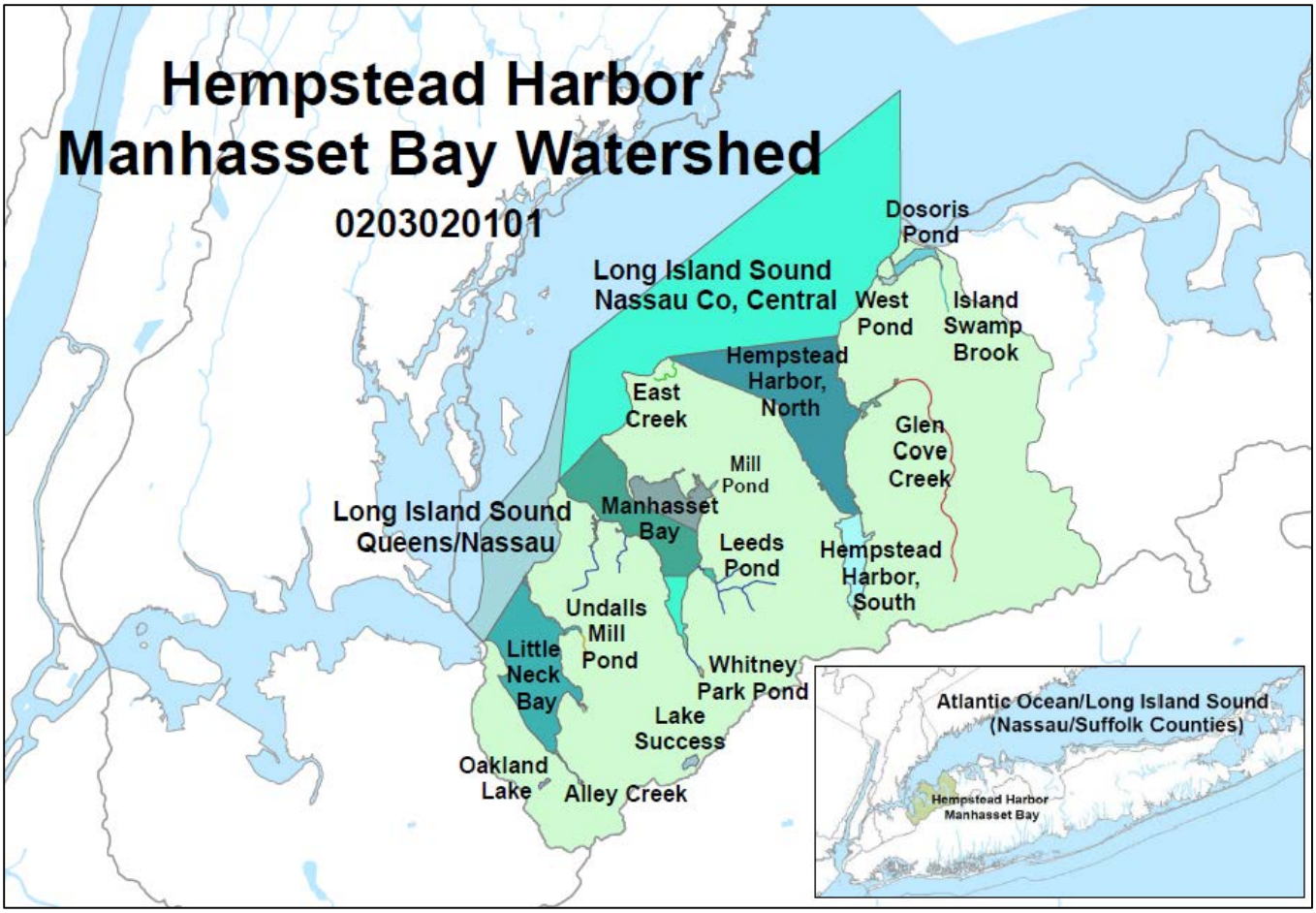

Hempstead Harbor/Manhasset Bay Watershed

(0203020101)

Water Index Number	Waterbody Segment	Category
(MW4.1) LIS (portion 3a)	Long Island Sound, Queens/Nassau (1702-0272)	Impaired
(MW4.1a) ER/LIS-LNB	Little Neck Bay (1702-0029)	Impaired
(MW4.1a) ER/LIS-LNB-19 thru 20	Alley Creek/Little Neck Bay Trib (1702-0009)	Impaired
(MW4.1a) ER/LIS-LNB-19-P107	Oakland Lake (1702-0114)	Unassessed
(MW4.1a) ER/LIS-LNB-21	Trib to Little Neck Bay (1702-0138)	Impaired
(MW4.1a) ER/LIS-LNB-P114	Lake Success (1702-0139)	Unassessed
(MW4.1a) ER/LIS-LNB-P119a	Undalls Mill Pond (1702-0140)	Unassessed
(MW4.2) LIS (portion 3b)	Long Island Sound, Nassau County, Central (1702-0028)	Impaired
(MW4.2b) LIS-MB (portion 1)	Manhasset Bay, and tidal tribs (1702-0021)	Impaired
(MW4.2b) LIS-MB (portion 2)	Manhasset Bay, and tidal tribs (1702-0141)	Minor Impacts
(MW4.2b) LIS-MB (portion 3)	Manhasset Bay, and tidal tribs (1702-0142)	Minor Impacts
(MW4.2b) LIS-MB-22 thru 30	Tribs to Manhasset Bay (1702-0143)	Unassessed
(MW4.2b) LIS-MB-25-P122	Whitney Park Pond (1702-0101)	Impaired
(MW4.2b) LIS-MB-P122c	Leeds Pond (1702-0048)	Unassessed
(MW4.2b) LIS-MB-P125	Mill Pond (1702-0145)	Needs Verification
(MW4.3a) LIS-32	East Creek and tribs (1702-0144)	Unassessed

Hempstead Harbor/Manhasset Bay Watershed
(0203020101)

Water Index Number	Waterbody Segment	Category
(MW4.3a) LIS-HH	Hempstead Harbor, north, and tidal tribs (1702-0022)	Impaired
(MW4.3a) LIS-HH	Hempstead Harbor, south, and tidal tribs (1702-0263)	Impaired
(MW4.3a) LIS-HH-38	Glen Cove Creek, Lower, and tribs (1702-0146)	Needs Verification
(MW4.3a) LIS-HH-38	Glen Cove Creek, Upper, and tribs (1702-0147)	Unassessed
(MW4.3b) LIS-40/P145a	West Pond (1702-0148)	Unassessed
(MW4.3b) LIS-41/P145-1	Island Swamp Brook and tribs (1702-0149)	Unassessed
(MW4.3b) LIS-41-P145	Dosoris Pond (1702-0024)	Impaired

Long Island Sound, Queens/Nassau County (1702-0272) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1) LIS (portion 3a)		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** SB		Long Island Sound
Water Type/Size:	Estuary Waters	1946.9 Acres	**Reg/County:**	1/Nassau (30)
Description:	Sound fr Hewlett Point to Matinecock Point			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	Stressed	Known
Recreation	Stressed	Known
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Fair	

Type of Pollutant(s)

Known:	NUTRIENTS (nitrogen), LOW D.O./OXYGEN DEMAND,
Suspected:	Priority Organics (PCBs), Pathogens, Other Pollutants (floatables)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	MUNICIPAL DISCHARGES (NYC), COMBINED SEWER OVERFLOW (CSOs), URBAN/STORM RUNOFF, ATMOSPH. DEPOSITION
Suspected:	OTHER SOURCE (migratory species)
Unconfirmed:	- - -

Management Information

Management Status:	Strategy Implementation Scheduled or Underway
Lead Agency/Office:	ext/LISS
IR/305(b) Code:	Impaired Water, TMDL Completed (IR Category 4a)

Further Details

Overview

This portion of Long Island Sound is assessed as impaired due to aquatic life that is known to be impaired by nutrients resulting low dissolved oxygen. Public bathing and recreational uses are also thought to be stressed by pathogens resulting in periodic beach closures. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Long Island Sound is a Class SB waterbody, suitable for public bathing and general recreation use, and support of aquatic life, but not for shellfishing.

Aquatic life in the waterbody is considered to be impaired due to periodic low dissolved oxygen (hypoxia), the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. Atmospheric deposition is also contributes nitrogen to the Sound. The resulting low dissolved oxygen conditions have caused crustacean kills and limits the fishery in this passageway for diadromous fish. Although there has been a general trend of improvement over the past decade, the level of hypoxia in the Sound varies considerably from year to year. (DEC/DOW and FWMR, Region 1, August 2010)

Recreational use including public bathing is considered to be stressed based on monitoring and advisories/closures of beaches in adjacent waterbodies. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches; these results resulted in frequent beach advisories/closures in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within nearby segments include Cresent Beach and Morris Yacht and Beach Club Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

All of this waterbody (included within Shellfish Growing Area #75) has been designated as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program and designated as uncertified, its Class SC designation does not include shellfishing as an appropriate use and this assessment does not include an evaluation for the support of shellfishing use. (DEC/DFWMR, Region 1, July 2015)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. The Long Island Sound Study conducts a wide range of water quality monitoring in the Sound, including for nutrients and hypoxia, pathogens and floatable debris. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Municipal wastewater discharges, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of the nutrients. Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in

1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

Since 2006, New York City has been under a Nitrogen Consent Judgment to reduce nitrogen loads associated with the discharge of treated effluent to the Long Island Sound and Upper East River. Under the current Consent Judgment, which was amended in 2011, the City must install new nitrogen control technologies at four wastewater treatment plants that discharge effluent to these waterbodies in order to reduce nitrogen loads in accordance with the Long Island Sound nitrogen TMDL. The treatment plants being upgraded are: Wards Island, Bowery Bay, Tallman Island, and Hunts Point. The first upgrades under the Consent Judgment became operational in 2010 and all improvements required under the Consent Judgment will be completed by 2020. (DEC/DOW, BWC/NYCC, February 2016)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

This portion of Long Island Sound is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a LIS Nitrogen TMDL. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes all the waters of Long Island Sound within Queens and Nassau Counties east of the Throgs Neck Bridge and west of a line between Hewlett Point and the intersection of the Nassau–Bronx–Westchester County lines, and excluding Little Neck Bay which is listed separately.

Little Neck Bay (1702-0029) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1a) ER/LIS-LNB		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** SB		Long Island Sound
Water Type/Size:	Estuary Waters	1591.5 Acres	**Reg/County:**	2/Queens (41)
Description:	entire bay, as described below			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Known
Fish Consumption	Stressed	Known
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Types of Pollutant(s)

Known:	PATHOGENS, Other Pollutants (floatables)
Suspected:	Nutrients (nitrogen), Low D.O./Oxygen Demand , Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	ONSITE/SEPTIC SYSTEMS (Douglaston Manor), COMBINED SEWER OVERFLOW (CSOS), URBAN/STORM RUNOFF
Suspected:	Municipal Discharges, Other/Non-Permitted Sanitary Discharge, Other Source (migratory species)
Unconfirmed:	- - -

Management Information

Management Status:	Restoration/Protection Strategy Needed
Lead Agency/Office:	ext/NYC
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Little Neck Bay is assessed as impaired due to public bathing recreational uses that are known to be impaired by pathogens resulting in periodic beach advisories/closures. Aquatic life is known to be stressed by nutrients resulting in periodic low dissolved oxygen. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

Little Neck Bay is a Class SB waterbody, suitable for public bathing and general recreation use, and support of aquatic life, but not for shellfishing.

Recreational use including public bathing is considered to be impaired based on monitoring and frequent advisories and closures of beaches in the segment, in particular near Douglas Manor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches; these results resulted in frequent (more than 25 days) beach advisories/closures in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015).

Recreational uses in the Bay are considered to be stressed due to poor aesthetics associated with floatable debris; however, based on recent shoreline surveys, the majority of floatables are attributed to non-CSO sources (DEP Floatables Monitoring Program Progress Report, 2015).

All of this waterbody (included within Shellfish Growing Area #73) has been designated as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program and designated as uncertified, its Class SB designation does not include shellfishing as an appropriate use and this assessment does not include an evaluation for the support of shellfishing use. (DEC/DFWMR, Region 1, July 2015)

Aquatic life in the waterbody is considered to be stressed due to periodic low dissolved oxygen, the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. Atmospheric deposition is also contributes nitrogen to the Sound. The resulting low dissolved oxygen conditions have caused crustacean kills and limits the fishery in this passageway for diadromous fish. (DEC/DOW and FWMR, Region 1, August 2010)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Water quality evaluations have been conducted through the NYCDEP City-Wide Long–Term CSO Control Planning Program as well as the long-standing NYCDEP Harbor Survey Sampling Program. The most recent pathogen data collected from 2009 to 2015 indicate general attainment with the primary contract recreation pathogen criteria in much of the bay (NYCDEP, Harbor Survey Program, 2009 to 2015). However, bathing beach criteria for the area including the Douglas Manor Association Beach is frequently exceeded, resulting in beach closures. The most recent dissolved oxygen data collected from 2009 to 2015 indicate that Little Neck Bay generally meets the acute dissolved oxygen water quality standard but is periodically in non-attaiment with the chronic dissolved oxygen water quality standard during the summer (NYCDEP, Harbor Survey Program, December 2015).

Assessments of recreational uses and aquatic life in marine waters are also based on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, December 2014)

Source Assessment

Failing and/or inadequate onsite wastewater (septic) systems serving residences in unsewered Douglaston Manor have been cited as the primary sources of pathogens to the Bay. Combined sewer overflows (CSOs), urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of pathogens and nitrogen load. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

Since 2006, New York City has been under a Nitrogen Consent Judgment to reduce nitrogen loads associated with the discharge of treated effluent to the Long Island Sound and Upper East River. Under the current Consent Judgment, which was amended in 2011, the City must install new nitrogen control technologies at four wastewater treatment plants that discharge effluent to these waterbodies in order to reduce nitrogen loads in accordance with the Long Island Sound nitrogen TMDL. The treatment plants being upgraded are: Wards Island, Bowery Bay, Tallman Island, and Hunts Point. The first upgrades under the Consent Judgment became operational in 2010 and all improvements required under the Consent Judgment will be completed by 2020.

CSOs into Alley Creek have some impact on water quality in Little Neck Bay. Under a Consent Order issued by NYSDEC in 2005, and modified in 2012, New York City was required to complete a Waterbody/Watershed Facility Plan for Alley Creek and Little Neck Bay to mitigate CSO impacts to the waterbody. The selected alternative for the WWFP was the Alley Creek CSO Retention Facility designed to store up to five million gallons of combined sewage per storm, with pumpback to the Tallman Island Wastewater Treatment Plant. The CSO retention tank has been operational since 2011 and post-construction monitoring has been conducted to verify modeling projections and actual water quality compliance, inform decisions regarding SPDES permit renewal at five–year intervals, and evaluate future management actions, including whether additional CSOs controls are necessary under a Long-Term Control Plan (LTCP). A LTCP was submitted for Alley Creek and Little Neck Bay in June 2013, with revisions in 2014 and 2015. Under the Alley Creek and Little Neck Bay LTCP, NYCDEP has proposed construction of disinfection facilities for the remaining CSO retention tank overflows. The LTCP has not been approved yet by the NYSDEC. (NYCDEP Alley Creek/Little Neck Bay LTCP, 2013)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

Little Neck Bay is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL to attain water quality standards for pathogens. Whereas other New York City waters have been delisted due to CSO LTCPs to address pathogens, the LTCPs for this waterbody will not address the identified impacts from onsite/septic systems. This waterbody was first listed for this impairment on the 1998 Section 303(d) List. (DEC/DOW, BWM/WQAS, January 2016).

Segment Description

This segment includes the estuary water south of a line from Willets Point to Elm Point. Alley Creek and a trib to Little Neck Bay are listed separately.

Alley Creek/Little Neck Bay Trib (1702-0009) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1a) ER/LIS-LNB-19 thru 20	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** I		Long Island Sound
Water Type/Size:	Estuary Waters 11.7 Acres	**Reg/County:**	2/Queens (41)
Description:	entire tidal reach and tribs		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Impaired	Known
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Fair	

Type of Pollutant(s)

Known:	NUTRIENTS (nitrogen), LOW D.O./OXYGEN DEMAND, PATHOGENS
Suspected:	Other Pollutants (floatables)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	COMBINED SEWER OVERFLOW (CSOS), URBAN/STORM RUNOFF
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Strategy Implementation Scheduled or Underway
Lead Agency/Office:	ext/NYC
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Alley Creek/Little Neck Bay tribs is assessed as an impaired waterbody due to aquatic life that is known to be impaired by nutrients and other oxygen-demanding substances, and recreational uses that are stressed by pathogens. Combined sewer overflows (CSOs) and urban stormwater runoff are the identified sources of pollutants. Floatables from CSOs and storm runoff also impact recreational use in the waterbody.

Use Assessment

The Alley Creek/Little Neck Bay tributary segment is a Class I waterbody, with best uses of general recreation and support of aquatic life, but not as a water supply or for public bathing.

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Aquatic life in the waterbody is considered to be impaired due to periodic low dissolved oxygen, the result of elevated nitrogen and other oxygen-demand loads from CSOs and urban stormwater runoff. These sources promote algal growth, die–off, and create an oxygen demand which results in low dissolved oxygen and hypoxia that limits the fishery. Aquatic life is also evaluated as impaired based on biological sampling that shows significant impacts. (FWMR, Region 1, August 2010 and DEC/DOW, BWAM, July 2014)

Recreational uses in Alley Creek are considered to be impaired elevated pathogen levels from CSO discharges. Recreational uses are also considered to be stressed due to poor aesthetics due to floatable debris, however, based on recent shoreline surveys, the majority of floatables are attributed to non-CSO sources. There are no field data available for Little Neck Bay trib. (DEC/DOW, BWC/NYCC, July 2013)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Sampling

Water quality evaluations have been conducted through the NYCDEP City-Wide Long-Term CSO Control Planning Program as well as the long-standing New York City Harbor Survey Sampling Program. Results from the most recent sampling conducted from 2012 to 2015 indicate that dissolved oxygen in Alley Creek fails to meets applicable water quality standards at the mouth of the creek for about 30 to 50 percent of the time during the summer. The most recent pathogen data collected from 2009 to 2015 indicate significant non-attainment with the primary contract recreation pathogen criteria for Class I waters. (NYCDEP, Harbor Survey Program, 2015).

A biological (macroinvertebrate) assessment of Little Neck Bay Trib (-20) in Great Neck (at Bayview Avenue) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. Aquatic life is considered to be impaired; this assessment is consistent with other evaluations of the stream. Habitat at the site is significantly altered by human activity, with heavy channelization contributing to the degradation of the stream and surrounding riparian buffer. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Combined sewer overflow (CSO) discharges and urban stormwater runoff have been identified as the primary sources of impacts/impairment to the waterbody segment.

Management Action

CSOs represent a significant source of pollutants to New York Harbor tributaries. Under a Consent Order issued by NYSDEC in 2005, and modified in 2012, New York City was required to complete a Waterbody/Watershed Facility Plan for Alley Creek and Little Neck Bay to mitigate CSO impacts to the waterbody. The selected alternative for the WWFP was the Alley Creek CSO Retention Facility designed to store up to five million gallons of combined sewage per storm, with pumpback to the Tallman Island Wastewater Treatment Plant. The CSO retention tank has been operational since 2011 and post-construction monitoring has been conducted to verify modeling projections and actual water quality compliance, inform decisions regarding SPDES permit renewal at five–year intervals, and evaluate future management actions, including whether additional CSOs controls are necessary under a Long-Term Control Plan (LTCP). A LTCP was submitted for Alley Creek and Little Neck Bay in June 2013, with revisions in 2014 and 2015. Under the Alley Creek and Little Neck Bay LTCP, NYCDEP has proposed construction of disinfection facilities for the reamining CSO retention tank overflows. The LTCP has not been approved yet by the NYSDEC. (NYCDEP Alley Creek/Little Neck Bay LTCP, 2013)

These waters are included within the core area of the New York/New Jersey Harbor Estuary Program (HEP). The HEP is a National Estuary Program authorized in 1987 by the U.S. Environmental Protection Agency. The program is a continuing multi–agency effort to develop and implement a plan to protect, conserve, and restore the estuary. Participants in the program include representatives from local, state, and federal environmental agencies, scientists, citizens, business interests, environmentalists, and others. (DEC/DOW, BWAM, December 2010)

Section 303(d) Listing

The Alley Creek/Little Neck Trib segment is included on the NYS 2014 Section 303(d) List of Impaired Waters. This waterbody segment is included on Part 1 of the List as impaired and requiring development of a TMDL. The segment was first listed in 2004, and then was delisted in 2012 based on requirements to complete a LTCP under the 2012 NYC CSO Consent Order. The segment was subsequently re-listed when it was determined that the 2013 Alley Creek and Little Neck Bay LTCP was inadequate to meet water quality standards. However, the 2013 Alley Creek and Little Neck Bay LTCP was revised in 2014 and 2015 and the latest version identifies a proposed alternative that would improve attainment with applicable water quality standards. Based on the revised LTCP the waterbody segment is proposed for delisting as a Category 4b waters during the next update of the List. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes entire tidal portion of Alley Creek, as well as a smaller unnamed trib (–20) to Little Neck Bay.

Oakland Lake (1702-0114) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1a) ER/LIS-LNB-19-P107	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** B		Long Island Sound
Water Type/Size:	Lake/Reservoir 10 Acres	**Reg/County:**	2/Queens (41)
Description:	entire lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: Unassessed
Lead Agency/Office: DOW/BWAM
IR/305(b) Code: Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class B waterbody, suitable for public bathing and general recreation use and support of aquatic life, but not as a water supply.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
Oakland Lake is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM, January 2015)

Segment Description
This segment includes the total area of the entire lake.

Trib to Little Neck Bay (1702-0138) Needs Verification

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1a) ER/LIS-LNB-21	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** C		Long Island Sound
Water Type/Size:	River/Stream 0.5 Miles	**Reg/County:**	1/Nassau (30)
Description:	total length of selected (fresh) tribs to bay		

Water Quality Problem/Issue Information

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	
Public Bathing	N/A	
Recreation	Stressed	Suspected
Aquatic Life	Impaired	Unconfirmed
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	UNKNOWN POLLUTANT (biological impacts)
Unconfirmed:	Nutrients (phosphorus)

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	URBAN/STROM RUNOFF
Unconfirmed:	Habitat Alteration, Other/Non-Permitted Sanitary Discharge

Management Information

Management Status:	Verification of Problem Severity Needed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview

This Little Neck Bay Trib is currently assessed as needing verification of minor impacts/possible impairment due to aquatic life that is thought to be impaired, but these conditions need to be more fully assessed. Specific pollutants have not been identified but agricultural activity and habitat alterations are possible sources, but these also need verification.

Use Assessment

This Little Neck Bay Trib is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life is known to experience some impacts and may be impaired, however additional sampling is needed to verify the level of impact/impairment. This sampling can also been used to infer that there is minor impact to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional sampling is also needed to more fully evaluate other recreational and swimming use. (DEC/DOW, BWAM/SBU, December 2014)

Fish Consumption is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to indications of possible presence of contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (DEC/DOW, BWAM, December 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of this Little Neck Bay Trib in Great Neck (at Bayview Ave) was conducted in 2013. Sampling results reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. Aquatic life is considered to be impaired, however this evaluation is noted as unconfirmed because it is based on a single sample; additional sampling to confirm this result is needed. Information on the habitat condition and any resulting influence on biology is not available. (DEC/DOW, BWAM/SBU, July 2014)

Source Assessment

Specific sources of pollutants to the stream have not been identified. But based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely source(s) of pollutants in the waterbody are urban/storm runoff and/or habitat alteration. Heavy channelization of the stream was noted during sampling. (DEC/DOW/BWAM, December 2014)

Management Action

No specific management actions have been identified for the waterbody. (DEC/DOW, BWP, December 2014)

Section 303(d) Listing

This Little Neck Bay Trib is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. However this updated assessment suggests it may be appropriate to consider including this waterbody on the next List, pending additional sampling to verify an impairment. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the entire stream and all tribs.

Lake Success (1702-0139) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1a) ER/LIS-LNB-P114			**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** C			Long Island Sound
Water Type/Size:	Lake/Reservoir	27.9 Acres		**Reg/County:**	1/Nassau (30)
Description:	entire lake				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified. Nutrient and/or pesticide inputs from waterfowl and golf course runoff were previously noted as concerns, but need to be verified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
Lake Success is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total area of the entire lake.

Undalls Mill Pond (1702-0140) Unassessed

Waterbody Location Information

Revised: 10/26/2000

Water Index No:	(MW4.1a) ER/LIS-LNB-P119a	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SC		Long Island Sound
Water Type/Size:	Estuary Waters 12.1 Acres	**Reg/County:**	1/Nassau (30)
Description:	entire tidal waterbody		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not for shellfishing or public bathing.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
Udalls Mill Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total area of the entire pond.

Long Island Sound, Nassau County, Central (1702-0028) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.1) LIS (portion 3b)		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** SA		Long Island Sound
Water Type/Size:	Estuary Waters	9481.2 Acres	**Reg/County:**	1/Nassau (30)
Description:	Sound fr Hewlett Point to Matinecock Point			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	Precluded	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Good	

Type of Pollutant(s)

Known:	PATHOGENS, NUTRIENTS (nitrogen), LOW D.O./OXYGEN DEMAND
Suspected:	Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	MUNICIPAL DISCHARGES, CSOs, URBAN/STORM RUNOFF
Suspected:	Other Source (migratory species)
Unconfirmed:	- - -

Management Information

Management Status:	Strategy Implementation Scheduled or Underway
Lead Agency/Office:	DEC/Reg1
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

This portion of Long Island Sound is assessed as impaired due to shellfishing and public bathing use that is known to be impaired by pathogens, and aquatic life that is know to be impaired by nutrients resulting low dissolved oxygen. Public bathing and recreational uses are also thought to be stressed by pathogens resulting in periodic beach closures. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Long Island Sound is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be precluded in these waters. All of this waterbody (included within Shellfish Growing Area #34) has been designated uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered to be precluded/impaired based on monitoring and frequent advisories and closures of beaches in the segment. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches; these results resulted in frequent (more than 25 days) beach advisories/closures in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Cresent Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

Aquatic life in the waterbody is considered to be impaired due to periodic low dissolved oxygen (hypoxia), the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. Atmospheric deposition is also contributes nitrogen to the Sound. The resulting low dissolved oxygen conditions have caused crustacean kills and limits the fishery in this passageway for diadromous fish. (DEC/DOW and FWMR, Region 1, August 2010)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Municipal wastewater discharges, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of the nutrients. Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in

1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

This portion of Long Island Sound is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed for this impairment on the 1998 Section 303(d) List. Although the waterbody is also impaired for nitrogen and low dissolved oxygen, it is categorized as an IR Category 4a water that is not listed for these pollutants due to the completion of the Long Island Sound TMDL. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes all the waters of Long Island Sound within Nassau County east of a line between Hewlett Point and the intersection of the Nassau–Bronx–Westchester County lines, west of a line due north of Matinecock Point, and excluding Manhasset Bay and Hempstead Harbor which are listed separately.

Manhasset Bay, and tidal tribs (1702-0021) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB (portion 1)	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SA		Long Island Sound
Water Type/Size:	Estuary Waters 1427.8 Acres	**Reg/County:**	1/Nassau (30)
Description:	portion of bay, as described below		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	Precluded	Known
Public Bathing	Stressed	Known
Recreation	Stressed	Known
Aquatic Life	Impaired	Suspected
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Good	

Type of Pollutant(s)

Known:	PATHOGENS, NUTRIENTS (nitrogen), LOW D.O./OXYGEN DEMAND
Suspected:	Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	MUNICIPAL DISCHARGES (Port Washgtn, Great Neck), URBAN/STORM RUNOFF
Suspected:	OTHER SOURCE (migratory species), Conbined Sewer Overflows (CSOs)
Unconfirmed:	- - -

Management Information

Management Status:	Restoration/Protection Strategy Needed
Lead Agency/Office:	DEC/Reg1
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

This portion of Manhasset Bay is assessed as impaired due to shellfishing use that is known to be precluded by pathogens, and aquatic life that is thought to be impaired by nutrients resulting low dissolved oxygen. Public bathing and recreational uses are also considered to be stressed by pathogens resulting in periodic beach closures. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Manhasset Bay is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be precluded in these waters. All of this waterbody (included within Shellfish Growing Area #56) has been designated uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. (DEC/DFWMR, Region 1, July 2015)

Aquatic life in the waterbody is also thought to be impaired due to periodic low dissolved oxygen (hypoxia), the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. The tidal exchange of waters with the Sound suggests related impacts in the waters of the Bay. (DEC/DOW and FWMR, Region 1, August 2010)

Recreational use including public bathing is considered to be stressed based on monitoring and advisories/closures of beaches in adjacent waterbodies. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches; these results resulted in frequent beach advisories/closures in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within nearby segments include Manor Haven Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Municipal wastewater discharges, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development

of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

This portion of Manhasset Bay is included on the 2014 not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2c of the List as a shellfishing impaired waterbody requiring a TMDL for pathogens. This waterbody was first listed on the 1998 List. The Bay is also assessed as being impaired by nitrogen/low dissolved oxygen, however for that pollutant the waterbody is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Nitrogen TMDL. (DEC/DOW, BWRM, January 2015)

Segment Description

This segment includes the Class SA portion of the Bay southeast of line from Hewlett Point to Barker Point, southwest of line from Plum Point to Port Washington Yacht Club dock, and north of line running east of Harbor Way dock.

Manhasset Bay, and tidal tribs (1702-0141) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB (portion 2)	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SB		Long Island Sound
Water Type/Size:	Estuary Waters 516.1 Acres	**Reg/County:**	1/Nassau (30)
Description:	portion of bay, as described below		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Good	

Type of Pollutant(s)

Known:	PATHOGENS, Nutrients (nitrogen), Low D.O./Oxygen Demand
Suspected:	Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	URBAN/STORM RUNOFF
Suspected:	Combined Sewer Overflows (CSOs), Municipal Discharges (Port Washgtn, Great Neck), Other Source (migratory species),
Unconfirmed:	- - -

Management Information

Management Status:	Verification of Sources Needed
Lead Agency/Office:	DOW/Reg1
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

This portion of Manhasset Bay is assessed as impaired due to public bathing and recreational uses that are known to be impaired by pathogens resulting in periodic beach advisories/closures. Aquatic life is known to be stressed by nutrients resulting in low dissolved oxygen. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Manhasset Bay is a Class SB waterbody, suitable for public bathing and general recreation use, and

support of aquatic life, but not for shellfishing.

Recreational use including public bathing is considered to be impaired based on monitoring and frequent advisories and closures of beaches in the segment. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches; these results resulted in frequent (more than 25 days) beach advisories/closures in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Manor Haven Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

Aquatic life in the waterbody is considered to be stressed due to periodic low dissolved oxygen, the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. Atmospheric deposition is also contributes nitrogen to the Sound. The resulting low dissolved oxygen conditions have caused crustacean kills and limits the fishery in this passageway for diadromous fish. (DEC/DOW and FWMR, Region 1, August 2010)

All of this waterbody (included within Shellfish Growing Area #56) has been designated as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program and designated as uncertified, its Class SC designation does not include shellfishing as an appropriate use and this assessment does not include an evaluation for the support of shellfishing use. (DEC/DFWMR, Region 1, July 2015)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Municipal wastewater discharges, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called

for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

This portion of Manhasset Bay is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL to atain water quality standards for pathogens. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM, January 2016)

Segment Description

This segment includes the Class SB portion of the Bay, northeast of line from Plum Point to Port Washington Yacht Club dock.

Manhasset Bay, and tidal tribs (1702-0142) Minor Impacts

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB (portion 3)	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SC		Long Island Sound
Water Type/Size:	Estuary Waters 182.1 Acres	**Reg/County:**	1/Nassau (30)
Description:	portion of bay, as described below		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Good	
Aesthetics	Good	

Type of Pollutant(s)

Known:	PATHOGENS, Nutrients (nitrogen), Low D.O./Oxygen Demand
Suspected:	Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	URBAN/STORM RUNOFF
Suspected:	Combined Sewer Overflows (CSOs), Municipal Discharges (Port Washgtn, Great Neck), Other Source (migratory species),
Unconfirmed:	- - -

Management Information

Management Status:	Verification of Sources Needed
Lead Agency/Office:	DOW/Reg1
IR/305(b) Code:	Water Attaining All Standards (IR Category 1)

Further Details

Overview

This portion of Manhasset Bay is assessed as having minor impacts due to public bathing, recreational and aquatic life uses that are considered to be stressed by pathogens resulting in periodic beach advisories/closures in nearby waters, and nutrients resulting in low dissolved oxygen. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Manhasset Bay is a Class SC waterbody, suitable for general recreation use, and support of aquatic life,

but not for shellfishing or for public bathing.

Recreational use including public bathing is considered to be stressed based on monitoring and advisories/closures of beaches in adjacent waterbodies. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches; these results resulted in frequent beach advisories/closures in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within nearby segments include Manor Haven Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

Aquatic life in the waterbody is considered to be stressed due to periodic low dissolved oxygen, the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. Atmospheric deposition is also contributes nitrogen to the Sound. The resulting low dissolved oxygen conditions have caused crustacean kills and limits the fishery in this passageway for diadromous fish. (DEC/DOW and FWMR, Region 1, August 2010)

All of this waterbody (included within Shellfish Growing Area #56) has been designated as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program and designated as uncertified, its Class SC designation does not include shellfishing as an appropriate use and this assessment does not include an evaluation for the support of shellfishing use. (DEC/DFWMR, Region 1, July 2015)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Municipal wastewater discharges, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called

for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing
This portion of Manhasset Bay is not included on the current (20xx) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the Class SC portion of the Bay south of line running east from Harbor Way dock.

Tribs to Manhasset Bay (1702-0143) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB-22 thru 30	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** C		Long Island Sound
Water Type/Size:	River/Stream 5.3 Miles	**Reg/County:**	1/Nassau (30)
Description:	total length of selected (fresh) tribs to bay		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed. A Manhasset Bay Water Quality Improvement Plan was completed by the Manhasset Bay Protection Committee in 1999.

Section 303(d) Listing
This Manhasset Bay Tribs segment is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total length of all tribs to Manhasset Bay, including Kings Point Park Creek (–22), Mitchell Creek (–23), Kings Point Pond Outlet (–24), Stanards Brook (–28), Sheets Creek Channel (–30).

Whitney Park Pond (1702-0101) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB-25-P122	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** C		Long Island Sound
Water Type/Size:	Lake/Reservoir 7.1 Acres	**Reg/County:**	1/Nassau (30)
Description:	entire lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Stressed	Suspected
Fish Consumption	Impaired	Known
Conditions Evaluated		
Habitat/Hydrology	Unassessed	
Aesthetics	Unassessed	

Type of Pollutant(s)
Known:
Suspected:
Unconfirmed:

Source(s) of Pollutant(s)
Known:
Suspected:
Unconfirmed:

Management Information

Management Status: Verification of Sources Needed
Lead Agency/Office: DEC/Reg1
IR/305(b) Code: Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview
Whitney Park Pond is assessed as an impaired waterbody due to fish consumption that is known to be impaired by chlordane from past use of currently restricted pesticides. Aquatic life and recreational uses are also considered to experience minor impacts – that may rise to the level of impaired – due to elevated nutrient levels and algal/plant growth. Low dissolved oxygen was noted in the past, but more recent sampling indicates fully oxygenated waters. However this lake assessment (excluding the fish consumption impairment) is based on older data and sampling to verify conditions is recommended.

Use Assessment
Whitney Park Pond is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a

water supply or for public bathing.

Recreational uses are considered to be stressed due to elevated nutrients (phosphorus) and excessive algae and plant growth. (DEC/DOW, BWAM/LMAS, July 2015)

Aquatic life is currently considered to be fully supported based on the reported well-oxygenated waters. However this assessment is more than 10 years old and additional fishery assessment is needed to more fully evaluate current aquatic life conditions and fishing use. (DEC/DOW, BWAM, January 2016)

Fish consumption in Whitney Park Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of carp or goldfish because of elevated pesticide (chlorodane) levels. The source of this contamination is considered to be the result of past pesticide use. The advisory for this waterbody was first issued prior to 1998-99. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Water quality sampling of Whitney Park Pond was conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2004. Results of this sampling indicate the lake is best characterized as eutrophic, or highly productive. Chlorophyll/algal levels exceed criteria corresponding to impacted recreational uses, while phosphorus concentrations are typically also very high. Lake clarity measurements indicate water transparency is somewhat better than expected given other indicators. Readings of pH indicate alkaline waters within the range established in state water quality standards for protection of aquatic life. A depth profile reflects conditions typical of shallow lakes, with fully-oxygenated waters to the lake bottom (about 2 meters). The diversity of the fish community is limited to primarily carp and goldfish. (DEC/DOW, BWAM/LMAS, March 2011)

Source Assessment

Pesticides in the lake are thought to be from contaminated sediments, the result of past historical use of now restricted pesticides (cholrodane). Sources of other pollutants to the lake are considered to be primarily urban/storm runoff and other nonpoint sources.

Management Action

No specific management actions have been identified to address the fish consumption impairment to the waterbody.

The Lake is located in the Whitney Pond Park, which is owned and managed by the Town of North Hempstead. Water quality of the lake is discussed in the Manhasset Bay Water Quality Management Plan (1999) and in the Nassau County Suburban Pond Management Plan. Nassau County has also received a state Clean Water/Clean Air Bond Act award in 2000 to rehabilitate the pond by repairing eroding streambanks, installing sediment traps at the lake inlet, planting wetland vegetation, and possibly dredging contaminated sediments. (Nassau County WQCC, October 2000)

Section 303(d) Listing

Whitney Park Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as an waterbody impaired for fish consumption and requiring a TMDL for chlorodane. This waterbody was first listed on the 1998 List. The lake is also included among the Low Dissolved Oxygen Lakes in Appendix B of the 2014 List. However the most recent sampling found fully oxygenated waters to the lake bottom. (DEC/DOW, BWAM, January 2015)

Segment Description

This segment includes the entire area of the lake.

Leeds Pond (1702-0048) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB-P122c	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SC		Long Island Sound
Water Type/Size:	Estuary Waters 21.4 Acres	**Reg/County:**	1/Nassau (30)
Description:	entire tidal waterbody		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as for shellfishing or for public bathing.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed. A Manhasset Bay Water Quality Improvement Plan was completed by the Manhasset Bay Protection Committee in 1999.

Section 303(d) Listing
Leeds Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total area of the pond.

Mill Pond (1702-0145) Needs Verification

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.2b) LIS-MB-P125	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SC		Long Island Sound
Water Type/Size:	Estuary Waters 5.2 Acres	**Reg/County:**	1/Nassau (30)
Description:	entire tidal waterbody		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Unconfirmed
Aquatic Life	Stressed	Unconfirmed
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	NUTRIENTS (phosphorus), ALGAL/PLANT GROWTH, Silt/Sediment
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	URBAN/STORM RUNOFF
Unconfirmed:	- - -

Management Information

Management Status:	Verification of Sources Needed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water Attaining All Standards (IR Category 1)

Further Details

Overview
Mill Pond is currently assessed as needing verification of possible impairment due to recreational use that may be impaired. However this evaluation is based on a very limited sampling conducted more than ten years ago. Reassessment to verify current conditions is recommended.

Use Assessment
Mill Pond is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not for shellfishing or public bathing.

Recreational uses may be impaired due elevated nutrients (phosphorus), excessive algae and plant growth. Additional

sampling, including bacteriological sampling, is needed to more fully evaluate the current condition of the lake and impact on recreational use. (DEC/DOW, BWAM/LMAS, January 2016)

Aquatic life is currently considered to be stressed based on suspected low dissolved oxygen related to the eutrophic condition of the lake. Additional fishery assessment is needed to more fully evaluate aquatic life and fishing use. (DEC/DOW, BWAM, January 2016)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

Water quality sampling of Mill Pond was conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2004. Results of this sampling indicate the lake might best characterized as eutrophic, or highly productive. Chlorophyll/algal levels were well above criteria corresponding to impaired recreational uses, while phosphorus concentrations were typically quite high. Llimited lake clarity measurements indicate water transparency failed to meet the recommended minimum criteria for swimming beaches. The depth profile wss typical of shallow lakes, with fully oxygenated conditions to the lake bottom (depth < 2 meters). The lake exhibited hard water and alkaline conditions. This sampling is limited and more than ten years old; additional sampling is recommended to verify current conditions. (DEC/DOW, BWAM/LMAS, January 2016)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified. But based on surrounding land use and other knowledge of the waterbody, urban/storm runoff sources are the most likely sources of nutrients and sediment to the waterbody.

Management Action

No specific management actions have been identified for the waterbody. Mill Pond is a 5 acre tidal pond in Mill Pond Park, located in the town of North Hempstead in Nassau County adnd is managed locally. It has been the focus of a $5M restoration project, including plantings to reduce nutrient load to the lake, and repair of the outlet to prevent migration of water from Manhasset Bay to the lake. (DEC/DOW, BWAM/LMAS, March 2011)

Section 303(d) Listing

Mill Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Possible impacts/impairments need to be verified in order to justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the total area of the entire pond.

East Creek and tribs (1702-0144) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3a) LIS-32		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** C		Long Island Sound
Water Type/Size:	River/Stream	0.9 Miles	**Reg/County:**	1/Nassau (30)
Description:	stream and tribs above tidal waters (freshwater)			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
East Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total length of the stream and all tribs.

Hempstead Harbor, north, and tidal tribs (1702-0022) Impaired

Waterbody Location Information

Revised: 6/14/2011

Water Index No:	(MW4.3a) LIS-HH		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** SA		Long Island Sound
Water Type/Size:	Estuary Waters	2597.5 Acres	**Reg/County:**	1/Nassau (30)
Description:	portion of bay, as described below			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	Impaired	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	PATHOGENS, NUTRIENTS (nitrogen), LOW D.O./OXYGEN DEMAND
Suspected:	Other Pollutants (floatables), Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	MUNICIPAL DISCHARGES (Glen Cove WWTP), URBAN/STORM RUNOFF
Suspected:	OTHER SOURCE (migratory species), Combined Sewer Overflows (CSOs)
Unconfirmed:	Landfill/Land Disposal, Onsite/Septic Systems

Management Information

Management Status:	Strategy Implementation Scheduled or Underway
Lead Agency/Office:	DEC/Reg1
IR/305(b) Code:	Impaired Water, TMDL Completed (IR Category 4a)

Further Details

Overview

This portion of Hempstead Harbor is assessed as impaired due to shellfishing, public bathing and recreational uses that are known to be impaired by pathogens, and aquatic life that is known to be impaired by nutrients and resulting low dissolved oxygen. Public bathing and recreational uses are restricted by periodic beach advisories/closures. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Hempstead Harbor is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be impaired in these waters. All of this waterbody (included within Shellfish Growing Area #50) has been designated uncertified for the taking of shellfish for use as food. Although a 2500 acre portion of Hempstead Harbor and adjoining Long Island Sound was reopened to shellfishing in 2010, about one–third of this portion of the harbor remains uncertified for shellfishing. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. (DEC/DFWMR, Region 1, July 2015)

Aquatic life in the waterbody is also thought to be impaired due to periodic low dissolved oxygen (hypoxia), the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. The tidal exchange of waters with the Sound suggests related impacts in the waters of the Bay. (DEC/DOW and FWMR, Region 1, August 2010)

Recreational use including public bathing is considered to be stressed based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within the segment that have been affected include Bar Beach, Sea Cliff Beach, Morgan Memorial Beach, Tappan Beach, Hempstead Harbor Beach, and Prybil Beach; Crescent Beach lies just outside this segment to the north. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Municipal wastewater discharges, combined sewer overflows (CSOs) and urban stormwater runoff are the primary sources of pathogens, although various other sources such as boat discharges, waterfowl may also contribute. Municipal sources, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

The Hempstead Harbor Protection Committee (HHPC) is an inter–municipal watershed organization founded in 1995 to protect and improve the water quality of Hempstead Harbor. The Committee supports planning studies, capital improvement projects, educational outreach, water quality monitoring, information and technology sharing, development

of model ordinances, coordination of enforcement, and working with other governmental agencies as well as environmental, educational, community and business groups. This approach saves each municipality expenses and effort by cooperation, provides for a more coordinated approach to solving harbor problems, and provides year–round focus on harbor issues. (Hempstead Harbor Protection Committee, 2010)

The HHPC led a number of activities have contributed to the overall environmental improvement of the Hempstead Harbor, including an upgrade in wastewater treatment at Glen Cove, the conversion of Roslyn's facility to a pump station, the designation of a no–discharge zone for watercraft and implementation of stormwater controls. Other factors include the closure of two incinerators and a landfill, implementation of a nitrogen limit for Long Island Sound, removal of rotting barges from a nearby sand–mining operation and heightened public awareness. In 2010, NYSDEC and the state Department of Health (DOH) review of monitoring results showed water quality had improved in the northern/outer portion of the harbor to a degree that consumption of the clams was no longer a human health concern. Following an FDA study that concurred with these findings, DEC promulgated regulations to reopen this portion of the harbor for shellfish harvest. (DEC/DOW and DFWMR, Region 1, June 2011)

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

This portion of Hempstead Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to nitrogen and pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Nitrogen TMDL in 2001 and the Long Island Sound Pathogen TMDL to address shellfishing impairments that was established in 2007. (DEC/DOW, BWRM, January 2015)

Segment Description

This segment includes the Class SA portion of the Harbor south of a line from Prospect Point to Red Spring Point and north of Bar Beach. The segment also includes a small Class SB portion in the northeast corner of the bay east of a line from the Morgan Memorial Park breakwater to the foot of Shore Road near the outlet of Glen Cove Creek.

Hempstead Harbor, south, and tidal tribs (1702-0263) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3a) LIS-HH		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** SB		Long Island Sound
Water Type/Size:	Estuary Waters	370.7 Acres	**Reg/County:**	1/Nassau (30)
Description:	portion of bay, as described below			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	PATHOGENS, Nutrients (nitrogen), Low D.O./Oxygen Demand
Suspected:	Other Pollutants (floatables), Priority Organics (PCBs)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	URBAN/STORM RUNOFF
Suspected:	Municipal Discharges (Glen Cove WWTP), Other Source (migratory species), Combined Sewer Overflows (CSOs)
Unconfirmed:	Landfill/Land Disposal, Onsite/Septic Systems

Management Information

Management Status:	Restoration/Protection Strategy Needed
Lead Agency/Office:	DEC/Reg1
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

This portion of Hempstead Harbor is assessed as impaired due to public bathing and recreational uses that are known to be impaired by pathogens resulting in periodic beach advisories/closures. Aquatic life is known to be stressed by nutrients resulting in low dissolved oxygen. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

Use Assessment

This portion of Manhasset Bay is a Class SB waterbody, suitable for public bathing and general recreation use, and

support of aquatic life, but not for shellfishing.

Recreational uses are considered to be stressed based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within the Harbor that have been affected include Bar Beach, Sea Cliff Beach, Morgan Memorial Beach, Tappan Beach, Hempstead Harbor Beach, and Prybil Beach; Crescent Beach lies just outside this segment to the north. Although these beaches are in the northern part of the Harbor, similar conditions are expected to limit recreational use in the southern segment as well. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

All of this waterbody (included within Shellfish Growing Area #50) has been designated as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program and designated as uncertified, its Class SC designation does not include shellfishing as an appropriate use and this assessment does not include an evaluation for the support of shellfishing use. (DEC/DFWMR, Region 1, July 2015)

Aquatic life in the waterbody is also thought to be stressed due to periodic low dissolved oxygen (hypoxia), the result of elevated nitrogen loadings. The Long Island Sound Study (see below) found that nitrogen from area WWTPs and to a lesser extent CSOs promote algal growth, die–off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen and hypoxia in the bottom waters of the Sound. The tidal exchange of waters with the Sound suggests related impacts in the waters of the Bay. (DEC/DOW and FWMR, Region 1, August 2010)

Fish consumption is considered to be stressed due to NYSDOH precautionary health advisories recommending limiting consumption of larger weakfish (over 25 inches) and other species from these marine waters due to possible elevated levels of PCBs. These advisories are largely precautionary and are related to the specific habits and characteristics of these species, specifically the wide migratory range, predatory nature and high lipid/fat content that make them more likely to accumulate contaminants. In addition, for some species the advisories recommend limiting consumption to no more than one meal per week which is no more stringent than the general statewide advisory for all New York waters and does not result in significant impact to uses. Because possible contamination is more a result of the migratory range and other factors rather than any known sources of PCBs in this waterbody, fish consumption use in this segment is considered to be stressed rather than impaired. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Source Assessment

Municipal wastewater discharges, combined sewer overflows (CSOs) and urban stormwater runoff are the primary sources of pathogens, although various other sources such as boat discharges, waterfowl may also contribute. Municipal sources, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

Management Action

The Hempstead Harbor Protection Committee (HHPC) is an inter–municipal watershed organization founded in 1995 to protect and improve the water quality of Hempstead Harbor. The Committee supports planning studies, capital improvement projects, educational outreach, water quality monitoring, information and technology sharing, development of model ordinances, coordination of enforcement, and working with other governmental agencies as well as environmental, educational, community and business groups. This approach saves each municipality expenses and effort

by cooperation, provides for a more coordinated approach to solving harbor problems, and provides year–round focus on harbor issues. (Hempstead Harbor Protection Committee, 2010)

The HHPC led a number of activities have contributed to the overall environmental improvement of the Hempstead Harbor, including an upgrade in wastewater treatment at Glen Cove, the conversion of Roslyn's facility to a pump station, the designation of a no–discharge zone for watercraft and implementation of stormwater controls. Other factors include the closure of two incinerators and a landfill, implementation of a nitrogen limit for Long Island Sound, removal of rotting barges from a nearby sand–mining operation and heightened public awareness. In 2010, NYSDEC and the state Department of Health (DOH) review of monitoring results showed water quality had improved in the northern/outer portion of the harbor to a degree that consumption of the clams was no longer a human health concern. Following an FDA study that concurred with these findings, DEC promulgated regulations to reopen this portion of the harbor for shellfish harvest. (DEC/DOW and DFWMR, Region 1, June 2011)

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up–watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

This portion of Hempstead Harbor s included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL to address pathogens. This waterbody was first listed on the 2002 List. The Long Island Sound Pathogens (Shellfishing) TMDL to address pathogens in the northern portion of the harbor was approved in 2007. It is possible that loading reductions contained in that TMDL will benefit water quality in the southern harbor and as a result the southern harbor should be considered for delisting during the development of the next Section 303(d) List. (DEC/DOW, BWRM, January 2015)

Segment Description

This segment includes the Class SB portion of the Harbor south of Bar Beach.

Glen Cove Creek, Lower, and tribs (1702-0146) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3a) LIS-HH-38			**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** SC			Long Island Sound
Water Type/Size:	Estuary Waters	37.3 Acres		**Reg/County:**	1/Nassau (30)
Description:	reach and tribs from mouth to/incl Pratt Park Pond				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Impaired	Known
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known:	METALS (copper)
Suspected:	Pathogens, Nutrients (phosphorus), Low D.O./Oxygen Demand
Unconfirmed:	Unknown Pollutants (biological impacts),

Source(s) of Pollutant(s)

Known:	INDUSTRIAL (various), URBAN/STORM RUNOFF
Suspected:	MUNICIPAL (Glen Cove STP), Other/Non-Permitted Sanitary Discharge
Unconfirmed:	Toxic/Contaminated Sediment

Management Information

Management Status:	Strategy Implementation Scheduled or Underway
Lead Agency/Office:	DOW/DER
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Lower Glen Cove Creek is assessed as an impaired waterbody due to aquatic life that is known to be impaired. Copper has been identified as a pollutant contributing to the impairments. Other unknown pollutants are also suspected, but the biological sampling regarding specific other pollutants is inconclusive. Recreational use in the stream may be stressed, but this needs to be verified.

Use Assessment

Lower Glen Cove Creek is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not for shellfishing or for public bathing.

Aquatic life is evaluated as impaired based on copper contamination from industrial sources. Biological sampling reveals some possibly significant impacts, but these results are thought to be influenced by less than ideal sampling habitat. Recreational uses are also thought to be stressed impaired based on periodic advisories/closures of public beaches to swimming that occur downstream of the segment in Hempstead Harbor (Seacliff Beach). Additional bacteriological sampling is needed to more fully evaluate recreational use. (DEC/ DOW, BWAM, July 2014)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Glen Cove Creek in Glen Cove (at Pratt Park) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect moderate impacts corresponding to poor water quality, with the macroinvertebrate community altered from what is expected under natural conditions. However conditions at the site are significantly influenced by stream habitat (sampling location was at outlet of an underground piped portion of the stream, and just above an impoundment) and as a result the biological evaluation of aquatic life is considered to be suspect. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Industrial discharges and urban/stormwater runoff are the primary sources, along with several superfund and brownfields sites located along the channel. Though the creek in not classified for public bathing use, adjacent waters in Hempstead Bay are impaired for public bathing. Additional sources associated with the industrial activity along the waterfront are also suspected.

Management Action

Glen Cove Creek contains two federal Superfund sites, a New York State Inactive Hazardous Waste site, and other sites with varied levels of contamination that may impact water quality and uses in the Harbor. These sites, including Li Tungsten, Mattice Petro Chemical, Captains Cove Marine, Crown Dykeman and Powers Chemical, are in varying stages of investigation/cleanup/monitoring and are being managed by either USEPA or the Regional NYS DEC office. Contamination has been found in the soil and groundwater medium as well as the creek and include volatile organic compounds, metals, chlorinated solvents and radioactive waste. Additionally, petroleum contamination was found during an ACOE dredging project to remove contaminated sediments in the creek. (DEC/DER, August 2008)

Copper concentrations exceeding water quality standards have been documented in previous sampling of the creek. Various studies regarding copper levels, the contribution of the City of Glen Cove WWTP discharge to the copper load, the resulting toxic effects on aquatic life and effluent mixing zone/dilution studies have been conducted. Subsequently the industrial source of the copper has discontinued operation. (DEC/DOW, BWAM and BWP, July 2010)

Section 303(d) Listing

Lower Glen Cove Creek is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The segment is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL to attain water quality standards for pathogens and for silt/sediment. This updated assessment suggests that there is little basis justifying the listing for silt/sediment and perhaps this listing was the result of an error and it does not warrant continued listing. Similarly, the pathogen listing is also unconfirmed. The impairment due to copper is being addressed through the hazardous waste site remediation and is categorized as an IR category 4b water. This waterbody was first listed on the 2002 Section 303(d) List. (DEC/DOW, BWAM, January 2016)

Segment Description

This segment includes the tidal portion of the stream and its tribs from the mouth to Pratt Park.

Glen Cove Creek, Upper, and tribs (1702-0147) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3a) LIS-HH-38		**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101	**Class:** C		Long Island Sound
Water Type/Size:	River/Stream	4.6 Miles	**Reg/County:**	1/Nassau (30)
Description:	stream and tribs abv Pratt Park Pond (freshwater)			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview

Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody. The stream was previously assessed as having minor impacts but that assessment was based on sampling at a downstream site after the creek flows for a considerable distance through an underground pipe. Therefore sampling of the stream within the upper reach and reassessment of the stream is recommended.

Use Assessment

This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing. The waterbody is also designated as a cold water (trout) fishery.

Water Quality Information
There is currently no water quality information available that is thought to be representative of the stream upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
Upper Glen Cove Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the freshwater portion of the stream and its tribs above Pratt Park. A considerable portion of the stream flows though culverts and underground pipe.

West Pond (1702-0148) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3b) LIS-40/P145a	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SC		Long Island Sound
Water Type/Size:	Estuary Waters 22.7 Acres	**Reg/County:**	1/Nassau (30)
Description:	entire tidal waterbody		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as for shellfishing or for public bathing.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
West Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total area of the pond.

Island Swamp Brook and tribs (1702-0149) Unassessed

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3b) LIS-41/P145-1	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** C(T)		Long Island Sound
Water Type/Size:	River/Stream 0.8 Miles	**Reg/County:**	1/Nassau (30)
Description:	entire stream and tribs		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	- - -
Unconfirmed:	- - -

Management Information

Management Status:	Unassessed
Lead Agency/Office:	DOW/BWAM
IR/305(b) Code:	Water with Insufficient Data (IR Category 3)

Further Details

Overview
Currently there is inadequate data/information to evaluate uses and determine a water quality assessment for this waterbody.

Use Assessment
This waterbody segment is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply or for public bathing. The waterbody is also designated as a cold water (trout) fishery.

Water Quality Information
There is currently no water quality information available upon which to base an assessment.

Source Assessment
Specific sources of pollutants to the waterbody have not been identified.

Management Actions
No specific management actions have been identified for the waterbody. Baseline sampling to evaluate conditions in this waterbody segment is needed.

Section 303(d) Listing
Island Swamp Brook is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient information to make a listing decision. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the total length of the stream and all tribs.

Dosoris Pond (1702-0024) Impaired

Waterbody Location Information

Revised: 02/19/2016

Water Index No:	(MW4.3b) LIS-41-P145	**Drain Basin:**	Atlantic-Long Island Sound
Unit Code:	0203020101 **Class:** SA		Long Island Sound
Water Type/Size:	Estuary Waters 102.7 Acres	**Reg/County:**	1/Nassau (30)
Description:	entire tidal waterbody		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	**Severity**	**Confidence**
Shellfishing	Precluded	Known
Public Bathing	Stressed	Known
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	PATHOGENS
Suspected:	- - -
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	URBAN/STORM RUNOFF
Suspected:	On-Site/Septic Syst, Other Source (boat pollution)
Unconfirmed:	- - -

Management Information

Management Status:	Restoration/Protection Strategy Needed
Lead Agency/Office:	DEC/FWMR
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Dosoris Pond is assessed as an impaired waterbody due to shellfishing use that is known to be impaired by pathogens. Urban and storm runoff are the primary sources of pathogens, although other sources such as waterfowl may also contribute. Public bathing and other recreational uses are considered to be supported but stressed based of occasional bathing beach closures.

Use Assessment

Dosoris Pond is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be precluded in these waters. All of this waterbody (included within Shellfish Growing Area #49) has been designated as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. (DEC/DFWMR, Region 1, July 2010)

Recreational uses including public bathing is considered supported but stressed due to periodic advisories or closures of public beaches to swimming. Beach monitoring revealed occasional elevated bacteriological levels at beaches and as many as 12 beach ADVISORY/closure days (2013). Beaches within this waterbody include Lattingtown Beach. (NYSDOH BEACH Act monitoring results, 2011-13 and DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support a healthy marine water fishery, although no specific fishery or biological reports are included in this assessment.

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYSDOH and DEC/DFWMR, 2014)

Water quality sampling of Dosoris Pond has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2004. However trophic state of Dosoris Pond cannot be easily characterized using standard limnological indicators, probably due to the high salinity. (DEC/DOW, BWAM/LMAS, January 2015)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens to the waterbody are largely nonpoint runoff from developed urban and residential areas and open space/forest; direct waterfowl/wildlife inputs; and boats and marinas. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. (DEC/DOW, BWRM, September 2015)

Management Action

Dosoris Pond is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below).

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs. The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public

involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

Section 303(d) Listing

Dosoris Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2c of the List as a shellfishing impaired waterbody requiring development of a TMDL for pathogens. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes the entire area of the pond/embayment.