

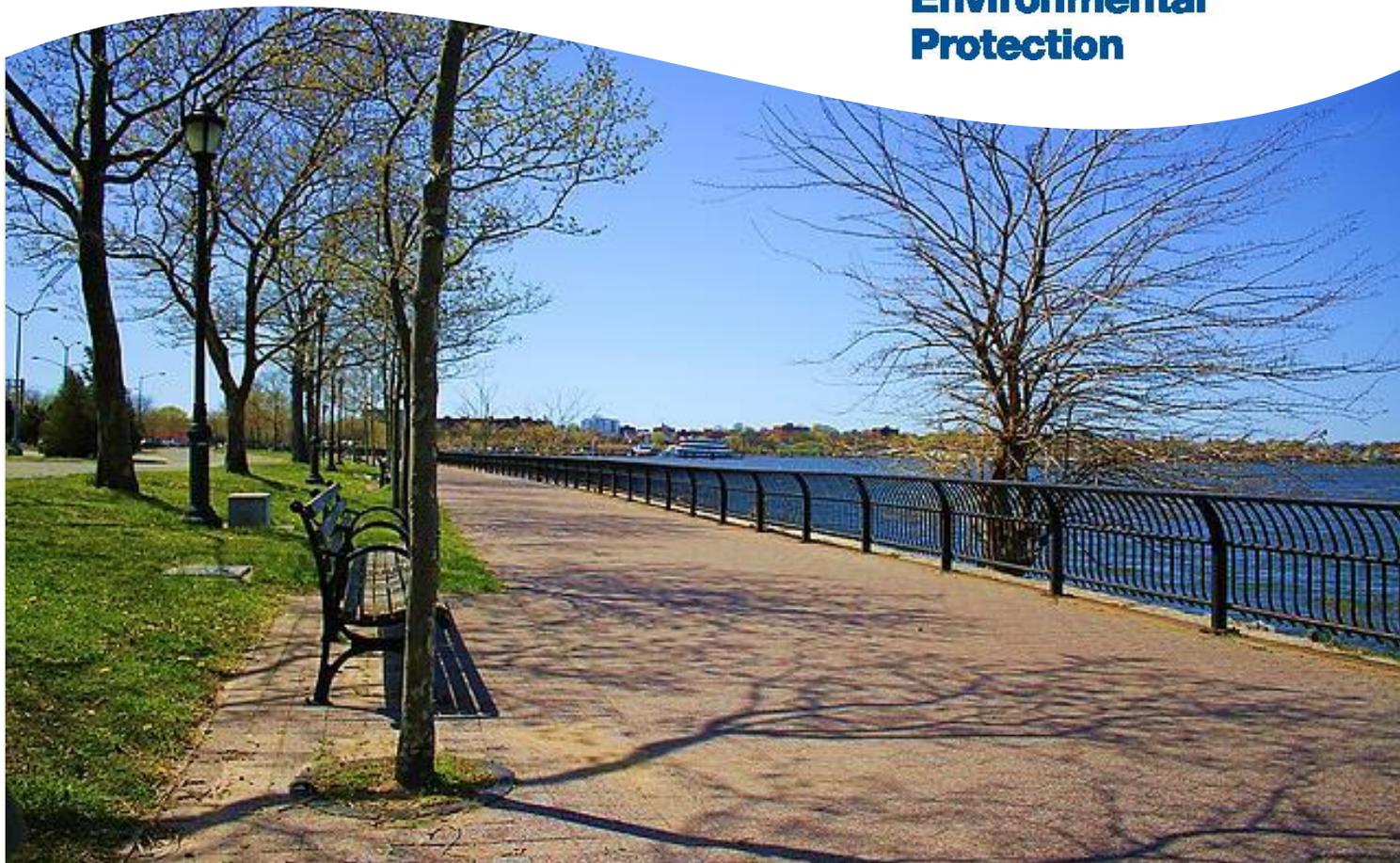
Flushing Bay

Combined Sewer Overflows Long Term Control Plan

Located in north-central Queens, Flushing Bay is bounded by the East River to the north between LaGuardia Airport and the community of College Point. Flushing Creek is designated as a separate waterbody, which feeds Flushing Bay from the Southeast corner of the Bay. Combined sewers serve most of this area and discharge to ten (10) CSOs, seven (7) in the Tallman Island service area and three (3) in the Bowery Bay service area.

Currently DEP has committed \$86 million to reduce pollution and improve water quality in the Flushing Bay. Water quality improvement projects include rehabilitation/upgrades at the Bowery Bay and Tallman Island Waste Water Treatment Plants to improve CSO treatment process, to increase the capacity and reduce CSOs overflows into the waterbody. Additionally, DEP has made green infrastructure investments on streets, sidewalks, and NYC property. Some of these investments were recommendations of the August 2011 Waterbody Watershed Facility Plan, the first step in the development of a Long Term Control Plan (LTCP) for Flushing Bay.

For the Flushing Bay combined sewer overflow (CSO) LTCP, DEP has started to evaluate additional improvements to reduce CSO impacts on water quality and related recreational uses within this waterbody, and will continue to work with the New York State Department of Environmental Conservation. The goal of the CSO LTCP is to identify appropriate controls necessary to achieve waterbody-specific water quality standards, consistent with Federal CSO Policy and the water quality goals of the Clean Water Act.



Bowery Bay Wastewater Treatment Plant

The Bowery Bay plant went into operation in 1939 as a 40 MGD primary treatment plant and has undergone a series of upgrades and expansions since that time. In 1940, secondary treatment was implemented using the step aeration process. In 1954, the plant's capacity was increased to 120 MGD and then again in 1971 to 150 MGD. In 1991, sludge dewatering facilities were added. In December 1999, construction was completed for the Basic Step Feed BNR retrofit at Bowery Bay. Currently, Bowery Bay is undergoing upgrades to replace and refurbish aged and outdated facilities and provide additional biological nutrient removal capability. Other projects include High Level Interceptor regulator modifications at 10 regulators, diversion of Low Lying sewers in the vicinity of Bowery Bay WWTP, raise weir at regulator BB-02, and environmental dredging in the proximity of CSO outfalls BB-006 and BB-008.

Tallman Island Wastewater Treatment Plant

Several major expansions and upgrades were completed in 1964 (upgrade and expansion to 60 MGD) and 1979 (upgrade and expansion to 80 MGD). New Whitestone Interceptor construction was completed in December 2014. A construction upgrade program to address the facility's critical needs and to upgrade the aeration process to a basic step-feed BNR process is currently ongoing. The Flushing Interceptor project is currently under development.

Green Infrastructure

New York City's Green Infrastructure Program is a multiagency effort led by DEP. DEP and agency partners design, construct, and maintain a variety of sustainable green infrastructure (GI) practices such as bioswales, stormwater greenstreets, rain gardens and green roofs. GI practices collect and manage stormwater runoff from impervious surfaces such as streets, sidewalks, and rooftops. DEP has committed \$1.5 billion in public funding for green infrastructure installations to manage one inch of stormwater runoff from 10% of the impervious area of the combined sewer areas of the City by 2030.

In the Flushing Bay watershed, DEP has launched Area-wide contracts for bioswale and stormwater greenstreet construction in Queens neighborhoods that are tributary to CSO outfalls BB-006 and BB-008.

By 2030, DEP's plans to manage 522 acres or 13% of the combined sewer impervious area in Flushing Bay through a combination of projects, such as the bioswale and stormwater greenstreet construction, and retrofits at New York City Housing Authority, the Department of Education and other City agency properties. To date, DEP has completed construction of green infrastructure at Stephen A. Halsey JHS and 45 bioswales. Approximately 900 more bioswales and stormwater greenstreets and a 26,000SF porous concrete pilot will be constructed over the next few years. DEP is also currently designing green infrastructure practices for 12 parks and three schools in Flushing Bay.

Flushing Bay Watershed Characteristics:

- NYSDEC Classification – Class I (Boating/Fishing)
- Total Drainage Area: 7,838 acres
- NYC Combined Sewer Contributory Area: 5,243 acres (67%)
- Wastewater Treatment Plants: Bowery Bay and Tallman Island

