

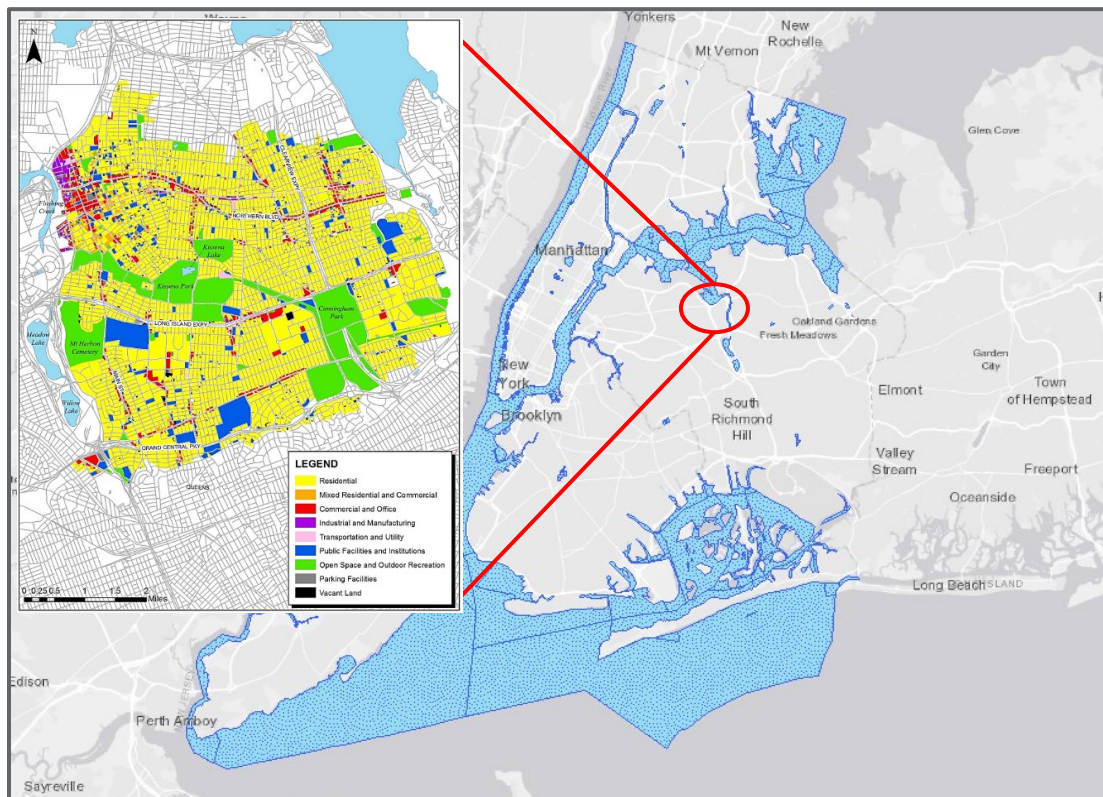
Overview. Pursuant to the NYC CSO Order, the New York City Department of Environmental Protection (DEP) completed watershed-level planning for Flushing Creek to identify opportunities to reduce combined sewer overflows (CSOs) and improve water quality. To date, DEP has invested or committed to invest \$403.8 million into CSO reduction for this waterbody reducing CSO by 68%. The following table shows the watershed plans developed and implemented for Flushing Creek in accordance with the NYC CSO Order.

Watershed Plan	Date Submitted	Date Approved	Implementation Status
Waterbody/Watershed Facility Plan (WWFP)	June 25, 2007	May 4, 2012	Completed
Long Term Control Plan (LTCP)	April 14, 2015	August 1, 2017	In Construction

Waterbody/Watershed Characteristics

Characteristics: Flushing Creek is a Class I saline waterbody located in Queens that discharges into the Flushing Bay. The Flushing Creek watershed is approximately 9,954 acres, which is comprised of drainage areas in both the Tallman Island WRRF and Bowery Bay WRRF sewersheds. The Tallman Island WRRF sewershed consists of roughly 8,336 acres while the Bowery Bay WRRF sewershed consists of another 669 acres within the Flushing Creek watershed. There are three (3) active CSO outfalls that discharge to Flushing Creek. Most of the land immediately adjacent to the shoreline is open space and outdoor recreation, but overall, the predominant land use in the drainage basin is residential. The best use of Class I waterbodies is fishing.

Flushing Creek Drainage Area Location



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

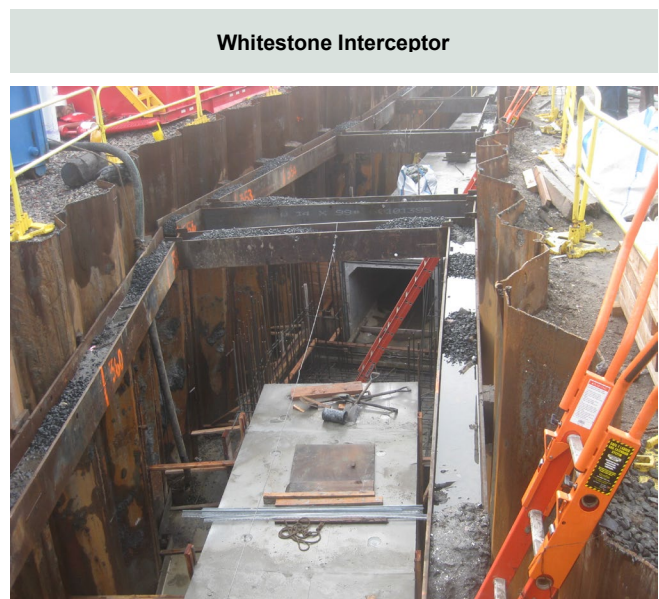
WWFP Projects

WWFP Baseline Conditions: Prior to implementation of any CSO reduction projects under the WWFP, approximately 2 billion gallons per year (BGY) of CSO was discharged to Flushing Creek for an average rainfall year¹. In addition, another 481 MGY of stormwater is discharged to the Creek on average. Under the baseline conditions, Flushing Creek 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 Flushing Creek. Two (2) cost-effective alternatives were selected: construction of the 28-million-gallon (MG) Flushing Bay CSO retention facility with 15 MG in-line storage; and the Whitestone interceptor parallel to the main Flushing interceptor to Tallman Island WWRF. The following table summarizes the projects completed to reduce CSO impacts in Flushing Creek along with their completion dates, total cost at project completion.



Selected Alternatives	Completion Status	Date of Completion	Total Cost at Project Completion	CSO Volume Reduction
43 MG Flushing Bay CSO Retention Facility	Completed	January 2011	\$333 Million	57%
Whitestone Interceptor	Completed	December 2014	\$22 Million	



Source: New York State Department of Environmental Conservation

¹ 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 1.2 BGY of CSO was discharged to Flushing Creek for an average rainfall year². In addition, another 624 MGY of stormwater and 456 MGY of freshwater from Meadow and Willow Lakes is discharged to the Creek on average. Under the LTCP baseline conditions, Flushing Creek did not fully attain the applicable fecal coliform and dissolved oxygen standards year-round.

Projects Summary: The cost-effective alternatives selected under the LTCP consisted of construction of disinfection facilities for CSO outfalls TI-010 and TI-011, along with upstream floatables control for CSO outfall TI-011 at Regulator 009. The following table summarizes the completion dates and estimated costs for these projects.

Selected Alternatives	Completion Status	Date of Completion	Estimated Construction Cost
TI-010 and TI-011 Disinfection	Under Construction	December 2029	\$41.1 Million
TI-R009 Floatables Control	Under Construction	December 2025	\$7.7 Million

Project Improvements

CSO Reduction: The selected alternatives will not reduce the quantity of CSO discharge, rather will provide treatment of the existing CSOs before discharge at outfalls TI-010 and TI-011.

Projected Water Quality: The disinfection facility will reduce bacterial concentrations in overflows for CSO outfalls TI-010 and TI-011. The implementation of floatables control for CSO outfall TI-011 will reduce floatable materials in the discharge.

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 Flushing 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](#).

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