Hutchinson River

New York City CSO Program

NEW YORK STATE | Department of Environmental Conservation

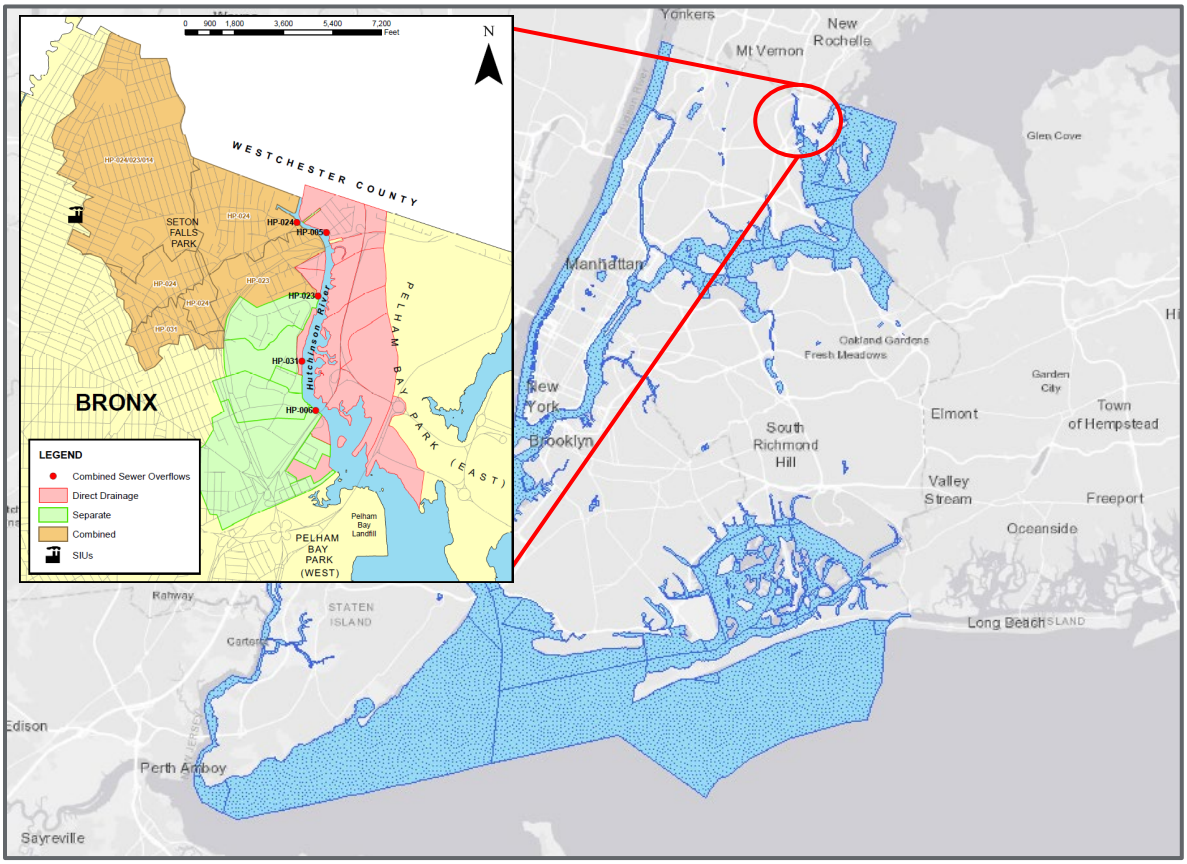
Overview: Pursuant to the NYC CSO Order, the New York City Department of Environmental Protection (DEP) completed watershed-level planning for the Hutchinson River to identify opportunities to reduce combined sewer overflows (CSOs) and improve water quality. To date, DEP has committed to investing $158 Million into CSO reduction for this waterbody reducing CSO by 20%. The following table shows all watershed plans developed and implemented for Hutchinson River in accordance with the NYC CSO Order.

Watershed Plan	Date Submitted	Date Approved	Implementation Status
Waterbody/Watershed Facility Plan (WWFP)	June 25, 2007	June 21, 2012	Completed
Long Term Control Plan (LTCP)	June 30, 2017	June 26, 2018	In Construction

Waterbody/Watershed Characteristics

Characteristics: The Hutchinson River is located in the Bronx and is a tributary to Eastchester Bay and the Upper East River. Its watershed is approximately 2,552 acres; with 32 percent being separately sewered and 68 percent combined sewer. The river is a Class SB saline waterbody with three (3) active CSO outfalls. Two additional CSO outfalls discharge Eastchester Bay and are incorporated into the Citywide-Open Waters evaluation. Most of the land immediately adjacent to the shoreline is industrial, commercial, and residential areas. The predominant land use in the drainage basin is residential and mixed use.

Hutchinson River Drainage Area Location



Source: New York State Department of Environmental Conservation & New York City Department of Environmental Protection

WWFP Projects

Hutchinson River

Source: New York City Department of Environmental Protection

WWFP Baseline Conditions: Prior to implementation of any CSO reduction projects, approximately 390 million gallons per year (MGY) of CSO was discharged to Hutchinson River for an average rainfall year[1]. Under the baseline conditions, Hutchinson River did not fully attain the applicable Fecal Coliform and Dissolved Oxygen standards throughout the waterbody.

Projects Summary: Within its watershed-level plans, DEP evaluated multiple alternatives to address the water quality issues present in Hutchinson River. One (1) alternative was decided to be the most cost effective, which included the implementation of in-line netting facilities at outfalls HP-023 and HP-024. These additions to the outfalls were projected to reduce the floatables entering the river by 95%. However, these projects were never constructed , in favor of further waste load assessment conducted during LTCP development.

LTCP Projects

LTCP Baseline Conditions: While no WWFP projects were constructed, landside modeling was updated during LTCP development indicating a reduced CSO volume, approximately 323 million gallons per year (MGY), was discharged to Hutchinson River for an average rainfall year[2]. In addition, another 176 MGY of stormwater, and 198 MGY of direct drainage is discharged to the river on average. Under the updated baseline conditions of the LTCP, Hutchinson River still did not fully attain the applicable fecal coliform and dissolved oxygen standards year-round. During development of the Citywide-Open Waters LTCP in 2020, the model was updated and predicted an LTCP baseline CSO volume of 341 MGY.

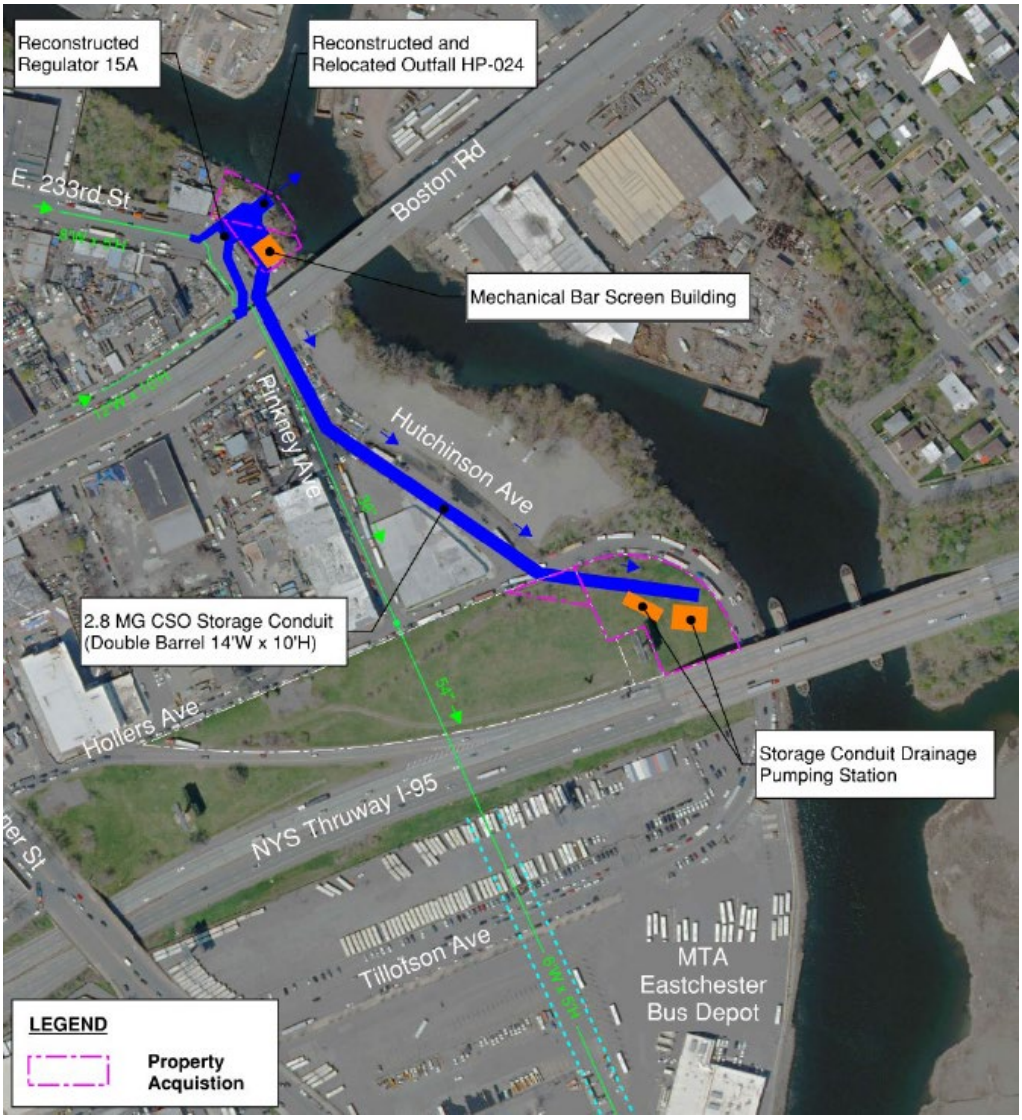
Projects Summary: In the LTCP, DEP evaluated multiple alternatives to address the water quality issues present in Hutchinson River. The most cost-effective alternative selected was construction of a 50 MGD Seasonal Disinfection facility with floatables control. In 2021, DEP submitted a modification request to alter the selected alternative to not construct the disinfection facility and instead construct a 2.8 MG storage conduit tributary to Outfall HP-024, including floatables control for up to 300 MGD. This modification was approved March 20, 2023. The following table summarizes the details of the project to be completed to reduce CSO impacts in Hutchinson River along with the anticipated completion date, total anticipated cost at project completion, and estimated CSO volume reduction.

Selected Alternatives	Completion Status	Date of Completion	Total Cost at Project Completion	CSO Volume Reduction
2.8 MG Storage Conduit	In-Design	July 2033	$158 Million	20%

[1] 1988 JFK rainfall year was determined to be the average rainfall year during the WWFP development.

[2] 2008 rainfall year was determined to be the average rainfall year during the LTCP development fand for the InfoWorks modeling.

2.8 MG Storage Conduit Schematic



Source: New York City Department of Environmental Protection

Projected Improvements

CSO Reduction: The selected alternative for the creation of the 2.8-million-gallon storage conduit, and floatables control is expected to reduce the total CSO discharge by roughly 50 MGY.

Projected Water Quality: The selected alternative is predicted to not achieve fecal coliform standards during the recreational season or annually throughout the river. The dissolved oxygen standard is predicted to not meet attainment with the implementation of the alternative for some areas of the river. The LTCP determined that additional CSO reduction projects to achieve 100% CSO control in the river would not achieve significant water quality benefits as a result of additional bacterial loadings entering the river from non-CSO sources, including upstream sources in Westchester County.

Post Construction Monitoring

To confirm that the projects implemented achieve the projected water quality improvements, post-construction compliance monitoring will be conducted by DEP. DEP conducts ongoing monitoring under its' Harbor Survey Monitoring Program.

Long Term Control Plan

If you would like additional information on the Hutchinson River LTCP, you can access the entire approved LTCP by visiting the New York City CSO Program information page on the New York State Department of Environmental Conservation Website.