant wet weather expansion, was \$417 million (\$300 million for pump station upgrades, \$42 million for bending weirs and floatables control, \$30 million for instream aeration, and \$45 million for GI). The total cost for upgrading the Newtown Creek wastewater treatment plant, including the wet weather expansion, was \$5 billion.

A public meeting was held at the Newtown Creek Wastewater Treatment Plant Visitor Center in Brooklyn, NY on November 15, 2016 to present background on the Newtown Creek CSO LTCP. A second public meeting was held at Treatment Plant Visitor Center on February 21, 2017 to present more detailed data on the waterbody. A third public meeting was held on April 26, 2017 at the Treatment Plant Visitor Center to present LTCP alternatives. [Summaries of comments received and responses](#) for the first, second, and third meetings has been prepared by the City and will be appended to the approved Newtown Creek CSO LTCP.

Twelve (12) months prior to the start-up of the two major project components: 1) the expanded Borden Avenue pump station and 2) the CSO storage tunnel, the City shall submit to the Department's Division of Environmental Permits a SPDES permit modification to the Newtown Creek WWTP, pursuant to 6NYCRR Part 750, to operate these facilities. The applications for each separate project component (Borden Avenue pump station expansion and CSO storage tunnel) shall also include an approvable wet weather operating plan. These operating procedures will become the enforceable SPDES permit requirements and will assure that the quality of the receiving water is being protected. Upon receipt of the application, the Department will propose a modification of the SPDES permit for the Newtown Creek WWTP for public notice as soon as possible to require monitoring and reporting of the measurable operations at the pump station and storage tunnel to ensure that the facilities operate in accordance with the design approved by the Department and permit requirements.

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<sup>1</sup> Treated sewage from the Newtown Creek wastewater treatment plant is discharged via an underground tunnel to the East River. It is not discharged to Newtown Creek.

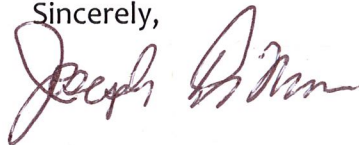
The SPDES permit will also incorporate a final Post Construction Monitoring Plan (PCMP) for Newtown Creek. The final PCMP requirements will be effective upon start-up of the storage tunnel. Monitoring results will be reviewed by the Department to determine whether the completed facility is achieving a level of water quality that is protective of the highest attainable use of Newtown Creek. Consistent with EPA CSO Policy, the SPDES permit will require the City to evaluate the efficacy of the CSO program at the 5-year interval to assess performance of the approved CSO controls and whether water quality objectives have been achieved. The Department may determine that additional CSO controls are necessary.

The Department acknowledges that Newtown Creek is a designated Superfund site under the Comprehensive Environmental Response, Compensation, and Liability Act program and the U.S. Environmental Protection Agency is currently conducting studies to determine remedial cleanup objectives for the waterbody. If the establishment of those objectives impacts the completion of the selected LTCP alternative, the City should notify the Department pursuant to Section XIII of the CSO Order.

The City shall provide an updated version of the Newtown Creek CSO LTCP incorporating the changes outlined in the City's January 8, 2018 and April 30, 2018 letters no later than July 31, 2018.

If you have any questions regarding this letter, please contact Mr. Edward Hampston, P.E., Chief, Municipal Compliance Section at 518-402-9655 or [edward.hampston@dec.ny.gov](mailto:edward.hampston@dec.ny.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read "Joseph DiMura", written in a cursive style.

Joseph DiMura, P.E.  
Director, Bureau of Water Compliance

cc: All sent via email  
M. Klotz, P.E.  
E. Hampston, P.E.  
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L. Pena





Capital Project No. WP-169  
Long Term Control Plan II

# Combined Sewer Overflow Long Term Control Plan for Newtown Creek

June 2017



Keith Mahoney, P.E.  
NY License No. 074169

The City of New York  
Department of Environmental Protection  
Bureau of Engineering Design & Construction

Prepared by: AECOM USA, Inc.

New York State Department of Environmental Conservation  
This report for NEWTOWN CREEK CSO, SUBMIT  
APPROVABLE DRAINAGE BASIN SPECIFIC  
LTCF FOR NEWTOWN CREEK, APPEND A, VIII.M  
is hereby approved subject to the provisions of the  
Environmental Conservation Law and Order on consent  
(CSO Order) DEC Case # CO2 - 20000107-8.  
Date 6-26-2018 By: Edward Hargett P.E.  
New York State Commissioner of  
Environmental Conservation  
Designated Representative  
Recommended by: Keith Mahoney, P.E.