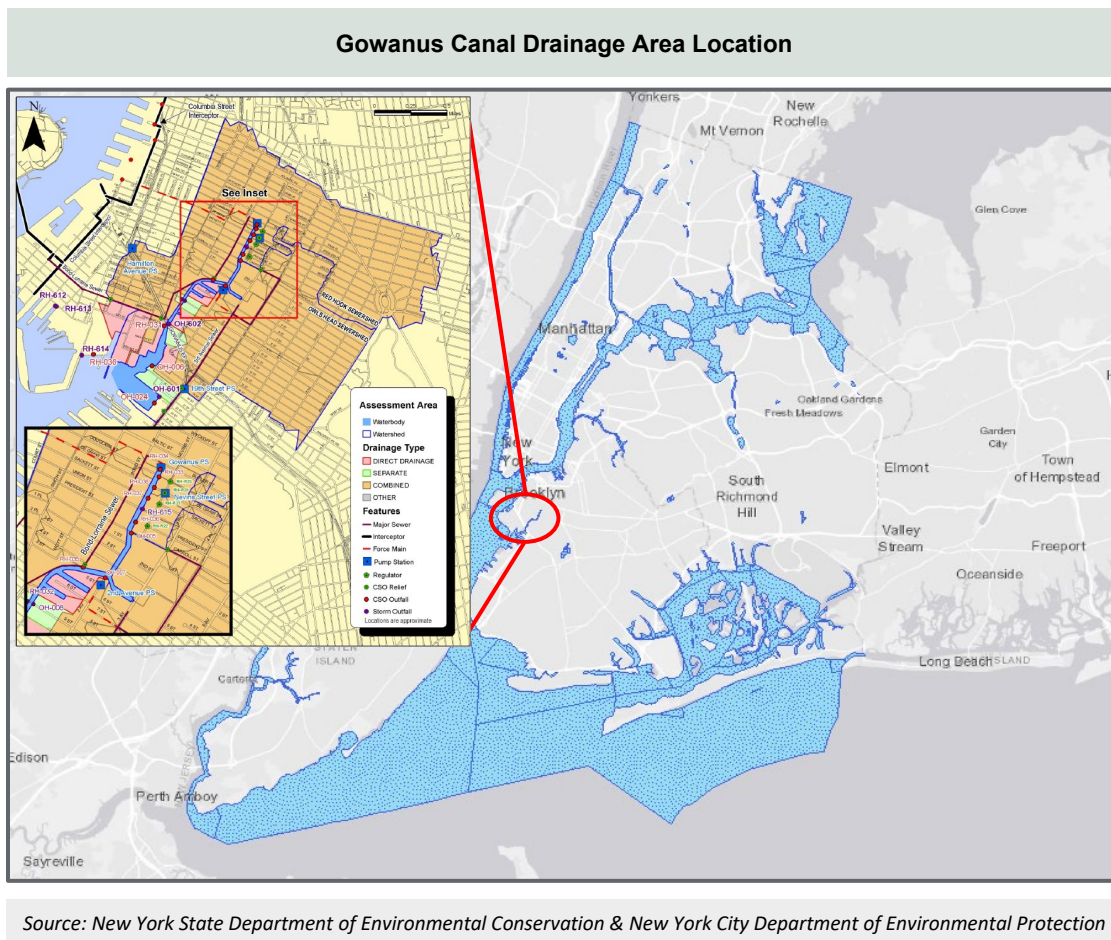


Overview. Pursuant to the NYC CSO Order, the New York City Department of Environmental Protection (DEP) completed watershed-level planning for Gowanus Canal to identify opportunities to reduce combined sewer overflows (CSOs) and improve water quality. To date, DEP has invested approximately \$160 million to reduce CSOs by almost 30% to the waterbody. The following table shows all watershed plans developed and implemented for Gowanus Canal in accordance with the NYC CSO Order.

Watershed Plan	Date Submitted	Date Approved	Implementation Status
Waterbody/Watershed Facility Plan (WWFP)	August 4, 2006	July 14, 2009	Completed
Long Term Control Plan (LTCP)	June 30, 2015	March 31, 2017	Completed

Waterbody/Watershed Characteristics

Characteristics: Gowanus Canal is a Class SC saline waterbody located in Brooklyn, that is a tributary to Gowanus Bay and Upper New York Bay. Its watershed is approximately 1,758 acres; approximately 8 percent is separately sewered/direct drainage, and the remaining watershed is combined sewered. The waterbody has eleven (11) active CSO outfalls. Most of the land immediately adjacent to the shoreline is industrial and commercial uses, but overall, the predominant land use in the drainage basin is residential. The best use of Class SC waterbodies is fishing.



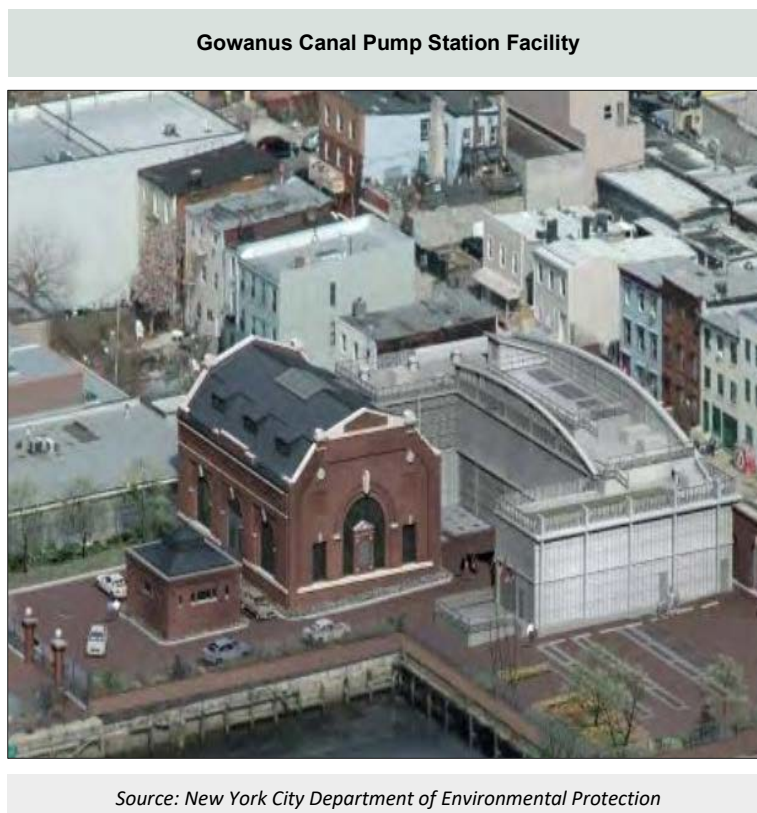
WWFP Projects

WWFP Baseline Conditions: Prior to implementation of any CSO reduction projects, approximately 310 million gallons per year (MGY) of CSO was discharged to Gowanus Canal for an average rainfall year¹. In addition, another 39 MGY of stormwater is discharged to the Canal on average. Under the WWFP baseline conditions, Gowanus Canal did not attain the applicable water quality standards for fecal coliform and dissolved oxygen.

Projects Summary: Two (2) cost-effective alternatives were selected from the WWFP: reconstruction and expansion of the Gowanus Canal Pump Station from a 20.2 million gallons per day (MGD) capacity to a 30 MGD capacity; and the rehabilitation of the Gowanus Canal flushing tunnel that had been out of service from the 1960s through 1991. The following table summarizes the projects that were completed to reduce CSO impacts in Gowanus Canal along with their completion date, total cost, and estimated CSO reduction.



Selected Alternatives	Completion Status	Date of Completion	Total Cost at Project Completion	CSO Volume Reduction
Rehabilitation of the Gowanus Canal Flushing Tunnel	Completed	February, 2015	\$160.3M	N/A
Reconstruction of the Gowanus Pump Station	Completed	February, 2015		20%



¹ The 1988 rainfall year was the average rainfall year used for evaluation of the CSO reduction projects.

LTCP Projects

LTCP Baseline Conditions: Under the LTCP, approximately 659 MGY of CSO was discharged to Gowanus Canal for an average rainfall year². In addition, another 26 MGY of stormwater is discharged to the Canal on average. Under the LTCP baseline conditions, Gowanus Canal attained the applicable water quality standards for fecal coliform during the recreational season and dissolved oxygen annually. There were no additional projects were selected under the LTCP for implementation.

Projected Improvements

CSO Reduction: The reconstruction and expansion of the Gowanus pump station decreased the total CSO discharge volume to the Canal by 30%. The rehabilitation of the Gowanus Canal flushing tunnel resulted in an increase of 40% (215 MGD) of water flow from the East River into the Gowanus Canal, which increased the rate of flushing in the Canal. The Tunnel does not reduce the CSO volume to the Gowanus Canal, however it brings in ambient water eliminating stagnate conditions and improving the dissolved oxygen levels.

Projected Water Quality: The CSO reduction from the pump station improvements in combination with the increased flushing water from the flushing tunnel is expected to attain water quality standards for Class SC Saline Waterbody. Although the Canal is projected to meet water quality standards and not currently required to take further action under the Clean Water Act, DEP is constructing two CSO storage tanks as part of a federal Superfund remedy.

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 Gowanus Canal 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](#).

² 2008 rainfall year was determined to be the average rainfall year during the LTCP development and InfoWorks modeling.