

# GOWANUS CANAL AND BAY



US Army Corps  
of Engineers  
New York District



*"It is not possible to describe how this bay swarms with fish, both large and small, whales, turries and porpoises whole schools of innumerable other fish, which the eagles and other birds of prey swiftly seize in their talons when the fish come up to the surface, and hauling them out of the water, fly with them to the nearest wood or beach, as we saw." — Gowanus Bay Journal of Jasper, Danckaerts 1679-1680*

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## ECOSYSTEM RESTORATION

### HISTORY:

Prior to 1881, long before industrial users sprawled the shoreline and the term "brownfield" defined the area, the Gowanus Creek was a tidal inlet that flowed into Gowanus Bay. It was a thriving salt-water marshland with meadows, fish and other wildlife. Oystering on the Gowanus Canal traces back to early settlers including the Native Americans, who described "oysters as big as a dinner plate." In later years, Gowanus farmers harvested oysters, packed them into casks and shipped them out through the port, making them Brooklyn's first export.

The City of New York built the Gowanus Canal in 1881 to accommodate industrial users and commercial shippers, such as the oyster farmers, on the Brooklyn waterfront as part of overall efforts to improve navigation in New York City. After its completion, the canal became an active waterway, crucial to the development of commerce and industry in the city, with factories and residential communities spreading rapidly. However, the expanded use and growth of the canal area, coupled with inadequate systems for sewage disposal and unlimited discharges of raw sewage directly into its waters, transformed this, a man-made waterway (with very limited tidal exchange) into a polluted, stagnant degraded ecosystem.



In 1911, in response to increasing levels of water pollution, the City built a "flushing tunnel" to disperse pollutants by using a propeller to flush water from the canal to the Buttermilk Channel. The tunnel functioned until the 1960s when mechanical failure caused the flushing tunnel to shut down and the canal returned to its polluted and stagnant state. Repairs to the tunnel were postponed by previous City administrations in hopes that, once the Red Hook Water Pollution Control Plant was completed, sewage flow into the canal would be eliminated. But, even though the Plant was put in service in 1987 and dry weather sewage discharge was eliminated, the canal remained a stagnant eyesore.

Over time, some believed the long-term effects of the pollution posed a great health risk to area residents and discouraged the private sector from investing in this area. Coupled with the decline of industrial and commercial use, the area became run-down and unattractive, with the canal serving as a major deterrent to redevelopment instead of an attraction.

#### **TODAY**

The US Army Corps of Engineers and the New York City Department of Environmental Protection are cost-sharing an estimated \$5 million feasibility study to assess the environmental problems and potential solutions to restore the ecological health of the Gowanus Canal and to aid and compliment other activities to revitalize the area. Along with the strong support of the local community, grass roots organizations like the Gowanus Canal Community Development Corporation and the Borough of Brooklyn, the study is moving forward.

# THE STUDY

The study will identify strategies to address:

- Sediment contamination
- Poor water quality
- Hardened shorelines
- Extensive filling
- Absence of trees, shrubs and other natural vegetative buffer areas along the shoreline
- Blending ecosystem restoration with waterfront revitalization goals
- Biological productivity
- Habitat Creation
- Public usage (view areas, walking/bike trails, parks, greenways)
- Public education involving both environmental and historic details of Canal

The study will assess many factors including the removal of contaminated sediments, contaminant reduction measures, the potential creation of wetlands and upland buffers, water quality improvements, increases in biological diversity and alteration of hydrology/hydraulics to improve water movement and quality. The Final Restoration Feasibility Report, which will contain extensive environmental documentation and restoration recommendations, is scheduled for completion by January 2005.

Study recommendations may include:

- Selective and careful removal of undesirable fill and sediments
- The restoration of water flow to enhance aquatic habitat and water quality
- The integration of ecosystem restorations with local plans
- The re-establishment of greenways and buffer areas
- The re-contouring of the canal bottom to create natural creek depths
- Habitat creation and restoration