

# Bronx River

New York City CSO Program



Department of  
Environmental  
Conservation

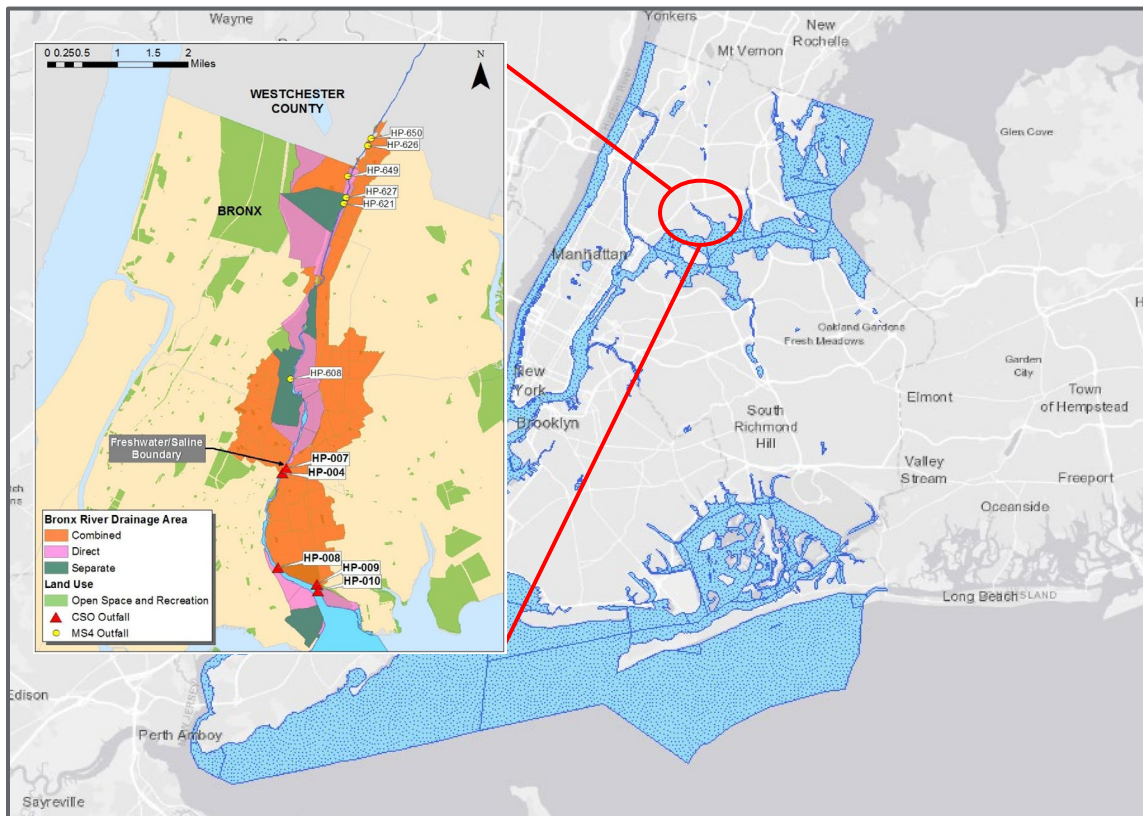
**Overview:** Pursuant to the NYC CSO Order, the New York City Department of Environmental Protection (DEP) completed watershed-level planning for Bronx River to identify opportunities to reduce combined sewer overflows (CSOs) and improve water quality. To date, DEP has invested or will invest approximately \$98 million to reduce CSOs by nearly 37% to the waterbody. The following table that shows all watershed plans developed and implemented for the Bronx River in accordance with the NYC CSO Order.

Watershed Plan	Date Submitted	Date Approved	Implementation Status
Waterbody/Watershed Facility Plan (WWFP)	June 25, 2007	July 27, 2010	Completed
Long Term Control Plan (LTCP)	June 30, 2015	March 7, 2017	In construction

## Waterbody/Watershed Characteristics

**Characteristics:** The Bronx River is located in the Bronx and Westchester County and is a tributary to the Upper East River. Its watershed covers approximately 23,020 and 4,320 acres in Westchester County and the Bronx, respectively. The lower saline reach of the waterbody is Class I, the middle reach is Class B, and the upper reach is Class C. Within the limits of NYC, 2,764 acres consist of combined sewer with five (5) active CSO outfalls that discharge to the saline portion of the waterbody. Most of the land immediately adjacent to the shoreline is residential and park land, and overall, the predominant land use in the drainage basin is residential.

### Bronx River Drainage Area Location



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

## WWFP Projects

**WWFP Baseline Conditions:** Prior to implementation of any CSO reduction projects under the WWFP, approximately 1 billion gallons per year (BGY) of CSO was discharged to the Bronx River for an average rainfall year<sup>1</sup>. Under the WWFP baseline conditions, the saline reach of the Bronx River did not attain the applicable water quality standards for fecal coliform and dissolved oxygen.

**Project Summary:** The selected alternative from the WWFP consisted of floatables control at three (3) CSO outfalls.

Shoreline View of the Bronx River



Source: New York City Department of Environmental Protection

Selected Alternatives	Completion Status	Date of Completion	Total Cost at Project Completion
HP-004, HP-007, and HP-009 Floatables Control	Completed	October 2012	\$29,000,000

Floatables Control Netting Facility



Source: New York City Department of Environmental Protection

<sup>1</sup> 1988 JFK rainfall year was determined to be the average rainfall year during the WWFP development.

## LTCP Projects

**LTCP Baseline Conditions:** Prior to implementation of any CSO reduction projects under the LTCP, approximately 551 million gallons per year (MGY) of CSO was discharged to the Bronx River for an average rainfall year<sup>2</sup>. In addition, another 7 MGY of stormwater is discharged to the river. Under the LTCP baseline conditions, the Bronx River did not attain the applicable water quality standards for fecal coliform and dissolved oxygen.

**Project Summary:** The cost-effective alternatives selected under the LTCP consisted of construction of relief sewers from CSO outfalls HP-007 HP-009 and floatable control for CSO outfall HP-011. The relief sewer for HP-007 was subsequently eliminated from the alternatives without impact to projected improvements. The following table summarizes the projects to be completed to reduce CSO impacts in the Bronx River along with their anticipated completion date, total cost, and estimated CSO reduction.

Selected Alternatives	Completion Status	Date of Completion	Total Cost at Project Completion	CSO Volume Reduction
HP-009 Relief Sewer	Under Construction	September, 2026	\$44,825,000	43%
HP-011 Floatables Control	Under Construction	September, 2026	\$24,188,142	

**HP-009 Parallel Relief Sewer Schematic**



Source: New York City Department of Environmental Protection

**HP-011 Floatables Control Regulator**



Source: New York City Department of Environmental Protection

## Projected Improvements

**CSO Reduction:** The relief sewer for HP-009 is projected to reduce CSO to the Bronx River by 43 percent or 237 MGY for an average rainfall year. The floatables control project will reduce floatable material discharged to the East River.

**Projected Water Quality:** For the recreational season, the lower reach of the waterbody is not projected fully attain applicable water quality standards.

<sup>2</sup> 2008 rainfall year was determined to be the average rainfall year during the LTCP development and for the InfoWorks modeling

## 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 Coney Island Creek 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](#).