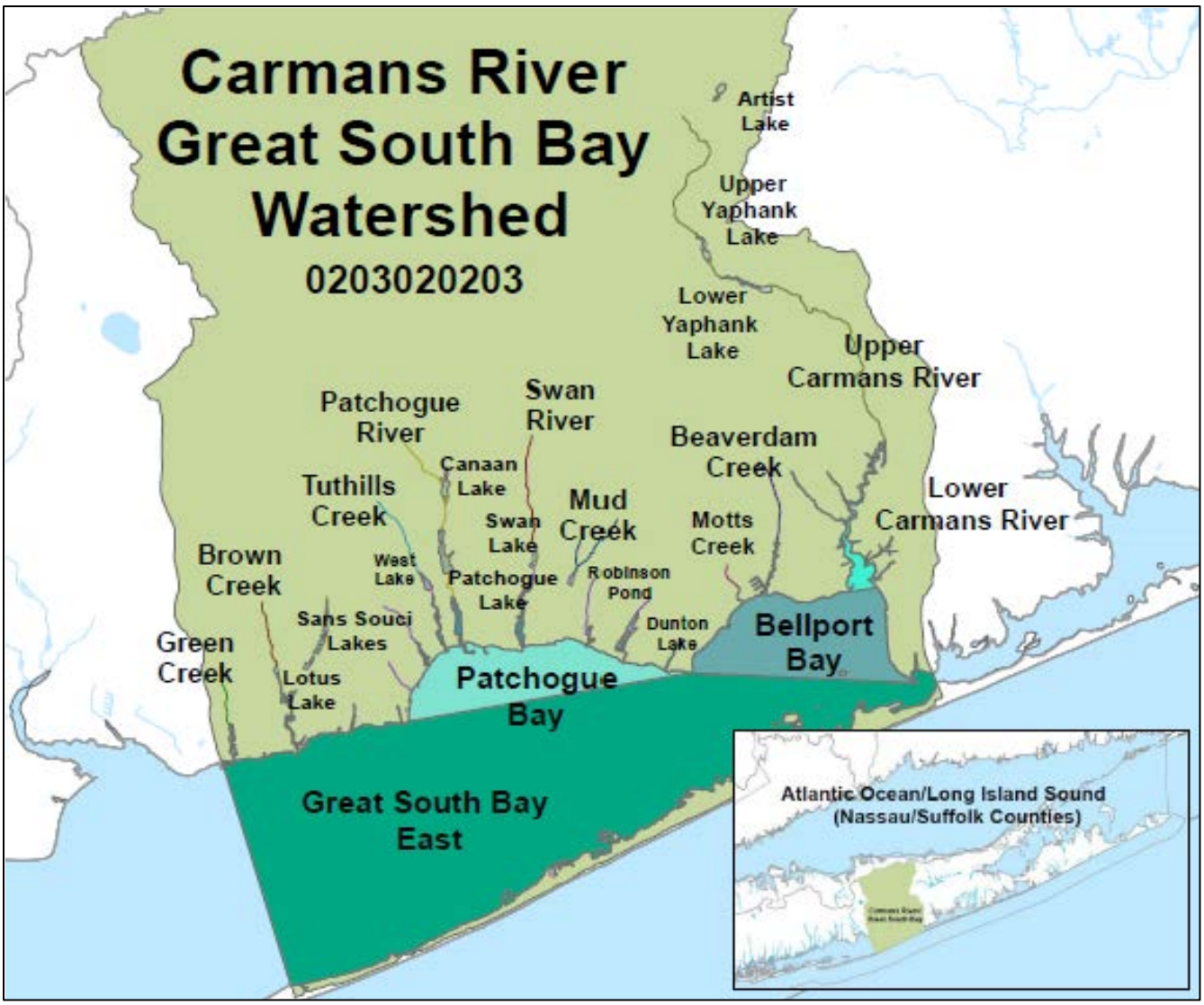

Carmans River/Great South Bay Watershed
(0203020203)

Water Index Number	Waterbody Segment	Category
(MW7.3) AO-GSB (portion 1)	Great South Bay, East (1701-0039)	Impaired
(MW7.3) AO-GSB (portion 4)	Bellport Bay (1701-0320)	Impaired
(MW7.3) AO-GSB (portion 5)	Patchogue Bay (1701-0326)	Impaired
(MW7.4) AO-GSB-177	Carmans River, Lower, and tribs (1701-0321)	Minor Impacts
(MW7.4) AO-GSB-177	Carmans River, Upper, and tribs (1701-0102)	Minor Impacts
(MW7.4) AO-GSB-177-P855	Lower Yaphank Lake (1701-0322)	Minor Impacts
(MW7.4) AO-GSB-177-P856	Upper Yaphank Lake (1701-0323)	Minor Impacts
(MW7.4) AO-GSB-BB-177-P863	Artist Lake (1701-0135)	Minor Impacts
(MW7.5) AO-GSB-178,179	Beaverdam/Motts Creeks, Lower, and tribs (1701-0324)	Minor Impacts
(MW7.5) AO-GSB-178	Beaverdam Creek and tribs (1701-0104)	Impaired
(MW7.5) AO-GSB-179	Motts Creek, Upper, and tribs (1701-0325)	Impaired
(MW7.5) AO-GSB-180 thru 188 (sel.)	Tidal Tribs to Patchogue Bay (1701-0327)	Minor Impacts
(MW7.5) AO-GSB-181 thru 187 (sel.)	Minor Tribs to Patchogue Bay (1701-0329)	Unassessed
(MW7.5) AO-GSB-181-P881	Dunton Lake (1701-0330)	Unassessed
(MW7.5) AO-GSB-183	Mud Creek, Upper, and tribs (1701-0101)	Minor Impacts
(MW7.5) AO-GSB-183-P883	Robinson Pond (1701-0331)	Unassessed

Water Index Number	Waterbody Segment	Category
(MW7.5) AO-GSB-184	Swan River, Upper, and tribs (1701-0100)	Minor Impacts
(MW7.5) AO-GSB-184-P884	Swan Lake (1701-0332)	Unassessed
(MW7.5) AO-GSB-185	Patchogue River, Upper, and tribs (1701-0099)	Needs Verification
(MW7.5) AO-GSB-185-P885	Patchogue Lake (1701-0055)	Minor Impacts
(MW7.5) AO-GSB-185-P889	Canaan Lake (1701-0018)	Minor Impacts
(MW7.5) AO-GSB-186	Tuthills Creek, Upper, and tribs (1701-0098)	Needs Verification
(MW7.5) AO-GSB-186-P890	West Lake (1701-0334)	Threatened
(MW7.5) AO-GSB-188a thru 190	Tidal Tribs to Great South Bay, East (1701-0333)	Minor Impacts
(MW7.5) AO-GSB-189	Brown Creek, Upper, and tribs (1701-0097)	Needs Verification
(MW7.5) AO-GSB-189-P895	Lotus Lake (1701-0335)	Threatened
(MW7.5) AO-GSB-189-P896-P898	Sans Souci Lakes (1701-0336)	Threatened
(MW7.5) AO-GSB-190	Green Creek, Upper, and tribs (1701-0096)	Minor Impacts

Great South Bay, East (1701-0039) Impaired

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.3) AO-GSB (portion 1)
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Estuary Waters 11943.1 Acres
Description: portion of bay, as described below

Water Class: SA
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s)

Known: ALGAL/PLANT GROWTH (brown tide), NUTRIENTS (nitrogen), Pathogens
Suspected: Priority Organics (PCBs/migratory fish), Low D.O./Oxygen Demand
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: Municipal Discharges, ON-SITE/SEPTIC SYST, Other Source (migratory fish 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 Great South Bay is assessed as an impaired waterbody due to recreational uses that are known to be impaired by nutrient loadings that result in algal blooms (including brown tide). Urban stormwater runoff and impacts from onsite wastewater treatment in this densely developed area are considered the more significant sources. Impacts from wildlife/waterfowl are also concerns, as are recreational boating impacts, though a vessel no discharge zone has been established for these waters. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. These advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. Shellfishing and recreational uses including public bathing are considered to be supported, but with minor impacts due to shellfishing restrictions in small portions of these waters and the periodic occurrence of brown tides. Aquatic life is impacted by low D.O. thought to be the result of nitrogen loads to the stream.

Use Assessment

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

Virtually all of this portion of Great South Bay (Shellfish Growing Area #4) has been certified as safe for the taking of shellfish for use as food. The remaining areas within the segment boundaries where shellfishing is restricted are limited by year-round and seasonal restrictions in the eastern end of the segment and seasonal restictions in waters adjacent to Fire Island communities and boat basins. These year-round or seasonally uncertified waters are quite small relative to the size of the Bay (less than 5%). These shellfishing designations are based on results of water quality monitoring and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria for pathogens. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. Although more than 95% of the waters of the Bay are certified for the taking of shellfish, this use is considered to be stressed due to the smaller areas that remain uncertified and the impact of brown tide on the shellfish population. (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered to be impacted based on the periodic occurrence of algal blooms (brown tides) in the Bay. Public bathing is also affected by the algal growth, however monitoring conducted through the shellfishing program that results in most of the Bay being certified for shellfishing indicates that there are no significant impacts from pathogens. There are no regularly monitored beaches in this segment. (DEC/DOW, BWAM, May 2016)

Aquatic life in the waterbody is considered to be stressed due to periodic low dissolved oxygen, the result of elevated nitrogen loadings. Nitrogen source including residential wastewater, urban/storm runoff and atmospheric deposition promote algal growth, die-off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen in the bottom waters of the Bay. The resulting low dissolved oxygen conditions impact the fishery and other aquatic life. (DEC/DOW and FWMR, Region 1, August 2015)

NYS DOH has issued precautionary health advisories recommending limiting consumption of American eel, bluefish, striped bass and weakfish from these 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. 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. 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. Health advisories regarding the consumption of fish are revised regularly; for the most current advisories, go to www.nyhealth.gov/environmental/outdoors/fish/fish.htm. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

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)

A Long Island dissolved oxygen monitoring effort led by The Nature Conservancy in collaboration with SUNY Stony Brook SoMAS and USGS began continuous monitoring of dissolved oxygen in a number of marine embayments in 2014. This sampling documented significant diurnal swings in dissolved oxygen during some summer periods. The initial results of this sampling are consistent with this assessment that aquatic life is known to be stressed by nutrients and the resulting episodic low dissolved oxygen. (DEC/DOW, BWAM, April 2016)

Source Assessment

Urban stormwater runoff and possibly residential onsite wastewater/septic systems are considered to be the primary sources of pathogens, although various other sources such as boat discharges, municipal wastewater discharges and waterfowl may also contribute.

Since 1985, algal blooms resulting in extensive brown tide events have occurred periodically in this waterbody. The brown tide reduces light penetration, causing a die–off of seagrass beds, which in turn affects scallops, larval fish, and other species for which the seagrass provides critical habitat. There is evidence the algae may also generate some associated toxicity as be a poor nutrition source for desired species. Chronic brown tides are a likely impediment to ecosystem and fishery recovery efforts on Long Island's south shore. The tides are a known impairment to recreational uses in these waters. The conditions that promote algal growth and the resulting brown tide are the result of multiple factors, but elevated nitrogen loading is considered to be a key component. The primary source of nitrogen loads to the South Shore Estuary waters is thought to come from is onsite wastewater treatment (septic) systems delivered through groundwater.

Management Action

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

Great South Bay has been identified by NYSDEC a a priority for the development of a TMDL/Clean Water Plan over the next few years. (DEC/DOW, BWRM, January 2016)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary-related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

This portion of Great South Bay is included on the current (2016) 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 nitrogen and resluting low dissolved oxygen. This waterbody was first listed on the 2010 List. (DEC/DOW, BWAM, April 2016)

Segment Description

This segment includes bay waters between Blue Point and the Smith Point bridge, including smaller coves and tribs; but excluding Bellport and Patchogue Bay waters which are listed separately.

Bellport Bay (1701-0320) Impaired

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.3) AO-GSB (portion 4)
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Estuary Waters 2571.7 Acres
Description: entire bay, as described below

Water Class: SA
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: PATHOGENS
Suspected: Algal/Plant Growth (brown tide), Nutrients, Priority Organics (PCBs/migratory fish)
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: ONSITE/SEPTIC SYSTEMS, Other Source (migratory fish species)
Unconfirmed: Municipal Discharges

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
Bellport Bay 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 various other sources such as boat discharges, waterfowl may also contribute. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. These advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. Public bathing and other recreational uses are fully supported, however these uses may also be stressed, as a result of the shellfishing restrictions and related pathogen levels. Aquatic life is impacted by low D.O. thought to be the result of nitrogen loads to the stream. The larger Great South Bay is listed as impaired due to nitrogen and brown tide.

Use Assessment
Bellport Bay is a Class SA waterbody, suitable for shellfishing, public bathing, general recreation use and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designations of portion of the area (Shellfish Growing Area #7) as uncertified for the taking of shellfish for use as food. Year-round restrictions apply to

the portion of the bay north of a line from the foot of Bellport Lane (at the Bellport Yacht Club) to the foot of Bay Road (just west of Post Point in Fireplace Neck). and a portion of the bay east of a line from the foot of Mott Lane in Fireplace Neck to the northern boundary of Smith Point Marina property. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. This designation is based on results of water quality monitoring and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria for pathogens. (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered to experience only minor impacts based on monitoring at beaches and in shellfishing waters in the segment, and the frequent occurrence of algal blooms. Beach monitoring revealed no elevated bacteriological levels at beaches in the segment. Occasional beach closures that do occur are typically pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Shirley Beach. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

Aquatic life in the waterbody is considered to be stressed due to periodic low dissolved oxygen, the result of elevated nitrogen loadings. Nitrogen source including residential wastewater, urban/storm runoff and atmospheric deposition promote algal growth, die-off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen in the bottom waters of the Bay. The resulting low dissolved oxygen conditions impact the fishery and other aquatic life. (DEC/DOW and FWMR, Region 1, August 2015)

NYS DOH has issued precautionary health advisories recommending limiting consumption of American eel, bluefish, striped bass and weakfish from these 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. 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. 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. Health advisories regarding the consumption of fish are revised regularly; for the most current advisories, go to www.nyhealth.gov/environmental/outdoors/fish/fish.htm. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

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)

A Long Island dissolved oxygen monitoring effort led by The Nature Conservancy in collaboration with SUNY Stony Brook SoMAS and USGS began continuous monitoring of dissolved oxygen in a number of marine embayments in 2014. This sampling documented significant diurnal swings in dissolved oxygen during some summer periods. The initial results of this sampling are consistent with this assessment that aquatic life is known to be stressed by nutrients and the resulting episodic low dissolved oxygen. It is possible that the conditions found in the near-shore waters, if representative of the larger waterbody, rise to the level of impairment. (DEC/DOW, BWAM, April 2016)

Source Assessment

Urban stormwater runoff and possibly residential onsite wastewater/septic systems are considered to be the primary sources of pathogens, although various other sources such as boat discharges, municipal wastewater discharges and waterfowl may also contribute.

Management Action

Bellport Bay was among the waterbodies covered by the Long Island Pathogen TMDL to address shellfishing

impairments that was established in 2007. (DEC/DOW, BWAM/WQMS, July 2010)

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program as outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. (DEC/DOW, Region 1, July 2010)

Section 303(d) Listing
Bellport Bay is included (referenced) on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is referenced (with Great South Bay) on Part 1 of the List as an impaired waterbody requiring development of a TMDL to address nitrogen and resulting low dissolved oxygen. It is also assessed as impaired due to pathogens resulting is shellfishing restrictions, however for this impairment the bay is categorized as an IR Category 4a water that is not listed due to the inclusion of the waterbody in the 2007 Long Island Pathogens (Shellfishing) TMDL. (DEC/DOW, BWAM, January 2016)

Segment Description
This segment includes the Class SA waters north of a line from Howell Point to Smith Point. Carmans River (-177), Beaverdam (-178) and Motts Brook (-179) are listed separately.

Patchogue Bay (1701-0326) Impaired

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.3) AO-GSB (portion 5)
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Estuary Waters 2116.4 Acres
Description: entire bay, as described below

Water Class: SA
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)
Known: PATHOGENS, Ammonia (proposed new std), Chlorine
Suspected: Algal/Plant Growth (brown tide), Nutrients, Priority Organics (PCBs/migratory fish)
Unconfirmed:

Source(s) of Pollutant(s)
Known: MUNICIPAL DISCHARGES (Patchogue WWTP), URBAN/STORM RUNOFF
Suspected: On-Site/Septic Syst, Other Source
Unconfirmed:

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
Patchogue Bay is assessed as an impaired waterbody due to shellfishing, public bathing and other recreational uses that are known to be precluded/impaired by pathogens that result in shellfishing restrictions and nutrient loadings that result in algal blooms (including brown tide) and occasional low dissolved oxygen. Urban stormwater runoff and impacts from onsite wastewater treatment in this densely developed area are considered the more significant sources. Impacts from wildlife/waterfowl are also concerns, as are recreational boating impacts, though a vessel no discharge zone has been established for these waters. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. These advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. Shellfishing and recreational uses including public bathing are considered to be supported, but with minor impacts due to shellfishing restrictions in small portions of these waters and the periodic occurrence of brown tides. Aquatic life is impacted by low D.O. thought to be the result of nitrogen loads to the stream.

Use Assessment
Patchogue Bay is a Class SA waterbody, suitable for shellfishing, public bathing, general recreation use and support of

aquatic life.

Virtually all of Patchogue Bay (Shellfish Growing Area #6) is uncertified for the taking of shellfish for use as food. Year-round restrictions apply to the portion of the bay north of a line from Blue Point to the foot of Duton Avenue in Bellport (west of Howell Point). Pathogens related to stormwater and other urban nonpoint runoff and recreational boating are the primary sources. The Patchogue WWTP discharge also contributes to shellfishing restrictions (administrative) in portions of the bay. These shellfishing designations are based on results of water quality monitoring and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria for pathogens. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to www.dec.ny.gov/regs/4014.html. Although more than 90% of the waters of the Bay are certified for the taking of shellfish, this use is considered to be stressed due to the smaller areas that remain uncertified and the impact of brown tide on the shellfish population. (DEC/DFWMR, Region 1, July 2010)

Recreation use and public bathing are considered to be impaired due to periodic closures of public beaches to swimming, elevated bacteriological indicators, nutrients (phosphorus), poor water clarity, and harmful algal blooms. Non-contact recreation (boating, fishing) is also affected by pathogens and algal blooms. Beach monitoring revealed occasional elevated bacteriological levels at beaches that occasionally occur in more than ten percent of the samples and that result in periodic closures. Occasional beach closures are typically pre–emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Corey Creek Beach, Sandspit Beach and Patchogue Village Beach. (from summary of local 2008 beach monitoring data as cited in Testing the Waters, NRDC, 2009)

Aquatic life in the waterbody is considered to be stressed due to periodic low dissolved oxygen, the result of elevated nitrogen loadings. Nitrogen source including residential wastewater, urban/storm runoff and atmospheric deposition promote algal growth, die-off, settlement to the sediment, and create and oxygen demand which results in low dissolved oxygen in the bottom waters of the Bay. The resulting low dissolved oxygen conditions impact the fishery and other aquatic life. (DEC/DOW and FWMR, Region 1, August 2015)

NYS DOH has issued precautionary health advisories recommending limiting consumption of American eel, bluefish, striped bass and weakfish from these 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. 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. 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. Health advisories regarding the consumption of fish are revised regularly; for the most current advisories, go to www.nyhealth.gov/environmental/outdoors/fish/fish.html. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

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)

A Long Island dissolved oxygen monitoring effort led by The Nature Conservancy in collaboration with SUNY Stony Brook SoMAS and USGS began continuous monitoring of dissolved oxygen in a number of marine embayments in 2014. This sampling documented significant diurnal swings in dissolved oxygen during some summer periods. The initial results of this sampling are consistent with this assessment that aquatic life is known to be stressed by nutrients and the

resulting episodic low dissolved oxygen. (DEC/DOW, BWAM, April 2016)

Source Assessment
Urban stormwater runoff and possibly residential onsite wastewater/septic systems are considered to be the primary sources of pathogens, although various other sources such as boat discharges, municipal wastewater discharges and waterfowl may also contribute.

Algal blooms resulting in extensive brown rust tide events have occurred regularly in this waterbody. The brown tide reduces light penetration, causing a die-off of seagrass beds, which in turn affects scallops, larval fish, and other species for which the seagrass provides critical habitat. There is evidence the algae may also generate some associated toxicity as be a poor nutrition source for desired species. Chronic brown tides are a likely impediment to ecosystem and fishery recovery efforts on Long Island's south shore. The tides are a known impairment to recreational uses in these waters. The conditions that promote algal growth and the resulting brown tide are the result of multiple factors, but elevated nitrogen loading is considered to be a key component. The primary source of nitrogen loads to the South Shore Estuary waters is thought to come from is onsite wastewater treatment (septic) systems delivered through groundwater.

Recent and anticipated future changes to water quality standards that research has shown are necessary to protect resources may result in the modification of SPDES permit limits for facilities that discharge to waters where these standards apply. In some cases, meeting these new, more stringent standards may require changes to treatment processes and/or upgrades to existing treatment facilities. Changes to two water quality standards, in particular, are likely to result in changes to discharge limits for facilities that discharge to some waters of the state. Based on residual chlorine standards promulgated in 1991 new residual chlorine limits are being required of all facilities that chlorinate their effluent and discharge to marine waters, including the Patchogue WWTP which discharges to Patchogue Bay. The Patchogue WWTP is currently considering treatment plant upgrades that would include replacing chlorine disinfection with UV disinfection to better address pathogen impacts from the plant while eliminating chlorine discharge issues. Likewise, the recently proposed and anticipated adoption of a new standard for marine ammonia, will affect a number of dischargers to marine waters, including the Patchogue WWTP. The proposed upgrades will also address the impact of anticipated new ammonia limits. (DEC/DOW, BWAM and Region 1, August 2007)

Management Action
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary-related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Patchogue Bay is included (referenced) on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is referenced (with Great South Bay) on Part 1 of the List as an impaired waterbody requiring development of a TMDL to address nitrogen and resulting low dissolved oxygen. It is also assessed as impaired due to pathogens

resulting is shellfishing restrictions, however for this impairment the bay is categorized as an IR Category 4a water that is not listed due to the inclusion of the waterbody in the 2007 Long Island Pathogens (Shellfishing) TMDL. (DEC/DOW, BWAM, January 2016)

Segment Description

This segment includes the Class SA waters north of a line from Blue Point to Howell Point. Beaverdam (-178) and Motts Brook (-179) are listed separately.

Carmans River, Lower, and tribs (1701-0321) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.4) AO-GSB-177
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Estuary Waters 250.1 Acres
Description: reach and tribs from mouth to LIRR (tidal)
Water Class: SC
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: Pathogens
Suspected: Algal/Plant Growth (brown tide)
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: Urban/Storm Runoff
Unconfirmed: Onsite/Septic Systems

Management Information

Management Status: Strategy Implementation Scheduled or Underway
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Lower Carmans River is assessed as a waterbody having minor impacts due to recreational uses that are thought to be stressed by pathogens. This assessment is based on pathogens levels identified through shellfishing program monitoring. Algal growth (brown tide) may also impact uses.

Use Assessment
Lower Carmans River is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water – although sampling of the waterbody has been included in the shellfish monitoring program – or for public bathing.

All of this waterbody (included within Shellfish Growing Area #7) 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)

Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring, and

the occurrence of algal blooms (brown tide). There are no regularly monitored beaches in this waterbody, but bacteriological sampling conducted through the shellfishing monitoring program indicate elevated pathogen levels. However criteria for shellfishing are lower than those for public bathing and additional bacteriological sampling is needed to more fully evaluate swimming use. (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)

Biological (macroinvertebrate) assessment of Carmans River above this segment near Yaphank (at USGS gage) was conducted as part of the RIBS biological screening effort in 2013. A biological survey at multiple sites above this reach between South Haven and Yaphank was also conducted in 2008. Sampling results on the upper Carmans River indicate mostly slightly impacted water quality conditions; the most downstream site in South Haven was assessed as moderately impacted. Most of the impacts are thought to be the result of the low gradient habitat of the river, its warm-water character, and the large amount of aquatic vegetation present at all sites. Nutrient loading appear to be one of the major factors determining water quality in the stream and suggest some eutrophic conditions resulting from excess phosphorus and nitrogen. These excess nutrient loads could be the natural state for this river, given its high volume of aquatic vegetation, low gradient habitat and warmwater. (Carmans River Biological Assessment Report, Heitzman, Smith et al., DEC/DOW, BWAM/SBU, July 2010)

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 agricultural activity and open space/forest; direct waterfowl/wildlife inputs; and boats and marinas. Onsite/septic systems have also been identified as a possible contributing source. 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

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat,

increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Lower Carmans River is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes all tidal waters between the mouth and the LIRR bridge; including unnamed trib (-1), Little Neck Creek (-2) and Yapahank Creek (-3). The segment is surrounded by the Wertheim National Wildlife Refuge.

Carmans River, Upper, and tribs (1701-0102) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.4) AO-GSB-177
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 7 Miles
Description: stream and tribs above LIRR (freshwater)
Water Class: C(TS)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: - - -
Suspected: Nutrients
Unconfirmed: Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: Urban/Storm Runoff, Other Sources (waterfowl/wildlife)
Unconfirmed: Onsite/Septic Systems

Management Information

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

Further Details

Overview
Upper Carmans River is assessed as having minor impacts due to aquatic life that are is thought to be stressed by nutrients. No specific sources have been identified, but storm runoff from developed and undeveloped areas, and wildlife sources are likely contributors. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment
Upper Carmans River is a Class C(TS) 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.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

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

A biological (macroinvertebrate) survey of Carmans River at multiple sites between South Haven and Yaphank was conducted in 2008. Sampling results at five sites on the stream indicated mostly slightly impacted water quality conditions; the most downstream site in South Haven was assessed as moderately impacted. Most of the impacts are thought to be the result of the low gradient habitat of the river, its warm-water character, and the large amount of aquatic vegetation present at all sites. Nutrient loading appear to be one of the major factors determining water quality in the stream and suggest some eutrophic conditions resulting from excess phosphorus and nitrogen. These excess nutrient loads could be the natural state for this river, given its high volume of aquatic vegetation, low gradient habitat and warmwater. (Carmans River Biological Assessment Report, Heitzman, Smith etal., DEC/DOW, BWAM/SBU, July 2010)

NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring of the Carmans River in Yaphank was also conducted in 2003 and 2004. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling indicated non-impacted conditions, as was the case in 1998 and 1999. Water column chemistry indicated no contaminants to be present at levels that constitute parameters of concern. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated some sediment toxicity was indicated. But bottom sediments analysis based on sediment quality guidelines developed for freshwater ecosystems revealed overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Macroinvertebrate tissue collected at this site and chemically analyzed showed arsenic, mercury, zinc, and the PAHs, phenanthrene and pyrene to be elevated and should continue to be monitored. Based on the consensus of these established assessment indicators, overall water quality at this site shows that (in spite of some concerns that should continue to be monitored,) aquatic life and recreational uses is/are considered to be fully supported in the stream at this site. (DEC/DOW, BWAM/RIBS, May 2011)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Carmans River in Yaphank (at Park Street) was conducted in 1999. Chemical monitoring revealed no other particular water quality issues. (DEC/DOW, BWAR/SWAS, January 2001)

A biological (macroinvertebrate) assessment of Carmans River near Yapahank was also conducted in 1998 and 1990. Sampling results indicated non-impacted water quality conditions in both years. This site was assessed as slightly impacted in 1989 and non-impacted in 1994. The difference in the 1989 assessment likely represents a change in criteria rather than a change in water quality. Sandy stream criteria were instituted in 1994, representing more realistic expectations for stream bottoms dominated by sand gravel rather than rubble. (DEC/DOW, BWAR/SBU, January 2000)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Upper Carmans River is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the stream and all tribs above the LIRR bridge.

Lower Yaphank Lake (1701-0322) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.4) AO-GSB-177-P855
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 25 Acres
Description: entire lake
Water Class: C(T)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known: Aquatic Invasive Species (fanwort)
Suspected: - - -
Unconfirmed: Nutrients

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: Urban/Storm Runoff
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Lower Yaphank Lake is assessed as having minor impacts due to recreational use that is considered to be stressed by aquatic invasive plant species. Other water quality indicators suggest the recreational uses are supported.

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

Recreation use and public bathing are considered to be (supported but) stressed due to the presence of aquatic invasive plants that regular grow to the lake surface, often densely throughout the lake. Chemical indicators of lake quality indicate the lake is generally supportive of recreational uses. Aesthetic conditions of the lake are considered to be poor due to excessive aquatic vegetation. (DEC/DOW, BWAM/LMAS, July 2013)

The lake is reported to support a good population of largemouth bass, sunfish, and several other warmwater fish species (bluegill, black crappie, brown bullhead). The DEC provides additional fishing opportunity during the cooler months of the year by stocking browna nd rainbow trout. (DEC/DFW, Region 1, March 2016)

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

Water quality sampling of Lower Yaphank Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2008. Results of this sampling indicate the lake is best characterized as mesotrophic, or moderately productive. Water clarity readings are also compromised by the shallow maximum depth of the lake, limiting the use of water clarity as a trophic indicator. These data indicate that the lake does not appear to be susceptible to algal blooms, although some shoreline blooms are commonly found in shallow ponds, particularly within weed beds. (DEC/DOW, BWAM/LMAS, January 2010)

Lower Yaphank Lake was also surveyed by NYSDEC Division of Water and the Nature Conservancy of Long Island as part of an aquatic plant evaluation in 2006. This survey work found extensive surface beds of variable watermilfoil (Myriophyllum heterophyllum) and fanwort (Cabomba caroliniana), invasive exotic plant species, throughout the lake. The growth habit of the variable watermilfoil was as extensive as in any other lake in the state. (DEC/DOW, BWAM/LMAS, March 2011)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. Aquatic invasive species are the primary concern in the lake, although additional monitoring data is limited.

Management Action

The lake is served by an active lake association (Save the Yaphank Lakes) dedicated to the restoration of the lake (http://www.savetheyaphanklakes.org/index.htm).

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the draft Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Lower Yaphank Lake is not included on the current (2016) 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 2016)

Segment Description
This segment includes the total area of the entire lake. Upper Yaphank Lake is listed separately.

Upper Yaphank Lake (1701-0323) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.4) AO-GSB-177-P856
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 19.2 Acres
Description: entire lake
Water Class: B(T)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known: Aquatic Invasive Species (fanwort)
Suspected: - - -
Unconfirmed: Nutrients

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: Urban/Storm Runoff
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview

Upper Yaphank Lake is assessed as having minor impacts due to recreational use that is considered to be stressed by aquatic invasive plant species. Other water quality indicators suggest the recreational uses are supported. Occasional elevated nutrient levels are also noted in the lake, though these do not appear to be restricting recreational uses.

Use Assessment

Upper Yaphank Lake is a Class B(T) waterbody, suitable for public bathing and general recreation use and support of aquatic life, but not for water supply. The waterbody is also designated as a cold water (trout) fishery.

Recreation use and public bathing are considered to be (supported but) stressed due to the presence of aquatic invasive plants that regular grow to the lake surface, often densely throughout the lake. Chemical indicators of lake quality indicate the lake is generally supportive of recreational uses. Aesthetic conditions of the lake are considered to be poor due to excessive aquatic vegetation. (DEC/DOW, BWAM/LMAS, July 2013)

The lake is reported to support a mix of warmwater fish species (largemouth bass, bluegill, pumpkinseed, yellow perch, brown bullhead) and is also stocked with brown and rainbow trout to provide additional fishing during the cooler months

of the year. (DEC/DFW, Region 1, March 2016)

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

Water quality sampling of Upper Yaphank Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2014. Results of this sampling indicate the lake is best characterized as mesotrophic, or moderately productive. Chlorophyll/algal levels are generally well below criteria corresponding to impacted recreational uses, while phosphorus concentrations are also typically low. One sample revealed significantly higher chlorophyll and phosphorus than other samples, but might not have been representative. Lake clarity measurements indicate water transparency generally meets the recommended minimum criteria for swimming beaches. (DEC/DOW, BWAM/LMAS, January 2010)

Upper Yaphank Lake was also surveyed by NYSDEC Division of Water and the Nature Conservancy of Long Island as part of an aquatic plant evaluation in 2006. This survey work found fanwort (Cabomba caroliniana), an invasive exotic plant species, within the lake, although the overall diversity of native aquatic plants was very high. The extensive beds of variable watermilfoil (Myriophyllum heterophyllum) found in Lower Yaphank Lake were not observed in this lake, although a single floating fragment was collected. (DEC/DOW, BWAM/LMAS, March 2011)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. Aquatic invasive species are the primary concern in the lake, although additional monitoring data is limited.

Management Action

The lake is served by an active lake association (Save the Yaphank Lakes) dedicated to the restoration of the lake (http://www.savetheyaphanklakes.org/index.htm).

Upper Yaphank Lake was dredged during the summer of 2013 in an attempt to remove invasive and nuisance plant species and restore the lake to its previous condition as a recreational and scenic resource. (Town of Brookhaven and P.W. Grosser Consulting, June 2015)

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the draft Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat,

increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Upper Yaphank Lake is not included on the current (2016) 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 2016)

Segment Description
This segment includes the total area of the entire lake. Lower Yaphank Lake is listed separately.

Artist Lake (1701-0135) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.4) AO-GSB-BB-177-P863
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 15 Acres
Description: entire lake
Water Class: B
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known: Aquatic Invasive Species (elodea, milfoil, fanwort), Algal/Plant Growth (native)
Suspected: Nutrients
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: Urban/Storm Runoff
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Artist Lake is assessed as having minor impacts due to recreational use that is considered to be stressed by aquatic invasive plant species. Elevated nutrient levels are also noted in the lake, though these do not appear to be restricting recreational uses.

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

Recreation use and public bathing are considered to be (supported but) stressed due to the presence of aquatic invasive plants that regular grow to the lake surface, often densely throughout the lake. Chemical indicators of lake quality indicate the lake is generally supportive of recreational uses, though elevated levels of phosphorus have been noted. Aesthetic conditions of the lake are considered to be poor due to excessive aquatic vegetation. (DEC/DOW, BWAM/LMAS, July 2013)

The lake is reported to support a diverse warmwater fish community, including largemouth bass and pickerel. It is also

one of Long Island's better waters for crappie and perch. (DEC/DFW, Region 1, March 2016)

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

Water quality sampling of Artist Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2008 and 2009. Results of this sampling indicate the lake is best characterized as meso- to eutrophic, or moderately-to-highly productive. Chlorophyll/algal levels are below criteria corresponding to impacted recreational uses, while phosphorus concentrations are typically high. Lake clarity measurements indicate water transparency generally meets the recommended minimum criteria for swimming beaches. (DEC/DOW, BWAM/LMAS, January 2010)

Artist Lake was also surveyed by NYSDEC Division of Water and the Nature Conservancy of Long Island as part of an aquatic plant evaluation in 2006. This survey work found Cabomba caroliniana (fanwort), an exotic invasive aquatic plants species. Fanwort wasalso found during the 2008 and 2009 LCI surveys of the lake. High densities of white pond lilies (Nymphaea sp.) were present in the two western bays of the lake. (DEC/DOW, BWAM/LMAS, January 2010)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. Aquatic invasive species are the primary concern in the lake, although additional monitoring data is limited.

Management Action

No specific management actions have been identified for the waterbody.

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the draft Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Artist Lake is not included on the current (2016) 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 2016)

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

Beaverdam/Motts Creeks, Lower, and tribs (1701-0324) Minor Impacts

Waterbody Location Information

Revised: 11/8/2010

Water Index No:	(MW7.5) AO-GSB-178,179	**Water Class:**	SC
Hydro Unit Code:	Carmans River-Great South Bay (0203020203)	**Drainage Basin:**	Atlantic-Long Island Sound
Water Type/Size:	Estuary Waters 19.1 Acres	**Reg/County:**	1/Suffolk (52)
Description:	total area of lower/tidal portions of both streams		

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	Pathogens
Suspected:	Algal/Plant Growth (brown tide)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	Urban/Storm Runoff
Unconfirmed:	Onsite/Septic Systems

Management Information

Management Status:	Strategy Implementation Scheduled or Underway
Lead Agency/Office:	ext/WQCC
IR/305(b) Code:	Water Attaining All Standards (IR Category 1)

Further Details

Overview

Lower Beaverdam/Motts Creeks is assessed as a waterbody having minor impacts due to recreational uses that are thought to be stressed by pathogens. This assessment is based on pathogens levels identified through shellfishing program monitoring. Algal growth (brown tide) may also impact uses.

Use Assessment

Lower Beaverdam/Motts is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water – although sampling of the waterbody has been included in the shellfish monitoring program – or for public bathing.

All of this waterbody (included within Shellfish Growing Area #6) 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)

Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring, and

the occurrence of algal blooms (brown tide). There are no regularly monitored beaches in this waterbody, but bacteriological sampling conducted through the shellfishing monitoring program indicate elevated pathogen levels. However criteria for shellfishing are lower than those for public bathing and additional bacteriological sampling is needed to more fully evaluate swimming use. (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)

Biological (macroinvertebrate) assessment of freshwater reaches of both Beaverdam and Motts Creeks above this segment conducted as part of the RIBS sampling effort reveals moderately impacted conditions. Both upper reaches are included on the Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM/SBU, July 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 agricultural activity and open space/forest; direct waterfowl/wildlife inputs; and boats and marinas. Onsite/septic systems have also been identified as a possible contributing source. 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

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Lower Beaverdam/Motts Creeks is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS,

January 2015)

Segment Description
This segment includes Class SC tidal portions of these waters, including Shelldrake Canal.

Beaverdam Creek, Upper, and tribs (1701-0104) Impaired

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-178
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 1.5 Miles
Description: stream above tidal waters (freshwater)
Water Class: C(TS)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: UNKNOWN POLLUTANTS (biological impacts)
Suspected: AMMONIA, Nutrients
Unconfirmed: Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: Landfill/Land Disposal (Brookhaven Town Landfill),
Unconfirmed: On-Site/Septic Syst

Management Information

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

Further Details

Overview
Upper Beaverdam Creek is assessed as an impaired water due to aquatic life that is known to be impaired. No specific pollutant or sources have been confirmed, but sampling results indicate nutrients and/or ammonia toxicity could be contributing to the impairment. Sampling results also suggest municipal impacts, which could be related to inadequate residential onsite (septic) systems.

Use Assessment
Upper Beaverdam Creek is a Class C(TS) 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.

Aquatic life is evaluated as impaired based on biological sampling that shows significant impacts and sampling data showing other potential pollutants. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 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

Biological (macroinvertebrate) assessments of Beaverdam Creek in Brookhaven (at South Country Road) was conducted as part of the RIBS sampling effort in 2008-09 and 2003-04. Sampling results from all years reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. The nutrient biotic index indicates fairly low levels of nutrient enrichment. Impact source determination reveal a community that is most similar to water experiencing organic inputs. Aquatic life is considered to be impaired. (DEC/DOW, BWAM/SBU, January 2015)

NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring of Beaverdam Creek in Brookhaven was conducted in 2003 and 2004. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling indicated moderately impacted conditions. Impact Source Determination identified organic inputs as a possible source of water quality impact. Water column chemistry indicates ammonia to be present at levels that constitute parameters of concern. Fecal coliform levels were also high in 5 of 10 samples collected. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated possible sediment toxicity. Bottom sediments analysis found lead to be a parameter of concern and elevated levels of other PAHs and metals, but based on sediment quality guidelines developed for freshwater ecosystems revealed overall sediment quality is not likely to cause chronic toxicity to sediment–dwelling organisms. Macroinvertebrate tissue was not collected at this site. (DEC/DOW, BWAM/RIBS, May 2011)

Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are urban/storm runoff and other nonpoint sources. Onsite residential (septic) systems in heavily developed areas are also a possible contributing source. (DEC/DOW, BWAM, January 2016)

Management Actions

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

The NYS Legislature authorized $6 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, June 2016)

Section 303(d) Listing

Upper Beaverdam Creek is included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 3b of the List as an impaired waterbody requiring verification of the cause/pollutant/source. The waterboy is listed for ammonia, however this pollutant and its contribution to the impairment needs to be verified. This waterbody was first listed on the 2010 List. (DEC/DOW, BWAM, January 2016)

Segment Description

This segment includes the entire stream above tidal waters (Beaver Dam Road) and all tribs. The waters of the stream are Class C(TS). Tribs to this reach/segment are also Class C(TS).

Description

Motts Creek, Upper, and tribs (1701-0325) Impaired

Waterbody Location Information

Revised: 12/14/2009

Water Index No: (MW7.5) AO-GSB-179
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 0.4 Miles
Description: stream and tribs above tidal water (freshwater)
Water Class: C
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: UNKNOWN POLLUTANTS (biological impacts)
Suspected: Nutrients
Unconfirmed: Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: - - -
Unconfirmed: On-Site/Septic Syst

Management Information

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

Further Details

Overview
Upper Motts Creek is assessed as an impaired water due to aquatic life that is known to be impaired. No specific pollutant or sources have been confirmed, but sampling results indicate nutrients and organic load from municipal sources, which could be related to inadequate residential onsite (septic) systems. Urban stormwater and other nonpoint runoff sources are also present.

Use Assessment
Upper Motts Creek 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 evaluated as impaired based on biological sampling that shows significant impacts and sampling data showing other potential pollutants. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 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

Biological (macroinvertebrate) assessments of Motts Creek in Bellport (at South Country Road) was conducted as part of the RIBS biological screening effort in 2003. 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. The nutrient biotic index indicates highly elevated enrichment and a community that is most similar to those influenced by municipal discharges and organic wastes. The sampling was conducted below an impoundment, which may have some influence on the assessment. Nonetheless, aquatic life is considered to be impaired. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are urban/storm runoff and other nonpoint sources. Onsite residential (septic) systems in heavily developed areas are also a possible contributing source. (DEC/DOW, BWAM, January 2016)

Management Actions

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

The NYS Legislature authorized $6 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, June 2016)

Section 303(d) Listing

Upper Mott Creek is included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 3b of the List as an impaired waterbody requiring verification of the cause/pollutant/source that is causing the biological impacts. This waterbody was first listed on the 2010 List. (DEC/DOW, BWAM, January 2016)

Segment Description

This segment includes the entire stream above tidal waters and all tribs. The waters of the stream are Class C.
Tribs to this reach/segment are also Class C.

Tidal Tribs to Patchogue Bay (1701-0327) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-180 thru 188 (sel.)
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Estuary Waters 129.7 Acres
Description: total area of selected tidal tribs to bay

Water Class: SC
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	Pathogens
Suspected:	Algal/Plant Growth (brown tide)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	Urban/Storm Runoff
Unconfirmed:	Onsite/Septic Systems

Management Information

Management Status: Strategy Implementation Scheduled or Underway
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
This Patchogue Bay Tidal Tribs segment is assessed as a waterbody having minor impacts due to recreational uses that are thought to be stressed by pathogens. This assessment is based on pathogens levels identified through shellfishing program monitoring. Algal growth (brown tide) may also impact uses.

Use Assessment
Patchogue Bay Tidal Tribs is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water – although sampling of the waterbody has been included in the shellfish monitoring program – or for public bathing.

All of this waterbody (included within Shellfish Growing Area #6) 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)

Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring, and

the occurrence of algal blooms (brown tide). There are no regularly monitored beaches in this waterbody, but bacteriological sampling conducted through the shellfishing monitoring program indicate elevated pathogen levels. However criteria for shellfishing are lower than those for public bathing and additional bacteriological sampling is needed to more fully evaluate swimming use. (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)

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 agricultural activity and open space/forest; direct waterfowl/wildlife inputs; and boats and marinas. Onsite/septic systems have also been identified as a possible contributing source. 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
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Patchogue Bay Tidal Tribs is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes Class SC lower/tidal portions of tribs Howell Creek (-180), Hedges Creek (-181), Mud Creek (-

183), Swan Creek (-184), Little Creek (184a), Patchogue Creek (185), Tuthill Creek (-186) and Stillman Creek (-187). These waters are primarily Class SC; Howell Creek is Class SB.

Minor Tribs to Patchogue Bay (1701-0329) Unassessed

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-181 thru 187 (sel.)
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 1.8 Miles
Description: total length of selected (fresh) tribs to bay

Water Class: C
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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 Action
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
This waterbody is not included on the current (2016) 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 portions of Hedges Creek (-181), Abets Creek (-182) and Stillman Creek (-188). Segment length estimated to be 2.0 mi.

Dunton Lake (1701-0330) Unassessed

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-181-P881
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 15.9 Acres
Description: entire lake
Water Class: C
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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 Action
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
This waterbody is not included on the current (2016) 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 lake.

Mud Creek, Upper, and tribs (1701-0101) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No:	(MW7.5) AO-GSB-183	**Water Class:**	C(TS)
Hydro Unit Code:	Carmans River-Great South Bay (0203020203)	**Drainage Basin:**	Atlantic-Long Island Sound
Water Type/Size:	River/Stream 1.6 Miles	**Reg/County:**	1/Suffolk (52)
Description:	stream and tribs above tidal waters (freshwater)		

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known:	- - -
Suspected:	Nutrients
Unconfirmed:	Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	Urban/Storm Runoff, Other Sources (waterfowl/wildlife)
Unconfirmed:	Onsite/Septic Systems

Management Information

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

Further Details

Overview

Upper Mud Creek is assessed as having minor impacts due to aquatic life that are is thought to be stressed by nutrients. No specific sources have been identified, but storm runoff from developed and undeveloped areas, and wildlife sources are likely contributors. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment

Upper Mud Creek is a Class C(TS) 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.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

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
A biological (macroinvertebrate) assessment of Mud Creek in East Patchogue (at Montauk Hwy) was conducted as part of the RIBS biological screening effort in 2008. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions and indications of municipal/industrial nonpoint sources. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. These results are consistent with sampling conducted at the site in 1998. Sampling results at that time indicated slightly impacted water quality conditions. Sowbugs and scuds dominated the sample, but clean–water stoneflies were also found. Young brook trout were previously collected here. In spite of minor impacts, aquatic life is considered to be supported. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment
Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Upper Mud Creek is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the stream and tribs above the tidal portion. The stream is Class C from tidal waters to Robinson Pond, and Class C(TS) above Robinson Pond.

Robinson Pond (1701-0331) Unassessed

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-183-P883
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 8.3 Acres
Description: entire lake
Water Class: B
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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 Action
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
This waterbody is not included on the current (2016) 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.

Swan River, Upper, and tribs (1701-0100) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-184
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 2 Miles
Description: stream and tribs above Swan Lake (freshwater)
Water Class: C(TS)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: - - -
Suspected: Nutrients, Low D.O./Oxygen Demand
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: Urban/Storm Runoff, Other Sources (waterfowl/wildlife)
Unconfirmed: Onsite/Septic Systems

Management Information

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

Further Details

Overview
Upper Swan River is assessed as having minor impacts due to aquatic life that are is thought to be stressed by nonpoint sources. No specific pollutants or sources have been identified, but storm runoff from developed and undeveloped areas, and wildlife sources are possible contributors. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment
Upper Swan River is a Class C(TS) 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.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

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
A biological (macroinvertebrate) assessment of Swan River in East Patchogue (atRoute 27) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions and indications of municipal/industrial nonpoint sources. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. Community composition indicates some impoundment effects and generally low nutrient enrichment. These results are consistent with sampling conducted at the site in 2003, 1998 and 1994. Regional Fisheries staff reported wild brook trout populations in 2000 above Swan Lake. In spite of minor impacts, aquatic life is considered to be supported. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment
Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Upper Swan River is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the stream and tribs above Swan Lake (P884). This portion of the stream is Class C(TS).

Swan Lake (1701-0332) Unassessed

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-184-P884
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 11.3 Acres
Description: entire lake
Water Class: B(T)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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 Action
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
This waterbody is not included on the current (2016) 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.

Patchogue River, Upper, and tribs (1701-0099) Needs Verification

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-185
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 1.9 Miles
Description: stream and tribs above LIRR (freshwater)
Water Class: C(TS)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: - - -
Suspected: Nutrients
Unconfirmed: Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: Urban/Storm Runoff, Other Sources (waterfowl/wildlife)
Unconfirmed: Municipal Discharges, Onsite/Septic Systems

Management Information

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

Further Details

Overview
Upper Patchogue River is assessed as having minor impacts due to aquatic life that are is thought to be stressed by nutrients. No specific sources have been identified, but storm runoff from developed and undeveloped areas, and wildlife sources are likely contributors. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment
Upper Patchogue River is a Class C(T) 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.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

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
A biological (macroinvertebrate) assessment of Patchogue River in Patchogue (at Montauk Hwy) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions and indications of municipal wastewater sources. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. In spite of minor impacts, aquatic life is considered to be supported. (DEC/DOW, BWAM/SBU, January 2015)

Sampling conducted in 2003 at an upstream site in North Patchogue (Linden Street) found non-impacted conditions. This assessment included reports of wild brook trout in the upper reaches above Canaan Lake. Previous sampling at the site in 1998 found water quality to be slightly impacted, but close to the range of moderately impacted. Scuds and black flies dominated the sample, but some mayflies and stoneflies were also present. (DEC/DOW, BWAR/SBU, January 2000)

Source Assessment
Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Upper is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the stream and tribs above the tidal portion. The stream and tribs, including Palace Brook (-2), is Class C from LIRR to Great Patchogue Lake, and Class C(TS) above Great Patchogue Lake.

Patchogue Lake (1701-0055) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-185-P885
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 50.4 Acres
Description: entire lake
Water Class: B
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known: Aquatic Invasive Species (elodea, milfoil, fanwort), Algal/Plant Growth (native)
Suspected: Nutrients
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: Urban/Storm Runoff
Unconfirmed: - - -

Management Information

Management Status: Restoration/Protection Strategy Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Patchogue Lake is assessed as having minor impacts due to recreational use that is considered to be stressed by aquatic invasive plant species. Although uses are currently fully supported, the invasive specices raise concerns and conditions should continue to be monitored.

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

Recreation use and public bathing are considered to be (supported but) stressed due to the presence of aquatic invasive plants that regular grow to the lake surface, often densely throughout the lake. Chemical indicators of lake quality indicate the lake is generally supportive of recreational uses. Aesthetic conditions of the lake are considered to be poor due to excessive aquatic vegetation. (DEC/DOW, BWAM/LMAS, July 2013)

The lake is reported to support a diverse warmwater fish community. Perch and crappie are abundance, with other species such as largemouth bass, chain pickerel, pumpkinseed sunfish, and brown bullhead also present. (DEC/DFW, Region 1, March 2016)

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

Water quality sampling of Patchogue Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2009. Results of this sampling indicate the lake is best characterized as mesotrophic, or moderately productive. Chlorophyll/algal levels are below criteria corresponding to impacted recreational uses, while phosphorus concentrations are only moderately high. Lake clarity measurements indicate water transparency somewhat below the recommended minimum criteria for swimming beaches. Clarity measurements may by the shallow depth of the lake. (DEC/DOW, BWAM/LMAS, January 2010)

The lake was also surveyed by the NYSDEC Division of Water in August 2006 as part of a Long Island aquatic plant survey. That survey indicated that the aquatic plant community of the lake is dominated by three exotic plants: Brazilian elodea (Egeria densa), variable watermilfoil (Myriophyllum heterophyllum), and fanwort (Cabomba caroliniana), although other native plant species are also found. Extensive invasive plant beds covered the majority of the lake and resulted in dense surface plant growth throughout the lake. (DEC/DOW, BWAM/LMAS, January 2010)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. Aquatic invasive species are the primary concern in the lake, although additional monitoring data is limited.

Management Action

No specific management actions have been identified for the waterbody.

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the draft Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Patchogue Lake is not included on the current (2016) 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

2016)

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

Canaan Lake (1701-0018) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-185-P889
Water Class: B(T)
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Drainage Basin: Atlantic-Long Island Sound
Water Type/Size: Lake/Reservoir 24.3 Acres
Reg/County: 1/Suffolk (52)
Description: entire lake

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known: Aquatic Invasive Species (milfoil, fanwort), Algal/Plant Growth (native)
Suspected: Nutrients
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: Urban/Storm Runoff
Unconfirmed: - - -

Management Information

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

Further Details

Overview
Canaan Lake is assessed as having minor impacts due to recreational use that is considered to be stressed by aquatic invasive plant species. Although uses are currently fully supported, the invasive specices raise concerns and conditions should continue to be monitored.

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

Recreation use and public bathing are considered to be (supported but) stressed due to the presence of aquatic invasive plants that regular grow to the lake surface, often densely throughout the lake. Chemical indicators of lake quality, though limited, indicate the lake is generally supportive of recreational uses. Aesthetic conditions of the lake are considered to be poor due to excessive aquatic vegetation. (DEC/DOW, BWAM/LMAS, July 2013)

The lake is reported to support both rainbow trout (stocked) and warmwater fisheries (largemouth bass, chain pickerel, pumpkinseed sunfish, bluegill, yellow perch, and brown bullhead). (DEC/DOW, BWAM/LMAS, March 2010)

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

Water quality sampling of West Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program and the NYSDEC Statewide Citizens Lake Assessment Program (CSLAP). A single LCI sampling visit was conducted in 2009. Results of this sampling indicate the lake is best characterized as mesotrophic, or moderately productive. Chlorophyll/algal levels are below criteria corresponding to impacted recreational uses, while phosphorus concentrations are only moderately high. Clarity measurements were limited by the depth of the lake, severely limiting the use of water clarity as a trophic indicator. The aquatic plant community of the lake was found to be dominated by two exotic plants: variable watermilfoil (Myriophyllum heterophyllum), and fanwort (Cabomba caroliniana), although other native plant species are also found. Extensive invasive plant beds covered the majority of the lake and resulted in dense surface plant growth throughout the lake. The lake was also sampled from 1990-1994 and 2000-2005 by volunteers from the Canaan Lake Association as part of the Citizens Statewide Lake Assessment Program (CSLAP), a volunteer lake monitoring program conducted by the NYSDEC Division of Water and the NY Federation of Lake Associations. (DEC/DOW, BWAM/LMAS, January 2010)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. Aquatic invasive species are the primary concern in the lake, although additional monitoring data is limited.

Management Action

No specific management actions have been identified for the waterbody. The Town of Brookhaven is also looking into options for removing aquatic invasives from the lake.

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the draft Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Canaan Lake is included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The lake is included

on Part 1 of the List as an impaired waterbody requiring development of a TMDL to attain water quality standards for both phosphorus and silt/sediment. However this updated assessment suggests that listing for impairment due to pollutants is not warranted. Monitoring data show there is not impairment from phosphorus and secchi disk measurements as well as the use of clarity as a measure of water quality in general are limited by the shallowness of the lake. Delisting of the lake for both phosphorus and silt/sediment should be considered during the next Section 303(d) List cycle. This waterbody was first listed on the 2002 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2016)

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

Tuthills Creek, Upper, and tribs (1701-0098) Needs Verification

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-186
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: River/Stream 1.4 Miles
Description: stream and tribs above West Lake (freshwater)

Water Class: C(TS)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Unconfirmed
Aquatic Life	Stressed	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Unknown	

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known: - - -
Suspected: Nutrients
Unconfirmed: Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: Urban/Storm Runoff
Unconfirmed: Onsite/Septic Systems

Management Information

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

Further Details

Overview
Upper Tuthills Creek is assessed as needing verification of impacts/impairment due to aquatic life that is thought to be stressed by nutrients. However, this assessment is based on older data and sampling to verify conditions is recommended. No specific sources have been identified, but storm runoff from developed and undeveloped areas is a likely contributor. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment
Upper Tuthills Creek is a Class C(TS) 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.

Aquatic life was previously found to experience minor impacts, however due to the age of the data (more than 10 years old) additional sampling is needed to verify current conditions. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is also necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

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

A biological (macroinvertebrate) assessment of Tuthill Creek in Patchogue (at Route 27) was conducted as part of the RIBS biological screening effort in 1998. Sampling results at that time reflected fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions. Some expected sensitive species were not present and overall macroinvertebrate species richness is lower than expected, but overall there was still balanced distribution of all expected taxa. Midges and black flies dominated the sample, but a few mayflies and stoneflies were also found. A fingerling brook trout was also collected at this site. The limited fauna was likely related to the less-than-optimal stream bottom habitat of gravel and sand. In spite of these minor impacts, aquatic life was considered at that time to be supported. However this assessment is based on older data that was thought to be influenced by poor habitat, so additional sampling to verify conditions is recommended. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Upper Tuthills Creek is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient verification of impacts to justify the listing of this waterbody at this time. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the freshwater portion of the stream and tribs.

West Lake (1701-0334) Threatened

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-186-P890
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 15.2 Acres
Description: entire lake
Water Class: B(T)
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Threatened	Suspected
Recreation	Threatened	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: AQUATIC INVASIVE SPECIES (fanwort)
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: HABITAT ALTERATION
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: Verification of Problem Severity Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
West Lake is assessed as threatened due to recreational use that is considered to be threatened by aquatic invasive plant species. Although uses are currently fully supported, the invasive specices raise concerns and conditions should continue to be monitored.

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

There is no evidence of recreation use impacts in waterbody, consistent with relatively low productivity, acceptable water clarity, and only moderate nutrient levels. The occurrence of aquatic invasive species suggest a threat to recreational uses.

The lake is reported to support a warmwater fishery, although no specific fishery or biological reports are included in this assessment. (DEC/DOW, BWAM/LMAS, March 2015)

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

Water quality sampling of West Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program and in a joint effort with The Nature Conservancy of Long Island. A single LCI sampling visit was conducted in 2013. Results of this sampling indicate the lake is best characterized as mesotrophic, or moderately productive. Chlorophyll/algal levels are below criteria corresponding to impacted recreational uses, while phosphorus concentrations are only moderately high. (DEC/DOW, BWAM/LMAS, May 2016)

West Lake was also surveyed by NYSDEC Division of Water and the Nature Conservancy of Long Island as part of an aquatic plant evaluation in the fall of 2008. This survey work found hydrilla (Hydrilla verticillatum), a highly invasive exotic plant, in the three sothernmost ponds, comprising an area of about 5 acres. A single stem of variable watermilfoil (Myriophyllum heterophyllum), another highly invasive exotic plant, was also observed in the sothernmost pond. Detailed survey work did not find hydrilla or other exotic plants in any other lakes in the Sans Souci chain of lakes at that time. No water quality evaluations have been conducted at the lake, and no additional aquatic plant surveys have been conducted since 2008. Each of these interconnected ponds is very shallow (< 2 meters deep), and water clarity is sufficient to view a Secchi disk at the bottom of each pond. A variety of native aquatic plants were observed in each pond; no other invasive plant species were observed in any of these ponds. (DEC/DOW, BWAM/LMAS, March 2011))

Source Assessment

There are no apparent sources of pollutants to the waterbody. Aquatic invasive species are the lone concern in the lake, although additional monitoring data is limited.

Management Action

No specific management actions have been identified for the waterbody.

The lake is stocked with brown and rainbow trout, and also provides fishing opportunities for largemouth bass, bluegill, pumpkinseed sunfish, yellow perch and brown bullhead. The lake is classified for contact recreation, including trout survival. There is informal access available at the end of Marshall Street; Hand launched boats are allowed, and shoreline access is available but limited. (DEC/DOW, BWAM/LMAS, March 2011)

Section 303(d) Listing

West Lake is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes the total area of the entire lake.

Tidal Tribs to Great South Bay, East (1701-0333) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-188a thru 190
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Estuary Waters 61.3 Acres
Description: total area of selected tidal tribs to bay

Water Class: SC
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

Type of Pollutant(s)

Known:	Pathogens
Suspected:	Algal/Plant Growth (brown tide)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	Urban/Storm Runoff
Unconfirmed:	Onsite/Septic Systems

Management Information

Management Status: Strategy Implementation Scheduled or Underway
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
This Great South Bay Tidal Tribs segment is assessed as a waterbody having minor impacts due to recreational uses that are thought to be stressed by pathogens. This assessment is based on pathogens levels identified through shellfishing program monitoring. Algal growth (brown tide) may also impact uses.

Use Assessment
Middle Great South Bay Tidal Tribs is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water – although sampling of the waterbody has been included in the shellfish monitoring program – or for public bathing.

All of this waterbody (included within Shellfish Growing Area #5) 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)

Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring, and

the occurrence of algal blooms (brown tide). There are no regularly monitored beaches in this waterbody, but bacteriological sampling conducted through the shellfishing monitoring program indicate elevated pathogen levels. However criteria for shellfishing are lower than those for public bathing and additional bacteriological sampling is needed to more fully evaluate swimming use. (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)

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 agricultural activity and open space/forest; direct waterfowl/wildlife inputs; and boats and marinas. Onsite/septic systems have also been identified as a possible contributing source. 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
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary-related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Middle Great South Bay Tidal Tribs is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes Class SC portions of tribs Namkee Creek (-188a), Hermans Creek (-188b), Brown Creek (-189),

and Green Creek (-190).

Brown Creek, Upper, and tribs (1701-0097) Needs Verification

Waterbody Location Information

Revised: 7/10/2016

Water Index No:	(MW7.5) AO-GSB-189	**Water Class:**	C
Hydro Unit Code:	Carmans River-Great South Bay (0203020203)	**Drainage Basin:**	Atlantic-Long Island Sound
Water Type/Size:	River/Stream 1.2 Miles	**Reg/County:**	1/Suffolk (52)
Description:	stream and tribs above Sayville Mill Pond (freshwater)		

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known:	- - -
Suspected:	Nutrients
Unconfirmed:	Low D.O./Oxygen Demand, Water Level/Flow

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	Urban/Storm Runoff
Unconfirmed:	Hydro Alteration, Onsite/Septic Systems

Management Information

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

Further Details

Overview

Upper Brown Creek is assessed as needing verification of impacts/impairment due to aquatic life that is thought to be stressed – and that may rise to the level of impairment – by nutrients. No specific sources have been identified, but storm runoff from developed and undeveloped areas is a likely contributor. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment

Upper Brown Creek 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 appears to experience significant impacts – that may rise to the level of impairment – however due to inconclusive results related to sampling habitat, additional sampling is needed to verify current conditions. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is also necessary to confirm this is the case. (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 Brown Creek in Sayville (at Aldrich Street) was conducted as part of the RIBS biological screening effort in 2008. Sampling results reflect severe 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 (deep, slow-moving water without suitable riffle) and as a result this evaluation of aquatic life is considered to be unconfirmed. Further investigation and/or other indicators are required to determine the actual extent of water quality impacts. (DEC/DOW, BWAM/SBU, January 2015)

These results are consistent with findings during an assessment of the creek at the same site in 1998. Sampling results at that time indicated slightly impacted water quality conditions. The sand gravel stream bottom likely contributed to the limited invertebrate fauna, and no major water quality problems were indicated. Significant native brook trout population were found in headwaters during a mid-1980s fish survey. (DEC/DOW, BWAR/SBU, January 2015)

Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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

The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing

Upper Brown Creek is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There is insufficient verification of impacts to justify the listing of this waterbody at this time. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes West Branch (–2), portions of which are Class C(TS).

Lotus Lake (1701-0335) Threatened

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-189-P895
Water Class: C
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Drainage Basin: Atlantic-Long Island Sound
Water Type/Size: Lake/Reservoir 7.2 Acres
Reg/County: 1/Suffolk (52)
Description: entire lake

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Threatened	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: Aquatic Invasive Species (fanwort)
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: Verification of Problem Severity Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Lotus Lake is assessed as threatened due to recreational use that is considered to be threatened by aquatic invasive plant species. Although uses are currently fully supported, the invasive specices raise concerns and conditions should continue to be monitored.

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

There is no evidence of recreation use impacts in waterbody, although sampling has been limited to plant surveys and no extensive water quality sampling has be conducted. The occurrence of aquatic invasive species suggest a threat to recreational uses.

The reservoir is reported to support a warmwater fishery, although no specific fishery or biological reports are included in this assessment. (DEC/DOW, BWAM/LMAS, March 2015)

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

Lotus Lake was surveyed by NYSDEC Division of Water and Nature Conservancy of Long Island staff in 2008 as part of an aquatic plant survey of Long Island lakes. This survey work found a number of invasive exotic plant species, including hydrilla (Hydrilla verticillatum), variable watermilfoil (Myriophyllum heterophyllum), parrotfeather (Myriophyllum aquaticum), fanwort (Cabomba caroliniana), and European four leaf clover (Marsilea quadrifolia). Detailed survey work found that the aquatic plant community is dominated by hydrilla, fanwort, and variable watermilfoil. No water quality evaluations have been conducted at the lake, and no additional aquatic plant surveys have been conducted since 2008. The lake is shallow (< 2 meters deep) and otherwise appears to exhibit characteristics typical of other shallow Long Island lakes. (DEC/DOW, BWAM/LMAS, March 2011)

Source Assessment

There are no apparent sources of pollutants to the waterbody. Aquatic invasive species are the lone concern in the lake, although additional monitoring data is limited.

Management Action

No specific management actions have been identified for the waterbody.

Section 303(d) Listing

Lotus Lake is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes the total area of the entire lake.

Sans Souci Lakes (1701-0336) Threatened

Waterbody Location Information

Revised: 7/10/2016

Water Index No: (MW7.5) AO-GSB-189-P896-P898
Hydro Unit Code: Carmans River-Great South Bay (0203020203)
Water Type/Size: Lake/Reservoir 33.1 Acres
Description: total area of all three lakes
Water Class: B
Drainage Basin: Atlantic-Long Island Sound
Reg/County: 1/Suffolk (52)

Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Threatened	Suspected
Recreation	Threatened	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Unknown	

Type of Pollutant(s)

Known: Aquatic Invasive Species (fanwort)
Suspected: - - -
Unconfirmed: - - -

Source(s) of Pollutant(s)

Known: Habitat Alteration
Suspected: - - -
Unconfirmed: - - -

Management Information

Management Status: Verification of Problem Severity Needed
Lead Agency/Office: ext/WQCC
IR/305(b) Code: Water Attaining All Standards (IR Category 1)

Further Details

Overview
Sans Souci Lakes is assessed as threatened due to recreational use that is considered to be threatened by aquatic invasive plant species. Although uses are currently fully supported, the invasive specices raise concerns and conditions should continue to be monitored.

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

There is no evidence of recreation use impacts in waterbody, although sampling has been limited to plant surveys and no extensive water quality sampling has be conducted. The occurrence of aquatic invasive species suggest a threat to recreational uses.

The lakes are reported to support a warmwater fishery, although no specific fishery or biological reports are included in this assessment. (DEC/DOW, BWAM/LMAS, March 2015)

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

Sans Souci Lake was surveyed by NYSDEC Division of Water and the Nature Conservancy of Long Island as part of an aquatic plant evaluation in the fall of 2008. This survey work found hydrilla (Hydrilla verticillatum), a highly invasive exotic plant, in the three sothernmost ponds, comprising an area of about 5 acres. A single stem of variable watermilfoil (Myriophyllum heterophyllum), another highly invasive exotic plant, was also observed in the sothernmost pond. Detailed survey work did not find hydrilla or other exotic plants in any other lakes in the Sans Souci chain of lakes at that time. No water quality evaluations have been conducted at the lake, and no additional aquatic plant surveys have been conducted since 2008. Each of these interconnected ponds is very shallow (< 2 meters deep), and water clarity is sufficient to view a Secchi disk at the bottom of each pond. A variety of native aquatic plants were observed in each pond; no other invasive plant species were observed in any of these ponds. (DEC/DOW, BWAM/LMAS, March 2011))

Source Assessment

There are no apparent sources of pollutants to the waterbody. Aquatic invasive species are the lone concern in the lake, although additional monitoring data is limited.

Management Action

No specific management actions have been identified for the waterbody.

Sans Souci Lake is a series of 14 interconnected ponds comprising 33 acres in Sans Souci County Park and Nature Preserve in Suffolk County. The centerpiece of this 316 acre park is Sans Souci Lake, which was one continuous lake until the mid 1800's, when small dams were built to turn the land into a cranberry farm. The pond is a Class B regulated wetland designated for contact recreation, although the ponds do not support swimming or boating. (DEC/DOW, BWAM/LMAS, March 2011)

Section 303(d) Listing

San Souci Lakes is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes the total area of all 14 interconnected lakes in Sans Souci County Park.

Green Creek, Upper, and tribs (1701-0096) Minor Impacts

Waterbody Location Information

Revised: 7/10/2016

Water Index No:	(MW7.5) AO-GSB-190	**Water Class:**	C(T)
Hydro Unit Code:	Carmans River-Great South Bay (0203020203)	**Drainage Basin:**	Atlantic-Long Island Sound
Water Type/Size:	River/Stream 1 Miles	**Reg/County:**	1/Suffolk (52)
Description:	stream and tribs above Montauk Highway (freshwater)		

Water Quality Problem/Issue Information

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

Type of Pollutant(s) (CAPS indicate Major Pollutants/Sources that contribute to an Impaired/Precluded Uses)

Known:	- - -
Suspected:	Nutrients
Unconfirmed:	Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	Urban/Storm Runoff, Other Sources (waterfowl/wildlife)
Unconfirmed:	Onsite/Septic Systems

Management Information

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

Further Details

Overview

Upper Green Creek is assessed as having minor impacts due to aquatic life that are is thought to be stressed by nutrients. No specific sources have been identified, but storm runoff from developed and undeveloped areas, and wildlife sources are likely contributors. Residential onsite wastewater (septic) systems may also be contributing.

Use Assessment

Upper Green Creek is a Class C(T) 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.

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there may be minor impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC, DOW, BWAM, July 2014)

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
A biological (macroinvertebrate) assessment of Green Creek in West Sayville (at Brook Street) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions and indications of municipal/industrial nonpoint sources. Some expected sensitive species are not present and overall macroinvertebrate species richness is lower than expected. Some changes in community composition have occurred due to replacement of sensitive ubiquitous taxa by more tolerant taxa, but overall there is still balanced distribution of all expected taxa. In spite of minor impacts, aquatic life is considered to be supported. These results are consistent with sampling conducted at the site in 2008. (DEC/DOW, BWAM/SBU, January 2015)

Source Assessment
Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants to the waterbody are largely nonpoint runoff from developed urban and residential areas agricultural activity and open space/forest and direct waterfowl/wildlife inputs. Onsite/septic systems have also been identified as a possible contributing source. 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
The NYS Legislature authorized $5 million to DEC and the Long Island Regional Planning Council (LIRPC) for a Long Island nitrogen management and mitigation plan. Plan development – with active input from local stakeholders and public – is underway. Chief among the expectations for the plan is a focus on wastewater issues, including sewering of unsewered communities in Suffolk County and the evaluation and use of advanced alternative onsite wastewater treatment systems to reduce nitrogen loads from individual septic systems where sewering in not viable. (DEC/DOW, BRWM, November 2015)

This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include improvement and maintenance of water quality, protection and restoration of living resources, expansion of public use and enjoyment, sustaining and of the estuary–related economy, and increasing education, outreach and stewardship. Program activities focus on point and nonpoint source pollution reduction, protection and restoration of water quality and coastal habitat, increasing shellfish harvesting, open space preservation and enhancing other public uses of the estuary. A vessel waste no discharge zone was established for the entire South Shore Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

Section 303(d) Listing
Upper Green Creek is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description
This segment includes the stream and tribs above the tidal portion.