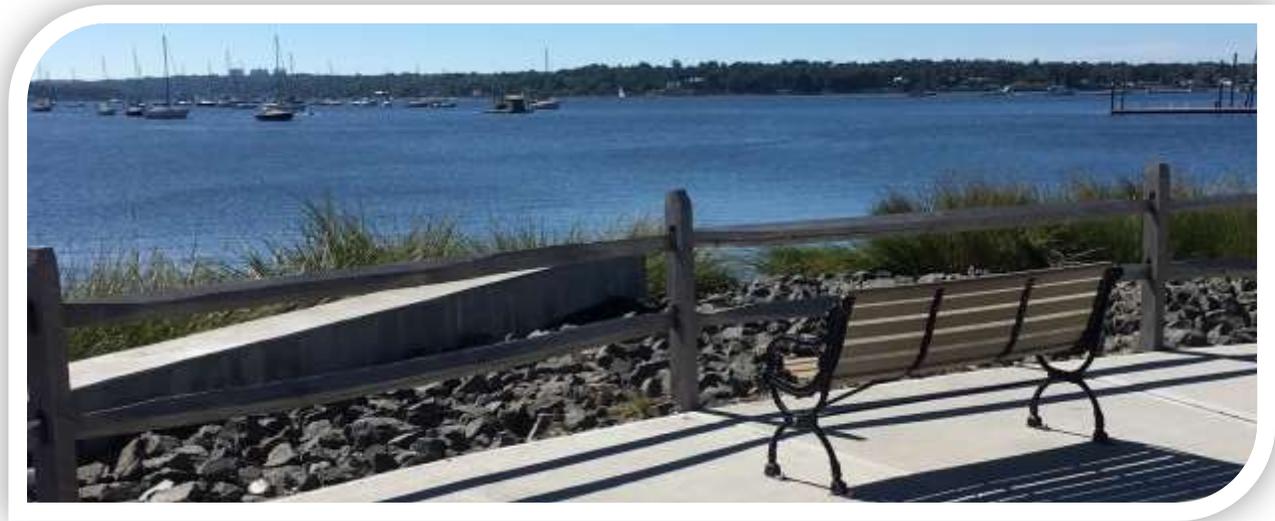


Manhasset Bay Water Quality Analysis Summary

Presented here are the findings and recommendations of the Manhasset Bay Water Quality Analysis report, which covers water quality data collected over the summers of 2009 through 2015. The Manhasset Bay Protection Committee, working with the Town of North Hempstead, contracted with the environmental engineering firm Fuss & O’Neill, Inc. for this work. The Committee requested a study which compiled seven years of bacteria and water quality data and connected it with weather and environmental events. Many of the key recommendations of this report are already being acted on by the Committee.

To download the report visit: www.manhassetbayprotectioncommittee.org/waterquality.htm



Key Conclusions

- Manhasset Bay beaches are generally safe for swimming (where allowed), except within a day of rainfall.
- Rainfall significantly impacts water quality. Rainfall acts the fastest (same day) and has the largest impact on water quality near the densest development (Port Washington peninsula), where many stormwater outfalls are located. In contrast, the sampling stations on the western shore (Great Neck peninsula) and in the middle of the Bay show correlations with prior day rainfall. These findings are consistent with what is seen in other bays and harbors.
- The highest bacteria concentrations are on the eastern side of the Bay. At times, these bacteria counts are high even without rain, indicating that a factor other than stormwater may be affecting water quality here. Despite this, water quality at these beaches still meets the New York State swimming standards when there has not been rain.
- Dissolved oxygen (DO) concentrations are lowest at the head of the Bay (near Manhasset). This is consistent with conditions of shallower depth and less mixing with ocean waters.



Manhasset Bay Water Quality Analysis Summary

Key Recommendations

- Sampling of water quality parameters (DO, salinity, pH) should be taken at the same time and same locations as bacteria samples. This would allow for expansion of the data set.
- Investigation of stormwater outfalls discharging during dry weather would provide information on potential bacteria sources.
- Targeted sampling of stormwater outfalls during wet weather for parameters indicative of sewage (e.g., pharmaceuticals) would help identify non-stormwater sources of bacteria.
- Use of DNA-based testing could allow for confirmation or elimination of suspected human sources in areas where dry weather bacteria concentrations remain elevated.
- Electronically mapping the location of all outfalls within the Bay, including information on ownership, size, and condition, would provide a useful resource.
- Hydrodynamics within the Bay could be investigated to understand how tides and discharges interact to influence water quality. Tidal phase (i.e., flood, slack, ebb) could be included as an observation during water quality monitoring.



The Committee

The Manhasset Bay Protection Committee is an inter-municipal organization aimed at addressing water quality and coastal issues in Manhasset Bay with a coordinated, watershed-level approach. The Committee has 15 member municipalities who all voluntarily entered into an inter-municipal agreement. The Committee's goals are to protect, restore, and enhance Manhasset Bay so as to insure a healthy and diverse marine ecosystem while balancing and maintaining recreational and commercial uses. Manhasset Bay is a vital resource which impacts the local and regional economy and the Committee remains committed to implementing projects and activities that facilitate an improvement in water quality.

The Committee members are:

Nassau County
Town of North Hempstead

And the Villages of:

Baxter Estates
Flower Hill

Great Neck
Kensington
Kings Point
Manorhaven
Munsey Park
Plandome

Plandome Heights
Plandome Manor
Port Washington North
Sands Point
Thomaston

We want to hear from you! Please send us any comments, questions, etc.

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