



Department of  
Environmental  
Conservation



NYSDEC Artificial Reef SGEIS  
Division of Marine Resources



## **Attachment C**

### **Artificial Reef Bathymetry**

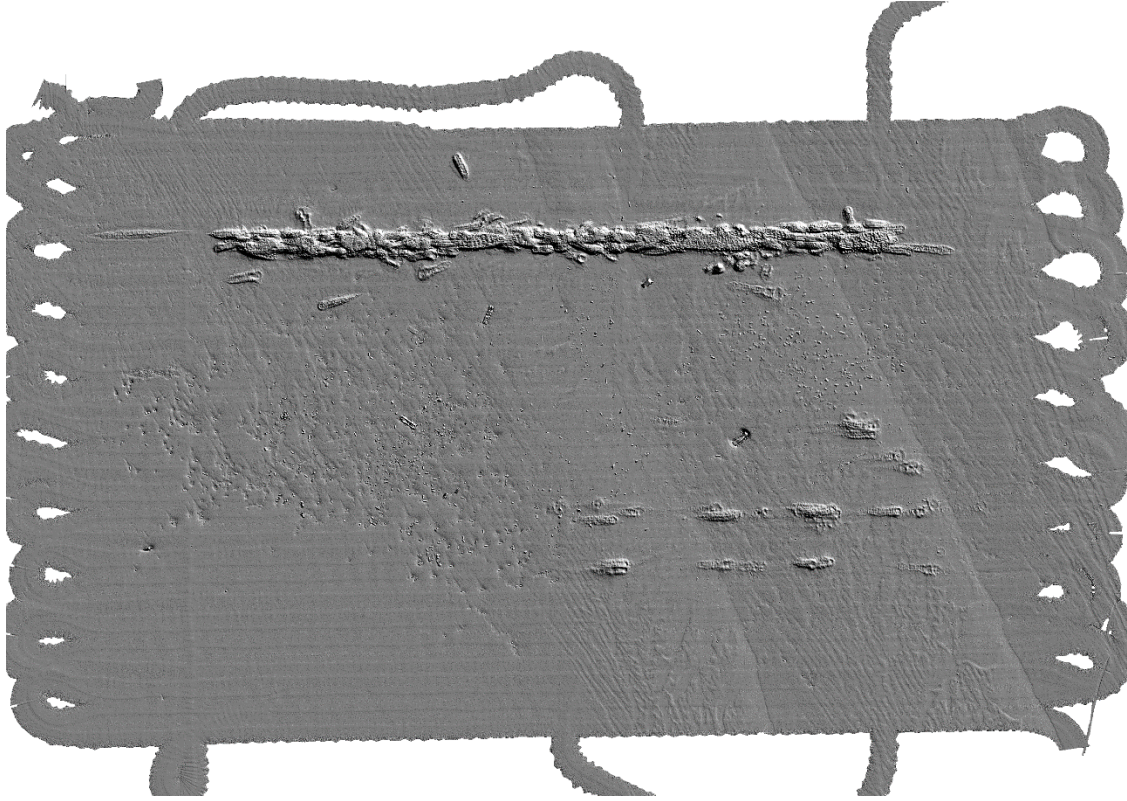


Photo 1. Side scan sonar of Atlantic Beach reef (2005).



Photo 2. Side scan sonar of McAllister Ground reef (2005).

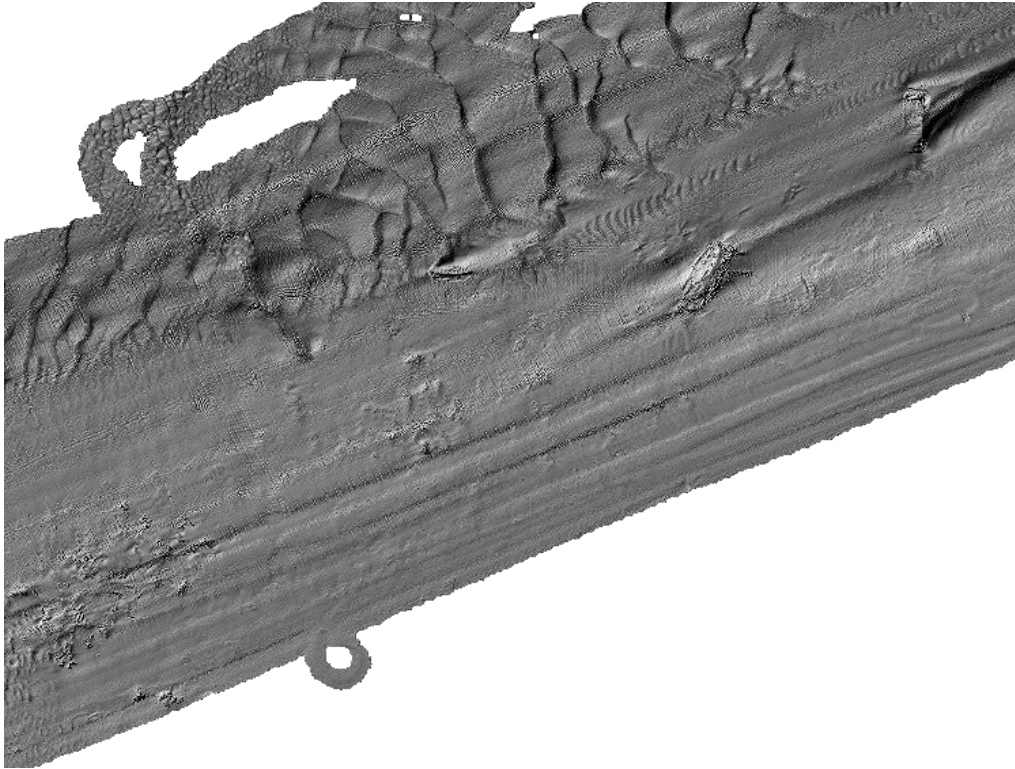


Photo 3. Side scan sonar of the eastern side of Kismet reef (2001).

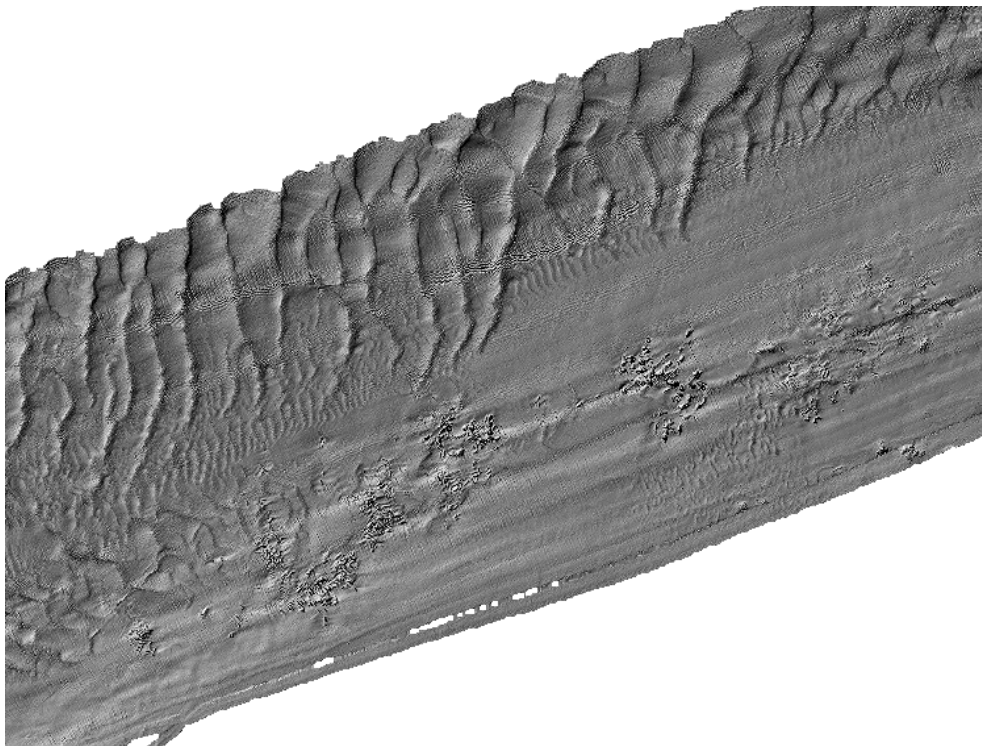


Photo 4. Side scan sonar of the western side of Kismet reef (2001).

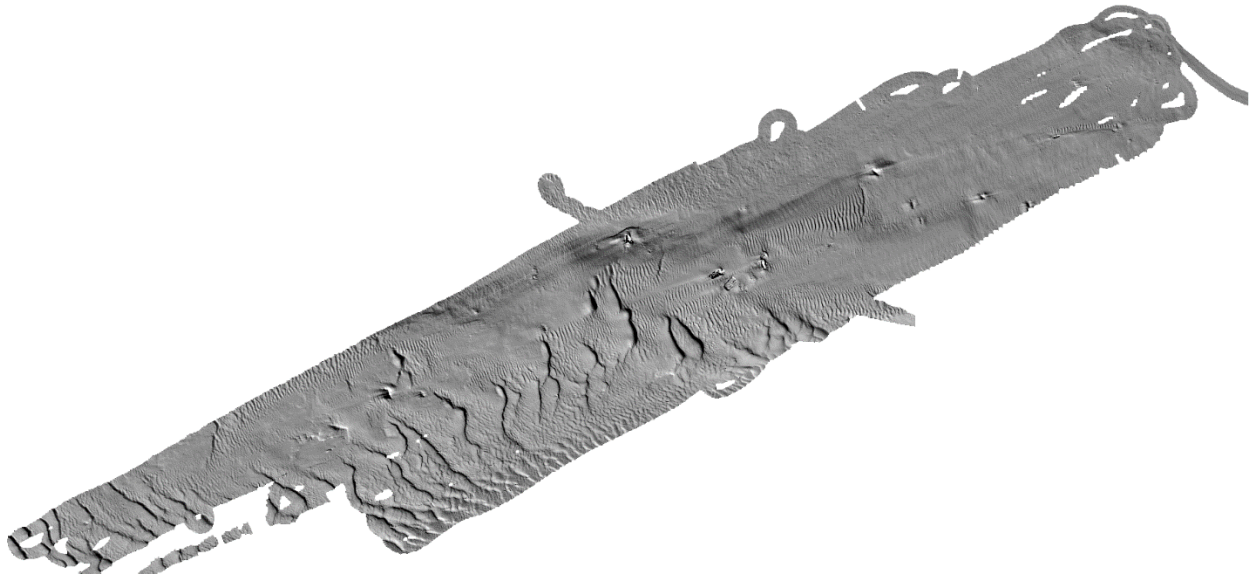


Photo 5. Side scan sonar of Yellowbar reef (2005).



Photo 6. Side scan sonar of the western side of Matinecock reef (2001).

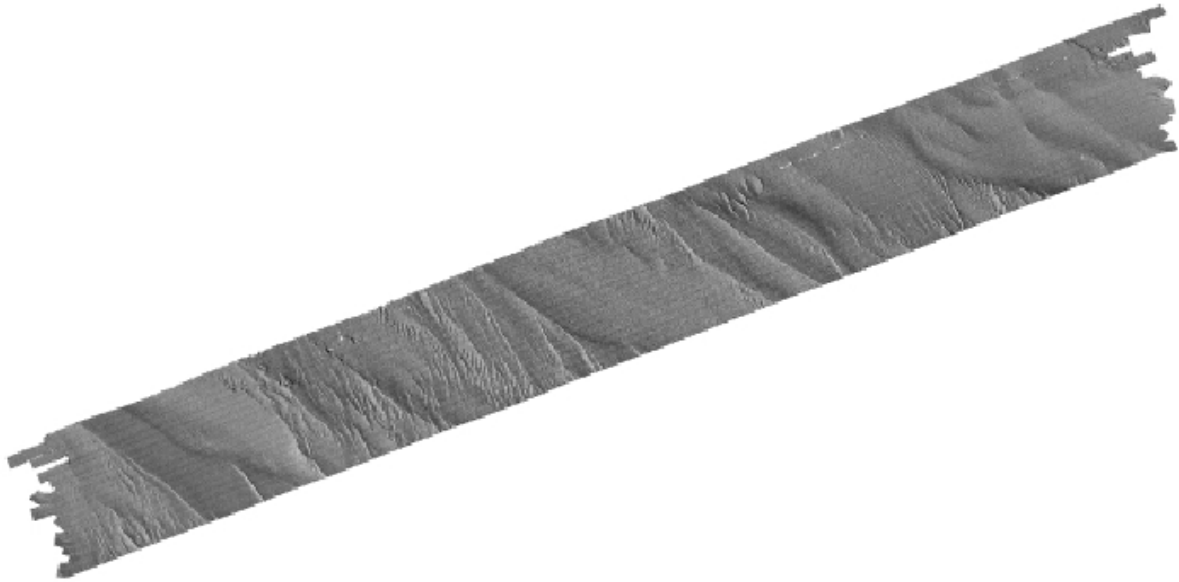


Photo 6: Side scan sonar of offshore Fire Island Inlet from USGS 1998 Survey. Fire Island Reef located on western portion of image.

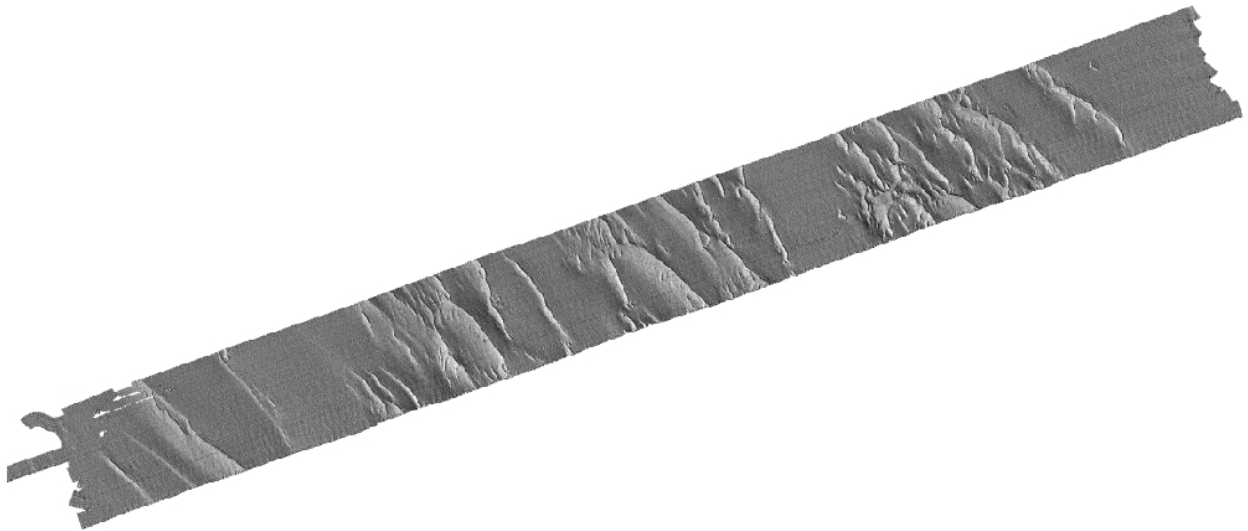


Photo 7: Side scan sonar of offshore Moriches Inlet from USGS 1998 Survey. A portion of the proposed Moriches Reef expansion is located on western portion of image.

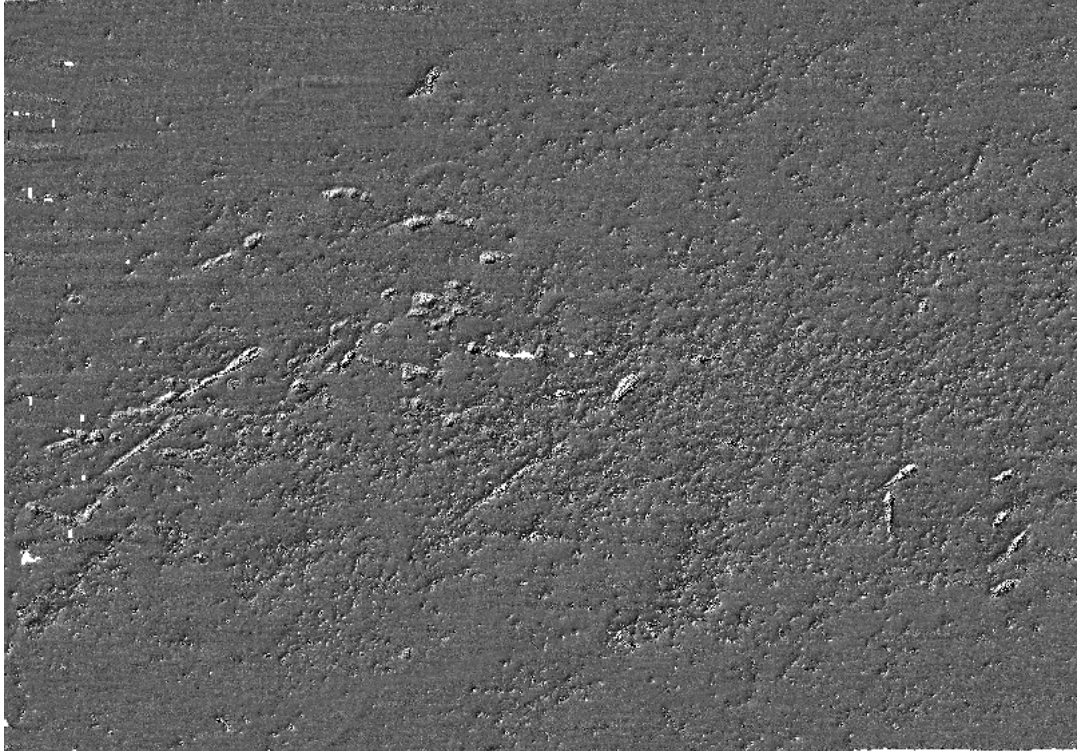


Photo 8. Side scan sonar of Rockaway Reef (2005).

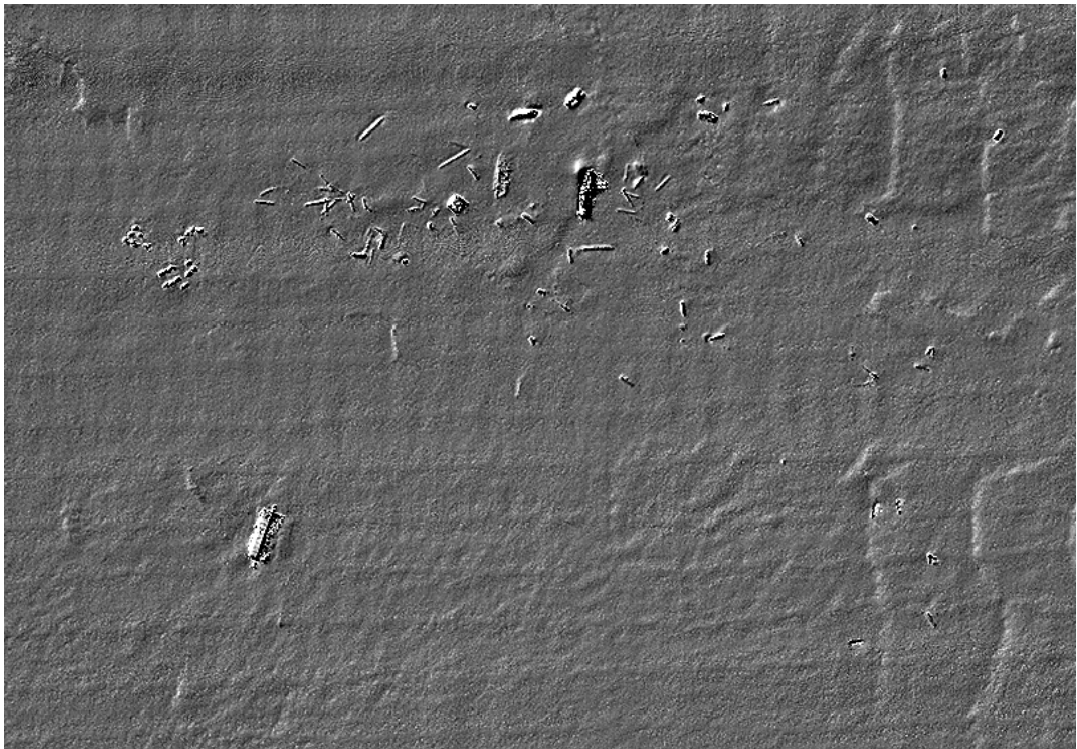


Photo 9. Side scan sonar of Shinnecock Reef (2005).



Photo 10. Side scan sonar of Smithtown Reef (2001).

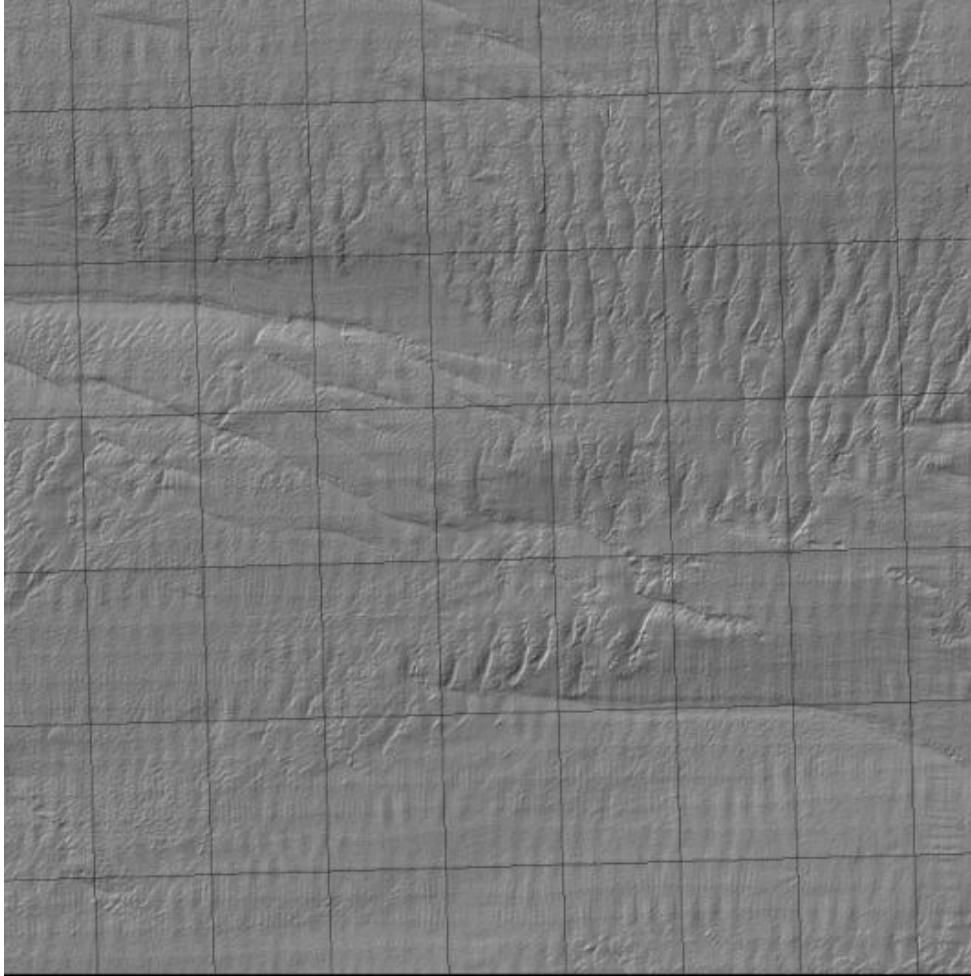


Photo 10. Side scan sonar of Twelve Mile Reef (2005).



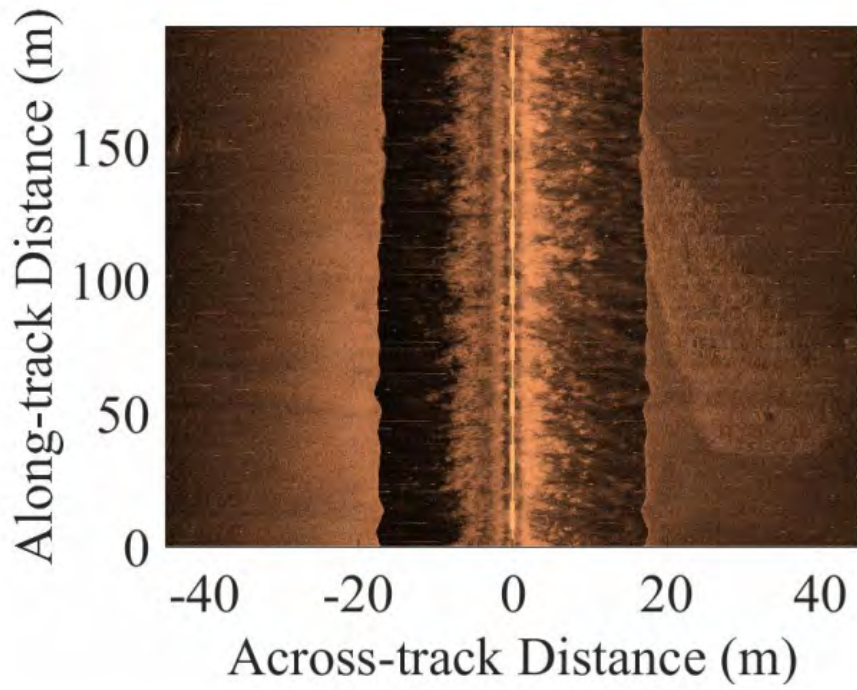


Figure 1. Sidescan image of the rock reef at the Atlantic Beach Reef (Warren, Peterson, and Chapman 2017).

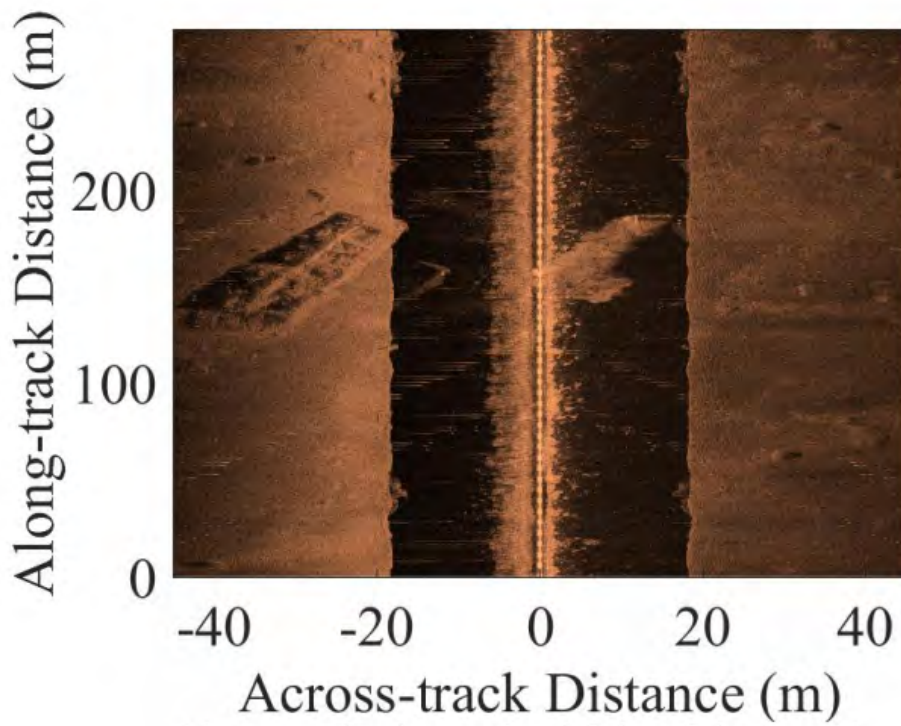


Figure 2. Sidescan image of 150 ft. barge at the Atlantic Beach Reef (Warren, Peterson, and Chapman 2017).

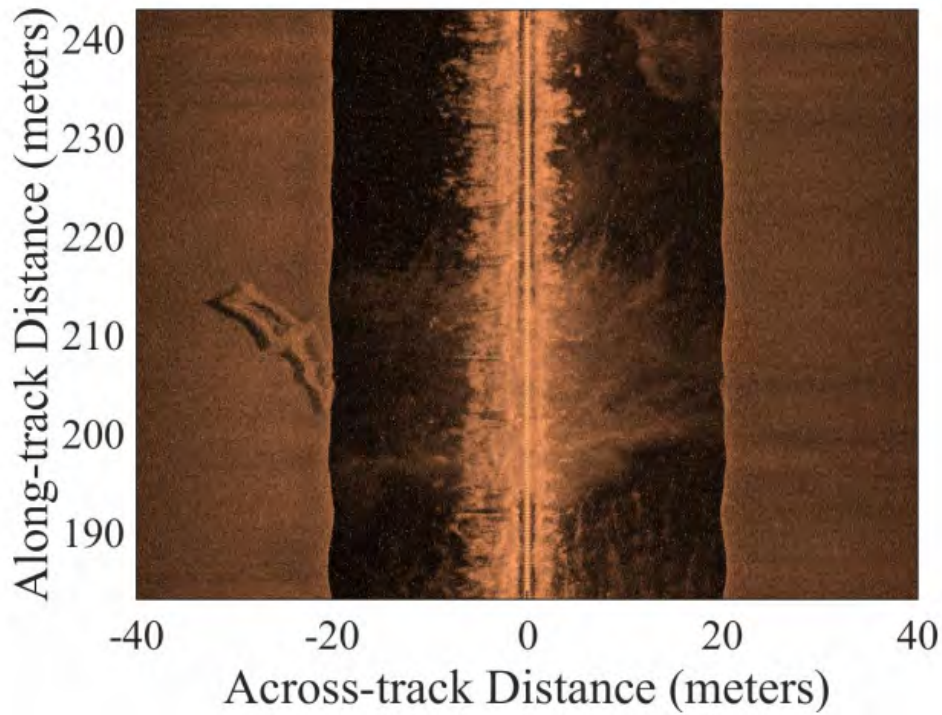


Figure 3. Sidescan image of two linked steel barges totaling 80 ft in length at the Hempstead Reef, which were deployed in 2000 (Warren, Peterson, and Chapman 2017).

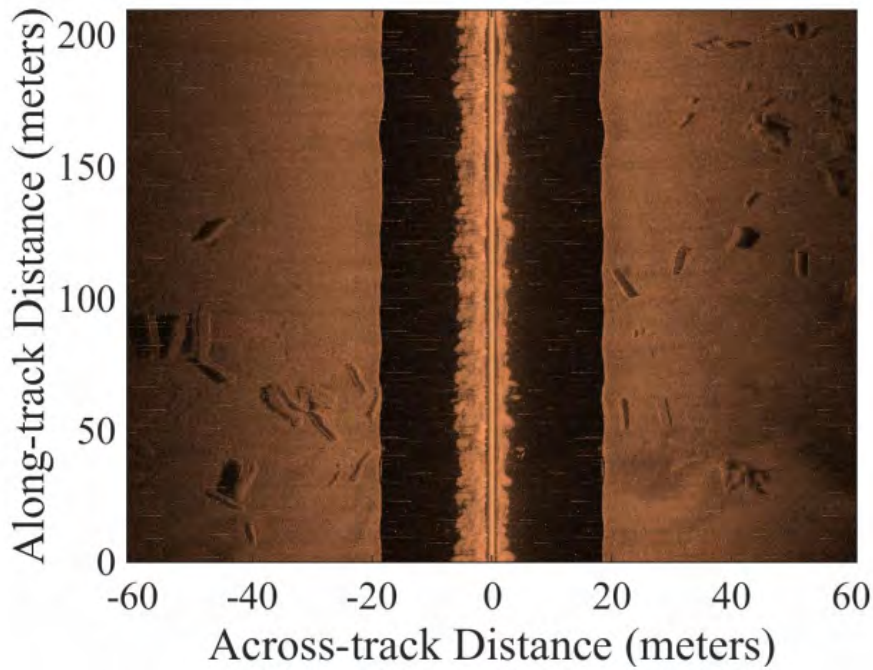


Figure 4. Sidescan image of concrete reef at the Hempstead Reef, which was deployed in 1998. Reef is characterized as highly dispersed with non-concrete debris mixed with the deployed concrete bridge slabs (Warren, Peterson, and Chapman 2017).

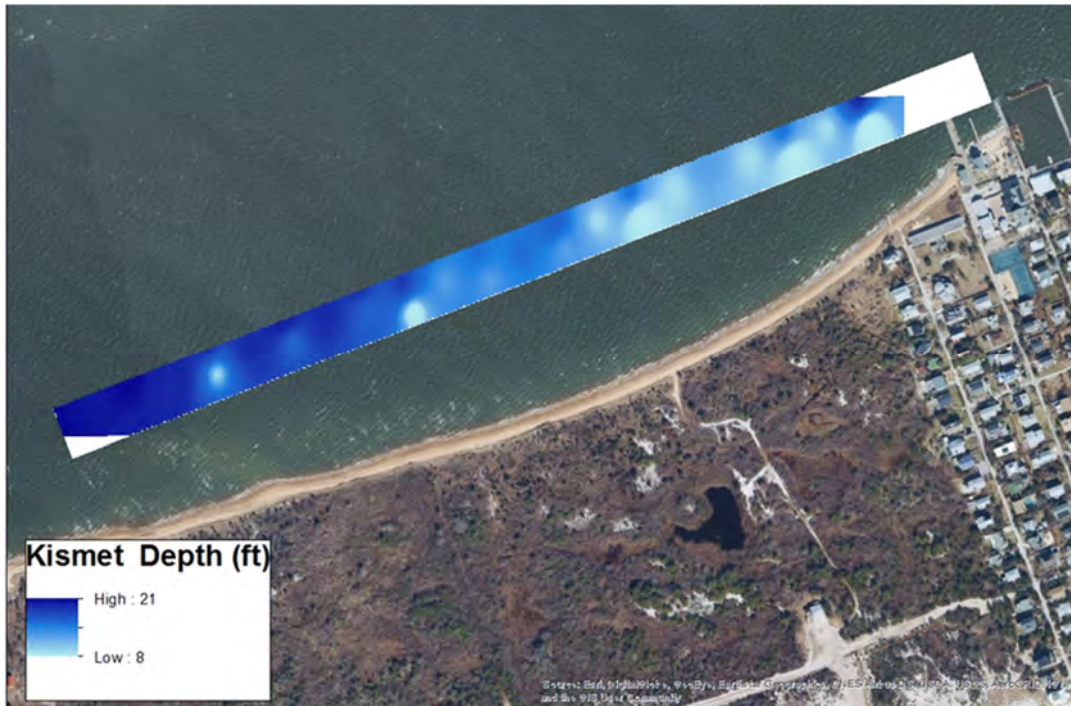


Figure 5. Interpolated Kismet Reef bathymetry following the NYSDEC 2019 site-specific survey.

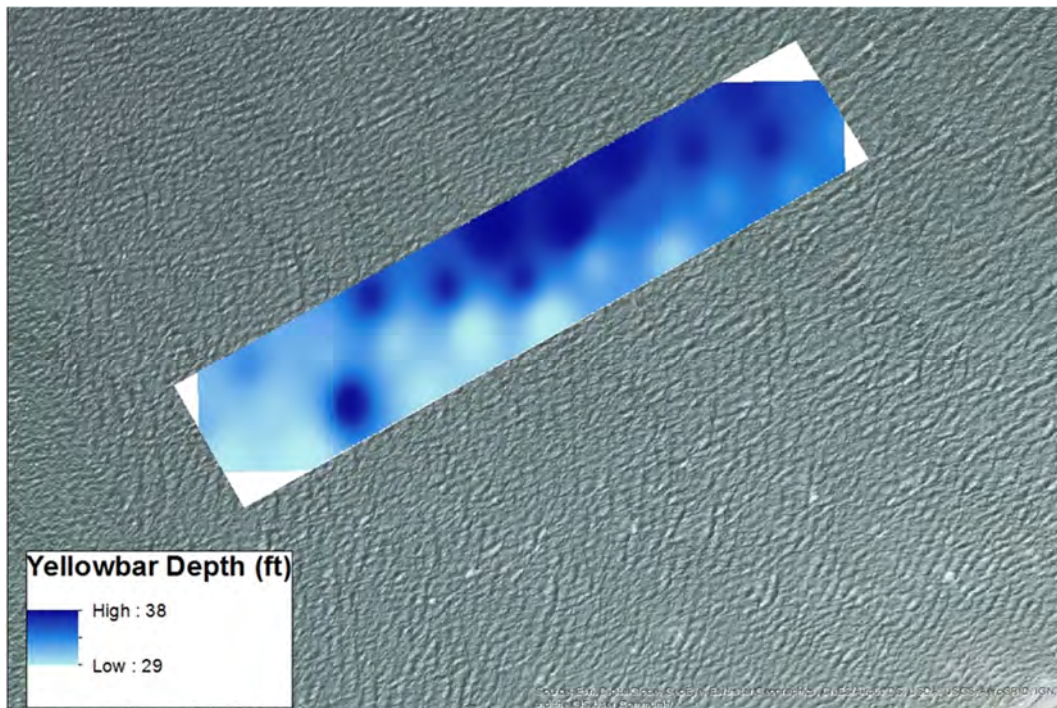


Figure 6. Interpolated Yellowbar Reef bathymetry following the NYSDEC 2019 site-specific survey.

Figure 7. Interpolated Yellowbar Reef bathymetry following the NYSDEC 2019 site-specific

**Literature Cited**

- Butman, Bradford, Danforth, W.W., Clark, J.E.H., Signell, R.P., and Schwab, W.C. 2016. Bathymetry and backscatter intensity of the sea floor south of Long Island, New York: U.S. Geological Survey data release, doi:10.5066/F7Z899GG <<https://doi.org/10.5066/F7Z899GG>> .
- New York State Department of Environmental Conservation (NYSDEC). 2019. Artificial reef side scan sonar imagery. Provided by NYSDEC on March 8, 2019.
- NYSDEC. 2019. A preliminary investigation of the bathymetry and benthic characteristics of Kismet and Yellowbar artificial reefs. Report provided by NYSDEC on April 17, 2019.
- Warren, J.D., Peterson, B.J., and Chapman, D.D. 2017. Project title: assess the most cost effective, repeatable, and appropriate biological assessment methods and sampling procedures to monitor fishes, crustaceans, and epibenthic organisms on artificial reefs on the Atlantic Beach and Hempstead Reefs. Report to NYSDEC, Stony Brook University, School of Marine and Atmospheric Sciences.



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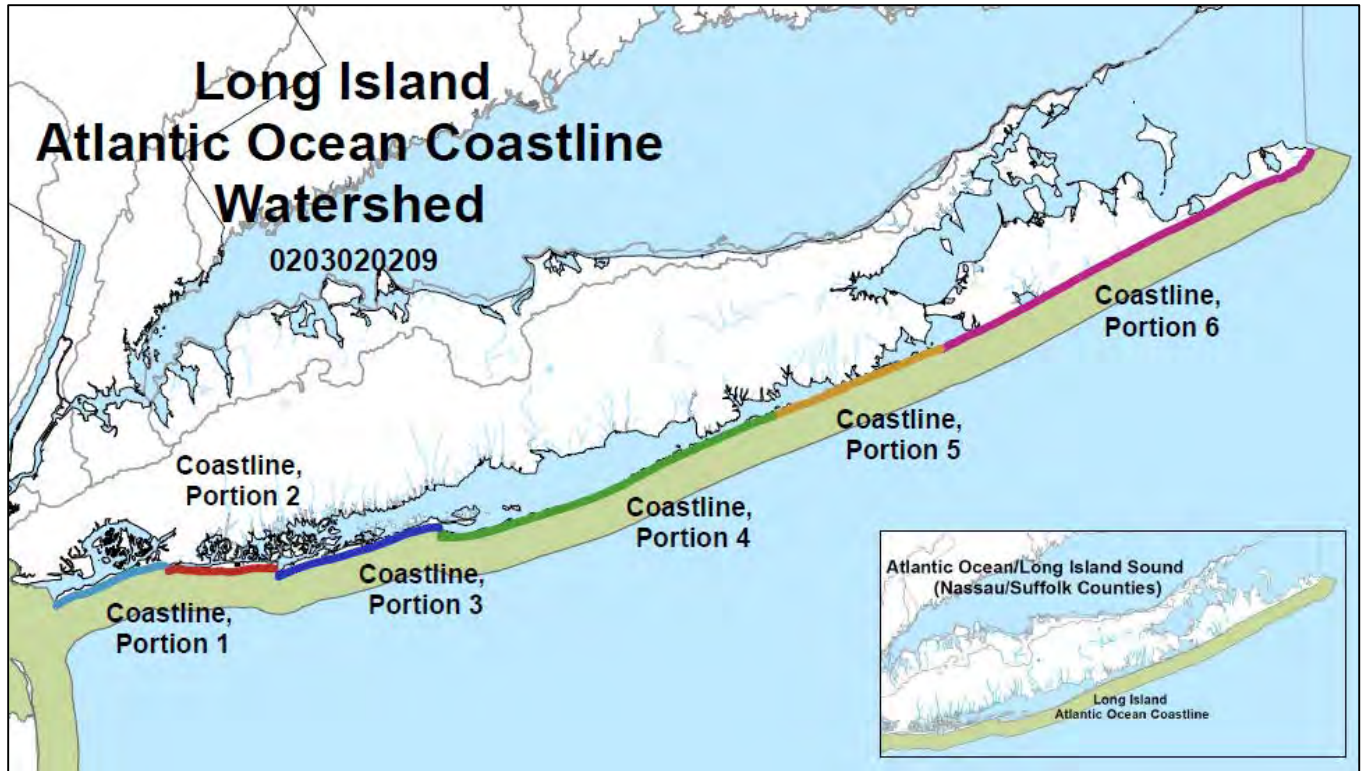


NYSDEC Artificial Reef SGEIS  
Division of Marine Resources



## **Attachment D**

### **NYSDEC Impaired Water Body Assessments and Water Quality Data**



## Long Island/Atlantic Ocean Coastline Watershed (0203020209)

Water Index Number	Waterbody Segment	Category
(MW0.0) AO (portion 1)	Atlantic Ocean Coastline (1701-0014)	Impaired
(MW0.0) AO (portion 2)	Atlantic Ocean Coastline (1701-0198)	No Known Impact
(MW0.0) AO (portion 3)	Atlantic Ocean Coastline (1701-0351)	No Known Impact
(MW0.0) AO (portion 4)	Atlantic Ocean Coastline (1701-0350)	No Known Impact
(MW0.0) AO (portion 5)	Atlantic Ocean Coastline (1701-0349)	No Known Impact
(MW0.0) AO (portion 6)	Atlantic Ocean Coastline (1701-0348)	No Known Impact

# Atlantic Ocean Coastline (1701-0014)

# Impaired

## Waterbody Location Information

Revised: 12/21/2015

<b>Water Index No:</b>	(MW0.0) AO (portion 1)	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020209	<b>Class:</b>	SA Atlantic Ocean
<b>Water Type/Size:</b>	Ocean Coast	10.2 Acres	<b>Reg/County:</b> 2/Queens (41)
<b>Description:</b>	coastline from Rockaway Point to Queens/Nassau line		

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Impaired	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Unconfirmed
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Good	
Aesthetics	Good	

### Type of Pollutant(s)

Known: PATHOGENS  
 Suspected:  
 Unconfirmed:

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
 Suspected: Combined Sewer Overflow (CSOs)  
 Unconfirmed:

## Management Information

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

## Further Details

### Overview

This reach of the Atlantic Ocean shoreline is assessed as an impaired waterbody due to shellfishing use that is known to be impaired by pathogens from urban/stormwater runoff.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. Much of this waterbody (included within Shellfish Growing Area #65) has been designated uncertified for the taking of shellfish for use as food.

Specifically the waters off the coast at the western end of the reach near Lower New York Bay and at the eastern end of the reach near East Rockaway Inlet are uncertified. The remainder of the reach has been certified as safe for the taking of shellfish. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed few if any elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include beaches at Breezy Point and a number of Rockaway Beaches that extend for about half this segment length. (NYSDOH BEACH Act monitoring results, 2015 and DEC/DFWMR, July 2014)

This waterbody is considered to support a suitable marine water fishery, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

From 1974 thru 2013 the USEPA Region II office has conducted regular summer season water quality monitoring and surveillance of the New York Bight, and New Jersey and Long Island coastal waters. Through 2006 this effort included collection of pathogen, phytoplankton, dissolved oxygen data and floatables monitoring. Sampling was discontinued in 2007; floatables monitoring continued until the program ended in 2013. From 1997 through 2006, coliform results satisfied guidelines for bathing beaches in greater than 99% of the samples collected. (The Helicopter Monitoring Report, USEPA, Region II, February 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the watershed, urban/stormwater runoff is the primary source of pollutants to the waterbody. Combined sewer overflows may also be contributing sources.

#### Management Action

A Municipal Separate Storm Sewer System (MS4) program requires implementation of control measures to reduce pollutants into waterbodies. No additional specific management actions have been identified for the waterbody.

#### Section 303(d) Listing

This portion of the Atlantic coastline is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL



Waters. The waterbody is included on Part 2c of the List as an impaired shellfishing waterbody requiring a TMDL for pathogens. This waterbody was first listed on the 202012 List. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description:

This segment includes the ocean coastline between the tip of Rockaway point on the west and the Nassau–Queens county line at East Rockaway inlet on the east.

# Atlantic Ocean Coastline (1701-0198)

# No Known Impacts

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## Waterbody Location Information

Revised: 12/21/2015

**Water Index No:** (MW0.0) AO (portion 2)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020209      **Class:** SA      Atlantic Ocean  
**Water Type/Size:** Ocean Coast      9.3 Acres      **Reg/County:** 1/Nassau (30)  
**Description:** coastline from Queens/Nassau line to Jones Inlet

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## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

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## Further Details

### Overview

This reach of the Atlantic Ocean shoreline is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included within Shellfish Growing Area #65) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed few if any elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include Atlantic Beach Club, Catalina Beach, Clearwater Cabana Beach, East Atlantic Beach, Lawrence Beach, Lido Beaches, Long City Beach, Pebble Cove Beach, Plaza Beach Club, Point Lookout Park Beach, Sands at Atlantic, Silver Point Beach Club, Sun and Surf Beach, Town Park Point Beach, and numerous other smaller beaches. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

This waterbody is considered to support a suitable marine water fishery, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

From 1974 thru 2013 the USEPA Region II office has conducted regular summer season water quality monitoring and surveillance of the New York Bight, and New Jersey and Long Island coastal waters. Through 2006 this effort included collection of pathogen, phytoplankton, dissolved oxygen data and floatables monitoring. Sampling was discontinued in 2007; floatables monitoring continued until the program ended in 2013. From 1997 through 2006, coliform results satisfied guidelines for bathing beaches in greater than 99% of the samples collected. (The Helicopter Monitoring Report, USEPA, Region II, February 2014)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

This portion of the Atlantic Ocean coastline is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the ocean coastline between the Nassau–Queens county line at East Rockaway inlet on the west and Jones Inlet on the east.

# Atlantic Ocean Coastline (1701-0351)

# No Known Impacts

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## Waterbody Location Information

Revised: 12/21/2015

**Water Index No:** (MW0.0) AO (portion 3)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020209      **Class:** SA      Atlantic Ocean  
**Water Type/Size:** Ocean Coast      14.9 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** coastline from Jones Inlet to Fire Island Inlet

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## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

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## Further Details

### Overview

This reach of the Atlantic Ocean shoreline is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. Most of this waterbody (included within Shellfish Growing Area #65) has been certified as safe for the taking of shellfish for use as food. The

only restrictions in this segment are precautionary advisories for limited areas around any portion of the sewer outfalls serving either the Cedar Creek or Suffolk County Sewer District No. 3 (Southwest) WPCPs. 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. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed few if any elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include a number of primarily smaller beaches. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

This waterbody is considered to support a suitable marine water fishery, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

From 1974 thru 2013 the USEPA Region II office has conducted regular summer season water quality monitoring and surveillance of the New York Bight, and New Jersey and Long Island coastal waters. Through 2006 this effort included collection of pathogen, phytoplankton, dissolved oxygen data and floatables monitoring. Sampling was discontinued in 2007; floatables monitoring continued until the program ended in 2013. From 1997 through 2006, coliform results satisfied guidelines for bathing beaches in greater than 99% of the samples collected. (The Helicopter Monitoring Report, USEPA, Region II, February 2014)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

This portion of the Atlantic Ocean coastline is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the ocean coastline between Jones Inlet on the west and Fire Island Inlet on the east.

# Atlantic Ocean Coastline (1701-0350)

# No Known Impacts

## Waterbody Location Information

Revised: 12/21/2015

**Water Index No:** (MW0.0) AO (portion 4)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020209      **Class:** SA      Atlantic Ocean  
**Water Type/Size:** Ocean Coast      31.4 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** coastline from Fire Island Inlet to Moriches Inlet

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This reach of the Atlantic Ocean shoreline is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included within Shellfish Growing Area #65) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed few if any elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include Robert Moses State Park Beach, Fire Island National Seashore Beach, Watch Hill Beach, and numerous other smaller beaches. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

This waterbody is considered to support a suitable marine water fishery, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

This portion of the Atlantic Ocean coastline is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the ocean coastline between Fire Island Inlet on the west and Moriches Inlet on the east.

# Atlantic Ocean Coastline (1701-0349)

# No Known Impacts

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## Waterbody Location Information

Revised: 12/21/2015

**Water Index No:** (MW0.0) AO (portion 5)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020209      **Class:** SA      Atlantic Ocean  
**Water Type/Size:** Ocean Coast      15.5 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** coastline from Moriches Inlet to Shinnecock Inlet

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## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

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## Further Details

### Overview

This reach of the Atlantic Ocean shoreline is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included within Shellfish Growing Area #65) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed few if any elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include a number of primarily smaller beaches. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

This waterbody is considered to support a suitable marine water fishery, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

From 1974 thru 2013 the USEPA Region II office has conducted regular summer season water quality monitoring and surveillance of the New York Bight, and New Jersey and Long Island coastal waters. Through 2006 this effort included collection of pathogen, phytoplankton, dissolved oxygen data and floatables monitoring. Sampling was discontinued in 2007; floatables monitoring continued until the program ended in 2013. From 1997 through 2006, coliform results satisfied guidelines for bathing beaches in greater than 99% of the samples collected. (The Helicopter Monitoring Report, USEPA, Region II, February 2014)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

This portion of the Atlantic Ocean coastline is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the ocean coastline between Moriches Inlet on the west and Shinnecock Inlet on the east.

# Atlantic Ocean Coastline (1701-0348)

# No Known Impacts

## Waterbody Location Information

Revised: 12/21/2015

**Water Index No:** (MW0.0) AO (portion 6)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020209      **Class:** SA      Atlantic Ocean  
**Water Type/Size:** Ocean Coast      36.7 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** coastline from Shinnecock Inlet to Montauk Point

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

### Uses

Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Unconfirmed

### Conditions Evaluated

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This reach of the Atlantic Ocean shoreline is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included

within Shellfish Growing Area #65) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed few if any elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include a number of primarily smaller beaches. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

This waterbody is considered to support a suitable marine water fishery, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

From 1974 thru 2013 the USEPA Region II office has conducted regular summer season water quality monitoring and surveillance of the New York Bight, and New Jersey and Long Island coastal waters. Through 2006 this effort included collection of pathogen, phytoplankton, dissolved oxygen data and floatables monitoring. Sampling was discontinued in 2007; floatables monitoring continued until the program ended in 2013. From 1997 through 2006, coliform results satisfied guidelines for bathing beaches in greater than 99% of the samples collected. (The Helicopter Monitoring Report, USEPA, Region II, February 2014)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Action

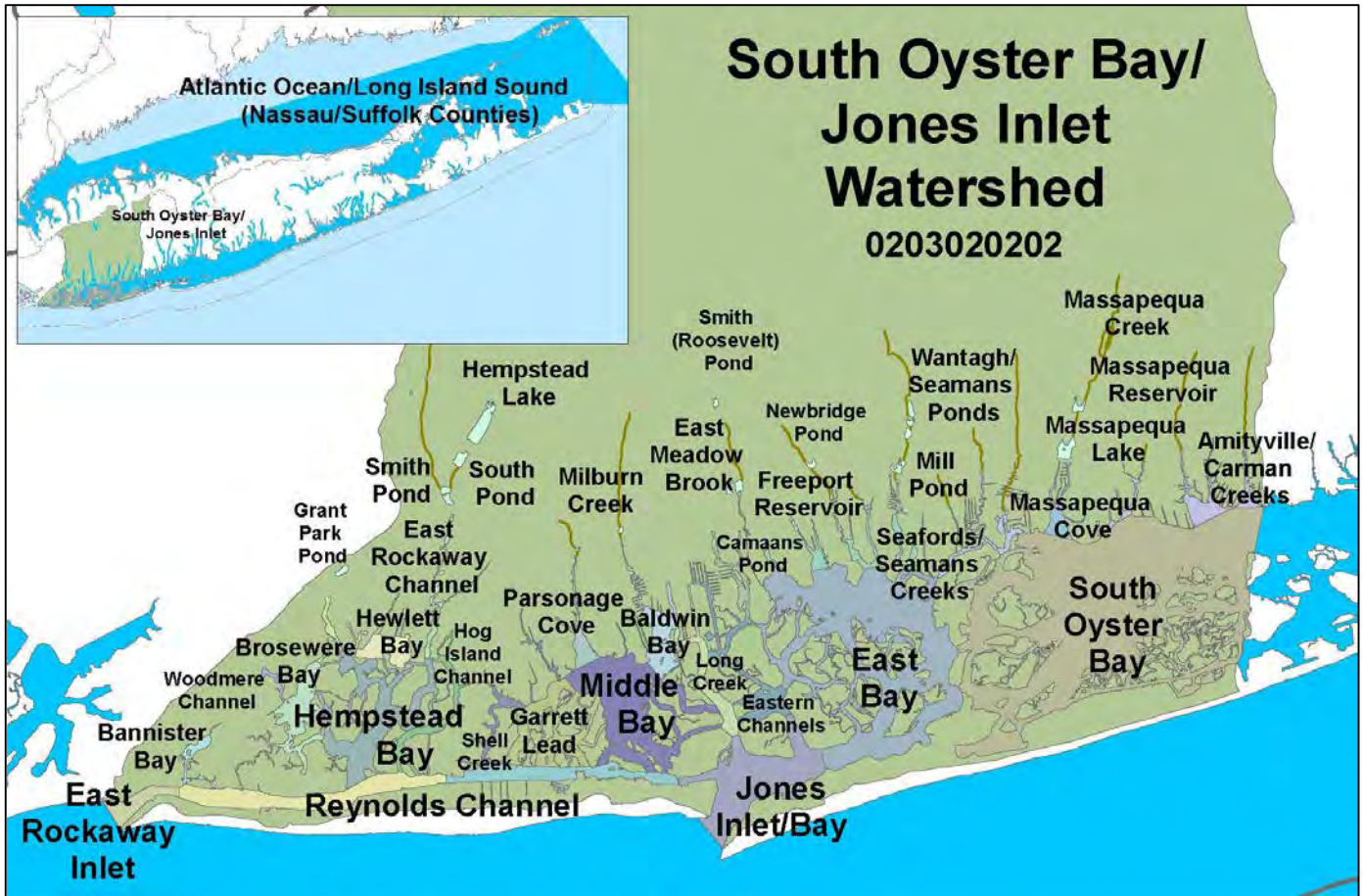
No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

This portion of the Atlantic Ocean coastline is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the ocean coastline between Shinnecock Inlet on the west and Montauk Point on the east.



## South Oyster Bay/Jones Inlet Watershed (0203020202)

Water Index Number	Waterbody Segment	Assessment Category
(MW8.1) SOB	South Oyster Bay (1701-0041)	Impaired
(MW8.1a) SOB-216 thru 219	Tidal Tribs to South Oyster Bay (1701-0200)	Impaired
(MW8.1a) SOB-216 thru 219	Amityville/Carman Creeks, Upper, and tribs (1701-0087)	Need Verification
(MW8.1a) SOB-220	Massapequa Cove, and tidal tribs (1701-0391)	Impaired
(MW8.1a) SOB-220	Massapequa Creek, Upper, and tribs (1701-0174)	Impaired
(MW8.1a) SOB-220-P968	Massapequa Lake (1701-0156)	Minor Impacts
(MW8.1a) SOB-220-P969	Massapequa Reservoir (1701-0157)	Impaired
(MW8.1a) SOB-221 thru 223	Seafores/Seaman Creeks, and tidal tribs (1701-0389)	Impaired
(MW8.1a) SOB-221 thru 223	Seafores/Seamans Creeks, Upper, and tribs (1701-0201)	Need Verification
(MW8.2) EB	East Bay (1701-0202)	Impaired
(MW8.2a) EB-224 thru 227 (selected)	Tidal Tribs to East Bay (1701-0203)	Minor Impacts
(MW8.2a) EB-224 thru 227 (selected)	Tribs (fresh) to East Bay (1701-0204)	Impaired
(MW8.2a) EB-224-P981	Mill (Jones) Pond (1701-0205)	Threatened
(MW8.2a) EB-224-P982,P983	Wantagh/Seamans Pond (1701-0159)	Impaired
(MW8.2a) EB-226-P986	Newbridge Pond (1701-0207)	Unassessed
(MW8.2a) EB-227-P987a	Camaans Pond (1701-0052)	Impaired

## South Oyster Bay/Jones Inlet Watershed (con't)

(0203020202)

<b>Water Index Number</b>	<b>Waterbody Segment</b>	<b>Assessment Category</b>
(MW8.3) MDB (portion 1)	Middle Bay (1701-0208)	Impaired
(MW8.3) MDB (portion 2)/BB	Baldwin Bay/Milburn Cr and tidal tribs (1701-0385)	Minor Impacts
(MW8.3) MDB (portion 3)/PC	Parsonage Cove/Creek and tidal tribs (1701-0384)	Minor Impacts
(MW8.3) MDB (portion 4)	Garrett Lead/East Channel (1701-0386)	Impaired
(MW8.3) MDB (portion 5)/LC	Long Creek (1701-0214)	Minor Impacts
(MW8.3) MDB (portion 6)	Middle Bay, Eastern Channels (1701-0387)	Impaired
(MW8.3) MDB (portion 7)/JIJB	Jones Inlet/Jones Bay (1701-0373)	Impaired
(MW8.3) MDB (portion 8)/RC	Reynolds Channel, East (1701-0215)	Impaired
(MW8.3a) MDB-228	Freeport Creek/East Meadow Brook, Lower (1701-0388)	Impaired
(MW8.3a) MDB-228	East Meadow Brook, Upper, and tribs (1701-0211)	Need Verification
(MW8.3a) MDB-228-P989	Freeport Reservoir/East Meadow Pond (1701-0025)	Impaired
(MW8.3a) MDB-228-P989-P991	Smith (Roosevelt) Pond (1701-0136)	Impaired
(MW8.3a) MDB-230,231	Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)	Impaired
(MW8.3a) MDB-232	Bedell Creek, and tidal tribs (1701-0210)	Minor Impacts
(MW8.3a) MDB-232a	Shell Creek/Barnums Channel (1701-0213)	Minor Impacts
(MW8.4) HB (portion 1)	Hempstead Bay, Broad Channel (1701-0032)	Impaired
(MW8.4) HB (portion 2)	Hewlett Bay (1701-0382)	Impaired
(MW8.4) HB (portion 3)	Brosewre Bay (1701-0383)	Impaired
(MW8.4) HB (portion 4)/HIC	Hog Island Channel (1701-0220)	Impaired
(MW8.4) HB (portion 4a)/IPC	Island Park Channel (1701-0374)	Minor Impacts
(MW8.4) HB (portion 5)/RC	Reynolds Channel, West (1701-0216)	Impaired
(MW8.4) HB (portion 6)/ERI	East Rockaway Inlet (1701-0217)	Impaired
(MW8.4a) HB-233	East Rockaway Channel (1701-0381)	Impaired
(MW8.4a) HB-234 thru 235	Tidal Tribs to Hempstead Bay (1701-0218)	Impaired
(MW8.4a) HB-233-P1005	Smith Pond (1701-0028)	Impaired
(MW8.4a) HB-233-P1005-	Tribs to Smith/Halls Ponds (1701-0221)	Impaired
(MW8.4a) HB-233-P1005-2-P1011	South Pond (1701-0223)	No Known Impacts
(MW8.4a) HB-233-P1005-2-P1012	Hempstead Lake (1701-0015)	Impaired
(MW8.4a) HB-235-P1017a	Grant Park Pond (1701-0054)	Impaired
(MW8.4a) HB-236	Woodmere Channel (1701-0219)	Impaired
(MW8.4a) HB-237, 237a	Bannister Creek/Bay (1701-0380)	Impaired

# South Oyster Bay (1701-0041)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1) SOB  
**Hydro Unit Code:** 0203020202      **Class:** SA  
**Water Type/Size:** Estuary      6,019.9 Acres  
**Description:** entire bay, as delineated

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Impaired	Known
Public Bathing	Fully Supported	Known
Recreation	Threatened	Suspected
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Stressed	Known

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Unknown

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory species)  
Unconfirmed: - - -

## Management Information

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

## Further Details

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### Overview

South Oyster Bay is assessed as impaired due to shellfishing use that is known to be impaired by pathogens from stormwater and urban nonpoint runoff. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

South Oyster Bay is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designation of portions of the area as year-round or seasonally uncertified for the taking of shellfish for use as food. Year-round closures are in place for several coves/tribs of the bay, and most of the near-shore waters along the north shore of the bay. Many of these

restrictions apply to Class SC waters which are listed separately. The areas within the segment boundaries where shellfishing is restricted include the northern near-shore waters (uncertified) and mid-bay and around the Jones Beach area in the western bay (seasonally uncertified). The South Oyster Bay Shellfish Growing Area (SGA #2) is among the most productive hard clam areas in the state. 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)

Public Bathing use is fully supported. Beach monitoring revealed no elevated bacteriological levels at beaches and the sampling resulted in few closures. Occasional beach closures that do occur are pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Jones Beach-Zachs Bay and Tobay Beach. General recreational use is also fully supported but evaluated as threatened, due to the restrictions on shellfishing and fish consumption. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

#### Water Quality Information

NYSDEC does not routinely collect water quality data in this waterbody. NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. The Town of Hempstead has conducted Bay sampling through 2010 which shows more favorable water quality than found in western Hempstead Bay waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in South Oyster Bay are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

South Oyster Bay is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed on the 1998 Section 303(d) List. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes bay waters between the Wantaugh State Parkway (Jones Beach Causeway) and the Suffolk-Nassau County line, including Zachs Bay, State Boat Channel, eastern Sloop Channel, Stone Creek, Great Island Channel, Bulkhead Drain/Goose Creek.



# Tidal Tribs to South Oyster Bay (1701-0200)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-216 thru 219  
**Hydro Unit Code:** 0203020202      **Class:** SC  
**Water Type/Size:** Estuary      324.0 Acres  
**Description:** total area of selected tidal tribs

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Stressed	Known

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Fair

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: - - -  
Unconfirmed: Algal/Plant Growth

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Other (waterfowl)  
Unconfirmed: Other/Non-Permitted Sanitary Discharge

## Management Information

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

## Further Details

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### Overview

These Tidal Tribs to South Oyster Bay are assessed as an impaired waterbody due to recreational use that is known to be impaired by pathogens from stormwater and other urban nonpoint sources. Algal growth (brown tides) may also impact uses. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

The Tidal Tribs to South Oyster Bay segment is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not for shellfishing or public bathing.

Shellfish harvesting for consumption purposes in these tribs is restricted due to the year-round and seasonal designations of these waters (a portion within Shellfish Growing Area #3) as uncertified for the taking of shellfish for

use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, based on the shellfishing restrictions, other recreational uses are considered to be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

Recreational use is considered to be impaired based on monitoring at beaches in the segment and the shellfish advisory indicating somewhat elevated bacteriological levels. Beach monitoring revealed frequent elevated bacteriological levels at beaches. Occasional beach closures are the result of both bacteriological results and pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Phillip Healy Beach. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

#### Water Quality Information

NYSDEC does not routinely collect water quality data in this waterbody. NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. The Town of Hempstead has conducted Bay sampling through 2010 which shows more favorable water quality than found in western Hempstead Bay waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in these waters are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

These Tidal Tribs to South Oyster Bay are included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as a waterbody requiring TMDL development for pathogens. This waterbody was first listed on the 2012 List. (DEC/DOW, BWAM, July 2014)

#### Segment Description

This segment includes the tidal portions of Amityville Creek (-216), Narraskutuck (Unqua) Creek (-217), Carmans Creek (-218), Jones Creek (-219), and several marinas and boat basins. Massapequa Cove, including Lower (tidal) Massapequa Creek, and Seafords/Seamans Creek and tidal tribs – which were previously included within this segment – are now listed separately.

# Amityville/Carman Creeks, Upper, and tribs (1701-0087) Need Verification

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-216 thru 219      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** C(T)      Southern Long Island  
**Water Type/Size:** River      3.5 Miles      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

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

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: - - -  
Suspected: NUTRIENTS, SILT/SEDIMENT, Algal/Plant Growth  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: - - -  
Suspected: URBAN/STORM RUNOFF  
Unconfirmed: Other/Non-Permitted Sanitary Discharge

## Management Information

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

## Further Details

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### Overview

These freshwater Tribs to South Oyster Bay are assessed as needing verification of impacts due to recreational uses and aquatic life that may be impacted by pollutants from stormwater and other urban nonpoint sources. Aesthetics along the streams in these highly developed and densely populated suburban areas are also reported to be degraded. However, this assessment was conducted more than 10 years ago and more recent monitoring to verify current conditions is recommended.

### Use Assessment

Upper Amityville and Carman Creeks are a class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply or for public bathing. Upper Amityville Creek is designated C(T), suitable for the support of a cold water trout fishery.

Aquatic life reflects impacts that may be the result of poor habitat conditions. Additional study is needed to determine if poor water quality is also influencing the biological community. Recreational uses are also influenced by habitat and aesthetic conditions. Additional sampling is necessary to determine if poor water quality also contributes to impacts to these uses. (DEC/DOW, BWAM, June 2014)

Fish consumption in this waterbody has not been assessed. There is currently no evidence of impacts to this use, however there are advisories for other nearby waters with similar surrounding land use. (DEC/DOW, BWAM, July 2014)

#### Water Quality Information

There is currently no available sampling data for this waterbody. (DEC/DOW, BWAR/SBU, November 2010)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of possible pollutants to this waterbody are urban/storm runoff. (DEC/DOW, BWAM, June 2014)

#### Management Actions

No specific management actions have been identified for this waterbody.

#### Section 303(d) Listing

Upper Amityville/Carman Creeks is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM, June 2014)

#### Segment Description

This segment includes the entire freshwater portions and tribs of Amityville Creek (-216) and Carman Creek (-218). It is not believed that there are any significant freshwater portions of Narraskatuck (Unqua) Creek (-217)

# Massapequa Cove, and tidal tribs (1701-0391)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-220      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 020302002      **Class:** SC      Southern Long Island  
**Water Type/Size:** Estuary      123.3 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of tidal cove and lower creek

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Stressed	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Good	
Aesthetics	Fair	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: PATHOGENS  
Suspected: - - -  
Unconfirmed: Algal/Plant Growth

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF  
Suspected: Other (waterfowl)  
Unconfirmed: Other/Non-Permitted Sanitary Discharge

## Management Information

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

## Further Details

### Overview

Massapequa Cove (including Lower Massapequa Creek) is assessed as an impaired waterbody due to recreational use that is known to be impaired by pathogens from stormwater and other urban nonpoint sources. Algal growth (brown tides) may also impact uses. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

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

Shellfish harvesting for consumption purposes in these tribs is restricted due to the year-round and seasonal designations of these waters (a portion within Shellfish Growing Area #3) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, based on the shellfishing restrictions, other recreational uses are considered to be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

Recreational use is considered to be impaired based on monitoring at beaches in the segment and the shellfish advisory indicating somewhat elevated bacteriological levels. Beach monitoring revealed frequent elevated bacteriological levels at beaches. Occasional beach closures are the result of both bacteriological results and pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Biltmore Beach. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

#### Water Quality Information

NYSDEC does not routinely collect water quality data in this waterbody. NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. The Town of Hempstead has conducted Bay sampling through 2010 which shows more favorable water quality than found in western Hempstead Bay waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in these waters are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Massapequa Cove is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was included as part of the Tidal Tribs to South Oyster Bay (1701-0200) segment on Part 1 of the List as a water requiring development of a TMDL for pathogens. This waterbody was first included on the List for pathogens in 2012. The Massapequa Cove segment was subsequently separated and is now assessed as a separate waterbody and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM/WQAS, May 2014)

#### Segment Description

This segment includes the tidal portions of Massapequa Cove, including Lower (tidal) Massapequa Creek and tidal tribs.



# Massapequa Creek, Upper, and tribs (1701-0174)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-220  
**Hydro Unit Code:** 020302002      **Class:** C  
**Water Type/Size:** River      3.6 Miles  
**Description:** stream above Massapequa Reservoir  
**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** 1/Nassau Co. (30)  
Southern Long Island

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Poor	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: NUTRIENTS (phosphorus), PATHOGENS  
Suspected: Low D.O./Oxygen Demand, Algal/Plant Growth (native)  
Unconfirmed: Pesticides, Priority Organics

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF, OTHER/NON-PERMITTED SANITARY DISCHARGE  
Suspected: Other Source (waterfowl), Landfill/Land Disposal  
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

Massapequa Creek is assessed as an impaired waterbody due to recreation use and aquatic life that are known to be impaired by nutrients and pathogens from stormwater and other urban nonpoint sources. Aesthetics along the stream in this highly developed and densely populated suburban areas are also degraded.

### Use Assessments

Massapequa Creek is a Class C waterbody, suitable for general recreation and support of aquatic life, but not as a water supply or public bathing.

Aquatic life is impaired by nutrient enrichment and other impacts. Biological sampling indicates a macroinvertebrate community dominated by tolerant species. (DEC/DOW, BWAM/SMAS, May 2011)

Recreational uses are also considered to be impaired based on the poor aquatic community and the presence of elevated levels of pathogens and other indicators of organic loads and possible sewage inputs to the creek. Waterfowl may also be a contributing source of pathogens. (DEC/DOW, BWAM/SMAS, May 2011)

Fish consumption is also stressed by impacts from an upstream abandoned plating plant that is now a superfund site which has contaminated groundwater with cadmium, chromium and volatile organics. This groundwater plume has reached Massapequa Creek. Fish sampling did not necessitate change in the health advisory. (DEC/FWMR, Region 1, 1998)

#### Water Quality Information

NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring of Massapequa Creek in Massapequa 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. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates some enrichment and impact source determination reveals the fauna to be most similar to communities influenced by point and nonpoint municipal and industrial sources as well as organic loads and low dissolved oxygen from sewage or animal wastes. Water column chemistry indicated nitrite and coliform to be present at levels that constitute parameters of concern. Toxicity testing using water from this location detected significant reproductive effects on the test organism. Sediment screening for acute toxicity indicated possible sediment toxicity. Bottom sediments analysis based on sediment quality guidelines developed for freshwater ecosystems revealed elevated levels of cadmium and PAHs, but overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Macroinvertebrate tissue was not collected at this site but small non-game fish analyzed for selected metals and PAHs showed mercury and chromium to be present in elevated levels. Based on the consensus of these established assessment indicators, water quality is considered to be poor and aquatic life is not fully supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/RIBS, May 2011)

A biological assessment of Massapequa Creek in Massapequa was also conducted in 1998 and 1999. Water quality was assessed as slightly impacted in 1998 and moderately impacted in 1999. Caddisflies were abundant at this site, and mayflies were present but limited; tolerant sowbugs were numerous. This site was assessed as slightly impacted in 1994. Impacts at this site may be caused in large part by flow-dependent urban runoff. (DEC/DOW, BWAR/SBU, January 2000)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Massapequa Creek in Massapequa (at Clark Avenue) was conducted in 1999. Fecal and total coliform, ammonia and temperature values were found to be high. Other sampling results were typical of urban streams. (DEC/DOW, BWAR/SWAS, January 2001)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of nutrients and pathogens in the waterbody are stormwater and other urban point and nonpoint sources. Unregulated sanitary discharges may be present. Contamination from a groundwater plume traced to an abandoned plating plant that is now a superfund site have also been documented. (DEC/DOW, BWAM and Reg 1, March 2011)

#### Management Actions

Nassau County DPW received state Clean Water/Clean Air Bond Act funding in 2001 to rehabilitate Massapequa Preserve, which includes the creek. These rehabilitation measures include construction of a stormwater treatment system, restoration of eroding pond/stream banks and construction of a flow augmentation system. Massapequa Creek had been regularly stocked with trout by the DEC. But declines in water quality and decreased baseflow (due to sewerage in the area) prevent the stream from holding trout year-round. (DEC/DOW, Region 1, October 2001)

#### Section 303(d) Listing

Massapequa Creek is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL for nutrients and pathogens. This waterbody was first listed on the 2012 List. (DEC/DOW, BWAM, January 2014)

#### Segment Description

This segment includes the entire freshwater portion of the stream and all tribs above Massapequa Reservoir.

# Massapequa Lake (1701-0156)

# Minor Impacts

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-220-P968  
**Hydro Unit Code:** 0203020202      **Class:** C  
**Water Type/Size:** Lake      39.1 Acres  
**Description:** entire lake

**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Southern Long Island  
1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Stressed	Unconfirmed
Fish Consumption	Stressed	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: ALGAL/PLANT GROWTH (native), AQUATIC INVASIVE SPECIES  
Suspected: NUTRIENTS (Phosphorus), Low D.O./Oxygen Demand  
Unconfirmed: Pesticides

**Source(s) of Pollutant(s)**

Known: HABITAT ALTERATION, Urban/Storm Runoff  
Suspected: Other/Non-Permitted Sanitary Discharge  
Unconfirmed: Other (waterfowl)

## Management Information

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**Management Status:** Strategy Implementation Scheduled or Underway  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining Some Standards (IR Category 2)

## Further Details

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### Overview

Massapequa Lake is assessed as having minor impacts due to recreational uses that are known to be stressed by algal and native and non-native/invasive plant growth. High nutrient loading from urban/storm runoff and other nonpoint sources are likely contributors to the problems.

### Use Assessment

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

### Water Quality Information

Massapequa Lake was sampling in 1999 as part of the NYSDEC Lake Classification and Inventory (LCI) lake monitoring program. Water quality analyses noted extremely high nitrate levels and low dissolved oxygen.

Extremely shallow water depths also limit development of a desirable recreation area or fishery. These conditions were noted during a 1998 Lake Classification and Inventory study by NYSDEC, but conditions need to be verified. (DEC/DOW, BWM/Lake Services, August 2000).

Fish consumption is also stressed. Fish flesh analyses show chlordane contamination in some species. However, at present, there is no health advisory. (DEC/FWMR, Region 1, 1998)

#### Management Actions

The lake is included in the Nassau County Suburban Pond Management Plan. The county received state Clean Water/Clean Air Bond Act funding in 2001 to rehabilitate Massapequa Preserve, which include the lake. These rehabilitation measures include construction of a stormwater treatment system, restoration of eroding pond/stream banks and construction of a flow augmentation system. (DEC/DOW, Region 1, October 2001)

#### Section 303(d) Listing

Massapequa Lake is currently included on the NYS 2010 Section 303(d) List of Impaired Waters. The lake is included among the waters listed in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. This part of the List recognizes waterbodies where low dissolved oxygen in lake bottom waters may be the result of morphology and other natural conditions in thermally stratified lakes. Because NYS water quality standards for dissolved oxygen do not include an explicit exception for natural conditions or averaging of dissolved oxygen over lake depth, USEPA requires that the Section 303(d) List recognize such waters. (DEC/DOW, BWAM/WQAS, April 2011)

#### Segment Description

This segment includes the total area of the entire lake.

# Massapequa Reservoir (1701-0157)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-220-P969  
**Hydro Unit Code:** 0203020202      **Class:** A  
**Water Type/Size:** Lake(R)      16.6 Acres  
**Description:** entire lake  
**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Southern Long Island  
1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Shellfishing	N/A	-
Public Bathing	Unassessed	-
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Impaired	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Unknown	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: PESTICIDES (chlordane), Algal/Plant Growth (native)  
Suspected: Nutrients (Phosphorus)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: Urban/Storm Runoff  
Suspected: TOXIC/CONTAMINATED SEDIMENT  
Unconfirmed: - - -

## Management Information

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**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

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### Overview

Massapequa Reservoir is assessed as an impaired waterbody due to fish consumption that is known to be impaired by pesticide contamination. The source of this contamination is considered to be contaminated sediment, the result of past pesticide use. Recreation is considered to be stressed due to the fish consumption advisory, and the presence of nuisance native plant species.

### Use Assessment

Massapequa Reservoir is a Class A waterbody, suitable for use as a water supply, public bathing beach, general recreation and support of aquatic life. The reservoir is no longer used as a public water supply.

Fish consumption in the waterbody is impaired due to a NYS DOH health advisory that recommends eating more than one meal per month of white perch because of elevated chlordane levels. The source of this contamination is

considered to be contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued in prior to 1998-99. (2013-14 NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014).

Recreational uses are considered to be stressed due to the consumption advisory and by the presence of nuisance native plant species. However the pond supports a diverse fishery and is stocked for fishing use. (DEC/DOW, BWAM/LMAS, March 2011)

Aquatic life is fully supported. The Division of Fish Wildlife and Marine Resources has conducted 8 fisheries surveys on the reservoir since 1989. Each survey indicated that the reservoir supports a large diverse fish population that includes: largemouth bass, white perch, bluegill, pumpkinseed, brown bullhead, black crappie, golden shiners, common carp, banded killifish, American eel, as well as a small number of brown and rainbow trout. Their most recent survey in 2007 did not yield any white perch, the subject of the active fish consumption advisory. Although the lake is classified as a warmwater fishery, the lake is presently stocked in the spring and fall with rainbow and the county has proposed augmentation of the stream flow with cold water and dredging portions of the reservoir to make trout survival in the reservoir more likely in the future. (DEC/DFWMR, Bureau of Fisheries, September 2010)

The waterbody is not currently used as a water supply, nor is there a public bathing area located on the pond. Additional sampling is necessary to confirm conditions, but these uses are thought to experience no significant impacts. (DEC/DOW, BWAM, July 2014)

#### Water Quality Information

The reservoir was included in a joint DEC and Nature Conservancy aquatic plant sampling of waterbodies in Long Island in the summer of 2005. In addition, the reservoir was included in the NYSDEC 2009 intensive (monthly sampling) Lake Classification and Inventory (LCI) survey of the Atlantic Ocean/ Long Island Sound basin. During these sampling visits water quality conditions were evaluated through standard limnological indicators. Massapequa Reservoir can be characterized as mesoeutrophic, or moderately to highly productive. The water clarity readings typical of eutrophic waterbodies was expected given the average phosphorus readings that are typical of mesoeutrophic waterbodies, and the average chlorophyll a readings typical of mesoeutrophic waterbodies. These data indicate that nutrient levels are in the moderate to high range and may occasionally be high enough to produce algal blooms. It should be noted that Secchi disk transparency readings could not be accurately measured, since the disk was visible while sitting on the bottom of the reservoir. However, the phosphorus and chlorophyll a data suggest that the actual Secchi disk transparency readings are probably only slightly greater than those recorded during the LCI sampling sessions.

Massapequa Reservoir appeared to be typical of other shallow, hardwater, uncolored, alkaline waterbodies. Other waterbodies with similar water quality characteristics often support warmwater fisheries, although fisheries habitat cannot be fully evaluated through this monitoring program. Several common native rooted aquatic plants species were observed in the reservoir as well as two invasive species *Myriophyllum aquaticum* (parrot feather) and *Potamogeton crispus* (curlyleaf pondweed). Parrot feather and curlyleaf pondweed can outcompete native vegetation and grow to nuisance levels. However, the overall plant community is dominated by *Ceratophyllum demersum* (coontail), a nuisance native plant.

#### Source Assessment

The source of pesticide contamination is believed to be from contaminated sediments, the result of past pesticide use. Although Massapequa Reservoir is within confines of the forested preserve, much of the watershed is in the large residential developments on either side of the preserve. (DEC/DOW, BWAM/LMAS, March 2011)

#### Management Actions

No specific management actions have been identified for these ponds. The waterbody is the second largest waterbody in Massapequa Preserve Park, which is managed by Nassau County. Nassau County is currently working to improve water quality throughout the preserve. Additional background and fishing information for the reservoir can be found at <http://www.dec.ny.gov/outdoor/24182.html>. The reservoir was used as a drinking water source for New York City from the late 1800's to the mid 1900's, but is no longer used for potable water supply. (DEC/DOW, BWAM/LMAS, March 2011)

#### Section 303(d) Listing

Massapequa Lake is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as a fish consumption water due to pesticide contamination. This waterbody was first listed on the 1998 Section 303(d) List. (DEC/DOW, BWAM, March 2011)

#### Segment Description

This segment includes the total area of the entire lake.



# Seafords/Seamans Creeks, and tidal tribs (1701-0389)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-216 thru 219  
**Hydro Unit Code:** 02030202/050    **Class:** SC  
**Water Type/Size:** Estuary            199.2 Acres  
**Description:** total area of selected tidal tribs to bay

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Stressed	Known

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Fair

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known:            PATHOGENS  
Suspected:      - - -  
Unconfirmed:    Algal/Plant Growth

### Source(s) of Pollutant(s)

Known:            URBAN/STORM RUNOFF  
Suspected:      Other (waterfowl)  
Unconfirmed:    Other/Non-Permitted Sanitary Discharge

## Management Information

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

## Further Details

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### Overview

These Tidal Tribs to South Oyster Bay are assessed as an impaired waterbody due to recreational use that is known to be impaired by pathogens from stormwater and other urban nonpoint sources. Algal growth (brown tides) may also impact uses. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

The Tidal Tribs to South Oyster Bay segment is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not for shellfishing or public bathing.

Shellfish harvesting for consumption purposes in these tribs is restricted due to the year-round and seasonal designations of these waters (a portion within Shellfish Growing Area #3) as uncertified for the taking of shellfish for

use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, based on the shellfishing restrictions, other recreational uses are considered to be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

Recreational use is considered to be impaired based on monitoring at beaches in the segment and the shellfish advisory indicating somewhat elevated bacteriological levels. Beach monitoring revealed frequent elevated bacteriological levels at beaches. Occasional beach closures are the result of both bacteriological results and pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Phillip Healy Beach. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

#### Water Quality Information

NYSDEC does not routinely collect water quality data in this waterbody. NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. The Town of Hempstead has conducted Bay sampling through 2010 which shows more favorable water quality than found in western Hempstead Bay waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in these waters are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Seafords/Seamans Creeks and tidal tribs is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was included as part of the Tidal Tribs to South Oyster Bay (1701-0200) segment on Part 1 of the List as a water requiring development of a TMDL for pathogens. This waterbody was first included on the List for pathogens in 2012. The Seafords/Seamans Creek segment was subsequently separated and is now assessed as a separate waterbody and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM/WQAS, May 2014)

#### Segment Description

This segment includes the tidal portions of Seaford Creek (-221), Seamans Creek (-222) and tidal tribs, including Island Creek and Lower Cedar Creek, and several marinas and boat basins. Massapequa Cove, including Lower (tidal) Massapequa Creek, is listed separately.

# Seafords/Seamans Creeks, Upper, and tribs (1701-0201) Need Verification

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.1a) SOB-221 thru 223 (select)    **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202    **Class:** C    **Reg/County:** Southern Long Island  
**Water Type/Size:** River    3.8 Miles    1/Nassau Co. (30)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

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

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: - - -  
Suspected: NUTRIENTS, SILT/SEDIMENT, Algal/Plant Growth  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: - - -  
Suspected: URBAN/STORM RUNOFF  
Unconfirmed: Other/Non-Permitted Sanitary Discharge

## Management Information

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

## Further Details

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### Overview

Seafords/Seamans Creeks is assessed as needing verification of impacts due to recreational uses and aquatic life that may be impacted by pollutants from stormwater and other urban nonpoint sources. Aesthetics along the streams in these highly developed and densely populated suburban areas are also reported to be degraded. However, this assessment was conducted more than 10 years ago and more recent monitoring to verify current conditions is recommended.

### Use Assessment

Upper Seafords and Seamans Creeks are a class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life reflects impacts that may be the result of poor habitat conditions. Additional study is needed to determine if poor water quality is also influencing the biological community. Recreational uses are also influenced by habitat and aesthetic conditions. Additional sampling is necessary to determine if poor water quality also contributes to impacts to these uses. (DEC/DOW, BWAM, June 2014)

Fish consumption in this waterbody has not been assessed. There is currently no evidence of impacts to this use, however there are advisories for other nearby waters with similar surrounding land use. (DEC/DOW, BWAM, July 2014)

#### Water Quality Information

There is currently no available sampling data for this waterbody. (DEC/DOW, BWAR/SBU, November 2010)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of possible pollutants to this waterbody are urban/storm runoff. (DEC/DOW, BWAM, June 2014)

#### Management Actions

No specific management actions have been identified for this waterbody.

#### Section 303(d) Listing

Upper Seafords/Seamans Creeks is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM, June 2014)

#### Segment Description

This segment includes the entire freshwater portions and tribs of Seaford Creek (-221), Seamans Creek (-222) and Cedar Creek (-223). The lower (tidal) portions of these streams are listed separately. This segment was previously referred to as LI Tribs (fresh) to South Oyster Bay and included additional tribs that are now assessed separately.

# East Bay (1701-0202)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.2) EB  
**Hydro Unit Code:** 0203020202      **Class:** SA  
**Water Type/Size:** Estuary      3028.1 Acres  
**Description:** entire bay, as delineated

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Impaired	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Unknown

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory species)  
Unconfirmed: - - -

## Management Information

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

## Further Details

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### Overview

East Bay is assessed as impaired due to shellfishing use that is known to be precluded by pathogens from stormwater and urban nonpoint runoff. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

East Bay is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Inlet is restricted due to the designation of much of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that

can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are thought to be stressed due to the restrictions on shellfishing and fish consumption. However, beach monitoring to verify any impacts is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

#### Water Quality Information

NYSDEC does not routinely collect water quality data in this waterbody. NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. The Town of Hempstead has conducted Bay sampling through 2010 which shows more favorable water quality than found in western Hempstead Bay waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in East Bay are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

East Bay is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed on the 2002 Section 303(d) List. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes all Class SA tidal waters between Meadowbrook Parkway and Wantagh State Parkway (Jones Beach Causeway), including channels and inlets. Class SC tributaries are listed separately.



# Tidal Tribs to East Bay (1701-0203)

# Minor Impacts

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.2a) EB-224 thru 227 (selected)    **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202    **Class:** SC    Southern Long Island  
**Water Type/Size:** Estuary    260.0 Acres    **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of selected tidal tribs to bay

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Fully Supported	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: PATHOGENS  
Suspected: - - -  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF  
Suspected: - - -  
Unconfirmed: - - -

## Management Information

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**Management Status:** Restoration/Protection Strategy Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 2)

## Further Details

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### Overview

The Tidal Tribs to East Bay segment is assessed as having minor impacts due to recreational uses that are known to be stressed by pathogens from urban/storm runoff and other nonpoint sources.

### Use Assessment

The Tidal Tribs to East Bay segment is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water or for public bathing.

Recreational use is considered to experience minor impacts based on monitoring at beaches in the segment and the shellfish advisory indicating somewhat elevated bacteriological levels. Beach monitoring revealed no elevated bacteriological levels at beaches and few closures. Occasional beach closures that do occur are pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include

Merrick Estates Civic Association Beach. (from summary of local 2008 beach monitoring data as cited in Testing the Waters, NRDC, 2009)

Shellfishing harvesting for consumption purposes in these tribs is restricted due to the year-round and seasonal designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions indicate other recreational uses could be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

#### Water Quality Information

NYSDEC does not routinely collect water quality data in this waterbody. NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. The Town of Hempstead has conducted Bay sampling through 2010 which shows more favorable water quality than found in western Hempstead Bay waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants in the Tidal Tribs to East Bay are urban/storm runoff and other nonpoint sources from the highly developed watershed. (DEC/DOW, BWAM and Region 1, March 2010)

#### Management Actions

No specific management actions have been identified for these tribs.

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 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

The Tidal Tribs to East Bay segment is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM, August 1, 2014)

#### Segment Description

This segment includes Class SC portions of tribs Wantaugh Canal (-224a), Bellmore Creek (-224), Newbridge Creek (-225), Baldwin Creek/Cedar Swamp Creek (-226), Simmond Creek (-227), Mud Creek (-227a).

# Tribs (fresh) to East Bay (1701-0204)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.2a) EB-224 thru 227 (selected)    **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202    **Class:** C    Southern Long Island  
**Water Type/Size:** River    3.6 Miles    **Reg/County:** 1/Nassau Co. (30)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

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

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: NUTRIENTS (phosphorus), Other Pollutant (debris, trash)  
Suspected: SILT/SEDIMENT  
Unconfirmed: Pathogens

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF  
Suspected: OTHER/NON-PERMITTED SANITARY DISCHARGE  
Unconfirmed: - - -

## Management Information

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

## Further Details

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### Overview

These freshwater tribs are assessed as an impaired waterbody due to recreation use and aquatic life that are known or thought to be impaired by nutrients and silt sediment from urban/storm runoff and other nonpoint sources. Other sanitary discharges in this highly developed watershed may also be a contributing sources.

### Use Assessment

These freshwater tribs are Class C waterbodies, suitable for general recreation use and support of aquatic life, but not as a water supply, or for public bathing.

Additional bacteriological sampling is needed to more fully evaluate swimming use. Conditions suggest at least stresses to public bathing.

Aquatic life is considered to be impaired based on the results of biological sampling that reveals moderately impacted conditions. Recreational use is thought to be impaired as well. No additional sampling to evaluate recreational use specifically has been conducted. But the likely sources identified by the biological monitoring suggest significant impacts to recreational use. (DEC/DOW, BWAM, December 2010)

#### Water Quality Information

A biological (macroinvertebrate) assessment of Bellmore Creek in Bellmore (at Wantagh State Parkway) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates elevated enrichment and impact source determination reveals the fauna to be most similar to communities influenced by impoundment effects and organic loads and low dissolved oxygen from sewage or animal wastes. Water quality is considered to be poor and aquatic life is not fully supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, December 2010)

These results are consistent with results collected at the site in 1998. Sampling results at that time also indicated moderately impacted water quality conditions; municipal/industrial sources were indicated. The dominance of worms and sowbugs points to organic inputs. Filamentous algae was also heavy at this site. (DEC/DOW, BWAM/SBU, January 2000)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of pollutants is urban/storm runoff and other nonpoint sources. The biological community indicates organic loads and sewage inputs may be present, suggesting possible unregulated sanitary discharges. (DEC/DOW, BWAM, July 2014)

#### Management Actions

No specific management actions have been identified for these trib waters.

#### Section 303(d) Listing

The Tribs (fresh) to East Bay segment is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring the development of a TMDL for phosphorus and silt/sediment. However the evidence of impairment based on silt/sediment is not clear and should be re-evaluated. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM/WQAS, January 2010)

#### Segment Description

This segment includes the upper (freshwater) portion of Bellmore Creek (-224), Newbridge Creek (-225), Cedar Swamp Creek (-226), Simmond Creek (-227).

# Mill (Jones) Pond (1701-0205)

**Threatened**

## Waterbody Location Information

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Revised: 08/01/2014

<b>Water Index No:</b>	(MW8.2a) EB-224-P981	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Hydro Unit Code:</b>	0203020202	<b>Class:</b>	A
<b>Water Type/Size:</b>	Lake		Southern Long Island
<b>Description:</b>	entire lake	<b>Reg/County:</b>	1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Fully Supported	Unconfirmed
Public Bathing	Fully Supported	Unconfirmed
Recreation	Threatened	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Fully Supported	Suspected

Conditions Evaluated	
Habitat/Hydrology	Poor
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known:	Aquatic Invasive Species
Suspected:	---
Unconfirmed:	---

**Source(s) of Pollutant(s)**

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

## Management Information

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<b>Management Status:</b>	No Action Needed
<b>Lead Agency/Office:</b>	ext/WQCC
<b>IR/305(b) Code:</b>	Water Attaining All Standards (IR Category 1)

## Further Details

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### Overview

Mill (Jones) Pond is assessed as threatened due to recreation uses that are threatened by aquatic invasive species. All other uses are considered to be fully supported.

### Use Assessment

Mill (Jones) Pond is a Class A waterbody, suitable for use as a water supply, public bathing beach, general recreation and support of aquatic life.

Recreational use is considered to be threatened due to the presence of invasive aquatic plants, which have the potential to restrict recreational use. Swimming and boating are not currently permitting in the waterbody, and recreational use of the lake is limited to shoreline fishing and other passive enjoyment. (DEC/DOW, BWAM, July 2011)

Aquatic life is fully supported in the waterbody. The pond supports an active sports fishery, including largemouth bass, chain pickerel, bluegill, pumpkinseed sunfish, black crappie, yellow perch, white perch, carp, American eel, black bullhead, and brown bullhead. The state record and United Fishing Association all-tackle world record black bullhead (7lb 7oz) was caught in Mill Pond in 1993. (DEC/DOW, BWAM/LMAS, March 2011)

The waterbody is not currently used as a water supply, nor is there a public bathing area located on the pond. Additional sampling is necessary to confirm conditions, but these uses are thought to experience no significant impacts. (DEC/DOW, BWAM, July 2014)

#### Water Quality Information

Mill (Jones) Pond was surveyed monthly by the NYSDEC in 2004 as part of the Lake Classification and Inventory (LCI) survey. This survey work found extensive surface beds of water chestnut (*Trapa natans*), Eurasian watermilfoil (*Myriophyllum spicatum*) and brittle naiad (*Najas minor*), invasive exotic plant species, throughout the lake. The water chestnut finding was the first in Long Island, and the Eurasian watermilfoil finding occurred shortly after this exotic plant was first found in Long Island in Twin Lakes North and South (aka Seamens Pond and Wantagh Pond), a few miles north of the lake. The lake also suffers from extensive populations of spatterdock (*Nuphar* sp). (DEC/DOW, BWAM/LMAS, March 2011)

The pond can be characterized as mesotrophic, or moderately productive. The water clarity readings (trophic state index (TSI) = 70, representative of eutrophic lakes) were much lower than expected given the phosphorus readings (TSI = 48, representative of mesoeutrophic lakes), and much lower than expected given the chlorophyll a readings (TSI = 46, representative of mesotrophic lakes). However, water clarity readings are substantially compromised by the shallow (appx 1.2 meters) 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. The depth profile is typical of shallow lakes, with oxygenated conditions to the lake bottom. The lake has a circumneutral pH with moderately hard water, elevated chloride and nitrogen levels (though below the state water quality standards) and low water color. These data did not indicate any significant water quality problems. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

The source of the impacts in the waterbody are attributed to habitat alteration.

#### Management Actions

The presence of invasive aquatic plants triggered a 1999 hydraulic dredging project involving several thousand cubic yards of sediment from the pond, aquatic harvesting of aquatic vegetation, and creation of new pond shoreline plantings, pathways, benches, and trash receptacles. The estimated project cost was \$1.2 million, of which \$300,000 were a NYS Clean Water/Clean Air Bond Act award. Jones Pond is part of the (Wantagh) Mill Pond County Park managed by Nassau County. (DEC/DOW, BWAM/LMAS, March 2011)

#### Section 303(d) Listing

Mill (Jones) Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM/WQAS, January 2010)

#### Segment Description

This segment includes the total area of the entire lake.

# Wantagh/Seamans Ponds (1701-0159)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.2a) EB-224-P982,P983  
**Hydro Unit Code:** 0203020202      **Class:** A  
**Water Type/Size:** Lake                      29.6 Acres  
**Description:** Total area of both ponds

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	Fully Supported	Unconfirmed
Shellfishing	N/A	-
Public Bathing	Fully Supported	Unconfirmed
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Impaired	Known

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Good

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PESTICIDES (chlordan), Aquatic Invasive Species  
Suspected: - - -  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: Habitat Alteration  
Suspected: TOX/CONTAMINATED SED  
Unconfirmed: - - -

## Management Information

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**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

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### Overview

Wantagh/Seamans Ponds are assessed as an impaired waterbody due to fish consumption that is known to be impaired by pesticide contamination. The source of this contamination is considered to be contaminated sediment, the result of past pesticide use. Recreation is considered to be stressed due to the fish consumption advisory, and the presence of exotic invasive plant species.

### Use Assessment

Seamans Pond is a Class A waterbody, suitable for use as a water supply, public bathing beach, general recreation and support of aquatic life. Wantagh Pond is a Class C waterbody, with uses limited to general recreation and support of aquatic life.

Fish consumption in the waterbody is impaired due to a NYS DOH health advisory that recommends eating more than one meal per month of carp and American eel because of elevated chlordane levels. The source of this contamination is considered to be contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued in 2005. (2013-14 NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014).

Recreational uses are considered to be stressed due to the consumption advisory and by the presence of exotic invasive plant species. However the pond supports considerable fishing use, cited by NYSDEC FWMR as one of the most heavily fished lakes in Nassau County. (DEC/DOW, BWAM/LMAS, March 2011)

Aquatic life is fully supported. The fishery includes largemouth bass, bluegill, pumpkinseed sunfish, black crappie, carp, brown bullhead, and American eel. Brown trout and rainbow trout are stocked in the pond. (DEC/DOW, BWAM/LMAS, March 2011)

The Class A portion of the waterbody is not currently used as a water supply, nor is there a public bathing area located on the pond. Additional sampling is necessary to confirm conditions, but these uses are thought to experience no significant impacts. (DEC/DOW, BWAM, July 2014)

#### Water Quality Information

Wantagh Pond was surveyed by the NYSDEC and the Long Island Nature Conservancy as part of a joint DEC-TNC aquatic plant survey of Long Island lakes in 2006. These lakes were surveyed in an attempt to identify the range of water chestnut (*Trapa natans*), found in Wantagh Mill Pond a few miles downstream from the lake. This survey work found extensive growth of native plants, particularly spatterdock (*Nuphar* sp) in Upper Twin/Seamans Pond, as well as Eurasian watermilfoil (*Myriophyllum spicatum*) and fanwort (*Ceratophyllum demersum*) in both lakes, and Brazilian elodea (*Egeria densa*) in Lower Twin/Wantagh Pond. It is likely that Brazilian elodea is also found in Upper Twin/Seamans Pond, but the lake couldn't be fully surveyed due to the extensive spatterdock beds. Eurasian watermilfoil, fanwort, and Brazilian elodea are invasive exotic plant species. The Eurasian watermilfoil finding in these lakes represent the first documented sighting of this common exotic plant in Long Island. Water chestnut was not found in the lake. (DEC/DOW, BWAM/LMAS, March 2011)

No water quality survey work has been conducted on this waterbody.

#### Source Assessment

The source of pesticide contamination is believed to be from sediments, the result of past/historic use.

#### Management Actions

No specific management actions have been identified for these ponds. Nassau County oversees the management of recreational use. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the NYSDEC manual Diet for a Small Lake (NYSDEC/FOLA, 2009).

#### Segment Description

This segment includes the total area of both Wantagh (Lower Twin) Pond (P982) and Seamans (Upper Twin) Pond (P983), as well as a connecting smaller pond (P983a).



# Newbridge Pond (1701-0207)

Unassessed

## Waterbody Location Information

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Revised: 08/01/2014

<b>Water Index No:</b>	(MW8.2a) EB-226-P986	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Hydro Unit Code:</b>	0203020202	<b>Class:</b>	C
<b>Water Type/Size:</b>	Lake		Southern Long Island
<b>Description:</b>	entire lake	<b>Reg/County:</b>	1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

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

**Source(s) of Pollutant(s)**

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

## Management Information

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

## Further Details

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Overview  
Newbridge Pond is currently unassessed.

# Camaans Pond (1701-0052)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.2a) EB-227-P987a  
**Hydro Unit Code:** 0203020202      **Class:** C  
**Water Type/Size:** Lake      6.0 Acres  
**Description:** entire lake

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Impaired	Unconfirmed
Fish Consumption	Fully Supported	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Poor

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: NUTRIENTS, ALGAL/PLANT GROWTH  
Suspected: Low D.O./Oxygen Demand  
Unconfirmed: Pathogens

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Other (waterfowl)  
Unconfirmed: - - -

## Management Information

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

## Further Details

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### Overview

Camaans Pond is assessed as an impaired waterbody due to recreational uses and aquatic life that are thought to be impaired by high nutrient loads and resulting excessive aquatic plant growth, occasional algal blooms and reduced water clarity. Urban stormwater runoff is considered the most significant source of pollutants to the waterbody. Impacts from waterfowl are also a concern.

### Use Assessment

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

Recreational use is limited by high nutrient levels that result in algal blooms, aquatic plant growth and reduced water clarity.

Aquatic life is thought to be limited by low dissolved oxygen as well as other pollutants in this small eutrophic urban pond. However a fishery assessment has not been conducted on this waterbody. The lake supports some fishing (white perch and American eel). (DEC/DOW, WAM/LMAS, March 2001)

#### Water Quality Information

Camaans Pond was included in the NYSDEC 2009 intensive (four sampling events between June and September) Lake Classification and Inventory (LCI) survey of the Atlantic Ocean/ Long Island Sound (AO/LIS) basin. During LCI sampling visits, water quality conditions were evaluated through standard limnological testing. From the data collected in 2009, Camaans Pond can be characterized as eutrophic, or highly productive, with reduced water clarity and chlorophyll a levels also typical of eutrophic waterbodies. The LCI data suggest that algal blooms were occurring in July and August of 2009 and that baseline nutrient levels support persistent algal blooms. Extreme algal densities are also possible, but it is not known if this potentially contributes toxic algae to the pond. The waterbody appears to have substantially degraded water quality compared to other small shallow urban ponds in Nassau County that were sampled as part of the 2009 LCI program. Substantial amounts of detritus and debris have accumulated along the southern shore near the fishing dock. (DEC/DOW, BWAM/LMAS, March 2011)

#### Sources Assessment

Nassau County indicated the pond was originally created for drainage purposes. The majority of the water in the pond is stormwater from the surrounding area. Urban runoff and stormwater is the likely source of pollutants to the waterbody as well. The pond's outlet flows into a small canal which empties into the East Bay.

#### Management Actions

No specific management actions have been identified for Camaans Pond. Nassau County manages a small parking area and walking path on the eastern shore of the pond, as well as a small fishing platform at the southern end of the pond.

#### Section 303(d) Listing

Camaans Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 3a of the List as an impaired waterbody requiring verification of Impairment for phosphorus. The pond was previously included among the waters listed in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. The water was added to Part 3a of the List for phosphorus – the likely cause of oxygen demand – in 2012. Moving the waterbody to listing on Part 1 of the List as a waterbody with impairment requiring a TMDL should be considered during the next listing cycle. (DEC/DOW, BWAM/WQAS, April 2011)

#### Segment Description

This segment includes the total area of the entire pond.

# Middle Bay (1701-0208)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB (portion 1)      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      1210.3 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** entire bay, as delineated

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish), Nutrients (nitrogen), Algal/Plant Growth (ulva/sea lettuce)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory fish species), Municipal, Habitat Alteration  
Unconfirmed: - - -

## Resolution/Management Information

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

## Further Details

### Overview

Middle Bay is assessed as impaired due to shellfishing use that is known to be precluded by pathogens from stormwater and urban nonpoint runoff. Public bathing and recreational uses are also thought to be affected by the presence of macroalgae in the Bay. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Middle Bay is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Inlet is restricted due to the designation of most of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels in the waters of adjacent western Hempstead Bay may contribute to damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in Middle Bay are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Middle Bay is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed on the 2002 Section 303(d) List. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes all Class SA tidal waters between Long Beach Boulevard and Meadowbrook Parkway; excluding Garrett Lead/East Channel, Reynolds Channel, Jones Inlet/Jones Bay and other Eastern Channels, which are listed separately. Baldwin Bay, Parsonage Cove, Long Creek, and Shell Creek/Barnums Channel are also separately listed Class Sb waters.

# Baldwin Bay/Milburn Cr and tidal tribs (1701-0385)

# Minor Impacts

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB (portion 2)/BB  
**Hydro Unit Code:** 0203020202      **Class:** SB  
**Water Type/Size:** Estuary      309.8 Acres  
**Description:** total area of bay/creek, northeast of main Middle Bay

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: - - -  
Suspected: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (nitrogen), Pathogens, Priority Organics (PCBs/migratory fish),  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: Urban/Storm Runoff  
Suspected: MUNICIPAL, HABITAT ALTERATION, Other Source (migratory fish species)  
Unconfirmed: - - -

## Resolution/Management Information

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

## Further Details

### Overview

Baldwin Bay/Milburn Creek is thought to experience minor impacts due to public bathing and recreational uses that are thought to be affected by the presence of macroalgae in the Bay. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of Long Creek/Baldwin Bay/Parsonage Cove.

### Use Assessment

Baldwin Bay/Milburn Creek is a class SB waterbody, classified for public bathing, general recreation uses and support of aquatic life, but not for shellfishing.

Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels in the waters of adjacent western Hempstead Bay may contribute to damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in these waters are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)



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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Baldwin Bay/Milburn Creek is not included on the NYS Section 303(d) List of Impaired/TMDL Waters. However a proposed nitrogen TMDL for waters of the Western Bays is expected to provide water quality benefits to this adjacent waterbody. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes Class SB portions of the bay and creek northeast of the main portion of Middle Bay.

# Parsonage Cove/Creek and tidal tribs (1701-0384)

# Minor Impacts

## Waterbody Location Information

Revised: 08/01/2014

<b>Water Index No:</b>	(MW8.3) MDB (portion 3)/PC	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Hydro Unit Code:</b>	0203020202	<b>Class:</b>	SB
<b>Water Type/Size:</b>	Estuary		131.8 Acres
<b>Description:</b>	total area of cove/creek, northwest of main Middle Bay		
		<b>Reg/County:</b>	1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: - - -

Suspected: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (nitrogen), Pathogens, Priority Organics (PCBs/migratory fish),

Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: Urban/Storm Runoff

Suspected: MUNICIPAL, HABITAT ALTERATION, Other Source (migratory fish species)

Unconfirmed: - - -

## Resolution/Management Information

**Management Status:** Strategy Implementation Scheduled or Underway

**Lead Agency/Office:** DOW/Reg1

**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Parsonage Cove/Creek is thought to experience minor impacts due to public bathing and recreational uses that are thought to be affected by the presence of macroalgae in the Bay. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of Long Creek/Baldwin Bay/Parsonage Cove.

### Use Assessment

Parsonage Cove/Creek is a class SB waterbody, classified for public bathing, general recreation uses and support of aquatic life, but not for shellfishing.

Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels in the waters of adjacent western Hempstead Bay may contribute to damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in these waters are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Parsonage Cove/Creek is not included on the NYS Section 303(d) List of Impaired/TMDL Waters. However a proposed nitrogen TMDL for waters of the Western Bays is expected to provide water quality benefits to this adjacent waterbody. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes Class SB portions of these tidal waters northwest of the main portion of Middle Bay.

# Garrett Lead/East Channel (1701-0386)

Impaired

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB (portion 4)      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      538.6 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of channels, east of main Middle Bay

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish), Nutrients (nitrogen), Algal/Plant Growth (ulva/sea lettuce)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory fish species), Municipal, Habitat Alteration  
Unconfirmed: - - -

## Resolution/Management Information

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

## Further Details

### Overview

Garrett Lead/East Channel is assessed as impaired due to shellfishing use that is known to be precluded by pathogens from stormwater and urban nonpoint runoff. Public bathing and recreational uses are also thought to be affected by the presence of macroalgae in the Bay. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Garrett Lead/East Channel is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Inlet is restricted due to the designation of most of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels in the waters of adjacent western Hempstead Bay may contribute to damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in Middle Bay are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Garrett Lead/East Channel is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was considered to be a part of the Middle Bay (1701-0208) segment which is included on Part 2c of the List as a shellfishing restricted water. The Garrett Lead/East Channel portion of Middle Bay was subsequently separated and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes Class SA tidal waters portions of these tidal waters west of the main portion of Middle Bay.

# Long Creek (1701-0214)

# Minor Impacts

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB (portion5)/LC      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SB      Southern Long Island  
**Water Type/Size:** Estuary      232.1 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of channel, east of Main Middle Bay

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: - - -

Suspected: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (nitrogen), Pathogens, Priority Organics (PCBs/migratory fish),

Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: Urban/Storm Runoff

Suspected: MUNICIPAL, HABITAT ALTERATION, Other Source (migratory fish species)

Unconfirmed: - - -

## Resolution/Management Information

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**Management Status:** Strategy Implementation Scheduled or Underway

**Lead Agency/Office:** DOW/Reg1

**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

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### Overview

Long Creek is thought to experience minor impacts due to public bathing and recreational uses that are thought to be affected by the presence of macroalgae in the Bay. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of Long Creek/Baldwin Bay/Parsonage Cove.

### Use Assessment

Long Creek is a class SB waterbody, classified for public bathing, general recreation uses and support of aquatic life, but not for shellfishing.



Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels in the waters of adjacent western Hempstead Bay may contribute to damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in these waters are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Long Creek is not included on the NYS Section 303(d) List of Impaired/TMDL Waters. However a proposed nitrogen TMDL for waters of the Western Bays is expected to provide water quality benefits to this adjacent waterbody. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes Class SB portions of this channel east of the main portion of Middle Bay.

# Middle Bay, Eastern Channels (1701-0387)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB (portion 6)      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      394.8 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of tidal water, east of main Middle Bay/Long Creek

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish), Nutrients (nitrogen), Algal/Plant Growth (ulva/sea lettuce)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory fish species), Municipal, Habitat Alteration  
Unconfirmed: - - -

## Resolution/Management Information

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

## Further Details

### Overview

Middle Bay, Eastern Channels is assessed as impaired due to shellfishing use that is known to be precluded by pathogens from stormwater and urban nonpoint runoff. Public bathing and recreational uses are also thought to be affected by the presence of macroalgae in the Bay. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Middle Bay, Eastern Channels is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Inlet is restricted due to the designation of most of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels in the waters of adjacent western Hempstead Bay may contribute to damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in Middle Bay are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Middle Bay, Eastern Channels is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was considered to be a part of the Middle Bay (1701-0208) segment which is included on Part 2c of the List as a shellfishing restricted water. The Eastern Channels portion of Middle Bay was subsequently separated and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes all Class SA tidal waters between Long Creek and Meadowbrook Parkway; Long Creek, Baldwin Bay, and other portions of and East Middle Bays, as well as other Class SB, SC tidal waters are listed separately.

# Jones Inlet/Jones Bay (1701-0373)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB (portion 7) JI/JB      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      1050.6 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** entire inlet/bay, btw Loop & Meadowbrook Pkwy

## Water Quality Problem/Issue Information

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Use(s) Impacted	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Stressed	Known
Public Bathing	Stressed	Suspected
Recreation	Impaired	Known
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), Pathogens  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: OTHER (macroalgae deposition), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Resolution/Management Information

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**Management Status:** Strategy Implementation Scheduled or Underway  
**Lead Agency/Office:** DOW/Reg1  
**IR/305(b) Code:** Impaired Water, Pollution, not Pollutant (IR Category 4c)

## Further Details

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### Overview

Jones Inlet/Jones Bay is assessed as an impaired waterbody due to recreation uses that are considered to be impaired by excessive macroalgae that washes into the Bay/Inlet from other shallower parts of the western Hempstead Bays complex and deposits along the shorelines. Large municipal wastewater discharges to Reynolds Channel (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients (nitrogen) that feed algal growth in the shallower, warmer back bays and subsequently washes into other waterbodies and out through Jones Bay and Inlet. Shellfishing and public bathing are also considered to be stressed by pathogens from stormwater and urban nonpoint runoff. Fish consumption is also considered to be stressed due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

## Use Assessment

Jones Inlet/Jones Bay is a class SA waterbody, suitable for use for shellfishing, public bathing, general recreation uses and support of aquatic life.

Recreational uses are considered to be impaired due to the routine occurrence of excessive macroalgae (ulva, or sea lettuce) that proliferates in the shallower back bays of the Western Bays complex and subsequently washes into the Bay/Inlet and onto shore. After washing on shore, the algal mats die, rot, and create odor and aesthetics issues that significantly affect the unsuitability of the beaches for recreation. Public bathing is also considered to be stressed by the deposited algae. However beach monitoring revealed no elevated bacteriological levels at beaches and no closures. Beaches within this reach include Rockaway Beach West. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

Shellfish harvesting for consumption purposes in the waterbody is restricted due to the designation of a portion of the area around Short Beach Boat Basin (included within Hempstead Bay Shellfish Growing Area #1) as only seasonally certified for the taking of shellfish for use as food. The remaining areas within the segment boundaries are open to shellfishing. As a result of the limited and seasonal nature of the restrictions, shellfishing use in the Bay/Inlet is listed as stressed. 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)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are affected by excessive macroalgae that wash into the Bay/Inlet from adjacent waterbodies and is deposited on the shore. These conditions significantly and negatively impact recreational use. (DEC/DOW and DFWMR, May 2014)

## Water Quality Information

Monitoring data from the Town of Hempstead Bay Study has shown that nutrient levels in the Bay/Inlet are fairly low relative to other waters in the Hempstead Bay Complex. Mapping of bottom cover of ulva by SUNY SoMAS also shows that the bottom coverage of this rooted plant is limited (about 10%) in the Bay/Inlet, whereas bottom density is as high as 60% in the warmer, shallower western Hempstead Bay. (Town of Hempstead, 2000-2010 and SUNY SoMAS, 2011)

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae along the waterbody shore. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

Current data and information regarding nitrogen levels and ulva cover in the Bay/Inlet indicate that the macroalgae that causes the recreational impact on the shores of Jones Bay/Jones Inlet are not originating in the Bay/Inlet, but are washing in from the shallower, warmer waters of Hempstead Bay where nitrogen concentrations and ulva growth are

very high. Hempstead Bay receives high nitrogen loads from wastewater discharges to adjacent waters, primarily Reynolds Channel. The most significant of these dischargers is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in the waterbody are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels is specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of Hempstead Bay as the primary cause of the macroalgae impairment throughout the Western Bays. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – is already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bays entirely and to the Atlantic Ocean. These resulting reductions of nitrogen loading are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas are regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Jones Inlet/Jones Bay was not included on the proposed 2014 NYS Section 303(d) List of Impaired Waters that was submitted by NYSDEC. EPA has questioned the decision to omit this waterbody from the List and indicated that a listing for this waterbody due to nitrogen should be considered. However, as noted above, data show that nitrogen levels in the Bay/Inlet are quite low and among the lowest within all of the western South Shore Estuary (Town of Hempstead, 2000-2010), and bottom coverage of ulva in the waters of the Bay/Inlet is less than 10% (SUNY-SoMAS, 2011). Based on this information, these waters are not violating the narrative standard for nitrogen (“none in amounts that will result in growths of algae...that will impair the waters for their best usages”). The information does support NYSDEC’s contention that the ulva is proliferating in other areas of the Western Bays (which are listed) and is being transported by winds and tidal currents into the Bay/Inlet. (DEC/DOW, BWAM, August 2014)



Based on this assessment, NYSDEC has assessed the waterbody as an Integrate Reporting (IR) Category 4c water, and considers it to be impaired (by the macroalgae that washes on shore) but not requiring a TMDL for nitrogen because of the already low levels of nitrogen in the waterbody. Although a 303(d) Listing and TMDL is not appropriate for Jones Inlet/Jones Bay, a reduction in macroalgae limiting recreation along the shore of this segment is expected to be achieved through the western Hempstead Bays Nitrogen TMDL and other efforts to address macroalgae growth at its source. (DEC/DOW, BWAM, August 2014)

#### Segment Description

This segment includes all Class SA tidal waters east and south of Loop Parkway, and west of Meadowbrook State Parkway.

# Reynolds Channel, East (1701-0215)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.3) MDB-RC                      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202                      **Class:** SA                      Southern Long Island  
**Water Type/Size:** Estuary                      476.7 Acres                      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total channel area, from Jones Inlet to Long Beach Blvd

## Water Quality Problem/Issue Information

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Use(s) Impacted	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Impaired	Suspected
Recreation	Impaired	Known
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), PATHOGENS, NUTRIENTS (Nitrogen)  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF, HABITAT ALTERATION, MUNICIPAL (Bay Park, other)  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Resolution/Management Information

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**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

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### Overview

Reynolds Channel East is assessed as an impaired waterbody due to shellfishing, public bathing and recreation uses that are considered to be precluded/impaired by pathogens and nutrient loads that result in excessive macroalgae that washes through the channel from the shallower parts of the Western Bays complex and deposits along the shorelines. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Large municipal wastewater discharges to the channel and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients that feed algal growth in the shallower, warmer back bays and subsequently wash into the channel. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

## Use Assessment

Reynolds Channel East is a class SA waterbody, suitable for use for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designation of most of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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 uses are considered to be impaired due to the routine occurrence of excessive macroalgae (ulva, or sea lettuce) that proliferates in the shallower back bays of the Western Bays complex and subsequently wash into the Channel. These algal mats cover surface waters for much of the summer and washes up on shore where it rots leaving beaches unsuitable for recreation. Public bathing and recreational use may also experience minor impacts from elevated bacteriological levels. However there are no designated beaches in this portion of the Channel and beach monitoring is not conducted at any location in the segment. (DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae that wash into the Channel from adjacent waterbodies. Additionally, high nitrogen levels damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The macroalgae that causes the use impairments in Reynolds Channel mostly originates in the shallower, warmer waters of Hempstead Bay; it is not certain that nitrogen levels are causing growth in the Channel. Hempstead Bay receives high nitrogen loads from wastewater discharges to adjacent waters, including Reynolds Channel. The most significant of these dischargers is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the macroalgae impairment throughout the Western Bays. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – is already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bays entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Reynolds Channel East is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water due to pathogens. This waterbody was first listed for this impairment on the 2002 Section 303(d) List. (DEC/DOW, BWAM/WQAS, May 2014)

Reynolds Channel East was also added to the List in 2014 for nitrogen; the waterbody is included in Part 3b of the List as a waterbody for which TMDL development may be deferred pending verification of the cause/pollutant/source of impairment. Because of the hydrology and bathymetry, nitrogen levels may not be causing macroalgae growth – or a water quality standards exceedence – in the Channel. However nitrogen discharges to the Channel support macroalgae growth in adjacent waters, significant amounts of which are pushed into the Channel by tides and prevailing winds and currents. Additionally the impact of the transported macroalgae into the Channel and deposits along the shore result in the impairment of uses. Although listed, the situation suggests that characterization of the waterbody as a 4c water (impaired but not requiring a TMDL because a TMDL cannot be developed for algal or aquatic weed impairment) was considered and may be more appropriate. Although a nitrogen TMDL specifically for Reynolds Channel is not planned, nitrogen levels and resulting macroalgae in the Channel will be addressed through the Western Bays Nitrogen TMDL and other efforts to restore water quality and coastal habitat in Hempstead Bay and other adjacent waters. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes the channel waters east of Bob Jones Canal in Long Beach.

# Freeport Creek/East Meadow Brook, Lower (1701-0388)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-228      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      126.2 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of tidal waters, northwest of East Bay

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish), Nutrients (nitrogen), Algal/Plant Growth (ulva/sea lettuce)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory fish species), Municipal, Habitat Alteration  
Unconfirmed: - - -

## Resolution/Management Information

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

## Further Details

### Overview

Freeport Creek/East Meadow Brook is assessed as impaired due to shellfishing use that is known to be precluded by pathogens from stormwater and urban nonpoint runoff. Public bathing and recreational uses are also thought to be affected by the presence of macroalgae. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of these waters with Middle and East Bays.

### Use Assessment

Freeport Creek/East Meadow Brook is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Inlet is restricted due to the designation of most of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels may contribute to the macroalgae growth and damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in Middle Bay are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the Bay. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Freeport Creek/East Meadow Brook is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was considered to be part of the Middle Bay (1701-0208) and East Bay (1701-0202) segments which are included on Part 2c of the List as a shellfishing restricted water. The Freeport Creek/East Meadow Brook portion of these bays was subsequently separated and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes all Class SA tidal waters north of Middle and East (Merrick) Bays; Middle Bay, East Bay and Upper East Meadow Brook are listed separately.

# East Meadow Brook, Upper, and tribs (1701-0211)

# Needs Verification

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-228      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** C      Southern Long Island  
**Water Type/Size:** River      1.0 Miles      **Reg/County:** 1/Nassau Co. (30)  
**Description:** stream and tribs above P989 (freshwater)

## Water Quality Problem/Issue Information

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Use(s) Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Impaired	Unconfirmed
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Poor	
Aesthetics	Fair	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: SILT/SEDIMENT  
Suspected: Water Level/Flow, Nutrients  
Unconfirmed: Algal/Plant Growth

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF  
Suspected: Roadbank Erosion  
Unconfirmed: Other/Non-Permitted Sanitary Discharge

## Management Information

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

## Further Details

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### Overview

Upper East Meadow Brook is assessed as needing verification of impacts due to aquatic life that may be impaired by silt/sediment and/or other pollutants from urban storm runoff. Roadway runoff from Meadowbrook Parkway which runs along the stream also affects water quality.

### Use Assessment

Upper East Meadow Brook is a class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply or for public bathing.

Aquatic life reflects impacts that may be the result of poor habitat conditions. Additional study is needed to determine if poor water quality is also influencing the biological community. Recreational uses are also influenced



by habitat and aesthetic conditions. Additional sampling is necessary to determine if poor water quality also contributes to impacts to these uses. (DEC/DOW, BWAM, June 2014)

Fish consumption in this waterbody has not been assessed. There is currently no evidence of impacts to this use, however there are advisories for other nearby waters with similar surrounding land use. (DEC/DOW, BWAM, July 2014)

#### Water Quality Information

A biological (macroinvertebrate) assessment of East Meadow Brook in Roosevelt was conducted in 1998. Sampling results indicated water quality to be moderately impacted. Poor substrate consisting of concrete pieces over gravel likely contributed to the limited fauna. This situation made it difficult to determine the extent of any water quality problems. Due to the uncertainty of the previous assessment and the lack of more recent data, additional monitoring is recommended to verify current conditions in the stream. (DEC/DOW, BWAR/SBU, November 2010)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of silt/sediment and other pollutants in Upper East Meadow Brook are urban/storm runoff. (DEC/DOW, BWAM, June 2014)

#### Management Actions

Water levels and flows in the creek were cited as a concern in previous assessments. Nassau County has taken action to increase base flows by installing check dams to the stream. Siltation remains a water quality issue. (Nassau County WQCC, October 2000)

#### Section 303(d) Listing

Upper East Meadow Brook is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring TMDL development for silt/sediment. However the level of problem verification is insufficient for a listing in most cases and its continued listing should be re-evaluated during the next listing cycle. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM, June 2014)

#### Segment Description

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

# Freeport Reservoir/East Meadow Pond (1701-0025)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-228-P989  
**Hydro Unit Code:** 0203020202      **Class:** A  
**Water Type/Size:** Lake(R)      20.3 Acres  
**Description:** entire lake  
**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** 1/Nassau Co. (30)  
Southern Long Island

## Water Quality Problem/Issue Information

Use(s) Impacted	Severity	Confidence
Water Supply	Threatened	Suspected
Shellfishing	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Impaired	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Poor	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: PESTICIDES (chlordane), Nutrients (Phosphorus), Algal/Plant Growth  
Suspected: Silt/Sediment  
Unconfirmed: D.O./Oxygen Demand

**Source(s) of Pollutant(s)**  
Known: Urban/Storm Runoff  
Suspected: TOX/CONTAM. SEDIMENT  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Freeport Reservoir/East Meadow Pond is assessed as an impaired waterbody due to fish consumption that is known to be impaired pesticides. The source of the pesticide contamination is considered to be from past use and previously contaminated sediment. Public bathing and other recreational use is known to be stressed by excessive invasive and native aquatic plant and algal growth.

### Use Assessment

Freeport Reservoir/East Meadow Pond is a Class A waterbody, suitable for use as a water supply, public bathing beach, general recreation and support of aquatic life.

Fish consumption in Freeport Reservoir/East Meadow Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of carp because of elevated chlordane concentrations. The

source of this contamination is considered to be contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued in 1998-99. (2009-10 NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2010).

Public bathing and other recreational uses of the waterbody are considered to be stressed by excessive aquatic plant and algal growth that restrict swimming and boating and make fishing difficult. Public bathing use impairment is assessed as suspected due to the lack of pathogen data. There is limited public access and use of the waterbody for bathing. (DEC/DOW, BWAM/LMAS, March 2011)

Freeport Reservoir is classified for use as a water supply; however it is not currently used for this purpose. Although available data are not sufficient to fully evaluate potable water use, elevated levels of iron, chloride, and manganese may impact potable water use. (DEC/DOW, BWAM/LMAS, March 2011)

Aquatic life is thought to be fully supported based on favorable assessment of the fishery. The lake provides fishing opportunities for largemouth bass, bluegill, pumpkinseed sunfish, black crappie, carp, brown bullhead, and American eel. Most of the fish are less than 12 inches, but there are good numbers of 12 to 15 inch fish present. The introduction of bluegills reduced the size of the pumpkinseed population, but both are plentiful enough to provide fast action for those that target them. Black Crappie provide a good spring time fishery. Large carp are reported to be caught every year from the reservoir, although there is an advisory restricting the consumption of carp to one fish per month. Although the reservoir is not classified as a trout water, it was stocked for a time but is no longer considered to be suitable as a cold water fishery. (DEC/DFWMR, Region 1, March 2011)

The aesthetics of the lake are considered to be poor, based on the excessive plant and weed growth. Habitat is considered to be fair, based on the presence of invasive plants. (DEC/DOW, BWAM/LMAS, March 2011)

#### Water Quality Information

Freeport Reservoir/East Meadow Pond was included in the 2009 NYSDEC Lake Classification and Inventory (LCI) survey of waterbodies in the Atlantic Ocean/ Long Island Sound (AO/LIS) basin. Only two samples were taken in the lake, one of the two revealed elevated high phosphorus levels. The recreational suitability of the western reservoir was described as "slightly impacted" due to reduced water clarity, definite algal greenness and the difficulty to access the reservoir. The recreational suitability of the eastern reservoir was described as "substantially impacted" due to the high densities of exotic and native aquatic plant species, definite algal greenness and the difficulty to access the reservoir. The invasive species *Myriophyllum aquaticum* (parrot feather) was observed to be growing throughout the eastern reservoir. High densities of parrot feather and other aquatic plants species may make boating and fishing difficult on the eastern reservoir. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Freeport Reservoir/East Meadow Pond is comprised of two hydrologically connected reservoirs that are on either side of the Meadowbrook Parkway. The land surrounding the reservoirs is owned by the state and is mostly forested. The course of the East Meadow Brook and the unnamed tributaries are mostly forested; however, much of the water in these streams comes from runoff associated with the large residential areas on either side of the Meadowbrook Parkway. Based on surrounding land use and other knowledge of the waterbody, the most likely source(s) of nutrients in the waterbody is/are urban/storm runoff from roadways and other impervious surfaces. The source of the pesticide contamination is considered to be from lake sediments contaminated by past pesticide use. (DEC/DOW, BWAM/LMAS, March 2011)

#### Management Actions

No specific management actions have been identified for this waterbody. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the NYSDEC manual Diet for a Small Lake. (NYSDEC/FOLA, 2009).

#### Section 303(d) Listing

Freeport Reservoir/East Meadow Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as a water impaired due to fish consumption restrictions due to chlordane. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM, July 2014)

**Segment Description**

This segment includes the total area of both basin of the entire lake.

# Smith (Roosevelt) Pond (1701-0136)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-228-P989-P991  
**Hydro Unit Code:** 0203020202      **Class:** C  
**Water Type/Size:** Lake      6.1 Acres  
**Description:** entire lake  
**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Southern Long Island  
1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Use(s) Impacted	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Threatened	Suspected
Fish Consumption	Precluded	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

### Type of Pollutant(s) (CAPS indicate MAJOR Pollutants/Sources)

Known: PESTICIDES (chlordane), Algal/Plant Growth (vegetation), Nutrients  
Suspected: - - -  
Unconfirmed: Pathogens

### Source(s) of Pollutant(s)

Known: Urban/Storm Runoff, Other Sanitary Disch  
Suspected: TOX/CONTAM. SEDIMENT  
Unconfirmed: - - -

## Management Information

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

## Further Details

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### Overview

Smith (Roosevelt) Pond is assessed as an impaired waterbody due to fish consumption that is known to be impaired by pesticides. The source of the pesticide contamination is considered to be from past use and previously contaminated sediment. Recreational use is known to be stressed by excessive invasive and native aquatic plant and algal growth, nutrients, and silt/sedimentation from urban stormwater runoff and other nonpoint sources.

### Use Assessment

Smith (Roosevelt) Pond is a Class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply of for public bathing.

Fish consumption in Smith/Roosevelt Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of carp or goldfish and eating no American eel because of elevated chlordane

concentrations. The source of this contamination is considered to be contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/FWMMR, Habitat, January 2010).

Recreational use of the waterbody is somewhat limited by reduced water clarity and algal growth in this shallow, urban, eutrophic pond. (DEC/DOW, BWAM/LMAS, September 2009)

Aquatic life support is considered to be fully supported, but threatened based on a mostly favorable fishery assessment. The Bureau of Fisheries conducted a few fisheries surveys in the 1990's. These surveys indicated that the pond supported: largemouth bass, golden shiners, goldfish, common carp, brown bullhead, black crappie, pumpkinseed, bluegill, and American eel. Discoloration and lesions were noted on some of the fish in the 1994 survey. A new fisheries survey would need to be conducted to verify the pond still supports a similar fish community (DEC/DFWMMR, Bureau of Fisheries, October 2007).

#### Water Quality Information

Smith (Roosevelt) Pond was included in the NYSDEC 2009 intensive Lake Classification and Inventory (LCI) survey of the Atlantic Ocean/ Long Island Sound basin. During these sampling visits water quality conditions were characterized as eutrophic, or highly productive. The average water clarity reading is typical of eutrophic ponds and was expected given elevated phosphorus levels typical of eutrophic ponds. Clarity was less favorable than expected given chlorophyll a readings that were typical of mesoeutrophic ponds. These data suggest that baseline nutrient levels may support persistent algal blooms, although algae production does not appear to be limited by phosphorus. Phosphorus, iron, sodium and chloride were found to be at elevated concentrations in the pond. No invasive aquatic plants were observed, and submergent aquatic plant diversity was minimal. Sediment from the pond was found to have levels of lead, chrysene and pyrene above the Threshold Effect Concentration (TEC), the point at which adverse effects to sediment biota might be expected to occur. (DEC/DOW, BWAM/LMAS, September 2009)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source of nutrients and other pollutants in the waterbody is urban/storm runoff from roadways and other impervious surfaces. The pond is located in a local park. Some of the surrounding area is forested, however East Meadow Brook which feeds the pond flows along the Meadowbrook Parkway and is influenced by urban and roadway runoff. The source of the pesticide contamination is considered to be from lake sediments contaminated by past pesticide use. (DEC/DOW, BWAM/LMAS, March 2011)

#### Management Actions

No specific management actions have been identified for this waterbody. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the NYSDEC manual Diet for a Small Lake. (NYSDEC/FOLA, 2009).

#### Section 303(d) Listing

Smith (Roosevelt) Pond is included on the current (2014) Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as a water impaired due to fish consumption restrictions due to chlordane. This waterbody was first listed on the 1998 List. (DEC/DOW, BWAM, July 2014)

#### Segment Description

This segment includes the total area of the entire lake.

# Milburn/Parsonage Creeks, Upp, and tribs (1701-0212)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-230,231      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** C      Southern Long Island  
**Water Type/Size:** River      2.5 Miles      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total length of (freshwater) portions of both streams

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Impaired	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: UNKNOWN POLLUTANT (Biological Impact), PESTICIDES (chlordane)  
Suspected: D.O./Oxygen Demand, Nutrients, Algal/Plant Growth, Silt/Sediment  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF, TOX/CONTAM. SEDIMENT  
Suspected: OTHER SANITARY DISCH  
Unconfirmed: On-Site/Septic Syst

## Management Information

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

## Further Details

### Overview

Upper Millburn/Parsonage Creeks is assessed as an impaired waterbody due to recreational use, fish consumption and aquatic life that are known to be impaired. Recreational use and aquatic life are thought to be impaired by nutrient enrichment and organic waste loads from urban stormwater runoff and other unknown sources that result in algal and plant growth and other eutrophic conditions. The impairment to fish consumption is the result of pesticide contamination that results in a health advisory discouraging the consumption of fish taken from a small pond (lofts pond) within the segment. The source of the pesticide contamination is considered to be from past use and previously contaminated sediment.

### Use Assessment

Upper Millburn/Parsonage Creeks is a Class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply of for public bathing.

Recreational use of the waterbody is impaired by reduced water clarity, excessive algal/plant growth and other eutrophic conditions in this shallow, urban, waterway. Aquatic life was also found to be impaired by nutrient enrichment and other pollutants cited as contributing to biological impacts. (DEC/DOW, BWAM/LMAS, September 2009)

Fish consumption in Smith/Roosevelt Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of carp or goldfish and eating no American eel because of elevated chlordane concentrations. The source of this contamination is considered to be contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/FWLR, Habitat, January 2010).

#### Water Quality Information

A biological (macroinvertebrate) assessment of Milburn Creek in Baldwin (at end of Jayne Street) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated moderately to severely impacted conditions. In such samples the fauna is extremely altered and comprised of tolerant species. Diversity and abundance of organisms is significantly reduced. The nutrient biotic index indicates highly elevated enrichment and impact source determination reveals a community that is most similar to those with impacts from municipal discharges or organic wastes. Water quality is considered to be very poor and aquatic life is not supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, December 2009)

Lofts Pond, located within this segment, was included in the NYSDEC 2009 intensive Lake Classification and Inventory (LCI) survey of the Atlantic Ocean/ Long Island Sound basin. During these sampling visits water quality conditions were characterized as eutrophic, or highly productive. The average water clarity reading is typical of eutrophic ponds but was better than expected given elevated phosphorus levels that were also typical of eutrophic ponds. Clarity was less favorable than expected given chlorophyll a readings that were typical of mesoeutrophic ponds. These data suggest that baseline nutrient levels support persistent algal blooms, although algae production is lower than expected. Milburn Pond, also in the watershed, was included in the 2004 LCI survey. (DEC/DOW, BWAM/LMAS, September 2009)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source of nutrients and other pollutants in the waterbody is urban/storm runoff from roadways and other impervious surfaces. The biological community assessment suggests organic wastewater sources may also be present. The source of the pesticide contamination is considered to be from lake sediments contaminated by past pesticide use. (DEC/DOW, BWAM/LMAS, March 2011)

#### Management Actions

No specific management actions have been identified for this waterbody. However the Nassau County Parks website indicates that Lofts Pond was included in a capital improvement restoration effort that included dredging, harvesting of vegetation and planting native flora around the pond. Milburn Pond was included in the Nassau County Suburban Pond Management Plan. The county DPW is using capital funds and Clean Water/Clean Air Bond Act funding to dredge, install sediment traps and conduct streambank stabilization to control erosion. (Nassau County WQCC, 2005)

#### Section 303(d) Listing

The Upper Milburn/Parsonage Creeks segment is included on the current (2014) Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 3b of the List as an impaired waterbody where TMDL development may be deferred pending the verification of sources causing aquatic toxicity. Lofts Pond within this segment is included on Part 2b of the List as a water impaired due to fish consumption restrictions due to chlordane. This waterbody was first listed on the 1998 List. Milburn Pond is also included in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. Updating of the List to reflect the combining of these waters into a single segment should be considered during the next listing cycle. (DEC/DOW, BWAM, July 2014)



### Segment Description

This segment includes the entire stream above tidal waters and all freshwater tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C. The segment also includes Silver Lake (P996) and Lofts Pond (P998) which had been assessed as a separate waterbody (1701-0029) but was incorporated into this segment in 2014. Similarly the segment also includes Milburn Pond (P994) which was previously assessed separately (as waterbody 1701-0053) but was also incorporated into this segment in 2014.

# Bedell Creek, and tidal tribs (1701-0210)

# Minor Impacts

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-232  
**Hydro Unit Code:** 0203020202      **Class:** SC  
**Water Type/Size:** Estuary      42.7 Acres  
**Description:** total area of tidal portion of trib

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Suspected
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: - - -  
Suspected: ALGAL/PLANT GROWTH (ulva/sea lettuce), Nutrients (nitrogen), Pathogens  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: Urban/Storm Runoff  
Suspected: HABITAT ALTERATION, Municipal  
Unconfirmed: - - -

## Resolution/Management Information

**Management Status:** Strategy Implementation Scheduled or Underway  
**Lead Agency/Office:** DOW/Reg1  
**IR/305(b) Code:** Water Attaining Some Standards (IR Category 2)

## Further Details

### Overview

Bedell Creek is thought to experience minor impacts due to recreational uses thought to be affected by the presence of macroalgae. Pathogens from stormwater and urban nonpoint runoff may also affect recreational uses.

### Use Assessment

Bedell Creek is a class SC waterbody, classified for general recreation uses and support of aquatic life, but not for shellfishing or public bathing.

Recreational uses are thought to be stressed due to the presence of macroalgae (ulva, or sea lettuce) in the waterbody and on the shore. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

Both the habitat and aesthetic condition of the waterbody are thought to be stressed by the presence of macroalgae in the waterbody and deposits on the shore. Additionally, high nitrogen levels may contribute to the macroalgae growth and damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling in adjacent waters, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented presence of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Significant nitrogen loading from wastewater discharges to the Western Bay complex is thought to contribute to macroalgae growth in the tidal creek. Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in these back-bay tribs. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Bedell Creek is not included on the NYS Section 303(d) List of Impaired/TMDL Waters. However a proposed nitrogen TMDL for waters of the Western Bays is expected to provide water quality benefits to this adjacent waterbody. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes Class SC portions of Bedell Creek and tidal tribs.

# Shell Creek/Barnums Channel (1701-0213)

# Minor Impacts

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.3a) MDB-SC, 232a      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SB      Southern Long Island  
**Water Type/Size:** Estuary      102.1 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** tidal portions of both streams/channels

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

### Type of Pollutant(s) (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS, Algal/Plant Growth (ulva/sea lettuce)  
Suspected: Priority Organics (PCBs/migratory fish), Nutrients (nitrogen)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory fish species), Municipal  
Unconfirmed: - - -

## Resolution/Management Information

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**Management Status:** Strategy Implementation Scheduled or Underway  
**Lead Agency/Office:** DOW/Reg1  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

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### Overview

Shell Creek and Barnums Channel is assessed as having minor impacts due to public bathing and recreational uses that are thought to be stressed by pathogens from stormwater and urban nonpoint runoff. These uses are also affected by excessive macroalgae that washes through the channel from the shallower parts of the Western Bays complex and deposits along the shorelines. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Shell Creek and Barnums Channel is a class SB waterbody, suitable for use for public bathing, general recreation uses and support of aquatic life, but not classified for shellfishing.

Recreational uses are thought to be stressed due to the occurrence of excessive macroalgae (ulva, or sea lettuce) that proliferates in the shallower back bays of the Western Bays complex and subsequently wash into this waterbody. These algal mats cover surface waters for much of the summer and washes up on shore where it rots leaving beaches unsuitable for recreation. Public bathing and recreational use may also experience minor impacts from elevated bacteriological levels. However there are no designated beaches in this portion of the Channel and beach monitoring is not conducted at any location in the segment. (DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are stressed by excessive macroalgae that wash into the channel from adjacent waterbodies and deposits on the shore. Additionally, high nitrogen levels damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in the waterbody are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex contribute to macroalgae growth in the shallower back bays which is subsequently washed into adjacent waters, including Hog Island Channel. However it is not certain that nitrogen is causing algal growth in this waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Shell Creek and Barnums Channel is not included on the NYS Section 303(d) List of Impaired/TMDL Waters. However a proposed nitrogen TMDL for waters of the Western Bays is expected to provide water quality benefits to this adjacent waterbody. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes all of Shell Creek and Barnum Island Channel. The western end of Barnums Channel (from the mouth to Shell Creek) is Class SC.

# Hempstead Bay, Broad Channel (1701-0032)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 1)      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      862.2 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of main bay

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen), PATHOGENS, Oxygen Demand/Low D.O.  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: MUNICIPAL (Bay Park, Others), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

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**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

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### Overview

Hempstead Bay is assessed as an impaired waterbody due to shellfishing, public bathing and recreation uses that are known to be precluded/impaired by pathogens and nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to the Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

## Use Assessment

Hempstead Bay is a class SA waterbody, suitable for use for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designation of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. A year-round shellfishing closure applies to the all tidal waters of the bay. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody, largely attributed to excessive nitrogen levels. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to the Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)



Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at three (3) facilities Bay Park, Lawrence and Long Beach) that discharge to Hempstead Bay/Reynolds Channel waters. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Hempstead Bay is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 1 of the List as a water requiring development of a TMDL for nitrogen. The waterbody is also included on Part 2c of the List as a shellfishing restricted water due to pathogens. This waterbody was first listed on the 1998 Section 303(d) List for pathogens and was added to the 2006 List due to nitrogen. (DEC/DOW, BWAM/WQAS, May 2014)

#### Segment Description

This segment includes all Class SA tidal waters bounded by Brosewre Bay to the west, Hewlett Bay to the north, Hog Island Channel to the east and Reynolds Channel to the south. These other adjacent waterbodies are listed separately. Selected tributary waters to Hempstead Bay are also listed separately.

# Hewlett Bay (1701-0382)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 2)      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      197.0 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of bay, north of main Hempstead Bay

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen), PATHOGENS, Oxygen Demand/Low D.O.  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: MUNICIPAL (Bay Park, Others), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Hewlett Bay is assessed as an impaired waterbody due to shellfishing, public bathing and recreation uses that are known to be precluded/impaired by pathogens and nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to the Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of Hempstead Bay that included these waters.

## Use Assessment

Hewlett Bay is a class SA waterbody, suitable for use for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designation of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. A year-round shellfishing closure applies to the all tidal waters of the bay. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody, largely attributed to excessive nitrogen levels. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Monitoring at beaches in the segment also indicate occasionally elevated bacteriological levels. Periodic 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 Hewlett Beach. (from summary of local 2008 beach monitoring data as cited in Testing the Waters, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to the Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at three (3) facilities (Bay Park, Lawrence and Long Beach) that discharge to Hempstead Bay/Reynolds Channel waters. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Hewlett Bay is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was considered included to be a part of the Hempstead Bay (1701-0032) segment on Part 1 of the List as a water requiring development of a TMDL for nitrogen. The waterbody is also included on Part 2c of the List as a shellfishing restricted water due to pathogens. This waterbody was first listed on the 1998 Section 303(d) List for pathogens and was added to the 2006 List due to nitrogen. The Hewlett Bay segment was subsequently separated and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM/WQAS, May 2014)

#### Segment Description

This segment includes all Class SA tidal waters north of the main Hempstead Bay and selected tidal tribs. Other trib waters to Hempstead/Hewlett Bays are listed separately.

# Brosewre Bay (1701-0383)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 3)      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      376.3 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of bay, west of main Hempstead Bay

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen), PATHOGENS, Oxygen Demand/Low D.O.  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: MUNICIPAL (Bay Park, Others), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Brosewre Bay is assessed as an impaired waterbody due to shellfishing, public bathing and recreation uses that are known to be precluded/impaired by pathogens and nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to the Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of Hempstead Bay that included these waters.

## Use Assessment

Brosewre Bay is a class SA waterbody, suitable for use for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designation of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. A year-round shellfishing closure applies to the all tidal waters of the bay. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody, largely attributed to excessive nitrogen levels. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to the Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at three (3) facilities Bay Park, Lawrence and Long Beach) that discharge to Hempstead Bay/Reynolds Channel waters. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Brosewre Bay is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was considered included to be a part of the Hempstead Bay (1701-0032) segment on Part 1 of the List as a water requiring development of a TMDL for nitrogen. The waterbody is also included on Part 2c of the List as a shellfishing restricted water due to pathogens. This waterbody was first listed on the 1998 Section 303(d) List for pathogens and was added to the 2006 List due to nitrogen. The Brosewre Bay segment was subsequently separated and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM/WQAS, May 2014)

#### Segment Description

This segment includes all Class SA tidal waters west of the main Hempstead Bay, which is listed separately. Selected tributary waters to Hempstead/Brosewre Bays are also listed separately.

# Hog Island Channel (1701-0220)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 4)/HIC  
**Hydro Unit Code:** 0203020202      **Class:** SB  
**Water Type/Size:** Estuary      202.0 Acres  
**Description:** entire channel

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: PATHOGENS, ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (nitrogen)  
Suspected: Priority Organics (PCBs/migratory fish), Oxygen Demand/Low D.O.  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**  
Known: URBAN/STORM RUNOFF, MUNICIPAL (Bay Park, other)  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Resolution/Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Hog Island Channel is assessed as an impaired waterbody due to public bathing and recreation uses that are considered to be impaired by nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to Reynolds Channel and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Hog Island Channel is a class SB waterbody, suitable for use for public bathing, general recreation uses and support of aquatic life, but is not classified for shellfishing.



Public Bathing and recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody, largely attributed to excessive nitrogen levels. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Public bathing and recreational use may also experience minor impacts from elevated bacteriological levels. Public bathing and recreational use may also experience minor impacts from elevated bacteriological levels. Periodic 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 Island Park Beach and Harbor Isle Beach. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009 and DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae that wash into the Channel from adjacent waterbodies. Additionally, high nitrogen levels damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

Shellfish harvesting for consumption purposes in the channel is restricted due to the year round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to the Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at three (3) facilities Bay Park, Lawrence and Long Beach) that discharge to Hempstead Bay/Reynolds Channel waters. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Hog Island Channel is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 1 of the List as a water requiring development of a TMDL for nitrogen. This waterbody was added to the List in 2014. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes all of Hog Island Channel and selected tidal tribs, including unnamed channel (-232b), Reeds Channel (-232c).

# Island Park Channel (1701-0374)

# Minor Impacts

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 4a)/IPC  
**Hydro Unit Code:** 0203020202      **Class:** SC  
**Water Type/Size:** Estuary      10.7 Acres  
**Description:** entire channel

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS, Algal/Plant Growth (ulva/sea lettuce)  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF  
Suspected: Other Source (migratory fish species), Municipal  
Unconfirmed: - - -

## Resolution/Management Information

**Management Status:** Strategy Implementation Scheduled or Underway  
**Lead Agency/Office:** DOW/Reg1  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Island Park Channel is assessed as having minor impacts due to recreational uses that are known to be stressed by pathogens from stormwater and urban nonpoint runoff. These uses are also affected by excessive macroalgae that washes through the channel from the shallower parts of the Western Bays complex and deposits along the shorelines. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Island Park Channel is a class SC waterbody, suitable for use for general recreation uses and support of aquatic life, but not classified for shellfishing or public bathing.

Recreational uses are considered to be stressed due to occasionally elevated bacteriological levels. Periodic beach closures occur at nearby beaches and are thought to be reflective of conditions in this waterbody. These closures are typically pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches in adjacent waters include and Island Park Beach and Harbor Isle Beach. Recreational uses are also limited by excess macroalgae (ulva, or sea lettuce) that accumulates on the waterbody shore where it rots leaving beaches unsuitable for recreation. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are stressed by excessive macroalgae that wash through the channel and deposits on the shore. Additionally, high nitrogen levels damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW, BWRM and Reg 1, May 2014),

Shellfish harvesting for consumption purposes in the channel is restricted due to the year round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in Island Park Channel are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex contribute to macroalgae growth in the shallower back bays which is subsequently washed into adjacent waters, including Island Park Channel. However it is not certain that nitrogen is causing algal growth in the Channel. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the wastewater loading to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas and then spread throughout the adjacent waters. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Island Park Channel is not included on the NYS Section 303(d) List of Impaired/TMDL Waters. A proposed nitrogen TMDL for waters of the Western Bays is expected to provide water quality benefits to this adjacent waterbody.

#### Segment Description

This segment includes all of Island Park Channel.

# Reynolds Channel, West (1701-0216)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 5)/RC  
**Hydro Unit Code:** 0203020202      **Class:** SB  
**Water Type/Size:** Estuary      680.3 Acres  
**Description:** channel, from Long Beach Blvd to Atlantic Beach Bridge

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	Impaired	Suspected
Recreation	Impaired	Known
Aquatic Life	Unassessed	
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen)  
Suspected: Pathogens, Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: HABITAT ALTERATION, MUNICIPAL (Bay Park, other), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Reynolds Channel West is assessed as an impaired waterbody due to public bathing and recreation uses that are considered to be impaired by excessive macroalgae that washes through the channel from the shallower parts of the Western Bays complex and deposits along the shorelines. Large municipal wastewater discharges to the channel and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients that feed algal growth in the shallower, warmer back bays and subsequently wash into the channel. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Reynolds Channel West is a class SB waterbody, suitable for use for public bathing, general recreation uses and support of aquatic life, but is not classified for shellfishing.

Recreational uses are considered to be impaired due to the routine occurrence of excessive macroalgae (ulva, or sea lettuce) that proliferates in the shallower back bays of the Western Bays complex and subsequently wash into the Channel. These algal mats cover surface waters for much of the summer and washes up on shore where it rots leaving beaches unsuitable for recreation. Public bathing and recreational use may also experience minor impacts from elevated bacteriological levels. However there are no designated beaches in this portion of the Channel and beach monitoring is not conducted at any location in the segment. (DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae that wash into the Channel from adjacent waterbodies. Additionally, high nitrogen levels damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

Shellfish harvesting for consumption purposes in the channel is restricted due to the year round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

### Source Assessment

The macroalgae that causes the use impairments in Reynolds Channel mostly originates in the shallower, warmer waters of Hempstead Bay; it is not certain that nitrogen levels are causing growth in the Channel. Hempstead Bay receives high nitrogen loads from wastewater discharges to adjacent waters, including Reynolds Channel. The most significant of these dischargers is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the macroalgae impairment throughout the Western Bays. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – is already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bays entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at three (3) facilities Bay Park, Lawrence and Long Beach) that discharge to Hempstead Bay/Reynolds Channel waters. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Reynolds Channel West was added to the List in 2014 for nitrogen; the waterbody is included in Part 3b of the List as a waterbody for which TMDL development may be deferred pending verification of the cause/pollutant/source of impairment. Because of the hydrology and bathymetry, nitrogen levels may not be causing macroalgae growth – or a water quality standards exceedence – in the Channel. However nitrogen discharges to the Channel support macroalgae growth in adjacent waters, significant amounts of which are pushed into the Channel by tides and prevailing winds and currents. Additionally the impact of the transported macroalgae into the Channel and deposits along the shore result in the impairment of uses. Although listed, the situation suggests that characterization of the waterbody as a 4c water (impaired but not requiring a TMDL because a TMDL cannot be developed for algal or aquatic weed impairment) was considered and may be more appropriate. Although a nitrogen TMDL specifically for Reynolds Channel is not planned, nitrogen levels in the Channel will be addressed through the Western Bays Nitrogen TMDL and other efforts to restore water quality and coastal habitat in Hempstead Bay and other adjacent waters. (DEC/DOW, BWAM, May 2014)



**Segment Description**

This segment includes the channel waters between the Atlantic Beach Bridge and Bob Jones Canal in Long Beach.

# East Rockaway Inlet (1701-0217)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4) HB (portion 6)/ERI  
**Hydro Unit Code:** 0203020202      **Class:** SA  
**Water Type/Size:** Estuary      178.9 Acres  
**Description:** channel, west of Atlantic Beach Blvd  
**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Use(s) Impacted	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Known
Aquatic Life	Unassessed	-
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PATHOGENS, Algal/Plant Growth (ulva/sea lettuce)  
Suspected: Priority Organics (PCBs/migratory fish), Nutrients (nitrogen)  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF, Habitat Alteration  
Suspected: Other Source (migratory fish species), Municipal  
Unconfirmed: - - -

## Resolution/Management Information

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

## Further Details

### Overview

East Rockaway Inlet is assessed as impaired due to shellfishing use that is known to be precluded by pathogens from stormwater and urban nonpoint runoff. Public bathing and recreational uses are also affected excessive macroalgae that washes through the channel from the shallower parts of the Western Bays complex and deposits along the shorelines. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

East Rockaway Inlet is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Inlet is restricted due to the designation of most of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are considered to be stressed due to the presence of macroalgae (ulva, or sea lettuce) that accumulate in the waterbody and along the shore. Beach monitoring revealed no elevated bacteriological levels at beaches and no closures. Beaches within this reach include Rockaway Beach from 15<sup>th</sup> to 22nd Street. (2008 beach monitoring data as cited in *Testing the Waters*, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are stressed by excessive macroalgae that wash into the channel from adjacent waterbodies and deposits on the shore. Additionally, high nitrogen levels damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of the Western Bays system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely sources of pathogens in East Rockaway Inlet are stormwater and urban/nonpoint runoff from this highly developed watershed. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Significant nitrogen loading from wastewater discharges to the Western Bay complex contribute to macroalgae growth in the shallower back bays which is subsequently washed into adjacent waters, including Hog Island Channel. However it is not certain that nitrogen is causing algal growth in the Inlet. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

East Rockaway Inlet is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed on the 2002 Section 303(d) List. A proposed nitrogen TMDL for waters of the Western Bays is also expected to provide water quality benefits to this adjacent waterbody. (DEC/DOW, BWAM, July 2010)

#### Segment Description

This segment includes all waters of the inlet west of the Atlantic Beach Bridge.

# East Rockaway Channel (1701-0381)

**Impaired**

## Waterbody Location Information

Revised: 11/24/2015

**Water Index No:** (MW8.4a) HB 233  
**Unit Code:** 0203020202      **Class:** SC  
**Water Type/Size:** Estuary Waters      99.2 Acres  
**Description:** total area of selected tidal tribs to bay  
**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Atlantic Ocean  
1/Nassau (30)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: ALGAL/PLANT GROWTH (ULVA/SEA LETTUCE), NUTRIENTS (NITROGEN), Low D.O./Oxygen Demand, Pathogens  
Suspected: Ammonia, Priority Organics (PCBs)  
Unconfirmed:

### Source(s) of Pollutant(s)

Known: MUNICIPAL DISCHARGES (Bay Park, Other), Urban/Storm Runoff  
Suspected: Other Source  
Unconfirmed:

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

This Hempstead Bay Tribs segment is assessed as an impaired waterbody due to recreational uses that are known to be impaired by nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to Hempstead Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

## Use Assessment

The Tribs to Hempstead Bay segment is a class SC waterbody, suitable for use for general recreation use and support of aquatic life, but not classified for shellfishing or public bathing.

Recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Monitoring at beaches in the segment also indicate occasionally elevated bacteriological levels. Periodic beach closures that occur in adjacent waters are typically pre-emptive closures during heavier rainstorms that are known to wash pollutants into the waters. (DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to Hempstead Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at a facility (Lawrence) that discharges to tribs of Hempstead Bay. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

The Tribs to Hempstead Bay segment is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 1 of the List as a water requiring development of a TMDL for nitrogen. This waterbody was added to the 2014 List due to nitrogen. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes Class SC tidal portions of East Rockaway Channel and tidal tribs, including Mill River (-1). In previous assessment, this segment was grouped with other Tidal Tribs to Hempstead Bay (1701-0218), but was broken out and assessed as a separate segment in 2014.

# Tidal Tribs to Hempstead Bay (1701-0218)

Impaired

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-234 thru 235  
**Hydro Unit Code:** 0203020202      **Class:** SC  
**Water Type/Size:** Estuary      82.1 Acres  
**Description:** total area of selected tidal tribs to bay

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen), Pathogens, Oxygen Demand/Low D.O.  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: MUNICIPAL (Bay Park, Others), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

The Hempstead Bay Tidal Tribs segment is assessed as an impaired waterbody due to recreational uses that are known to be impaired by nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to Hempstead Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.



## Use Assessment

The Tidal Tribes to Hempstead Bay segment is a class SC waterbody, suitable for use for general recreation use and support of aquatic life, but not classified for shellfishing or public bathing.

Recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Monitoring at beaches in the segment also indicate occasionally elevated bacteriological levels. Periodic beach closures that occur in adjacent waters are typically pre-emptive closures during heavier rainstorms that are known to wash pollutants into the waters. (DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

Shellfish harvesting for consumption purposes in the channel is restricted due to the year-round designations of these waters (a portion within Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. Although this waterbody is monitored through the shellfish program, its class SB designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions support the evaluation of other recreational uses as stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM, July 2010)

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to Hempstead Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody.

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at a facility (Lawrence) that discharges to tribs of Hempstead Bay. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

The Tidal Tribs to Hempstead Bay segment is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 1 of the List as a water requiring development of a TMDL for nitrogen. This waterbody was added to the 2014 List due to nitrogen. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes Class SC tidal portions of Thixton Creek (-234), Cauerbach Canel (-234a), and Macy Channel (-235).

# Smith Pond (1701-0028)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-233-P1005  
**Hydro Unit Code:** 0203020202      **Class:** C  
**Water Type/Size:** Lake      22.2 Acres  
**Description:** entire pond

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Stressed	Unconfirmed
Fish Consumption	Impaired	Known

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: PESTICIDES (chlordane), Aquatic Invasive Species, Nutrients (phosphorus)  
Suspected: Silt/Sediment, Low D.O./Oxygen Demand  
Unconfirmed: - - -

**Source(s) of Pollutant(s)**

Known: TOX/CONTAM SED, Habitat Alteration, Urban/Storm Runoff  
Suspected: - - -  
Unconfirmed: - - -

## Management Information

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**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

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### Overview

Smith Pond is assessed as an impaired waterbody due to fish consumption that is known to be impaired by pesticides. The source of the pesticide contamination is considered to be from past use and previously contaminated sediment. Other recreational use is known to be stressed by excessive invasive aquatic plant and algal growth, nutrient enrichment and silt/sedimentation from urban stormwater runoff and other nonpoint sources.

### Use Assessment

Smith Pond is a Class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply of for public bathing.

Fish consumption in Smith Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of white perch because of elevated chlordane concentrations. The source of this

contamination is considered to be contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued prior to 1998-99. (2009-1<sup>0</sup> NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2010).

Recreational use of the waterbody is somewhat limited by reduced water clarity and algal growth in this shallow, urban, eutrophic pond. (DEC/DOW, BWAM/LMAS, September 2009)

Aquatic life support is considered to be fully supported, but threatened based on a mostly favorable fishery assessment. The Bureau of Fisheries conducted a few fisheries surveys in the 1990's. These surveys indicated that the pond supported: largemouth bass, golden shiners, goldfish, common carp, brown bullhead, black crappie, pumpkinseed, bluegill, chain pickerel, yellow and white perch, and American eel. A new fisheries survey would need to be conducted to verify the pond still supports a similar fish community (DEC/DFWMR, Bureau of Fisheries, October 2007).

#### Water Quality Information

Smith Pond was included in the NYSDEC 2009 intensive (monthly sampling) Lake Classification and Inventory (LCI) survey of the Atlantic Ocean/ Long Island Sound basin. During these sampling visits water quality conditions were evaluated through standard limnological indicators. From the data collected in through the LCI in 2009, Smith Pond can be characterized as mesoeutrophic, or moderately to highly productive. The average water clarity reading is typical of eutrophic waterbodies) but was less favorable than expected given an average phosphorus reading that was typical of mesoeutrophic waterbodies), and an average chlorophyll a reading that was also typical of mesotrophic waterbodies. These data suggest that baseline nutrient levels may support persistent algae blooms; however, algal production may be limited by something other than phosphorus. Smith Pond appears to be typical of other shallow suburban/urban hardwater, uncolored, alkaline ponds. Like most shallow water bodies, Smith Pond does not exhibit thermal stratification. Spatterdock was observed to be growing in high densities throughout the pond, drastically reducing the amount of open water. Phosphorus, nitrate, iron, sodium and chloride were found to be at elevated concentrations in the pond. Dissolved oxygen levels in July and August of 2009 were very low even at the surface of the pond indicating possible stress to aquatic life. (DEC/DOW, BWAM/LMAS, March 2011)

The data collected through the LCI indicated that non-contact recreation is impacted by high densities of Nuphar sp. (spatterdock). The recreational suitability of the pond was described as "substantially impaired" to "enjoyment Impossible" due to reduced water clarity and high densities of spatterdock. Spatterdock covered nearly the entire pond with only small open water areas. The density of the spatterdock made boating nearly impossible for DEC field staff. In addition, the Bureau of Fisheries website indicates that the high densities of spatterdock make shoreline fishing difficult. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source of nutrients and other pollutants in the waterbody is urban/storm runoff from impervious surfaces in the highly developed watershed. The pond is located in a local park (Morgan Days Park) and the immediate surrounding area is forested. The source of the pesticide contamination is considered to be from lake sediments contaminated by past pesticide use. (DEC/DOW, BWAM/LMAS, March 2011)

#### Management Actions

No specific management actions have been identified for this waterbody. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the NYSDEC manual Diet for a Small Lake. (NYSDEC/FOLA, 2009)

#### Section 303(d) Listing

Smith Pond is included on the current (2014) Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as a water impaired due to fish consumption restrictions due to chlordane. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM, July 2014)

**Segment Description**

This segment includes the total area of Smith Pond and other lakes included in this segment, including Pines Pond (P1005a).

# Tribs to Smith Pond/Halls Pond (1701-0221)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-233-P1005-      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** C      Southern Long Island  
**Water Type/Size:** River      3.3 Miles      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Unconfirmed
Aquatic Life	Stressed	Unconfirmed
Fish Consumption	Impaired	Known
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: PESTICIDES (chlordan),  
Suspected: Nutrients, Silt/Sediment, Algal/Plant Growth  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT  
Suspected: Urban/Storm Runoff  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Tribs to Smith Pond/Halls Pond is assessed as an impaired waterbody due to fish consumption that is known to be impaired by pesticides. The source of the pesticide contamination is considered to be from past use and previously contaminated sediment. Other impacts to uses were noted in previous assessments but were not well documented and need to be verified.

### Use Assessment

Tribs to Smith Pond/Halls Pond is a Class C waterbody, suitable for use for general recreation and support of aquatic life, but not as a water supply of for public bathing.

Fish consumption in Halls Pond is impaired due to a NYS DOH health advisory that recommends eating no carp or goldfish because of elevated chlordan concentrations. The source of this contamination is considered to be

contaminated sediment, the result of past pesticide use. The advisory for this lake was first issued prior to 1998-99. The other waters of this segment do not have advisories but the advisories for Halls Pond and Smith Pond downstream suggest impact to the streams as well. (2009-10 NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2010).

Previous assessments indicated that aquatic life support may be limited by silt, sedimentation and nutrients from stormwater and urban nonpoint runoff and streambank erosion. Aesthetics in the stream are also a concern. (Nassau County WQCC, October 2000)

#### Water Quality Information

There is limited water quality data available for this waterbody.

Halls Pond, which was incorporated into this segment in 2014, was included in the NYSDEC 2009 intensive (monthly sampling) Lake Classification and Inventory (LCI) survey of the Atlantic Ocean/ Long Island Sound basin. From the data collected in 2009, Halls Pond can be characterized as eutrophic, or highly productive, with high algae levels, baseline nutrient levels that support persistent algal blooms, and low dissolved oxygen. Though these conditions suggest significant impacts, additional sampling on the larger waterbody is recommended in order to provide a more complete assessment of the segment. (DEC/DOW, BWAM/LMAS, July 2014)

#### Source Assessment

The source of the fish consumption impairment is considered to be contaminated sediment, the result of past pesticide use. Other specific sources of pollutants to this waterbody have not been fully confirmed, but based on surrounding land use are thought to include urban/stormwater runoff.

#### Management Actions

No specific management actions have been identified for this waterbody. Assessment to verify any possible impacts are present is appropriate. (DEC/DOW, BWAM, June 2014)

#### Section 303(d) Listing

Tribs to Smith Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Halls Pond is included on Part 2b of the current List as a fish consumption water due to pesticide contamination. The pond was first included on the List in 1998. Halls Pond has been assessed separately but was incorporated into this segment in 2014. Updating the List to reflect the combining of these assessments should be considered during the next listing cycle. (DEC/DOW, BWAM, March 2011)

#### Segment Description

This segment includes the total length of all tribs to Smith Pond, including Pines Stream (-1). The segment also include Halls Pond (P1008), which prior to 2014 was listed separately.

# South Pond (1701-0223)

# No Known Impacts

## Waterbody Location Information

Revised: 08/01/2014

<b>Water Index No:</b>	(MW8.4a) HB-233-P1005-2-P1011	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Hydro Unit Code:</b>	0203020202	<b>Class:</b>	C
<b>Water Type/Size:</b>	Lake		22.7 Acres
<b>Description:</b>	entire lake		<b>Reg/County:</b> 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: AQUATIC INVASIVE SPECIES  
 Suspected: - - -  
 Unconfirmed: - - -

**Source(s) of Pollutant(s)**

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

South Pond is assessed as having No Known Impacts; all evaluated uses are considered to be Fully Supported. Recreation use is evaluated as threatened based on the presence of aquatic invasive plants in the pond.

### Use Assessment

South Pond is a Class C waterbody, suitable for general recreation and support of aquatic life, but not as a water supply or for public bathing.

Recreational use, primarily fishing, is supported. There is evidence of nutrient enrichment, but this does not appear to significantly impact uses. Shoreline access is available in a number of locations. (DEC/DOW, BWAM/LMAS, March 2011)



Aquatic life is considered to be fully supported. The lake is stocked in the fall with rainbow, brown and brook trout, and the lake actively supports a population of largemouth bass, chain pickerel, black crappie, pumpkinseed sunfish, carp, yellow perch, brown bullhead, and American eel. (DEC/DOW, BWAM/LMAS, March 2011)

#### Water Quality Information

South Pond was surveyed by the NYS Office of Parks, Recreation and Historic Preservation (OPR) as part of the OPR ambient lake monitoring program in 2000, 2001, 2003 and 2007. The 2007 survey found Brazilian elodea (*Egeria densa*), an invasive exotic plant species. The limited water quality data indicated the lake has a slightly brownish color (indicative of natural tannins), circumneutral pH and moderately hard water. Phosphorus readings were fairly high (typical of eutrophic, or highly productive, lakes), although this does not appear to have resulted in low water clarity or evidence of significant algal blooms. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

No significant sources of pollutants to this waterbody have been identified.

#### Management Actions

No specific management actions have been identified for this waterbody. The lake is within the Hempstead Lake State Park and the NYS Office of Parks and Recreation is responsible for its management. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the NYSDEC manual Diet for a Small Lake (NYSDEC/FOLA, 2009).

#### Section 303(d) Listing

South Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. (DEC/DOW, BWAM, July 2014)

#### Segment Description

This segment includes the total area of the entire lake.

# Hempstead Lake (1701-0015)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-233-P1005-2-P1012      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 02030202/030      **Class:** C      Southern Long Island  
**Water Type/Size:** Lake      76.2 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** entire lake

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Fully Supported	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Unassessed	

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: NUTRIENTS (phosphorus)  
Suspected: Low D.O./Oxygen Demand  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Hempstead Lake is assessed as an impaired waterbody due to recreational uses that are known to be impaired by elevated levels of nutrients and associated algal blooms and weed growth. The source of the impacts is thought to be from urban/stormwater runoff and other nonpoint sources.

### Use Assessment

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

Recreational use is considered to be impaired by elevated levels of nutrients and associated algal blooms and weed growth. Although conditions impair contact recreation, boating and fishing are supported activities. (DEC/DOW, BWAM/LMAS, March 2011)

Aquatic life is considered to be fully supported. The lake and surrounding lakes support an active shoreline fishery for largemouth bass, chain pickerel, bluegill, pumpkinseed sunfish, black crappie, yellow perch, carp, goldfish, and brown bullhead. (DEC/DOW, BWAM/LMAS, March 2011)

#### Water Quality Information

Hempstead Lake, as well as other smaller nearby ponds included in this segment, were surveyed by the NYS Office of Parks, Recreation and Historic Preservation (OPR) as part of the OPR ambient lake monitoring program in one or more of the years 2000, 2001, 2003, 2004, and 2007. Hempstead Lake was also sampled monthly by the NYSDEC Division of Water as part of the Lake Classification and Inventory (LCI) ambient lake monitoring program in the summer of 1999. Hempstead Lake can be characterized as eutrophic, or highly productive. The typical water clarity reading is representative of eutrophic lakes and was as expected given the typical phosphorus and chlorophyll a readings which were also representative of eutrophic lakes. These conditions suggest that the lake is susceptible to algal blooms. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, the most likely source of pollutants in the waterbody is urban/storm runoff from the surrounding watershed. (DEC/DOW, BWAM/LMAS, March 2011)

#### Management Actions

No specific management actions have been identified for this waterbody. The lake is within the Hempstead Lake State Park and the NYS Office of Parks and Recreation is responsible for its management. A range of general best management practices and other recommendations to restore and protect water quality in all lakes is outlined in the NYSDEC manual Diet for a Small Lake (NYSDEC/FOLA, 2009).

#### Section 303(d) Listing

Hempstead Lake is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as a waterbody with impairments requiring a TMDL due to phosphorus. This waterbody was first listed on the 2002 Section 303(d) List. (DEC/DOW, BWAM, March 2011)

#### Segment Description

This segment includes the total area of the entire lake, as well as other smaller ponds in the Hempstead Lake State Park: McDonald Pond, Schodack Pond, and unnamed ponds (P1012b, P1012c). (DEC/DOW, BWAM/LMAS, March 2011)

# Grant Park Pond (1701-0054)

**Impaired**

## Waterbody Location Information

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Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-235-P1017a  
**Hydro Unit Code:** 02030202/030    **Class:** C  
**Water Type/Size:** Lake                      12.1 Acres  
**Description:** entire lake

**Drain Basin:** Atlantic-Long Island Sound  
Southern Long Island  
**Reg/County:** 1/Nassau Co. (30)

## Water Quality Problem/Issue Information

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Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Stressed	Known
Fish Consumption	Impaired	Known

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)

Known: NUTRIENTS (phosphorus), PRIORITY ORGANICS (PCBs), D.O./Oxygen Demand, Silt/Sediment  
Suspected: Algal/Plant Growth (vegetation, algal blooms)  
Unconfirmed: Pathogens

**Source(s) of Pollutant(s)**

Known: URBAN/STORM RUNOFF, Other Sanitary Disch  
Suspected: TOX/CONTAM. SEDIMENT  
Unconfirmed: - - -

## Management Information

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**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

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### Overview

Grant Park Pond is assessed as an impaired waterbody due to recreational use and fish consumption that are known to be impaired. Recreation is limited by high nutrient levels that result in excessive algal and plant growth. Fish consumption is restricted due to PCB contamination. Urban/stormwater runoff, and past use of pesticides and contaminated sediments are the likely sources of pollutants to the waterbody.

### Use Assessment

Grant Park Pond is a Class C waterbody, suitable for general recreation use and support of aquatic life, but not as a water supply, or as a public bathing beach.

Recreational use of the waterbody is limited by poor water clarity and other eutrophic conditions that are the result of elevated nutrient levels in this small, shallow, urban lake. (DEC/DOW, BWAM/LMAS, 2000)

Fish consumption in Grant Park Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of carp because of elevated PCB levels. The advisory for this lake was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2010).

#### Water Quality Information

Grant Park Pond was included in the 1999 Lake Classification and Inventory study by NYSDEC. Results of this monitoring study found elevated phosphorus and poor clarity in the lake throughout the summer. (DEC/DOW, BWAM/LMAS, 2000)

#### Source Assessment

Most of the impairment to recreational use in the waterbody is attributable to poor stormwater management practices which result in the direct input of stormwater runoff into the pond. The source of this contamination is considered to be contaminated sediment, the result of past industrial discharges. (DEC/DOW, BWAM/LMAS, 2000)

#### Management Actions

The lake was included in the Nassau County Suburban Pond Management Plan. However no additional specific management actions have been identified for the waterbody. (Nassau County WQCC, October 2000)

#### Section 303(d) Listing

Grant Park Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL for phosphorus. The waterbody is also included on Part 2b of the List as impaired due to a fish consumption advisory due to chlordane contamination. This waterbody was first listed on the 1998 List for both of these pollutants. (DEC/DOW, BWAM/WQAS, July 2014)

#### Segment Description

This segment includes the total area of the entire lake.

# Woodmere Channel (1701-0219)

# Impaired

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-236      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 02030202/030      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      26.2 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** entire channel

## Water Quality Problem/Issue Information

Use(s) Impacted	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Impaired	Suspected
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Poor	
Aesthetics	Poor	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen), PATHOGENS,  
Suspected: Oxygen Demand/Low D.O., Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: MUNICIPAL (Bay Park, Others), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Woodmere Channel is assessed as an impaired waterbody due to shellfishing, public bathing and recreation uses that are known to be precluded/impaired by pathogens and nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to Hempstead Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels.

### Use Assessment

Woodmere Channel is a class SA waterbody, classified for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the Channel is restricted due to the designation of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. A year round shellfishing closure applies to the all tidal waters of the bay. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Public bathing and recreational use may also experience minor impacts from elevated bacteriological levels. However there are no designated beaches in this portion of the Channel and beach monitoring is not conducted at any location in the segment. (DEC/DOW, BWAM and Reg 1, May 2014)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014)

#### Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

#### Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to the Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWAM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Woodmere Channel is included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody is included on Part 1 of the List as a water requiring development of a TMDL for nitrogen. The waterbody is also included on Part 2c of the List as a shellfishing restricted water due to pathogens. This waterbody was first listed on the 2002 Section 303(d) List for pathogens and was added to the 2014 List due to nitrogen. (DEC/DOW, BWAM, May 2014)

#### Segment Description

This segment includes the entire channel.



# Bannister Creek/Bay (1701-0380)

**Impaired**

## Waterbody Location Information

Revised: 08/01/2014

**Water Index No:** (MW8.4a) HB-237, 237a      **Drain Basin:** Atlantic-Long Island Sound  
**Hydro Unit Code:** 0203020202      **Class:** SA      Southern Long Island  
**Water Type/Size:** Estuary      72.7 Acres      **Reg/County:** 1/Nassau Co. (30)  
**Description:** total area of bay, north of Reynolds Channel

## Water Quality Problem/Issue Information

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Shellfishing	Precluded	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Poor	
Aesthetics	Poor	

**Type of Pollutant(s)** (CAPS indicate MAJOR Pollutants/Sources)  
Known: ALGAL/PLANT GROWTH (ulva/sea lettuce), NUTRIENTS (Nitrogen), PATHOGENS, Oxygen Demand/Low D.O.  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: Ammonia

**Source(s) of Pollutant(s)**  
Known: MUNICIPAL (Bay Park, Others), Urban/Storm Runoff  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** Funding for Strategy Implementation Needed  
**Lead Agency/Office:** DOW/BWC  
**IR/305(b) Code:** Impaired Water Requiring a TMDL (IR Category 5)

## Further Details

### Overview

Bannister Creek/Bay is assessed as an impaired waterbody due to shellfishing, public bathing and recreation uses that are known to be precluded/impaired by pathogens and nutrients (nitrogen) and resulting excessive macroalgae growth. Large municipal wastewater discharges to the Bay and adjacent waterbodies (Bay Park WWTP, Long Beach WWTP and West Long Beach WWTP) have been identified as the primary source of nutrients. Stormwater and urban nonpoint runoff from this highly developed watershed are also sources of pathogens and other pollutants. Fish consumption is considered to experience minor impacts due to precautionary health advisories limiting the consumption of certain species due to elevated PCB levels. This assessment is based on a previous combined assessment of Hempstead Bay that included these waters.

## Use Assessment

Bannister Creek/Bay is a class SA waterbody, suitable for use for shellfishing, public bathing, general recreation uses and support of aquatic life.

Shellfish harvesting for consumption purposes in the bay is restricted due to the designation of the area (included within Hempstead Bay Shellfish Growing Area #1) as uncertified for the taking of shellfish for use as food. A year round shellfishing closure applies to the all tidal waters of the bay. Shellfish that grow in contaminated waters can accumulate disease causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. The uncertified 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)

Public Bathing and recreational uses are considered to be impaired due to the proliferation of macroalgae (ulva, or sea lettuce) throughout the waterbody, largely attributed to excessive nitrogen levels. The ulva mats cover surface waters for much of the summer. Eventually the ulva dies and sinks to the bottom of the bays where it drains oxygen from the waters, or it washes up on shore where it rots leaving beaches unsuitable for recreation. Recreational uses are also affected by the restrictions on shellfishing. Beach monitoring is not routinely conducted at any location in the segment. (2008 beach monitoring data as cited in Testing the Waters, NRDC, 2009)

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](http://www.nyhealth.gov/environmental/outdoors/fish/fish.htm). (2009 10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010)

Both the habitat and aesthetic condition of the waterbody are significantly affected by the excessive macroalgae growth. In addition to feeding algae growth, high nitrogen levels also damage and degrade coastal marshlands, the loss of which negatively affects aquatic and coastal wildlife and reduced natural protection from erosion and shoreline storm damage. (DEC/DOW and DFWMR, May 2014),

## Water Quality Information

NYSDEC, in partnership with NYSDOS, SUNY School of Marine and Atmospheric Sciences, and others, has contributed funding to support studies of this system, as well as the development of a nitrogen TMDL for these waters. Other water quality information supporting the assessment include bathing beach sampling, restrictions on shellfishing and a precautionary restriction on fish consumption, and the well documented proliferation of macroalgae. (DEC/DOW, BWAM and Reg 1, April 2014)

## Source Assessment

The primary source of nutrient pollutant to the waterbody is large municipal wastewater discharges to the Bay and adjacent waterbodies. The most significant of these is the Bay Park WWTP, which discharges 50-plus MGD of wastewater into adjacent Reynolds Channel which tides, prevailing winds and currents then push into the shallow backwaters and marshes of Hempstead Bay. The discharges from the Bay Park facility, along with two other facilities (Long Beach WWTP and West Long Beach WWTP) contribute over 80% of the nitrogen pollution load to the Hempstead/Western Bays complex. Impacts from Bay Park were further exacerbated when the plant suffered considerable damage during Superstorm Sandy in 2012. (DEC/DOW, BWC and Reg 1, May 2014)

Stormwater and urban/nonpoint runoff from this highly developed watershed are the presumed sources of pathogens and other pollutants. Wildlife sources (waterfowl) may also contribute pathogens to the waterbody. (DEC/DOW, BWRM, May 2014)

Impacts to fish consumption due to elevated PCB levels in specific species is thought to be the result of the migratory range of these species, which are contaminated in other waters; there are no significant sources of contaminated sediments in the waters of this waterbody. (DEC/DOW, BWAM, May 2014)

#### Management Actions

There are significant efforts to reduce the nutrient loading from wastewater discharges to the Western Bays complex. These reductions are expected to reduce the growths of macroalgae in back bay areas that are subsequently spread throughout the adjacent waters. A number of studies by SUNY SoMAS and others have identified excessive nitrogen loads in the shallow, warm waters of the Bay as the primary cause of the impairment. These studies provide a foundation for the development of a Total Maximum Daily Load (TMDL) to address nitrogen impairment. However efforts to address the documented largest source of nitrogen load – the municipal wastewater discharges – are already underway. The efforts under consideration include consolidation of the multiple wastewater facilities, enhanced treatment to reduce nitrogen concentrations, and the relocation of the discharge out of the Western Bay entirely and to the Atlantic Ocean. (DEC/DOW, BWRM, May 2014)

Stormwater and nonpoint runoff from urbanized areas is regulated through the NYSDEC Municipal Separate Storm Sewer System (MS4) permit program. This general permit provides coverage for MS4 entities that develop and implement a stormwater management program to reduce runoff. (DEC/DOW, BWP, May 2014)

Recent changes to marine ammonia water quality standards necessary to protect resources resulted in the modification of SPDES permit limits for facilities that discharge to Hempstead Bay waters. These more stringent standards require changes to treatment processes and/or upgrades to existing treatment facilities at three (3) facilities Bay Park, Lawrence and Long Beach) that discharge to Hempstead Bay/Reynolds Channel waters. Final permit limits for these facilities will be established by the nitrogen TMDL currently being developed. (DEC/DOW, BWC and Reg 1, May 2014)

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 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. A council of local stakeholders led by the NYS Department of State directs the activities of the SSER. (DEC/DOW, Region 1, May 2014)

#### Section 303(d) Listing

Bannister Creek/Bay is not specifically included on the current (2014) NYS Section 303(d) List of Impaired Waters. The waterbody was considered included to be a part of the Hempstead Bay (1701-0032) segment on Part 1 of the List as a water requiring development of a TMDL for nitrogen. The waterbody is also included on Part 2c of the List as a shellfishing restricted water due to pathogens. This waterbody was first listed on the 1998 Section 303(d) List for pathogens and was added to the 2006 List due to nitrogen. The Bannister Creek/Bay segment was subsequently separated and should be considered for addition to the List during the next listing cycle. (DEC/DOW, BWAM/WQAS, May 2014)

#### Segment Description

This segment includes all Class SA waters of the creek and bay, north of Reynolds Channel.





## Great South Bay/Fire Island Inlet Watershed (0203020204)

Water Index Number	Waterbody Segment	Category
(MW7.3) AO-GSB (portion 2)	Great South Bay, Middle (1701-0040)	Impaired
(MW7.3) AO-GSB (portion 3)	Great South Bay, West (1701-0173)	Impaired
(MW7.6) AO-GSB (portion 6)	Nicoll Bay (1701-0375)	Impaired
(MW7.6) AO-GSB-191 thru 192	Tidal Tribs to Nicoll Bay (1701-0392)	Minor Impacts
(MW7.6) AO-GSB-193	Connetquot River, Lower, and tribs (1701-0337)	Minor Impacts
(MW7.6) AO-GSB-193	Connetquot River, Upper, and tribs (1701-0095)	No Known Impacts
(MW7.6) AO-GSB-193-2-P903	West Brook Pond (1701-0339)	Threatened
(MW7.7) AO-GSB-193..P304	Lake Ronkonkoma (1701-0020)	Impaired
(MW7.8) AO-GSB (portion 7)	Great Cove (1701-0376)	Impaired
(MW7.8) AO-GSB-193a thru 204 (sel)	Tidal Tribs to Great South Bay, Middle (1701-0338)	Minor Impacts
(MW7.8) AO-GSB-194	Champlin Creek, Upper, and tribs (1701-0019)	Impaired
(MW7.8) AO-GSB-194-P910,P911,P912	Winganhauppauge, Knapp Lakes (1701-0340)	Unassessed
(MW7.8) AO-GSB-196	Orowoc Creek, Upper, and tribs (1701-0094)	Impaired
(MW7.8) AO-GSB-196-P915,P916	Pardees, Orowoc Lakes (1701-0341)	Unassessed
(MW7.8) AO-GSB-197	Awixa Creek, Upper, and tribs (1701-0093)	Impaired
(MW7.8) AO-GSB-198	Penataquit Creek, Upper, and tribs (1701-0092)	Impaired

<b>Water Index Number</b>	<b>Waterbody Segment</b>	<b>Category</b>
(MW7.8) AO-GSB-201-P924	Cascade Lake (1701-0342)	Unassessed
(MW7.8) AO-GSB-204 thru 216	Tidal Tribs to Great South Bay, West (1701-0372)	Minor Impacts
(MW7.8) AO-GSB-205	Willets Creek, Upper, and tribs (1701-0091)	Unassessed
(MW7.8) AO-GSB-205-P934	Lake Capri (1701-0175)	Impaired
(MW7.8) AO-GSB-207	Sampawams Creek, Upper, and tribs (1701-0090)	Impaired
(MW7.8) AO-GSB-207-P938,P939	Guggenheim Lakes (1701-0343)	Unassessed
(MW7.8) AO-GSB-208	Carlls River, Upper, and tribs (1701-0089)	Threatened
(MW7.8) AO-GSB-208-P943	Argyle Lake (Memorial Pond) (1701-0344)	No Known Impacts
(MW7.8) AO-GSB-208-P946	Southards Pond (1701-0345)	Threatened
(MW7.8) AO-GSB-208-P947	Elda Lake (1701-0346)	Threatened
(MW7.8) AO-GSB-208-P949	Belmont Lake (1701-0021)	Minor Impacts
(MW7.8) AO-GSB-210	Santapogue Creek, Upper, and tribs (1701-0016)	Unassessed
(MW7.8) AO-GSB-211	Neguntatogue Creek, Upper, and tribs (1701-0088)	Needs Verification

# Great South Bay, Middle (1701-0040)

# Impaired

## Waterbody Location Information

Revised: 04/01/2016

**Water Index No:** (MW7.3) AO-GSB (portion 2) **Water Class:** SA  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** Estuary Waters 30812 Acres **Reg/County:** 1/Suffolk (52)  
**Description:** portion of bay, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Stressed	Known
Public Bathing	Stressed	Known
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
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.

Much 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 restrictions adjacent to Great Cove and at the outlet of the Ocean Beach STP outfall. Seasonal restrictions apply in the northeastern portion of the segment, and adjacent Ocean Beach, Clam Pond and other Fire Island communities and marinas along the southern shore. These year-round or seasonally uncertified waters are quite small relative to the size of the Bay (less than 10%). 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](http://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)

Recreational use including public bathing is considered to be stressed based on monitoring at beaches in shellfishing waters in the segment. Beach monitoring revealed occasional elevated bacteriological levels that occurred in more than ten percent of the samples and resulted in closures at a number of beaches. Other occasional beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches with higher frequency of elevated bacteria and/or sampling-based closures include Point O'Woods Association Bay, Atlantique Beach (Bay), Sayville Marina Park Beach and Bayport Beach. Other regularly sampled beaches within this reach that report few if any water quality problems or closures include Seaview Beach, Ocean Beach (Bay), Dunewood POA Beach, Fair Harbor Community Association Beach and Saltaire 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](http://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 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 sewerage 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 sewerage is not viable. (DEC/DOW, BRWM, November 2015)

Great South Bay has been identified by NYSDEC as 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 resulting 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 the Robert Moses Causeway Bridge and Blue Point. Nicoll Bay and Great Cove waters are listed separately.

# Great South Bay, West (1701-0173)

# Impaired

## Waterbody Location Information

Revised: 04/01/2016

**Water Index No:** (MW7.3) AO-GSB (portion 3) **Water Class:** SA  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** Estuary Waters 11513.5 Acres **Reg/County:** 1/Suffolk (52)  
**Description:** portion of bay, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Stressed	Known
Public Bathing	Stressed	Known
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
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.

Much of this portion of Great South Bay (Shellfish Growing Area #3) has been certified as safe for the taking of shellfish for use as food. Many of these restrictions apply to Class SA, SC waters which are listed separately. Year-round restrictions apply to the northern near-shore waters and area around Oak Island. Seasonal closures apply to areas 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 10%). 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](http://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)

Recreational use including public bathing is considered to be stressed based on monitoring at beaches in shellfishing waters in the segment. Beach monitoring revealed occasional elevated bacteriological levels that occurred in more than ten percent of the samples, however this sampling is limited to a single beach within the segment. Regularly sampled beaches within this segment is limited to Tanner Park Beach, while two other beaches - Amityville Beach and Venetians Shores Beach - are located in tribs to the Bay. (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 an 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](http://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 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 sewerage 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 sewerage is not viable. (DEC/DOW, BRWM, November 2015)

Great South Bay has been identified by NYSDEC as 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 resulting 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 the Suffolk–Nassau County line and the Robert Moses Causeway.

# Nicoll Bay (1701-0375)

**Impaired**

## Waterbody Location Information

Revised: 04/01/2016

**Water Index No:** (MW7.6) AO-GSB (portion 6) **Water Class:** SA  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** Estuary Waters 1111.3 Acres **Reg/County:** 1/Suffolk (52)  
**Description:** entire bay, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Onsite/Septic Systems, 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

Nicoll Bay is assessed as an impaired waterbody due to shellfishing use that is known to be precluded 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

Nicoll 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 much of the area

(Shellfish Growing Area #5) as only seasonally certified for the taking of shellfish for use as food. Seasonal restrictions apply to the portion of the bay north of a line from the Timber Point West Marina to the foot of West Avenue in West Sayville. 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 minor impacts based on monitoring at beaches in the segment. Beach monitoring revealed occasional elevated bacteriological levels at beaches, but typically these results occurred in less than ten percent of the samples and the sampling resulted in few closures. 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 West Oaks Recreation Club 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.htm](http://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

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 sewerage 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 sewerage is 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

Nicoll Bay is included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed on the 2002 Section 303(d) List. The waterbody is also referenced on the current List, noted as a tributary to the nitrogen impaired embayment of Great South Bay. (DEC/DOW, BWAM, April 2016)

#### Segment Description

This segment includes the Class SA waters north of a line from Nicoll Point to Green Point. Connetquot River (-193) is listed separately.

# Tidal Tribs to Nicoll Bay (1701-0392)

# Minor Impacts

## Waterbody Location Information

Revised: 7/10/2016

**Water Index No:** (MW7.6) AO-GSB-188a thru 190  
**Hydro Unit Code:** Carmans River-Great South Bay (0203020203)  
**Water Type/Size:** Estuary Waters 64.1 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

The Nicoll 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

Nicoll 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 sewerage 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 sewerage is 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).

# Connetquot River, Lower, and tribs (1701-0337)

# Minor Impacts

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.6) AO-GSB-193  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Estuary Waters 465.9 Acres  
**Description:** reach and tribs from mouth to Montauk Highway (tidal)

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: Urban/Storm Runoff, Other Source (boat pollution)  
Unconfirmed: Onsite/Septic Systems

## Management Information

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

## Further Details

### Overview

This portion of Connetquot River is assessed as a waterbody having minor impacts due to recreational uses that are thought to be stressed by pathogens due to pathogens from urban stormwater runoff and other nonpoint sources. This assessment is based on pathogens levels identified through shellfishing program monitoring. Algal growth (brown tides) may also impact uses.

### Use Assessment

This portion of Connetquot 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 #5) have been designated as uncertified or only seasonally certified 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. 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) sampling at a freshwater site above this reach in 2009 found non-impacted water quality. Similar results were found during 2003 and 2004 sampling. (DEC/DOW, BWAM/SBU, November 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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

This portion of Connetquot River is not included on the current (2014) 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 the stream between the mouth and Route 27, including tribs -1, -1a and

tidal portion of West Brook (-2).

# Connetquot River, Upper, and tribs (1701-0095)

# No Known Impacts

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.6) AO-GSB-193  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** River/Stream 7.8 Miles  
**Description:** stream and tribs above Montauk Highway (freshwater)

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Fully Supported	Suspected
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Known
Fish Consumption	Fully Supported	Unconfirmed

**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:** No Action Needed  
**Lead Agency/Office:** ext/SSER  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This portion of the Connetquot River is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Aquatic life is considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no impacts to recreational (fishing) uses. The stream supports native brook trout and is the only source of water for the Connetquot River Fish Hatchery. (DEC/DOW, BWAM/SBU, December 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 Connetquot River in Oakdale (at state park hatchery) was conducted as part of the RIBS biological screening effort in 2009. Sampling results indicated non-impacted conditions and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Aquatic life community is fully supported. These results are consistent with a biological assessment at this site conducted in 2003 and 2004. Sampling was also conducted on Rattlesnake Creek, a trib to Connetquot River, in 2013 and 2008. Results of this sampling indicated slightly impacted conditions. The nutrient biotic index and impact source determination indicate some elevated enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects. (DEC/DOW, BWAM/SBU, November 2010)

NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring of Connetquot Creek in Oakdale 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 non-impacted conditions. Water column chemistry measurements indicate dissolved aluminum, dissolved oxygen and pH to be parameters of concern. However the biological results suggest these conditions are not limiting aquatic life. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. 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 no contaminant to be elevated. Based on the consensus of these established assessment indicators, overall water quality at this site shows that aquatic life and recreational uses are considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses). (DEC/DOW, BWAM/SMAS, May 2011)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

Upper Connetquot River 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 freshwater portion of the stream and tribs, including Rattlesnake Creek (-3) and the freshwater portion of trib -2, above Route 27.

# West Brook Pond (1701-0339)

**Threatened**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.6) AO-GSB-193-2-P903  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 14.6 Acres  
**Description:** entire pond

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

West Brook Pond is assessed as threatened due to recreational uses that are thought to be threatened by invasive plant growth. Although uses are currently fully supported, the presence of invasive plants raise concerns and condition should continue to be monitored.

### Use Assessment

West Brook Pond 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.

Recreational uses are considered to be fully supported but threatened due to presence of invasive plant growth (water milfoil, fanwort). Water quality appears to be supportive of uses, however sampling is limited and follow up monitoring is recommended. This waterbody is considered to support a suitable cold water fishery. (DEC/DOW, BWAM/LMAS, July 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

West Brook Lake was surveyed by the NYS Office of Parks, Recreation and Historic Preservation (OPR) as part of the OPR ambient lake monitoring program in 2000, 2001, 2003 and 2006. Aquatic plant surveys were also conducted by OPR staff in 2006 as part of a joint DEC–OPR–TNC aquatic plant survey of Long Island lakes. This survey work found a wide variety of native plants, as well as variable watermilfoil (*Myriophyllum heterophyllum*) and fanwort (*Cabomba caroliniana*), invasive exotic plant species. The limited water quality data indicated that the pond has moderately softwater, circumneutral pH, fully oxygenated water, and slight turbidity. (DEC/DOW, BWAM/LMAS, March 2011)

There is no indication of any present impacts to fishing in the lake. The presence of invasives could impact recreational use, though the lake is not used for boating. There is no indication of any present impacts to aquatic life in West Brook Pond, although the presence of invasives watermilfoil may ultimately threaten the biological condition and aquatic life in the lake. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Beyond the habitat modification related to the invasive plants, there are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified for the waterbody. West Brook Pond is a small pond within the Bayard Cutting Arboretum State Park in Great River, Suffolk County. It is designated as a passive recreation park. (DEC/DOW, BWAM/LMAS, March 2011)

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total area of the entire lake.

# Lake Ronkonkoma (1701-0020)

**Impaired**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.7) AO-GSB-193..P304  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 226.3 Acres  
**Description:** entire lake

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Stressed	Known
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Poor
Aesthetics	Poor

### Type of Pollutant(s)

Known: PATHOGENS, NUTRIENTS (phosphorus), ALGAL/PLANT GROWTH (native), AQUATIC INVASIVE SPECIES, Low D.O./Oxygen Demand  
Suspected: Silt/Sediment  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, Habitat Alteration  
Suspected: Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Lake Ronkonkoma is assessed as an impaired waterbody due to public bathing and recreational uses that are known to be impaired by pathogens, high nutrient loads, excessive aquatic weed growth, occasional algal blooms and reduced water clarity. Habitat is stressed by the occurrence of invasive species (Hydrilla). The fishery is considered stressed by low hypolimnetic dissolved oxygen. Urban stormwater runoff and other nonpoint sources are the primary contributing source of pollutants.

Lake Ronkonkoma is the largest of Long Island's freshwater lakes. The lake is a glacial kettlehole lake and no outlet and only a minor inlet (draining from the Great Swamp north of the lake). Water level is controlled by the local water table. Portions of the lake's irregular basin are unusually deep for Long Island (65 feet), but most of the lake is less than 15 feet deep.

### Use Assessment

Lake Ronkonkoma is a Class B waterbody, suitable for public bathing, general recreation use and support of aquatic life,

but not as a water supply.

Recreational uses considered to be impaired due pathogen levels, elevated nutrients (phosphorus), excessive algae and plant growth. Frequent beach closures due to high coliform counts occur frequently. Swimming was at one time permitted from the beaches operated by the towns of Islip and Brookhaven; however, there have been numerous beach closures over the past several years due to high bacteria levels, and swimming has not been allowed for at least three years. (DEC/DOW, BWAM/LMAS, July 2013)

Aquatic life is currently considered to be stressed based on suspected low dissolved oxygen related to the eutrophic condition of the lake and low dissolved oxygen. The fishery is limited at depths greater than 15 feet because there is seldom enough dissolved oxygen to sustain fish beyond this depth, though most of the lake is less than 15 feet deep. The primary gamefish are largemouth bass and smallmouth bass, but locating them is a challenge due to the scarcity of natural structure to attract these fish. (DEC/DOW, BWAM, January 2016)

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

#### Water Quality Information

Water quality sampling of Lake Ronkonkoma has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program, most recently in 2009. The lake is also surveyed annually by the Division of Fish Wildlife and Marine Resources (DFWMR). In 2006 a plant survey was conducted at the lake by the Division of Water as part of a joint effort by New York State Office of Parks Recreation and Historical Preservation, The Nature Conservancy and DEC to assess the plant communities of Long Island lakes. The lake was also sampled as part of a pilot State Wide Lake Biomonitoring project in 2009, during which water quality conditions were evaluated through standard limnological indicators. Based on the single water quality sampling event in 2009, and consistent with historical data, Lake Ronkonkoma can generally be characterized as eutrophic, or highly productive. This assessment is supported by chlorophyll/algal levels above criteria corresponding to impaired recreational uses, while phosphorus concentrations are also typically high. Lake clarity observations indicate water transparency is typically poor. These data suggest that baseline nutrient levels support at least occasional algae blooms in the lake, and high algae levels are regularly reported during the summer months. (DEC/DOW, BWAM/LMAS, March 2011)

Lake Ronkonkoma is atypical of other Long Island waterbodies due to both its overall size and depth. Like most deep waterbodies, Lake Ronkonkoma exhibits thermal stratification. Anoxic conditions and elevated deepwater nutrient (phosphorus and ammonia) readings are found in the hypolimnion (bottom waters), which is consistent with data collected by FWMR. High levels of sodium and chloride were found, indicating impacts from runoff through developed areas. A fisheries survey in 2005 found the invasive species *Cabomba caroliniana* (fanwort) at a single location in the lake; however it has not been found in subsequent years. During the 2009 DOW sampling event the highly invasive species *Hydrilla verticillata*, was found at four of the eight sampling sites around the lake shoreline, and subsequent NYSDEC DFW surveys reported explosive growth of this plant throughout the littoral zone in 2010. This species was first found in New York State and on Long Island in 2008. This plant is known to out-compete many native plants as well as alter the physical and chemical characteristic of the waterbodies it invades. It is also known to grow at such high densities that boating, fishing, and swimming can be impacted. Aesthetics in the lake are stressed due to definite algal greenness. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, urban/storm runoff and other nonpoint sources are the most likely sources of impacts to the waterbody. Significant shoreline residential development are contributes to impacts.

#### 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 sewerage

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 sewerage is not viable. (DEC/DOW, BRWM, November 2015)

Suffolk County has also undertaken drainage improvement projects and other efforts around the lake over the years. These include a 1986 Clean Lakes Project nutrient flow study, and habitat enhancement projects. (DEC/DOW, Region 1 and DEC/DFWMR/Fisheries, March 2011)

#### Section 303(d) Listing

Lake Ronkonkoma 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 for both pathogens and phosphorus, and the resulting low dissolved oxygen. This waterbody was first listed on the 2002 List. The Lake is also impaired by algal/plant growth and aquatic invasive species, but these impairments cannot be addressed with a TMDL and therefore do not result in listings. (DEC/DOW, BWAM/WQAS, January 2016)

#### Segment Description

This segment includes the total area of the entire lake.

# Great Cove (1701-0376)

Impaired

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB (portion 7) **Water Class:** SA  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** Estuary Waters 3495.5 Acres **Reg/County:** 1/Suffolk (52)  
**Description:** entire cove, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Precluded	Known
Public Bathing	Stressed	Known
Recreation	Stressed	Known
Aquatic Life	Stressed	Suspected
Fish Consumption	Stressed	Suspected

### Conditions Evaluated

Habitat/Hydrology	Unassessed
Aesthetics	Unassessed

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known:	URBAN/STORM RUNOFF
Suspected:	Onsite/Septic Systems, Other Source
Unconfirmed:	- - -

## Management Information

**Management Status:** Verification of Sources Needed  
**Lead Agency/Office:** DEC/FWMR  
**IR/305(b) Code:** Impaired Water, TMDL Completed (IR Category 4a)

## Further Details

### Overview

Great Cove is assessed as an impaired waterbody due to shellfishing use that is known to be precluded 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 also thought to be stressed due to impacts from occasional algal blooms (brown tides). The larger Great South Bay is listed as impaired due to nitrogen and brown tide.

### Use Assessment

Great Cove 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 designation of virtually the entire area as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

Recreation use and public bathing are considered to be supported but stressed. Beach monitoring revealed occasional elevated bacteriological levels at beaches, but typically these results occurred in less than ten percent of the samples and the sampling resulted in few closures. 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 East Islip Beach, Islip Beach, Brightwaters Beach, Benjamins Beach and Bayberry Beach and Tennis Club. (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 an 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)

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

#### Water Quality Information

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

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 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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Great Cove is included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2c of the List as a shellfishing restricted water. This waterbody was first listed on the 2010 Section 303(d) List. (DEC/DOW, BWAM, April 2016)

#### Segment Description

This segment includes the Class SA waters north of a line from Conklin Point to Nicoll Point.

# Tidal Tribs to Great South Bay, Middle (1701-0338)

# Minor Impacts

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-193a thru 204 (sel)      **Water Class:** SC  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)      **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** Estuary Waters      324.1  
Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** total area of selected tidal tribs to bay

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: Pathogens  
Suspected: Nutrients (nitrogen)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** Restoration/Protection Strategy Needed  
**Lead Agency/Office:** ext/SSER  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 2)

## Further Details

### Overview

The Tidal Tribs to Middle Great South Bay segment is assessed as having minor impacts due to recreational uses that are known to be stressed by pathogens from urban/storm runoff and other nonpoint sources. Nutrient loads and resulting algal growth (brown tide) may also impact uses. Residential onsite/septic systems serving this high-density area are likely sources of pollutants.

### Use Assessment

The Tidal Tribs to Middle Great South Bay segment is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water or for public bathing.

Recreational use is considered to experience minor impacts based on monitoring at beaches in the segment and the shellfish advisory indicating somewhat elevated bacteriological levels. Beach monitoring revealed no elevated bacteriological levels at beaches and few closures. Occasional beach closures that do occur are pre-emptive closures



during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Merrick Estates Civic Association Beach. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

Shellfishing harvesting for consumption purposes in these tribs is restricted due to the year-round and seasonal designations of these waters (a portion within Shellfish Growing Area #4) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions indicate other recreational uses could be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

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)

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

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

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 sewerage 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 sewerage is 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 is in place for South Shore Estuary waters to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

The Tidal Tribs to Middle Great South Bay segment is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM, August, 2014)

#### Segment Description

This segment includes Class SC portions of tribs Heckscher Canal (-193a), Quintuck Creek (-194a), Champlin Creek (-194), unnamed tribs -194b, -194c, -195, Orowoc Creek (-196), Awixa Creek (-197), Penataquit Creek (-198), Watchogue Creek (-199), unnamed trib -199a, Lawrence Creek (-200), Brightwaters Canal (-201), Thorn Canal (-202), Isbrandsen Canal (-202a), Thompsons Creek (-203), Trues Creek (-204).

# Champlin Creek, Upper, and tribs (1701-0019)

Impaired

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-194  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** River/Stream 2.2 Miles  
**Description:** stream and tribs above P910 (freshwater)

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Upper Champlin Creek is assessed as an impaired waterbody due to recreational uses and aquatic life that is known to be impaired. No specific pollutant or sources have been identified, but sampling results indicate organic impacts from municipal or other sources are present. Surrounding land use also suggest urban stormwater runoff and onsite/septic impacts.

### Use Assessment

Upper Champlin 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. 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. This sampling can also be used to infer that there are also significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (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 Champlin Creek in East Islip (at Moffitt Blvd) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. The nutrient biotic index indicates elevated enrichment and impact source determination reveals a community that is most similar to those with impacts from municipal discharges or organic wastes. Water quality is considered to be poor and aquatic life is not supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, December 2015)

These sampling results are consistent with results found during sampling of the creek conducted in 2003, 1998 and 1994. All results indicated moderately impacted water quality conditions. The stream bottom was mostly sand gravel, and the fauna was dominated by midges and scuds. (DEC/DOW, BWAR/SBU, December 2015)

Regional Fisheries staff has reported the stream no longer supports trout populations. Sewering has reduced groundwater recharge thus lowering groundwater levels. Consequently there is less cold water from groundwater influencing the stream. (DEC/DFWMR, Region 1, 1998)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants/impacts to the waterbody are urban stormwater runoff and other nonpoint sources, include onsite wastewater treatment discharges in this high-density residential area.

#### Management Actions

No specific management actions have been identified for the waterbody. However the 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 \$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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Upper Champlin Creek 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 a waterbody for which TMDL development is required to address thermal impacts. This waterbody was first listed in 2002. This updated assessment suggests that an additional listing reflecting a cause/pollutant of “Unknown,” but related to biological impacts, be considered during the next update. Such a listing should be included on Part 3b of the List as a impaired waterbody for which TMDL development made be deferred pending verification of the cause/pollutant. (DEC/DOW, BWAM, January 2016)

### Segment Description

This segment includes the freshwater portion of the stream and tribs above unnamed pond (P910).

# Lower/Upper Winganhauppauge, Knapp Lakes (1701-0340) Unassessed

## Waterbody Location Information

Revised: 05/18/2016

<b>Water Index No:</b>	(MW7.8) AO-GSB-194-P910,P911,P912	<b>Water Class:</b>	C
<b>Hydro Unit Code:</b>	Great South Bay-Fire Island Inlet (0203020204)	<b>Drainage Basin:</b>	Atlantic-Long Island Sound
<b>Water Type/Size:</b>	Lake/Reservoir 31.7 Acres	<b>Reg/County:</b>	1/Suffolk (52)
<b>Description:</b>	total area of all three lakes		

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
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. A portion of this segment is also designated as a cold water (trout) fishery.

### Water Quality Information

There is currently no water quality information available upon which to base an assessment. A single sample collected in Knapps Lake in 2013 found phosphorus to be slightly elevated, but chlorophyll-a to be below criteria for impacted recreational use. (DEC/DOW, BWAM/LAMAS, May 2016)

### 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, January 2016)

#### Segment Description

This segment includes the total area of all three lakes. Lower and Upper Winganhauppauge Lakes are Class C; Knapp Lake is Class C(T).

# Orowoc Creek, Upper, and tribs (1701-0094)

**Impaired**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-196  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** River/Stream 2.7 Miles  
**Description:** stream and tribs above Montauk Highway (freshwater)

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Suspected
Aquatic Life	Impaired	Suspected
Fish Consumption	Unassessed	-

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Fair

### Type of Pollutant(s)

Known: UNKNOWN POLLUTANTS (biological impacts)  
Suspected: Nutrients (phosphorus), Low D.O./Oxygen Demand, Water Level/Flow  
Unconfirmed: Pathogens

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Onsite/Septic Systems, Hydrologic Alteration  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Upper Orowoc Creek is assessed as an impaired waterbody due to recreational uses and aquatic life that is thought to be impaired, although more recent sampling suggests the impacts to uses are less significant. No specific pollutant or sources have been identified, but sampling results indicate organic impacts from municipal or other sources are present. Surrounding land use also suggest urban stormwater runoff and onsite/septic impacts.

### Use Assessment

Upper Orowoc 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. The waterbody is also designated as a cold water (trout) fishery.

Aquatic life is currently evaluated as impaired based on biological sampling that shows significant impacts. This sampling can also be used to infer that there are also significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (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 Orowoc Creek in Bay Shore (at Moffitt Blvd) was conducted as part of the RIBS biological screening effort in 2013. Sampling results at that time indicated slightly impacted conditions. However previous assessments of Orowoc Creek at this site in 2003 and 1994, and in Bayshore (at Brook Street) conducted in 1998 and 1999 revealed moderately-slightly impacted water quality conditions, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. The fauna was heavily dominated by tolerant sowbugs and black flies. This segment is currently considered to be impaired. (DEC/DOW, BWAM/SBU, December 2015)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Orowoc Creek in Bay Shore (at Brook Street) was conducted in 1999. Fecal coliform and ammonia values were found to be high; pH in the stream was somewhat low. Other sampling results were typical of urban streams. (DEC/DOW, BWAR/SWAS, January 2001)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants/impacts to the waterbody are urban stormwater runoff and other nonpoint sources, include onsite wastewater treatment discharges in this high-density residential area. Hydromodification is also thought to contribute to the impacts in the stream.

#### Management Actions

No specific management actions have been identified for the waterbody. However the 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 \$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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Upper Orowoc 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 a waterbody for which TMDL development is deferred pending the verification of the cause/pollutant causing the impairment. Currently the cause/pollutant is listed as unknown, but related to biological impacts. The most recent sampling suggests the listing should be re-evaluated during the next listing cycle. (DEC/DOW, BWAM, January 2016)

#### Segment Description

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

# Pardees, Orowoc Lakes (1701-0341)

Unassessed

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-196-P915,P916  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 15.1 Acres  
**Description:** total area of both lake

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unassessed	
Aesthetics	Unassessed	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

### Source Assessment

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

### Management 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, January 2016)

#### Segment Description

This segment includes the total area of both lakes.

# Awixa Creek, Upper, and tribs (1701-0093)

**Impaired**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-197 **Water Class:** C  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** River/Stream 0.5 Miles **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above Montauk Highway (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Upper Awixa Creek is assessed as an impaired waterbody due to recreational uses and aquatic life that is known to be impaired. No specific pollutant or sources have been identified, but sampling results indicate organic impacts from municipal or other sources are present. Surrounding land use also suggest urban stormwater runoff and onsite/septic impacts.

### Use Assessment

Upper Awixa 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. This sampling can also be used to infer that there are also significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (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 Awixa Creek in Bay Shore (at Union Blvd) 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 elevated enrichment and impact source determination reveals a community that is most similar to those with impacts from municipal discharges or organic wastes. Water quality is considered to be very poor and aquatic life is not supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, December 2009)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants/impacts to the waterbody are urban stormwater runoff and other nonpoint sources, include onsite wastewater treatment discharges in this high-density residential area.

#### Management Actions

No specific management actions have been identified for the waterbody. However the 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 \$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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Upper Awixa 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 a waterbody for which TMDL development is deferred pending the verification of the cause/pollutant causing the impairment. Currently the cause/pollutant is listed as unknown, but related to biological impacts. (DEC/DOW, BWAM, January 2016)

#### Segment Description:

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

# Penataquit Creek, Upper, and tribs (1701-0092)

Impaired

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-198 **Water Class:** C  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** River/Stream 2 Miles **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above Montauk Highway (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Suspected
Aquatic Life	Impaired	Suspected
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Upper Penataquit Creek is assessed as an impaired waterbody due to recreational uses and aquatic life that is thought to be impaired, although more recent sampling suggests the impacts to uses are less significant. No specific pollutant or sources have been identified, but sampling results indicate organic impacts from municipal or other sources are present. Surrounding land use also suggest urban stormwater runoff and onsite/septic impacts.

### Use Assessment

Upper Penataquit 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 currently evaluated as impaired based on biological sampling that shows significant impacts. This sampling can also be used to infer that there are also significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (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 Penataquit Creek in Bay Shore (at Mill Street) was conducted as part of the RIBS biological screening effort in 2008. Sampling results at that time indicated slightly impacted conditions. However previous assessments of Penataquit Creek in Bay Shore (at Redington Road) in 2003 revealed moderately impacted water quality conditions, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. The fauna was heavily dominated by tolerant sowbugs and black flies. The 2003 sampling was conducted below an impoundment, so it is likely that sampling habitat had some influence on the assessment. The segment is currently considered to be impaired, but additional sampling to verify conditions is recommended. (DEC/DOW, BWAM/SBU, December 2015)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants/impacts to the waterbody are urban stormwater runoff and other nonpoint sources, include onsite wastewater treatment discharges in this high-density residential area.

#### Management Actions

No specific management actions have been identified for the waterbody. However the creek is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below). Based on the conflicting biological assessment results, additional sampling to verify the level of impact in this waterbody segment is recommended.

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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Upper Penataquit 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 a waterbody for which TMDL development is deferred pending the verification of the cause/pollutant causing the impairment. Currently the cause/pollutant is listed as unknown, but related to biological impacts. The most recent sampling and the possibility of habitat influences suggest the listing should be re-evaluated during the next listing cycle. (DEC/DOW, BWAM, January 2016)

#### Segment Description

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

# Cascade Lake (1701-0342)

Unassessed

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-201-P924  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 8.2 Acres  
**Description:** entire lake

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unassessed	
Aesthetics	Unassessed	

### 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, January 2016)

#### Segment Description

This segment includes the total area of the lake.

# Tidal Tribs to Great South Bay, West (1701-0372)

# Minor Impacts

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-204 thru 216  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Estuary Waters 667.4 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

(CAPS indicate MAJOR Pollutants/Sources)

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

## Type of Pollutant(s)

(CAPS indicate MAJOR Pollutants/Sources)

Known: Pathogens  
Suspected: Nutrients (nitrogen)  
Unconfirmed: - - -

## Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** Restoration/Protection Strategy Needed  
**Lead Agency/Office:** ext/SSER  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 2)

## Further Details

### Overview

The Tidal Tribs to West Great South Bay segment is assessed as having minor impacts due to recreational uses that are known to be stressed by pathogens from urban/storm runoff and other nonpoint sources. Nutrient loads and resulting algal growth (brown tide) may also impact uses. Residential onsite/septic systems serving this high-density area are likely sources of pollutants.

### Use Assessment

The Tidal Tribs to West Great South Bay segment is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water or for public bathing.

Recreational use is considered to experience minor impacts based on monitoring at beaches in the segment and the shellfish advisory indicating somewhat elevated bacteriological levels. Beach monitoring revealed no elevated bacteriological levels at beaches and few closures. Occasional beach closures that do occur are pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Merrick Estates Civic Association Beach. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

Shellfishing harvesting for consumption purposes in these tribs is restricted due to the year-round and seasonal designations of these waters (a portion within Shellfish Growing Area #4) as uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Although this waterbody is monitored through the shellfish program, its class SC designation does not include shellfishing as an appropriate use so these waters are not assessed for support of shellfishing use. However, the shellfishing restrictions indicate other recreational uses could be stressed. (DEC/DFWMR, BMR and DEC/DOW, BWAM/WQAS, July 2010)

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)

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

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

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 sewerage 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 sewerage is 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 is in place for South Shore Estuary waters to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

The Tidal Tribs to West Great South Bay segment is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM, August, 2014)

#### Segment Description

This segment includes Class SC portions of unnamed trib -204a, Willets Creek (-205), Skookwams Creek (-206), Sampawams Creek (-207), Carlls River (-208), West Babylon Creek (-209), Santapogue Creek (-210), Neguntatogue Creek (-211), trib -212, Great Neck Creek (-213), unnamed tribs -213a, -213b, Howell Creek (-214), trib -214a, Woods/Ketchams Creek (-215) and Amityville Creek (-216).

# Willetts Creek, Upper, and tribs (1701-0091)

Unassessed

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-205 **Water Class:** C  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** River/Stream 1.9 Miles **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above Montauk Highway (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unassessed	
Aesthetics	Unassessed	

### 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. However some expected impacts to Willetts Creek are discussed in the assessment of Lake Capri (1701-0175).

### 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, January 2016)

#### Segment Description

This segment includes the entire stream and tribs above tidal waters (Montauk Highway) and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C. Lake Capri (P934) is assessed separately.

# Lake Capri (1701-0175)

**Impaired**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-205-P934  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 7.8 Acres  
**Description:** entire lake

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: METALS (cadmium), PESTICIDES (chlordane)  
Suspected: - - -  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: TOXIC/CONTAMINATED SEDIMENT,  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Lake Capri is assessed as an impaired waterbody due to fish consumption that is known to be impaired by heavy metals and pesticides from contaminated sediment and legacy industrial discharges. Based on this impairment, recreational uses of the waterbody are also considered to be stressed. Currently there is inadequate data/information to evaluate aquatic life in the waterbody.

### Use Assessment

Lake Capri 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.

Fish consumption in Lake Capri is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of American Eel and carp because of elevated cadmium and chlordane levels. The source of this contamination is considered to be contaminated sediment, the result of past industrial discharges and past residential pesticide use. The advisory for this waterbody was first issued prior to 1998-99. (NYS DOH Health Advisories and DEC/FWMR, Habitat, January 2014)

Based on the fish consumption advisory, recreational uses of the waterbody are also considered to be stressed. Currently there is inadequate data/information to evaluate aquatic life in the waterbody.

#### Water Quality Information

Considerable sediment monitoring data for this waterbody has been collected as part of a hazardous waste site investigation and remediation effort. Sampling in 2013 and 2014 after the lake remediation (dredging) in 1999, found some remaining elevated cadmium concentrations in the upstream Willetts Creek and its floodplain. It is believed that the newly identified contamination is attributable to high water events (superstorm Sandy) and the subsequent erosion and redistribution of sediments. (DEC/DER, Dzus Fastener Site, March 2016)

#### Management Actions

A Superfund inactive hazardous waste site (Dzus Fasteners, site no. 1-52-033) was identified as a contributing source of cadmium to the lake. In December 1999, work to remove the most highly contaminated sediments (by excavation in near shore areas and by hydraulic dredging in deeper waters) was completed. Remedial work also included covering an identified zone of sediment contamination with rip-rap to isolate it from the environment, rotenone eradication of the contaminated fish and restocking, and source control at the Dzus facility. As a result of the extensive dredging, the risk of exposure to site-related contaminants is considered to have been reduced. However DEC is evaluating alternatives to address the contamination found in the off-site floodplain and the creek that is thought to be attributable to high water events (superstorm Sandy) and the subsequent erosion and redistribution of sediments. Although it appears that the contamination has remained within the banks of the creek and wetland, additional investigation will be necessary to confirm this. (DEC/DER, Dzus Fastener Site, March 2016)

#### Section 303(d) Listing

Lake Capri is included on the current (2016x) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as an impaired waterbody requiring a TMDL to address cadmium and chlordane contamination. This waterbody was first listed on the 199 List. (DEC/DOW, BWAM/WQAS, January 2016)

#### Segment Description

This segment includes the total area of the lake.



# Sampawams Creek, Upper, and tribs (1701-0090)

Impaired

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-207 **Water Class:** C(T)  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** River/Stream 4.4 Miles **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above Montauk Highway (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Impaired	Known
Aquatic Life	Impaired	Known
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Upper Sampawams Creek is assessed as an impaired waterbody due to recreational uses and aquatic life that is known to be impaired. No specific pollutant or sources have been identified, but sampling results indicate organic impacts from municipal or other sources are present. Surrounding land use also suggest urban stormwater runoff and onsite/septic impacts.

### Use Assessment

Upper Sampawams 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. 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. This sampling can also be used to infer that there are also significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (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 Sampawams Creek in West Islip (at Union Blvd) was conducted as part of the RIBS biological screening effort in 2013. Sampling results reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. The nutrient biotic index indicates elevated enrichment and impact source determination reveals a community that is most similar to those with impacts from municipal discharges or organic wastes. Water quality is considered to be poor and aquatic life is not supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, December 2015)

These sampling results are consistent with results collected at this site in 2008 and 2003. Sampling at those times also revealed moderately impacted conditions. Sampling results in 1998 indicated slightly impacted water quality conditions, but close to the range of moderate impact. The stream was sampled in 1994 and was determined to be moderately impacted, however results were similar enough that no water quality change is indicated. (DEC/DOW, BWAR/SBU, December 2015)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Sampawams Creek in Babylon (at Union Blvd.) was conducted in 1999. Fecal and total coliform and ammonia values were found to be high at that time. Other sampling results were typical of urban streams. (DEC/DOW, BWAR/SWAS, January 2001)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants/impacts to the waterbody are urban stormwater runoff and other nonpoint sources, include onsite wastewater treatment discharges in this high-density residential area.

#### Management Actions

No specific management actions have been identified for the waterbody. However the 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 \$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 sewerage 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 sewerage is 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Upper Sampawams 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 a waterbody for which TDML development is deferred pending the verification of the cause/pollutant causing the impairment. Currently the cause/pollutant is listed as unknown, but related to biological impacts. (DEC/DOW, BWAM, January 2016)

**Segment Description:**

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

# Guggenheim Lakes (1701-0343)

Unassessed

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-207-P938,P939  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 16.1 Acres  
**Description:** total area of both lakes

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unassessed	
Aesthetics	Unassessed	

### 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, January 2016)

#### Segment Description

This segment includes the total area of the lake.

# Carlls River, Upper, and tribs (1701-0089)

**Threatened**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-208  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** River/Stream 4.8 Miles  
**Description:** stream and tribs above Montauk Highway (freshwater)

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: - - -  
Suspected: Unknown Pollutants (biological impacts)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: Unknown Source  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Upper Carlls River is assessed as being threatened due to aquatic life that is thought to be threatened by unspecified pollutants. Biological sampling results show slightly impacted conditions that approach the non-impacted range. Impoundment effects may also influence conditions in the stream.

### Use Assessment

Carlls 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 considered to be supported with minimal impacts. Biological sampling of the stream show conditions to be in the slightly-to-non-impacted range. This sampling can also be used to infer that there are no significant 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

Biological (macroinvertebrate) assessments of Carlls River in Babylon (at Park Ave) was conducted as part of the RIBS sampling effort in 2014, 2013, 2009, 2008 and 2003. Sampling results reflect good water quality. Conditions were found to be either nonimpacted or in the slightly impacted range but approaching non-impacted. The macroinvertebrate community in these samples may show some beginning signs of alteration, some expected sensitive species may not present and overall macroinvertebrate species richness can be somewhat lower than expected, but overall there is still balanced distribution of all expected taxa. Aquatic life is fully supported and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, January 2015)

These results are also similar to sampling conducted on the stream at Route 27 and at Park Avenue in 1998. Sampling results indicated both sites to be slightly impacted, but near the range of non-impacted. Mayflies and caddisflies were numerous at both sites. Similar conditions were documented in 1994 sampling. Large rainbow trout were present at the Park Avenue site. The river is included in the Fisheries cold water management program. (DEC/DOW, BWAR/SBU, January 2000)

#### Source Assessment

Specific sources of pollutants to the waterbody have not been identified. (DEC/DOW, BWAM/SBU, January 2015)

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

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

#### Segment Description

The stream is Class C from Montauk Highway to Railroad Avenue, and Class C(T) above Railroad Avenue. Tribes are Class C and C(T).

# Argyle Lake (Memorial Pond) (1701-0344)

# No Known Impacts

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-208-P943  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 25.3 Acres  
**Description:** entire pond

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Argyle Lake (Memorial Pond) is assessed as having no known impacts; all evaluated uses are considered to be fully supported. Assessment is based on limited but positive water quality data.

### Use Assessment

Argyle Lake 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.

There is no evidence of recreation use impacts in the waterbody, consistent with relatively low lake productivity and acceptable water clarity. Invasive species (fanwort) has been noted but does not appear to impact uses.

Aquatic life is considered to be fully supported based on DFWMR assessments that indicate a healthy fishery of brown bullhead, sunfish, largemouth bass, yellow perch and Carp. The waterbody is designated as a warmwater fishery, however trout the lake is routinely stocked with trout. (DEC/DFWMR, January 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

Limited water quality sampling of Argyle Lake has been conducted through the NYSDEC Lake Classification and Inventory (LCI) program in 2013. Results of this sampling indicate the lake is best characterized as unproductive. Chlorophyll/algal levels are well below criteria corresponding to impacted recreational uses, while phosphorus concentrations typically approach impacted criteria. Lake clarity measurements indicate water transparency that meets the recommended minimum criteria for swimming beaches (measurements are limited by the lake depth). Readings of pH fall within the range established in state water quality standards for protection of aquatic life. (DEC/DOW, BWAM/LMAS, January 2015)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

Argyle Lake (Memorial Pond) is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are 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 lake.

# Southards Pond (1701-0345)

**Threatened**

## Waterbody Location Information

Revised: 05/18/2016

<b>Water Index No:</b>	(MW7.8) AO-GSB-208-P946	<b>Water Class:</b>	C(T)
<b>Hydro Unit Code:</b>	Great South Bay-Fire Island Inlet (0203020204)	<b>Drainage Basin:</b>	Atlantic-Long Island Sound
<b>Water Type/Size:</b>	Lake/Reservoir 25.9 Acres	<b>Reg/County:</b>	1/Suffolk (52)
<b>Description:</b>	entire pond		

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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
<b>Conditions Evaluated</b>		
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/PRHP  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Southards Pond 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 species raise concerns and conditions should continue to be monitored.

### Use Assessment

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

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 been conducted. The occurrence of aquatic invasive species suggest some threat to recreational uses.

Aquatic life is considered to be fully supported. The pond provides fishing opportunities typical of warmwater Long Island ponds, including population of chain pickerel, largemouth bass, bluegill, pumpkinseed sunfish, yellow perch,

brown bullhead, and carp. In addition, the pond is stocked with brown and rainbow trout. (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

Southards Pond was surveyed by NYSDEC Division of Water and Nature Conservancy of Long Island staff in 2006 as part of an aquatic plant survey of Long Island lakes. This survey work found fanwort (*Cabomba caroliniana*), an invasive exotic plant species. Detailed survey work has not been conducted. No water quality evaluations have been conducted at the lake. (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. The pond is surrounded by undeveloped parkland.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing:

Southards Pond 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 pond.

# Elda Lake (1701-0346)

**Threatened**

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-208-P947  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204)  
**Water Type/Size:** Lake/Reservoir 5 Acres  
**Description:** entire lake

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

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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 (curly-leaf pondweed)  
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/PRHP  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Elda 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 species raise concerns and conditions should continue to be monitored.

### Use Assessment

Elda 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 been conducted. The occurrence of aquatic invasive species suggest some threat to recreational uses.

Aquatic life is considered to be fully supported. The pond provides fishing opportunities typical of warmwater Long Island ponds. (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

Elda 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 curly-leafed pondweed (*Potamogeton crispus*), an invasive exotic plant species. Detailed survey work has not been conducted, although lake residents report extensive surface growth of the plant. No water quality evaluations have been conducted at the lake, and no additional aquatic plant surveys have been conducted since 2008. (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. The pond is surrounded by undeveloped parkland.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Grass carp are stocked as a weed control measure.

#### Section 303(d) Listing:

Elda 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.

# Belmont Lake (1701-0021)

# Minor Impacts

## Waterbody Location Information

Revised: 05/18/2016

<b>Water Index No:</b>	(MW7.8) AO-GSB-208-P949	<b>Water Class:</b>	C
<b>Hydro Unit Code:</b>	Great South Bay-Fire Island Inlet (0203020204)	<b>Drainage Basin:</b>	Atlantic-Long Island Sound
<b>Water Type/Size:</b>	Lake/Reservoir 28.4 Acres	<b>Reg/County:</b>	1/Suffolk (52)
<b>Description:</b>	entire lake		

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: Aquatic Invasive Species (curly-leaf pondweed)  
 Suspected: - - -  
 Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Belmont Lake is assessed as having minor impacts due to recreational use that is considered to be stressed by aquatic invasive plant species. Invasive exotic plant species (fanwort) growth in the lake is extensive. Other water quality indicators reflect conditions that are generally supportive of uses.

### Use Assessment

Belmont 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.

Recreational uses in Belmont Lake are thought to experience minor impacts due to invasive aquatic plant growth. Invasive exotic plant species (fanwort) growth in the lake is extensive. In order to limit the growth of aquatic vegetation, Belmont Lake State Park stocked grass carp into the lake in 1997.

Aquatic life is considered to be fully supported. The pond supports a good naturally reproducing warmwater fish

community, consisting of largemouth bass, chain pickerel, yellow perch, bluegill, pumpkinseed and brown bullhead. While Belmont Lake cannot sustain trout through the heat of summer – nor is it classified as a trout supporting waterbody – rainbow, brown, and brook trout are stocked in the fall and spring to provide a seasonal fishing opportunity. (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

Belmont Lake was surveyed by the NYS Office of Parks, Recreation and Historic Preservation (OPR) as part of the OPR ambient lake monitoring program in 2000, 2001, 2003, and 2006–2009. This survey work found several pondweed and bladderwort species, and fanwort (*Cabomba caroliniana*), an invasive exotic plant species. The fanwort growth in the lake is extensive. The limited water quality data showed some variable but moderate phosphorus readings (typical of mesotrophic, or moderately productive, lakes), moderate to elevated nitrate levels, slightly acidic pH, and moderately hardwater. Most of these readings were typical of shallow Long Island lakes. Many of the algae collected are associated with taste and odor problems, although no cyanobacteria were identified. (DEC/DOW, BWAM/LMAS and NYSOPRHP, March 2011)

#### Source Assessment

The primary concern in the lake is aquatic invasive species. Urban stormwater runoff and other nonpoint sources may contribute other pollutants to the lake.

#### Management Action

Lake dredging was conducted in 1986. Fish Wildlife and Marine Resource staff conducted post-dredging monitoring in 1987 and found the lake has once again developed an outstanding largemouth bass, yellow perch and bluegill fishery. Concerns remain regarding excessive aquatic plant growth and control techniques are being considered. In order to limit the growth of aquatic vegetation, Belmont Lake State Park stocked grass carp into the lake in 1997. (DEC/FWMR, Region 1, March 2016)

A previously issued fish consumption advisory for PCBs and Chlordane was lifted in 2005. This NYS DOH health advisory had recommended not to eat more than one meal per month of carp because of elevated chlordane and PCBs. (2005–06 NYS DOH Health Advisories).

#### Section 303(d) Listing

Belmont 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.

# Santapogue Creek, Upper, and tribs (1701-0016)

Unassessed

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-210 **Water Class:** C(T)  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** River/Stream 2 Miles **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above Montauk Highway (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
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(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.

### Water Quality Information

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

Previous assessment noted low summer dissolved oxygen, suspected nutrient load and other pollutants from stormwater and other urban nonpoint sources. These conditions along with low fish diversity and abundance were reported by Regional Fisheries staff in a 1998 assessment effort. The stream previously supported trout, but no longer supports a cold water fishery. The west branch of the creek is now largely a storm drain. More recent monitoring to verify current



conditions is recommended.

#### Source Assessment

Specific sources of pollutants to the waterbody have not been identified, though urban stormwater and other nonpoint sources are suspected of having impact on the stream.

#### 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, January 2016)

#### Segment Description

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

# Neguntatogue Creek, Upper, and tribs (1701-0088)

# Needs Verification

## Waterbody Location Information

Revised: 05/18/2016

**Water Index No:** (MW7.8) AO-GSB-211 **Water Class:** C  
**Hydro Unit Code:** Great South Bay-Fire Island Inlet (0203020204) **Drainage Basin:** Atlantic-Long Island Sound  
**Water Type/Size:** River/Stream 0.3 Miles **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above Montauk Highway (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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	Fair	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Upper Neguntatogue Creek is assessed as needing verification of impacts due to recreational uses and aquatic life that may be stressed, although more recent sampling is necessary to confirm water quality. Urban stormwater runoff and other urban nonpoint sources and onsite/septic impacts in this high-density area are likely contributors to the impacts. However, this assessment is based on older data and sampling to verify conditions is recommended.

### Use Assessment

Upper Neguntatogue 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 currently evaluated as stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there are also some impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (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 Neguntatogue Creek in Lindenhurst (at Herbert Street) was conducted as part of the RIBS biological screening effort in 2003. Sampling results at that time reflect fair water quality, with the macroinvertebrate community altered from what is expected under natural conditions. 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. This sampling is older, and more recent sampling is needed to verify current conditions. (DEC/DOW, BWAM/SBU, December 2015)

#### Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, the most likely sources of pollutants/impacts to the waterbody are urban stormwater runoff and other nonpoint sources, including onsite wastewater treatment discharges in this high-density residential area.

#### Management Actions

No specific management actions have been identified for the waterbody. Additional sampling to verify the level of impact in this waterbody segment is recommended.

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 sewerage 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 sewerage is not viable. (DEC/DOW, BRWM, November 2015)

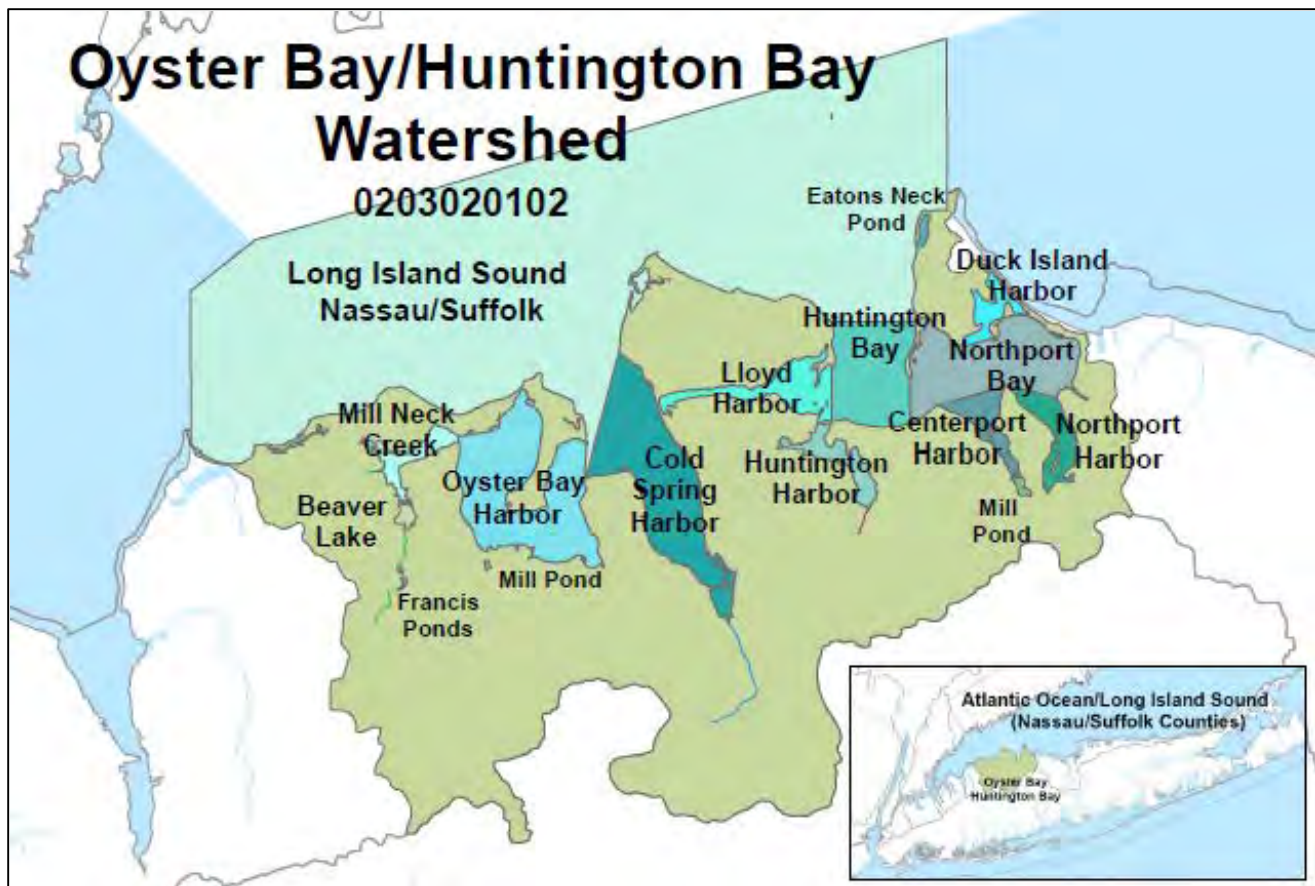
This waterbody is also included within the South Shore Estuary Reserve (SSER). The SSER encompasses the tidal waters and watershed between the Nassau–Queens County line and the eastern boundary of Shinnecock Bay. The goals of the SSER Program outlined in the 2001 Comprehensive Management Plan (CMP) include 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 Peconic Estuary in 2009 to address impacts from boat pollution. (DEC/DOW, Region 1, March 2010)

#### Section 303(d) Listing

Upper Neguntatogue Creek 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, but additional sampling is recommended. (DEC/DOW, BWAM/WQAS, January 2016)

#### Segment Description

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



## Oyster Bay/Huntington Bay Watershed (0203020102)

### Water Index Number

(MW5.1a) LIS (portion 3c)  
 (MW5.1b) LIS-42,43  
 (MW5.1c) LIS-OBH  
 (MW5.1c) LIS-OBH-47-P156  
 (MW5.1c) LIS-OBH-MNC  
 (MW5.1c) LIS-OBH-MNC-44 thru 48  
 (MW5.1c) LIS-OBH-MNC-45-P150a  
 (MW5.1c) LIS-OBH-MNC-45-P152,P153  
 (MW5.1d) LIS-CSH  
 (MW5.1d) LIS-CSH-49 thru 52  
 (MW5.2a) LIS-HB  
 (MW5.2a) LIS-HB..55 thru 57  
 (MW5.2a) LIS-HB-HH  
 (MW5.2a) LIS-HB-LH  
 (MW5.2a) LIS-HB-NB  
 (MW5.2a) LIS-HB-NB-CH  
 (MW5.2a) LIS-HB-NB-CH-P240  
 (MW5.2a) LIS-HB-NB-DIH  
 (MW5.2a) LIS-HB-NB-NH  
 (MW5.2b) LIS- 58-P269

### Waterbody Segment

Long Island Sound, Nassau/Suffolk (1702-0270)  
 Minor Tribs to Long Island Sound (1702-0150)  
 Oyster Bay Harbor (1702-0016)  
 Mill Pond (1702-0155)  
 Mill Neck Creek and tidal tribs (1702-0151)  
 Tribs (fresh) to Oyster Bay/Mill Neck Cr (1702-0153)  
 Beaver Lake (1702-0152)  
 Lower/Upper Francis Ponds (1702-0154)  
 Cold Spring Harbor, and tidal tribs (1702-0018)  
 Tribs (fresh) to Cold Spring Harbor (1702-0156)  
 Huntington Bay (1702-0014)  
 Tribs (fresh) to Huntington Bay (1702-0231)  
 Huntington Harbor (1702-0228)  
 Lloyd Harbor (1702-0227)  
 Northport Bay (1702-0256)  
 Centerport Harbor (1702-0229)  
 Mill Pond (1702-0261)  
 Duck Island Harbor (1702-0262)  
 Northport Harbor (1702-0230)  
 Eatons Neck Pond (1702-0271)

### Category

Impaired  
 Minor Impacts  
 Impaired  
 Minor Impacts  
 Impaired  
 No Known Impacts  
 Impaired  
 Unassessed  
 Impaired  
 Minor Impacts  
 Minor Impacts  
 Unassessed  
 Impaired  
 Impaired  
 Minor Impacts  
 Impaired  
 Unassessed  
 Minor Impacts  
 Impaired  
 No Known Impacts

# Long Island Sound, Nassau/Suffolk (1702-0270)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.1a) LIS (portion 3c)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      27950.6 Acres      **Reg/County:** 1/Nassau (30)  
**Description:** Sound fr Matinecock Point to Eatons Neck Point

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be supported, but stressed in these waters. Much of this waterbody (included within Shellfish Growing Area #34) has been certified as safe for the taking of shellfish for use as food. A

small area of waters on the western edge of this segment is designated as uncertified. Because this area represents less than 5% of the total area, the waterbody is considered to be supporting of shellfishing use. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered to experience minor impacts based on monitoring and occasional beach closures at beaches in the segment. Beach monitoring revealed elevated bacteriological levels that occurred in generally less than ten percent of the samples collected at these beaches; these results resulted in occasional but infrequent (less than 10 days) beach closures at some beaches in most years. Occasional beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Prybil Beach, Lattington Beach, Piping Rock Beach, Stehli Beach, Ransom Beach, Soundside Beach, Centre Island Sound Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

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

#### Water Quality Information

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

#### Source Assessment

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

#### Management Action

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

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

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

#### Section 303(d) Listing

This portion of Long Island Sound is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Nitrogen TMDL. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes all the waters of Long Island Sound within eastern Nassau and western Suffolk Counties, east of a line due north of Matinecock Point and west of a line due north of Eatons Neck Point, and excluding Cold Spring Harbor, Osyter Bay Harbor and Huntington Bay which are listed separately.

# Minor Tribs to Long Island Sound (1702-0150)

# Minor Impacts

## Waterbody Location Information

Revised: 02/13/2016

**Water Index No:** (MW4.3b) LIS-42,43      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SC      Long Island Sound  
**Water Type/Size:** Estuary Waters      19.2 Acres      **Reg/County:** 1/Nassau (30)  
**Description:** total area of selected tidal tribs to sound

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

This Long Island Tribs waterbody is assessed as having minor impacts due to recreational uses that are thought to be stressed by pathogens. Some of these waters are designated as uncertified for shellfishing due to pathogens, although this waterbody is not designated for support of shellfishing use. The shellfishing restrictions suggest that recreational uses could be impacted but the pathogen criteria for shellfishing use are more stringent than for recreation and additional monitoring to evaluate recreational use support is recommended.

### Use Assessment

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



Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring. 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 recreation and additional bacteriological sampling is needed to more fully evaluate recreational use. Restrictions on shellfishing represent an impact to recreational use. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

A portion of this waterbody, Frost Creek (-42), (included within Shellfish Growing Area #35) has been designated as uncertified for the taking of shellfish for use as food. Although these portions of this waterbody are 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)

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

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

#### Management Action

No specific management actions have been identified for the waterbody.

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

#### Section 303(d) Listing

This Long Island Tribs waterbody is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL

Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes Frost Creek (-42) and East Over Creek (-43). These tribs are designated class SC.

# Oyster Bay Harbor (1702-0016)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW4.4a) LIS-OBH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      2449.1 Acres      **Reg/County:** 1/Nassau (30)  
**Description:** entire bay

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: MUNICIPAL DISCHARGES (Oyster Bay SD), URBAN/STORM RUNOFF  
Suspected: Other Source (migratory species), ONSITE/SEPTIC SYSTEMS  
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

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. Much of this waterbody (included within Shellfish Growing Area #47) has been designated uncertified or only seasonally certified for the taking of shellfish for use as food. About 18% of the Bay is closed year-round and an additional 20% is subject to seasonal or holiday closures. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

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

Recreational use including public bathing is considered to be stressed based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches that have been affected include Theodore Roosevelt Beach, West Harbor Beach and Center Island Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

#### Water Quality Information

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

#### Source Assessment

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

#### Management Action

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

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

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

Friends of the Bay is a non-profit environmental organization formed in 1987 to preserve, protect and restore the ecological integrity and productivity of the Oyster Bay/Cold Spring Harbor Estuary and the surrounding watershed. The organizations efforts include water quality protection, watershed wetlands conservation, land use planning, research, education, community action and advocacy. (Friends of the Bay, 2010)

A vessel waste No Discharge Zone was established for the waters of the Oyster Bay/Cold Spring Harbor Complex in 2008.

#### Section 303(d) Listing

Oyster Bay Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Oyster Bay/Mill Neck Creek TMDL for pathogens in 2003. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes tidal waters west of line from Plum Point to Cove Point and east of Bayville Bridge, which excludes Mill Neck Creek which is listed separately.

# Mill Pond (1702-0155)

# Minor Impacts

## Waterbody Location Information

Revised: 4/8/2011

<b>Water Index No:</b>	(MW4.4a) LIS-OBH-47-P156	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020102	<b>Class:</b>	C(T)
<b>Water Type/Size:</b>	Lake/Reservoir		7.3 Acres
<b>Description:</b>	entire lake		<b>Reg/County:</b> 1/Nassau (30)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)  
 Suspected: SILT/SEDIMENT, Algal/Plant Growth  
 Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: - - -  
 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

Mill Pond is assessed as having minor impacts due to recreational uses that thought to be stressed by nutrients and silt/sedimentation from urban/storm runoff and other nonpoint sources.

### Use Assessment

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

Recreational uses and public bathing are considered to be supported but stressed due to elevated nutrients (phosphorus), excessive algae, poor water clarity. The pond has been used as a stormwater retention basin and now suffers from

siltation.

This waterbody is reported to support a suitable cold water fishery, although no specific fishery or biological reports are included in this assessment. Trout (brown and rainbow) are stocked in the spring and the fall, and the lake also supports a healthy population of small sized largemouth bass in the lake. A few carp are present, and bullhead grow to about 15 inches. A fisheries survey was conducted in 1993. (DEC/DOW, BWAM/LMAS and DEC/FWMR, Region 1 Fisheries, March 2011)

#### Water Quality Information

Water quality sampling of Mill Pond was conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2004. Results of this sampling indicate the lake is best characterized as eutrophic, or highly productive. However chlorophyll/algal levels occasionally exceed criteria corresponding to impacted recreational uses, while phosphorus concentrations are typically quite high. Lake clarity measurements indicate water transparency does not typically meet the recommended minimum criteria for swimming beaches. These data indicate that the lake may be susceptible to algal blooms, although both water clarity and algae levels may be limited by turbidity from suspended sediment, as commonly occurs in shallow ponds. The depth profile is typical of shallow lakes, with fully oxygenated conditions to the lake bottom (depth < 2 meters). The lake has hard water and alkaline conditions. Readings of pH typically fall within the range established in state water quality standards for protection of aquatic life. (DEC/DOW, BWAM/LMAS, May 2011)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, urban/storm runoff and other nonpoint sources are the most likely sources of impacts to the waterbody. The pond is located on a United States Fish and Wildlife Preserve, and is one of the few public freshwater fishing spots on the north shore of Nassau County.

#### Management Actions

No specific management actions have been identified for the waterbody. The pond is located on a United States Fish and Wildlife Preserve. Trout are stocked in the lake during the spring and fall. (DEC/DOW, BWAM/LMAS and DEC/FWMR, Region 1 Fisheries, March 2011)

#### Section 303(d) Listing

Mill Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the total area of the entire pond.

# Mill Neck Creek and tidal tribs (1702-0151)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

<b>Water Index No:</b>	(MW4.4a) LIS-OBH-MNC	<b>Drain Basin:</b>	Atlantic-Long Island Sound	
<b>Unit Code:</b>	0203020102	<b>Class:</b>	SA	
<b>Water Type/Size:</b>	Estuary Waters		292.6 Acres	
<b>Description:</b>	entire tidal reach and tribs		<b>Reg/County:</b>	1/Nassau (30)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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

### Use Assessment

Mill Neck Creek is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support



of aquatic life.

Shellfish harvesting for consumption is considered to be impaired in these waters. Much of this waterbody (included within Shellfish Growing Area #47) has been designated uncertified or only seasonally certified for the taking of shellfish for use as food. About 93% of the creek is closed year-round, while the other 7% is subject to a seasonal closure. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2015)

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

Recreational use including public bathing is considered to be stressed based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches in this waterbody include West Harbor Beach and Center Island Beach, which lie just outside this segment in Oyster Bay Harbor. (NYS DOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

#### Water Quality Information

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

#### Source Assessment

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

#### Management Action

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

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

Friends of the Bay is a non-profit environmental organization formed in 1987 to preserve, protect and restore the ecological integrity and productivity of the Oyster Bay/Cold Spring Harbor Estuary and the surrounding watershed. The organization's efforts include water quality protection, watershed wetlands conservation, land use planning, research, education, community action and advocacy. (Friends of the Bay, 2010)

The Birches treatment facility, a small county owned wastewater treatment facility that had discharged to the creek, received Clean Water/Clean Air Bond Act grant to install a collection system/pump station to convey its wastewater flow to the Glen Cove Wastewater Treatment. As a result the facility no longer discharges wastewater into Mill Neck Creek. (DEC/DOW, Region 1, February 2016).

A vessel waste No Discharge Zone was established for the waters of the Oyster Bay/Cold Spring Harbor Complex in 2008.

#### Section 303(d) Listing

Mill Neck Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Oyster Bay/Mill Neck Creek TMDL for pathogens in 2003. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes tidal waters west of the Bayville Bridge, including Oak Neck Creek.

# Tribs (fresh) to Oyster Bay/Mill Neck Cr (1702-0153) No Known Impacts

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW4.4a) LIS-OBH-MNC-44 thru 48    **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102    **Class:** C    **Reg/County:** Long Island Sound  
**Water Type/Size:** River/Stream    1.6 Miles    **Reg/County:** 1/Nassau (30)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

The Oyster Bay/Mill Neck Creek Tribs segment is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### 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.

Aquatic life is considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more

specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 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 Beaver Brook in Mill Neck (at Frost Mill Road) was conducted as part of the RIBS monitoring effort in 2013 and 2014. The most recent of these sampling results indicated non-impacted conditions and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. The 2013 sampling results, as well as 2008, 2009 results, also reflected good water quality but with conditions in the upper slightly impacted range, approaching non-impacted conditions. Additional sampling to confirm conditions is recommended, but nonetheless the aquatic life community is considered to be fully supported. (DEC/DOW, BWAM/SBU, January 2015)

Previous sampling at this site in 2003 revealed moderately impacted conditions, but this samples was considered to be influenced by poor sampling habitat . Sampling at the site in 1998 found non-impacted water quality conditions. The stream bottom was composed entirely of sand silt, with tree roots and macrophytes providing habitat for invertebrates. Several brown trout were also seen at this site.

A biological assessment of Oyster Bay Creek in Oyster Bay was also conducted in 1998. Sampling results at this site indicated moderately impacted water quality, with the fauna was heavily dominated by worms. However, the stream bottom was composed primarily of sand and gravel, and this likely contributed to the limited fauna. Trout were present at this site, and may actually provide a better indicator of water quality. (DEC/DOW, BWAR/SBU, January 2000)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Action

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to more specifically verify the level of impact in this waterbody segment is recommended, but is not a priority.

#### Section 303(d) Listing

The Oyster Bay/Mill Neck Creek Tribs segment is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes the total length of all freshwater tribs to Oyster Bay Harbor and Mill Neck Creek, including Beaver Brook (-45), Spring Lake Outlet (-46), Mill River (-47), Tiffany Creek (-48). These tribs are designated class C.

# Beaver Lake (1702-0152)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW4.4a) LIS-OBH-MNC-45-P150a    **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102    **Class:** C    **Reg/County:** Long Island Sound  
**Water Type/Size:** Lake/Reservoir    63.6 Acres    **Reg/County:** 1/Nassau (30)  
**Description:** entire lake

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), ALGAL/PLANT GROWTH (native)  
Suspected: Low D.O./Oxygen Demand  
Unconfirmed: Pathogens

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Beaver Lake is assessed as an impaired waterbody due to recreational uses that are known to be impaired by nutrients and the resulting algal/weed growth and possible low dissolved oxygen. No specific sources have been identified, but urban stormwater runoff and other nonpoint sources are the primary contributing source of pollutants.

### Use Assessment

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

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

Additional bacteriological sampling is needed to more fully evaluate the impact of pathogen levels on recreational use. (DEC/DOW, BWAM/LMAS, July 2013)

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

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

#### Water Quality Information

Water quality sampling of Beaver 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 eutrophic, or highly productive. Chlorophyll/algal levels are well above criteria corresponding to impaired recreational uses, while phosphorus concentrations are typically very high. Lake clarity observations indicate water transparency is typically poor. Readings of pH occasionally exceed the range established in state water quality standards for protection of aquatic life though impacts to the fishery are not known. The elevated pH could be a response to algae levels. This evaluation is consistent with results from previous sampling at the site conducted in 2009. (DEC/DOW, BWAM/LMAS, May 2006)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, urban/storm runoff and other nonpoint sources are the most likely sources of impacts to the waterbody. Significant population of waterfowl and shoreline residential development are also possible sources.

#### Management Action

Beaver Lake is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below). No other specific management actions have been identified for the waterbody.

#### Section 303(d) Listing:

Beaver Lake is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL for phosphorus and resulting low dissolved oxygen. This waterbody was first listed on the 2012 List. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the total area of the entire pond. The waterbody is Class C.

# Lower/Upper Francis Ponds (1702-0154)

Unassessed

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW4.4a) LIS-OBH-MNC-45-P152,P153  
**Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** C  
**Water Type/Size:** Lake/Reservoir      12.5 Acres      **Reg/County:** Long Island Sound  
**Description:** total area of both lakes      1/Nassau (30)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total area of both Lower Francis (P152) and Upper Francis (P153) Lakes. Both lakes are designated Class C.



# Cold Spring Harbor, and tidal tribs (1702-0018)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW4.4b) LIS-CSH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      2333.4 Acres      **Reg/County:** 1/Nassau (30)  
**Description:** entire bay

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. Portions of this waterbody (included within Shellfish Growing Area #48) has been designated uncertified or only seasonally certified for the taking of shellfish for use as food. The southern head of the harbor is closed year-round (this area was recently expanded in 2015), while a small portion around the mouth of Eel Creek on the western shore is only seasonal certified. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, December 2015)

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

Recreational use including public bathing is considered to be impaired based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this waterbody include Menschutt Beach, Eagle Dock Community Beach, Cold Spring Harbor Beach Club, Laurel Hollow Village Beach, Lloyd Harbor Village Park, Lloyd Neck Bath Club and West Neck Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

#### Water Quality Information

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

#### Source Assessment

Urban 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. Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved

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

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

Friends of the Bay is a non-profit environmental organization formed in 1987 to preserve, protect and restore the ecological integrity and productivity of the Oyster Bay/Cold Spring Harbor Estuary and the surrounding watershed. The organization's efforts include water quality protection, watershed wetlands conservation, land use planning, research, education, community action and advocacy. (Friends of the Bay, 2010)

A vessel waste No Discharge Zone was established for the waters of the Oyster Bay/Cold Spring Harbor Complex in 2008.

#### Section 303(d) Listing

Cold Spring Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Sound Pathogens (Shellfishing) TMDL in 2007. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes tidal waters south of a line from Cove Point to Whitewood Point.

# Tribs (fresh) to Cold Spring Harbor (1702-0156)

# Minor Impacts

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW4.4b) LIS-CSH-49 thru 50      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** C      Long Island Sound  
**Water Type/Size:** River/Stream      2.2 Miles      **Reg/County:** 1/Nassau (30)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

**Conditions Evaluated**

Habitat/Hydrology	Fair
Aesthetics	Unknown

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Cold Spring Harbor Tribs is assessed as having minor impacts due to aquatic life that is known to be stressed. No specific pollutant or sources have been identified, but land use suggests urban/storm runoff and other nonpoint sources contribute to the impacts.

### Use Assessment

Cold Spring Harbor Tribs 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 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. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses.] (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 unnamed trib (-50) to Cold Spring Harbor in Cold Spring Harbor (at Harbor Road) 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. 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 these minor impacts, aquatic life is considered to be supported. (DEC/DOW, BWAM/SBU, January 2015)

#### Source Assessment

Specific sources of pollutants to the waterbody have not been identified. Identification of sources based on biological community composition was inconclusive. But based on surrounding land use and other knowledge of the waterbody, urban stormwater runoff and other nonpoint source are the most likely sources of impacts to the waterbody. Residential onsite/septic systems may also be a contributing source.

#### Management Actions

No specific management actions have been identified or are deemed necessary for the waterbody. Additional sampling to verify specific pollutants and sources of impact to this waterbody segment is needed.

#### Section 303(d) Listing

Cold Spring Harbor Tribs is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody at this time. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the total length of all freshwater tribs to Cold Spring Harbor. The waters of these tribs are Class C, C(T). Tribs to this reach/segment, including unnamed tribs (-48- 49, -50).

# Huntington Bay (1702-0014)

# Minor Impacts

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2a) LIS-HB      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      1398 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire bay, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Stressed	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

Known: NUTRIENTS (Nitrogen), LOW D.O./OXYGEN DEMAND  
Suspected: PRIORITY ORGANICS (PCBs)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, Municipal Discharges  
Suspected: Other Source (migratory species), Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/PEP  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Huntington Bay is assessed as having minor impacts due to aquatic life that is thought to be stressed by nutrients and resulting low dissolved oxygen, and PCBs. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. All other evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. Virtually all of this waterbody (included within Shellfish Growing Area #40) has been certified as safe for the taking of shellfish for use as food. The only restrictions in this segment are for a small area around the mouth of Huntington Harbor. Because this area represents less than 5% of the total area, the waterbody is considered to be fully supporting of shellfishing use. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered supported based on monitoring at beaches in the waterbody. Beach monitoring revealed no elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include Baycrest Association Beach, Nathan Hale Beach Club and Head of the Bay Club Beach. Additionally bacteriological sampling conducted through the shellfishing monitoring program suggest public bathing is supported. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

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

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

#### Water Quality Information

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

#### Source Assessment

Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

of nitrogen (and carbon) from up-watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

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

#### Section 303(d) Listing

Huntington Bay is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes bay waters east of line south from East Beach and west of line south from West Beach. Huntington Harbor, Northport Bay, Northport Harbor, Centerport Harbor (includes Mill Pond), Duck Island Harbor, and Lloyd Harbor are listed separately.



# Tribs (fresh) to Huntington Bay (1702-0231)

Unassessed

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2a) LIS-HB..55 thru 57      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** C      Long Island Sound  
**Water Type/Size:** River/Stream      0.4 Miles      **Reg/County:** 1/Suffolk (52)  
**Description:** total length of selected (fresh) tribs to bay

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total length of all freshwater tribs to Huntington Bay.

# Huntington Harbor (1702-0228)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2a) LIS-HB-HH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      346.5 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. All of this waterbody (included within Shellfish Growing Area #46) has been designated uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, December 2015)

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

Recreational use including public bathing is considered to be impaired based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this waterbody include Gold Star Battalion Beach and Wincoma Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

#### Water Quality Information

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

#### Source Assessment

Urban 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. Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

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

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

#### Section 303(d) Listing

Huntington Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Sound Pathogens (Shellfishing) TMDL in 2007. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes the entire harbor south of a line from Wendover Road to Elbertsons Point.

# Lloyd Harbor (1702-0227)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

<b>Water Index No:</b>	(MW5.2a) LIS-HB-LH	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020102	<b>Class:</b>	SA
<b>Water Type/Size:</b>	Estuary Waters		698.1 Acres
<b>Description:</b>	entire harbor		<b>Reg/County:</b> 1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** Restoration/Protection Strategy Needed  
**Lead Agency/Office:** DEC/Reg1  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Lloyd Harbor is assessed as impaired due to shellfishing that is known to be impaired by pathogens. Aquatic life is also known to be stressed by nutrients and resulting low dissolved oxygen. Public bathing and recreational uses may be stressed by pathogens, though evaluation of these uses need to be verified. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. Much of this waterbody (included within Shellfish Growing Area #45) has been designated uncertified or only seasonally certified for the taking of shellfish for use as food. The western (head) half of the harbor is only seasonally certified and a small portion of the harbor waters near the mouth of Huntington Harbor is uncertified. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, December 2015)

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

Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring. 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. There are no regularly monitored beaches in this waterbody, although Wincoma Beach lies just outside the mouth of the Harbor. Restrictions on shellfishing represent an impact to recreational use. (DEC/DFWMR, July 2014)

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

#### Water Quality Information

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

#### Source Assessment

Urban 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. Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

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

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

#### Section 303(d) Listing

Lloyd Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. However this updated assessment suggests it is appropriate to include this waterbody on the next List. It is recommended that this waterbody be added to Part 2c of the List as a shellfishing impaired waterbody requiring development of a TMDL for pathogens. (DEC/DOW, BWAM/WQAS, January 2015) (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes the entire harbor west of a line extending south from East Beach.



# Northport Bay (1702-0256)

# Minor Impacts

## Waterbody Location Information

Revised: 02/19/2016

<b>Water Index No:</b>	(MW5.2a) LIS-HB-NB	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020102	<b>Class:</b>	SA
<b>Water Type/Size:</b>	Estuary Waters	1891.3 Acres	<b>Reg/County:</b> 1/Suffolk (52)
<b>Description:</b>	entire bay, as described below		

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Stressed	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Stressed	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, Municipal Discharges  
 Suspected: Other Source (migratory species), Onsite/Septic Systems  
 Unconfirmed: - - -

## Management Information

**Management Status:** Strategy Implementation Scheduled or Underway  
**Lead Agency/Office:** DEC/Reg1  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Northport Bay is assessed as having minor impacts due to shellfishing and aquatic life that are considered to be stressed by pathogens, nutrients resulting low dissolved oxygen, and PCBs. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. All other evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be stressed in these waters. Most of this waterbody (included within Shellfish Growing Area #40) has been certified as safe for the taking of shellfish for use as food. The areas affected by restrictions include the area at the entrance to Northport Harbor which is closed year-round, and the northern portion of Price Bend (seasonally closed). Because this area represents less than 10% of the total area, the waterbody is considered to be supporting of shellfishing use. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered supported based on monitoring at beaches in the waterbody. Beach monitoring revealed no elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include Bay Hills POA Beach, Crescent Beach, Steers Beach, Asharoken Beach and Prices Bend Beach. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

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

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

#### Water Quality Information

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

#### Source Assessment

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. Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

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

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

#### Section 303(d) Listing

Northport Bay is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes bay waters east of line south from West Beach, excluding Centerport, Northport and Duck Island Harbors which are listed separately.

# Centerport Harbor (1702-0229)

# Impaired

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2a) LIS-HB-NB-CH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      366.7 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. Much of this waterbody (included within Shellfish Growing Area #43) has been designated uncertified or only seasonally certified for the taking of shellfish for use as food. About 36% of the harbor is closed to shellfishing year-round, while an additional 22% is subject to seasonal closures. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, December 2015)

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

Recreational use including public bathing is considered to be impaired based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this waterbody include Centerport Beach, Knollwood Beach, Huntington Beach Community Association Beach, Camp Alveria (closed for season in 2011-2012) and Fleets Cove Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

#### Water Quality Information

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

#### Source Assessment

Urban 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. Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

Both New York State and Connecticut have identified Long Island Sound as water quality limiting due to low dissolved oxygen/hypoxia caused by nitrogen loadings. A Total Maximum Daily Load (TMDL) plan to address the problem was

developed and approved in 2001. This plan outlines a phased approach to nitrogen reduction. Following and initial freeze on nitrogen loadings and the realization that further efforts were needed, New York and Connecticut agreed in 1998 to significant nitrogen reduction targets (58.5%) and a commitment to enforce the targets through the development of a TMDL. Significant upgrades to municipal wastewater treatment plants that discharge to Long Island Sound called for in the TMDL are currently underway; anticipated completion in 2017. Additional future actions to address the control of nitrogen (and carbon) from up-watershed of the immediate LISS area and atmospheric sources are currently under discussion. (DEC/DOW, BWAM/WQMS, August 2010)

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

#### Section 303(d) Listing

Centerport Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Sound Pathogens (Shellfishing) TMDL in 2007. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes the entire harbor south of a line from Little Neck Point to the northernmost point on the western shoreline.

# Mill Pond (1702-0261)

Unassessed

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2a) LIS-HB-NB-CH-P240      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** C      Long Island Sound  
**Water Type/Size:** Lake/Reservoir      34 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire pond

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total area of the entire pond.



# Duck Island Harbor (1702-0262)

# Minor Impacts

## Waterbody Location Information

Revised: 02/19/2016

<b>Water Index No:</b>	(MW5.2a) LIS-HB-NB-DIH	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020102	<b>Class:</b>	SA
<b>Water Type/Size:</b>	Estuary Waters		272.8 Acres
<b>Description:</b>	entire harbor		<b>Reg/County:</b> 1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Stressed	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Unknown	
Aesthetics	Unknown	

### Type of Pollutant(s)

Known: NUTRIENTS (Nitrogen), LOW D.O./OXYGEN DEMAND  
 Suspected: PRIORITY ORGANICS (PCBs)  
 Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, Municipal Discharges  
 Suspected: Other Source (migratory species), Onsite/Septic Systems  
 Unconfirmed: - - -

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/PEP  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Duck Island Harbor is assessed as having minor impacts due to aquatic life that is thought to be stressed by nutrients and resulting low dissolved oxygen, and PCBs. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. All other evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included within Shellfish Growing Area #44) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered fully supported based on shellfishing certification monitoring. There are no regularly monitored beaches in this waterbody, but bacteriological sampling conducted through the shellfishing monitoring program suggest public bathing is supported. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

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

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

#### Water Quality Information

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

#### Source Assessment

Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

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

#### Section 303(d) Listing

Duck Island Harbor is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes the entire harbor north of a line from Winkle Point to Duck Island Bluff.

# Northport Harbor (1702-0230)

**Impaired**

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2a) LIS-HB-NB-NH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020102      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      445.2 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. Virtual all of this waterbody (included within Shellfish Growing Area #42) has been designated uncertified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, December 2015)

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

Recreational use including public bathing is considered to be impaired based on monitoring and advisories/closures of beaches in the Harbor. Beach monitoring revealed elevated bacteriological levels that occur in more than ten percent of the samples collected at these beaches, and result in beach advisories/closures for more than 10 days in some years. Other beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this waterbody include Centerport Yacht Club Beach and Vanderbilt Beach (closed in 2012-13). (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

#### Water Quality Information

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

#### Source Assessment

Urban 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. Municipal sources, urban storm runoff, onsite septic systems and other nonpoint sources including atmospheric deposition, and tidal exchange with Long Island Sound and Connecticut waters are sources of the nutrients. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

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

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

#### Section 303(d) Listing

Northport Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although the Harbor is assessed as impaired due to pathogens, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Sound Pathogens (Shellfishing) TMDL in 2007. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes the entire harbor south of a line from Bluff Point to Little Neck Point.

# Eatons Neck Pond (1701-0271)

# No Known Impacts

## Waterbody Location Information

Revised: 02/19/2016

**Water Index No:** (MW5.2b) LIS- 58-P269  
**Unit Code:** 0203020202      **Class:** SA  
**Water Type/Size:** Estuary Waters      85.1 Acres  
**Description:** total area of pond and tidal tribs

**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Atlantic Ocean  
1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Suspected
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** DEC/FWMR  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Eatons Neck Pond is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included within Shellfish Growing Area #34) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered fully supported based on shellfishing certification monitoring. There are no regularly monitored beaches in this waterbody, but bacteriological sampling conducted through the shellfishing monitoring program suggest public bathing is supported. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is reported 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

There are no apparent sources of pollutants to the waterbody.

#### Management Action

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

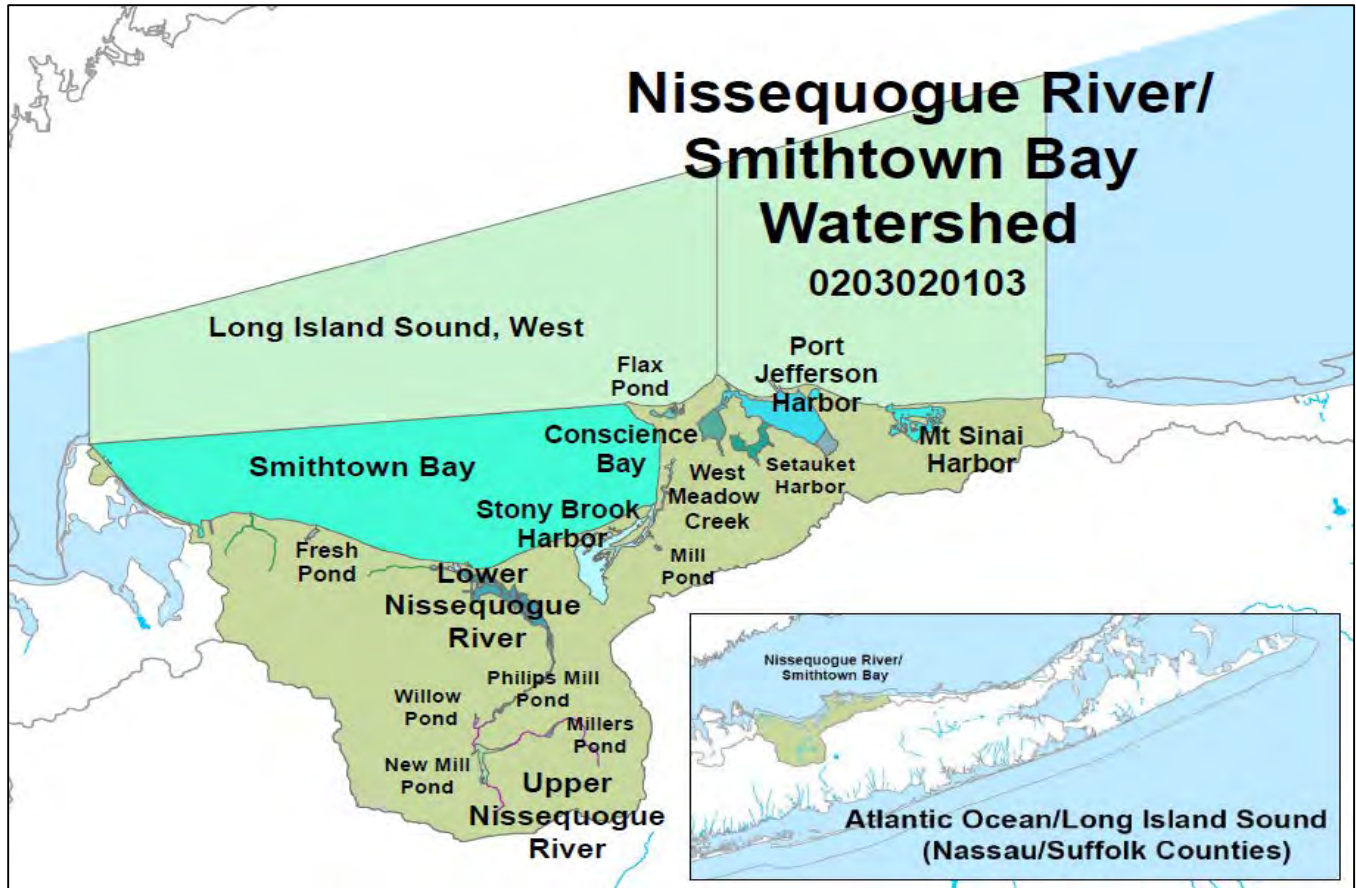
#### Section 303(d) Listing

Eatons Neck Pond is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes Eatons Neck Pond (-P269) and its outlet to Long Island Sound (-58). Eatons Neck Pond is designated Class SA.





## Nissequogue River/Smithtown Bay Watershed (0203020103)

Water Index Number	Waterbody Segment	Category
(MW5.3) LIS (portion 4)	Long Island Sound, Suffolk County, West (1702-0098)	Impaired
(MW5.3) LIS (portion 4a)/SB	Smithtown Bay (1702-0023)	Impaired
(MW5.3) LIS- 59 thru 61	Tidal Tribs to Long Island Sound (1702-0232)	Needs Verification
(MW5.3) LIS- 59 thru 61	Tribes (freshwater) to Long Island Sound (1702-0234)	Unassessed
(MW5.3) LIS- 60-P271a	Fresh Pond (1702-0233)	Unassessed
(MW5.3) LIS- 62	Nissequogue River, Lower (1702-0025)	No Known Impacts
(MW5.3) LIS- 62	Nissequogue River, Upper, and tribs (1702-0235)	No Known Impacts
(MW5.3) LIS- 62-4-P289	Willow Pond (1702-0237)	No Known Impacts
(MW5.3) LIS- 62-P288	Philips Mill Pond (1702-0236)	Threatened
(MW5.3) LIS- 62-P292	New Mill Pond (1702-0238)	Threatened
(MW5.3) LIS- 62-P296	Millers Pond (1702-0013)	Impaired
(MW5.3) LIS-SB-SBH	Stony Brook Harbor/West Meadow Creek (1702-0047)	Impaired
(MW5.3) LIS-SB-SBH-63-P336	Mill Pond (1702-0239)	Unassessed
(MW5.4b) LIS-P339	Flax Pond (1702-0240)	Impaired
(MW5.4c) LIS-PJH (portion 1)	Port Jefferson Harbor, North, and tribs (1702-0015)	Impaired
(MW5.4c) LIS-PJH (portion 2)	Port Jefferson Harbor, South, and tribs (1702-0241)	Minor Impacts
(MW5.4c) LIS-PJH-CB	Conscience Bay and tidal tribs (1702-0091)	Impaired
(MW5.4c) LIS-PJH-SH	Setauket Harbor (1702-0242)	Impaired
(MW5.4d) LIS- MSH	Mt Sinai Harbor and tidal tribs (1702-0019)	Impaired

# Long Island Sound, Suffolk County, West (1702-0098)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.1) LIS (portion 4)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      73736.2 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** Sound fr Nassau/Suffolk Co line to Old Field Point

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: MUNICIPAL DISCHARGES (Suffolk Co SD #6 STP)  
Suspected: URBAN/STORM RUNOFF  
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

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

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody (included

within Shellfish Growing Area #34) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered to experience minor impacts based on monitoring and occasional beach closures at beaches in the segment. Beach monitoring revealed elevated bacteriological levels that occurred in generally less than ten percent of the samples collected at these beaches; these results resulted in occasional but infrequent (less than 10 days) beach closures at some beaches in some years. Occasional beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Belle Terre Beach, Port Jefferson Beach East and West, Cedar Beach East and West, Miller Beach Surf Club, Miller Place Park, Woodhull Landing and Scotts Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

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

#### Water Quality Information

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

#### Source Assessment

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

#### Management Action

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

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

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

#### Section 303(d) Listing

This portion of Long Island Sound is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Nitrogen TMDL. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes all the waters of Long Island Sound within Suffolk County, east of a line due north of Eatons Neck Point, north of a line from Eatons Neck Point to Crane Neck Point (below which is Smithtown Bay, which is listed separately), and west of a line due north of the western border of Sound Beach. The boundary of this segment has been modified (2016); previously, it had extended west to Old Field Point.

# Smithtown Bay (1702-0023)

# Impaired

## Waterbody Location Information

Revised: 02/01/2016

<b>Water Index No:</b>	(MW5.4a) LIS-SB	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020103	<b>Class:</b>	SA
<b>Water Type/Size:</b>	Estuary Waters		22185.3 Acres
<b>Description:</b>	entire bay		<b>Reg/County:</b> 1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Threatened	Suspected
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Impaired	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Good	
Aesthetics	Good	

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: MUNICIPAL DISCHARGES (Suffolk Co SD #6 STP)  
 Suspected: Other Non-Permitted Sanitary Disch, URBAN/STORM RUNOFF  
 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

Smithtown Bay (a portion of Long Island Sound) is assessed as impaired due to aquatic life that is know to be impaired by nutrients and resulting low dissolved oxygen. Public bathing and recreational uses are also thought to be stressed – perhaps rising to the level of impairment – by pathogens resulting in periodic beach closures. Pathogens also threaten shellfishing use, though shellfishing is considered fully supported at this time. Fish consumption is also thought to be stressed by PCBs, however these fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

This portion of Long Island Sound is a Class SA waterbody, suitable for shellfishing, public bathing and general

recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be fully supported in these waters. Virtually all of this waterbody (included within Shellfish Growing Area #39) has been certified as safe for the taking of shellfish for use as food. The largest uncertified area includes the area within a one-half mile radius of the Suffolk County SD #6 (Kings Park) STP outfall and an area between the outfall and at the shore at the mouth of the Nissequogue River. Other smaller areas with restrictions include the waters within a 1,000 foot radius of Stony Brook Harbor outlet that is only seasonally certified, and waters within a 500 foot radius around the mouth of Crab Meadow Creek which are uncertified year-round. Because these restrictions are either due to administrative closures set as precautionary measures due to the proximity of the wastewater treatment discharge, or because the restrictions cover such a small area relative to the size of the bay (less than 5% of the 22,300 acre SGA #39), shellfishing use is listed as threatened. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered to experience minor impacts – that might rise to the level of impairment – based on monitoring and occasional beach closures at beaches in the segment. Beach monitoring revealed elevated bacteriological levels that occurred in up to 15% of the samples collected at these beaches; these results resulted in occasional but infrequent (approaching 10 days) beach closures at some beaches in some years. Occasional beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. One beach is closed year-round (Brookhaven Beach). Beaches within this reach include Crab Meadow Beach, Callihans Beach, Short Beach, Nissequogue Point Beach, Long Beach, Schubert Beach, Brookhaven Beach, West Meadow Beach and Old Field Club Beach. (NYSDOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2015)

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

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

#### Water Quality Information

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

#### Source Assessment

Municipal wastewater discharges, urban storm runoff and other nonpoint sources including atmospheric deposition, and tidal exchange with western Long Island Sound and Connecticut waters are sources of the nutrients. Urban and storm

runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

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

#### Section 303(d) Listing

Smithtown Bay is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion and implementation of the Long Island Nitrogen TMDL. This updated assessment also suggests it may be appropriate to include this waterbody on the next List of pathogens due to the frequency of beach closures. (DEC/DOW, BWRM, January 2015)

#### Segment Description

This segment includes waters south of a line from Eatons Neck Point to Crane Neck Point.

# Tidal Tribs to Long Island Sound (1702-0232)

# Needs Verification

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.2b) LIS- 59 thru 61      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SC      Long Island Sound  
**Water Type/Size:** Estuary Waters      42.7 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** total area of selected tidal tribs to sound

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF  
Unconfirmed: Onsite/Septic Systems

## Management Information

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

## Further Details

### Overview

This Long Island 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.

### Use Assessment

Tidal Tribs to Long Island 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.



Portions of this waterbody (included within Shellfish Growing Area #39) have been designated as uncertified for the taking of shellfish for use as food. Crab Meadow Creek (-59) and unnamed tidal inlets (P270, P270b) are designated as uncertified for the taking of shellfish for use as food. Although these portions of this waterbody are 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 may be stressed based on shellfishing certification monitoring. 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. Crab Meadow beach on the Long Island shore near the mouth of Crab Meadow Creek has experienced some beach closures and advisories. (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

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

#### Section 303(d) Listing

This Tidal Tribs to Long Island segment is not included on the current (2014) 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 total area of the tidal portion of tribs to Long Island Sound from Eatons Neck to the Nissequogue River, including Crab Meadow Creek (-59), and Sunken Meadow Creek (-61). These tribs are designated class SC. Eaton Neck Pond (-58) is listed separately.

# Tribs (freshwater) to Long Island Sound (1702-0234)

Unassessed

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.2b) LIS- 58 thru 61      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** C      Long Island Sound  
**Water Type/Size:** River/Stream      4.7 Miles      **Reg/County:** 1/Suffolk (52)  
**Description:** total length of selected (freshwater) tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total length of the freshwater portions of tribs to Long Island Sound between Eatons Neck Point and the Nissequogue River. These freshwater reaches, including Upper Crab Meadow Brook (-59) and Sunken Meadow Creek (-61), are primarily Class C.

# Fresh Pond (1702-0233)

Unassessed

## Waterbody Location Information

Revised: 02/01/2016

<b>Water Index No:</b>	(MW5.2b) LIS-P271a	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020103	<b>Class:</b>	C
<b>Water Type/Size:</b>	Lake/Reservoir		17.4 Acres
<b>Description:</b>	entire lake		
		<b>Reg/County:</b>	1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
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 for water supply use or for public bathing.

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total area of the entire pond.

# Nissequogue River, Lower (1702-0025)

# No Known Impacts

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.3) LIS- 62      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SC      Long Island Sound  
**Water Type/Size:** Estuary Waters      529.2 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** reach from mouth to Philips Mill Pond (tidal portion)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: ---  
Suspected: URBAN/STORM RUNOFF  
Unconfirmed: Onsite/Septic Systems

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This portion of Nissequogue River is assessed as having no known impacts; all evaluated uses are considered to be fully supported. Recreational uses are thought to be threatened by pathogens, a result of shellfishing restrictions for the waterbody. However this waterbody is not designated for support of shellfishing use and the pathogen criteria for shellfishing are more stringent than for recreational use. Therefore recreational use is evaluated as possibly threatened rather than as having any water quality or use impacts.

### Use Assessment

Lower Nissequogue 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.

Aquatic life is considered to be fully supported. The river is also among the most productive anadromous salmonid spawning areas in the state. Additionally biological sampling reveals non-impacted conditions in the upper reach of the creek, above this segment. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 2014)

All of this waterbody (included within Shellfish Growing Area #38) has been designated as uncertified for the taking of shellfish for use as food. Although these portions of this waterbody are 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)

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)

A biological assessment of Nissequogue River above this tidal reach in Smithtown (at Route 25 in Caleb State Park) was conducted as part of the RIBS biological screening effort in 2008. Sampling results indicated non-impacted conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Slightly impacted conditions were found during sampling conducted at this site in 2003. Though this site is upstream of the segment, it is considered to be somewhat representative of water quality in the downstream reach. (DEC/DOW, BWAM/SBU, January 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 highly developed urban and residential areas. 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

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

#### Section 303(d) Listing



Lower Nissequogue River is not included on the current (2014) 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 total area of the freshwater portion of the Nissequogue River and all tributaries below Phillips Mill Pond. These waters are designated Class SC.

# Nissequogue River, Upper, and tribs (1702-0235)

# No Known Impacts

## Waterbody Location Information

Revised: 02/01/2016

<b>Water Index No:</b>	(MW5.3) LIS- 62	<b>Drain Basin:</b>	Atlantic-Long Island Sound
<b>Unit Code:</b>	0203020103	<b>Class:</b>	C
<b>Water Type/Size:</b>	River/Stream	15.5 Miles	<b>Reg/County:</b> 1/Suffolk (52)
<b>Description:</b>	stream and tribs abv Phillips Mill Pond (freshwater)		

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This portion of Nissequogue River is assessed as having no known impacts; all evaluated uses are considered to be fully supported.

### Use Assessment

Upper Nissequogue River 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 considered to be fully supported based on biological sampling that shows non-impacted conditions. This sampling can also be used to infer that there are no impacts to recreational (fishing) uses, although more specific sampling

is necessary to confirm this is the case. (DEC/DOW, BWAM/SBU, December 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 Nissequogue River in Smithtown (at Route 25 in Caleb State Park) was conducted as part of the RIBS biological screening effort in 2008. Sampling results indicated non-impacted conditions and very good water quality. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Aquatic life community is fully supported. These results are consistent with a biological assessment at this site conducted in 1998 and 1999. Sampling was also conducted on the East Branch of the Nissequogue in 2008. However the results were strongly influenced by habitat factors and impoundment effects and were determined to be inconclusive. (DEC/DOW, BWAM/SBU, January 2015)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Nissequogue River in Smithtown (at New Mill Road) was conducted in 1999. Measurements of pH were somewhat low, but chemical monitoring revealed no other water quality issues. (DEC/DOW, BWAR/SWAS, January 2001)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

Upper Nissequogue River is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes the total length of the freshwater portion of the Nissequogue River and all tributaries above Phillips Mill Pond. The portion of the stream above New Mill Pond is known as Northeast Branch. Lower Nissequogue River, as well as Philips Mill Pond (P288), Willow Pond (P289), New Mill Pond (P292), and Millers Pond (P296), are listed separately.

# Willow Pond (1702-0237)

# No Known Impacts

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.3) LIS- 62-4-P289      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** C(T)      Long Island Sound  
**Water Type/Size:** Lake/Reservoir      8.3 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire lake

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Threatened	Suspected
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, Algal/Plant Growth  
Suspected: - - -  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Willow Pond is assessed as threatened due to recreational uses that are thought to be threatened by invasive plant growth. Although uses are currently fully supported, the presence of invasive plants raise concerns and condition should continue to be monitored.

### Use Assessment

Willow Pond 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.

Recreational uses are considered to be fully supported but threatened due to presence of of invasive plant growth

(Eurasian watermilfoil). Water quality appears to be supportive of uses, however sampling is limited and follow up monitoring is recommended. This waterbody is thought to support a suitable cold water fishery, although no specific fishery or biological reports are included in this assessment. (DEC/DOW, BWAM/LMAS, July 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 Willow Pond has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 2009 and NYS Office of Parks Recreation and Historic Preservation (NYSPRHP) from 2001 through 2009. Results of this sampling indicate the lake is best characterized as mesoeutrophic, or moderately productive. Limited chemical sampling indicated low phosphorus concentration. The pond was surveyed NYSPRHP as part of the ambient lake monitoring program in 2000, 2001, 2003, 2004, 2006 and 2009, including aquatic flora sampling. This survey work found a wide variety of native plants, as well as variable watermilfoil (*Myriophyllum heterophyllum*), an invasive exotic plant species. The limited water quality data showed phosphorus readings that are typical of mesoeutrophic to eutrophic lakes, and higher than in some of the other ponds in Caleb Smith State Park. The lake was reported as having clumps of algae and other characteristics of eutrophic lakes. Water clarity is usually greater than measurable in the pond, due to shallow water depth, and the lake otherwise has a circumneutral pH, moderately soft water, and elevated nitrate levels—the latter is typical of other nearby lakes. (DEC/DOW, BWAM/LMAS, March 2011)

There is no indication of any present impacts to fishing in the lake, although boating would likely be threatened by the presence of invasives, since watermilfoil grows to the lake surface in many lakes. There is no indication of any present impacts to aquatic life in Willow Pond, although the presence of watermilfoil may ultimately threaten the biological condition and aquatic life in the lake. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Beyond the habitat modification related to the invasive plants, there are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified for the waterbody.

#### Section 303(d) Listing

Willow Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the entire pond. The waterbody is Class C(T).

# Philips Mill Pond (1702-0236)

**Threatened**

## Waterbody Location Information

Revised: 02/01/2016

<b>Water Index No:</b>	(MW5.3) LIS- 62-P288	<b>Drain Basin:</b>	Atlantic-Long Island Sound	
<b>Unit Code:</b>	0203020103	<b>Class:</b>	C(T)	
<b>Water Type/Size:</b>	Lake/Reservoir	14.3 Acres	<b>Reg/County:</b>	1/Suffolk (52)
<b>Description:</b>	entire lake			

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Philips Mill Pond is assessed as threatened due to recreational uses that are thought to be threatened by invasive plant growth. Although uses are currently fully supported, the presence of invasive plants raise concerns and condition should continue to be monitored.

### Use Assessment

Philips Mill Pond 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.

Recreational uses are considered to be fully supported but threatened due to presence of of invasive plant growth

(Hydrilla). Water quality appears to be supportive of uses, however sampling is limited and follow up monitoring is recommended. This waterbody is considered to support a suitable cold water fishery. (DEC/DOW, BWAM/LMAS, July 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 Philips Mill Pond has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program, The Nature Conservancy and NYS Office of Parks Recreation and Historic Preservation (NYSPRHP) at various times from 2004 through 2009. Results of this sampling indicate the lake is best characterized as mesoligotrophic, or moderately unproductive. Chlorophyll/algal levels are below criteria corresponding to impacted recreational uses, while phosphorus concentrations are typically low. Lake clarity measurements are not applicable in this shallow clear lake and the lake is fully oxygenated to the lake bottom. (DEC/DOW, BWAM/LMAS, March 2011)

There is no indication of any present impacts to fishing in the lake, although boating would likely be threatened by the presence of invasives, since watermilfoil grows to the lake surface in many lakes. There is no indication of any present impacts to aquatic life in Philips Mill Pond, although the presence of invasives may ultimately threaten the biological condition and aquatic life in the lake. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Beyond the habitat modification related to the invasive plants, there are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified for the waterbody.

#### Section 303(d) Listing

Philips Mill Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the entire pond. The waterbody is Class C(T).

# New Mill Pond (1702-0238)

**Threatened**

## Waterbody Location Information

Revised: 02/01/2016

<b>Water Index No:</b>	(MW5.3) LIS- 62-P292	<b>Drain Basin:</b>	Atlantic-Long Island Sound	
<b>Unit Code:</b>	0203020103	<b>Class:</b>	C(T)	
<b>Water Type/Size:</b>	Lake/Reservoir	104.9 Acres	<b>Reg/County:</b>	1/Suffolk (52)
<b>Description:</b>	entire lake			

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/WQCC  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

New Mill Pond is assessed as threatened due to recreational uses that are thought to be threatened by invasive plant growth. Although uses are currently fully supported, the presence of invasive plants raise concerns and condition should continue to be monitored.

### Use Assessment

New Mill Pond 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.

Recreational uses are considered to be fully supported but threatened due to presence of of invasive plant growth



(Hydrilla). Water quality appears to be supportive of uses, however sampling is limited and follow up monitoring is recommended. This waterbody is considered to support a suitable cold water fishery. (DEC/DOW, BWAM/LMAS, July 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 New Mill Pond has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program, The Nature Conservancy and NYS Office of Parks Recreation and Historic Preservation (NYSPRHP) at various times from 2003 through 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 typically low. The lake is fully oxygenated to the lake bottom. (DEC/DOW, BWAM/LMAS, March 2011)

There is no indication of any present impacts to fishing in the lake, although boating would likely be threatened by the presence of invasives, since watermilfoil grows to the lake surface in many lakes. There is no indication of any present impacts to aquatic life in New Mill Pond, although the presence of invasives watermilfoil may ultimately threaten the biological condition and aquatic life in the lake. (DEC/DOW, BWAM/LMAS, March 2011)

#### Source Assessment

Beyond the habitat modification related to the invasive plants, there are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified for the waterbody.

#### Section 303(d) Listing

New Mill Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the entire pond. The waterbody is Class C(T).

# Millers Pond (1702-0013)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.3) LIS-62-P296      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** C      Long Island Sound  
**Water Type/Size:** Lake/Reservoir      16.5 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire lake

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), ALGAL/PLANT GROWTH (native)  
Suspected: LOW D.O./OXYGEN DEMAND  
Unconfirmed: Pathogens

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF  
Suspected: Other Non-Permitted Sanitary Discharges  
Unconfirmed: On-Site/Septic Syst

## Management Information

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

## Further Details

### Overview

Millers Pond is assessed as an impaired waterbody due to recreational uses that are known to be impaired by nutrients and the resulting algal/weed growth and low dissolved oxygen. No specific sources have been identified, but urban stormwater runoff and other nonpoint sources are the primary contributing source of pollutants.

### Use Assessment

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

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

Additional bacteriological sampling is needed to more fully evaluate the impact of pathogen levels on recreational use. (DEC/DOW, BWAM/LMAS, July 2013)

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

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

#### Water Quality Information

Water quality sampling of Miller Pond has been conducted through the NYSDEC Lake Classification and Inventory (LCI) Program in 1999. Results of this sampling indicate the lake is best characterized as eutrophic, or highly productive. Chlorophyll/algal levels are above criteria corresponding to impaired recreational uses, while phosphorus concentrations are typically very high. Lake clarity observations indicate water transparency is typically poor. Readings of pH occasionally exceed the range established in state water quality standards for protection of aquatic life though impacts to the fishery are not known. The elevated pH could be a response to algae levels. (DEC/DOW, BWAM/LMAS, May 2006)

#### Source Assessment

Based on surrounding land use and other knowledge of the waterbody, urban/storm runoff and other nonpoint sources are the most likely sources of impacts to the waterbody. Significant population of waterfowl and shoreline residential development are also possible sources.

#### Management Action

Millers Pond is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below). No other specific management actions have been identified for the waterbody.

#### Section 303(d) Listing:

Millers Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL for phosphorus and resulting low dissolved oxygen. This waterbody was first listed on the 2002 List. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the total area of the entire pond. The waterbody is Class C.

# Stony Brook Harbor/West Meadow Creek (1702-0047)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4a) LIS-SB-SBH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      795.3 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor and tidal tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, OTHER SOURCE (boat pollution)  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Stony Brook Harbor/West Meadow Creek is assessed as an impaired waterbody due to shellfishing use that is considered to be precluded by pathogens. This assessment is based on year-round and seasonal shellfishing closures. Nutrient-driven hypoxia is also a concern in the embayments of Long Island Sound. Fish consumption advisories for certain species are also in place. However these advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

Stony Brook Harbor/West Meadow Creek is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be impaired in these waters. All of this waterbody (included within Shellfish Growing Area #43) has been designated uncertified for the taking of shellfish for use as food. About 16% of the area is uncertified year-round including the southernmost head of the Harbor and most of West Meadow Creek. A larger portion (44% of the harbor/creek) including the southeastern Harbor as well as portions of Stony Brook Boat Channel, Stony Brook Creek, and the Smithtown Marina boat basin at Porpoise Channel are closed seasonally as a safeguard when boats are present in nearby marinas. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational uses and public bathing are considered to be stressed due to periodic closures of public beaches to swimming, but typically elevated levels of bacteria occur in less than ten percent of samples and result in few (less than 5) beach closure days. Occasional beach closures that do occur are typically pre-emptive closures during heavier rainstorms. Beaches within this waterbody segment include Stony Brook Beach, Stony Brook Yacht Club Beach, and Soundview Beach Association Beach. Bacteriological sampling conducted through the shellfishing monitoring program also indicate elevated pathogen levels. However criteria for shellfishing are more stringent than those for public bathing. Restrictions on shellfishing also represent an impact to recreational use. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

#### Source Assessment

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. 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

Stony Brook Harbor/West Meadow Creek was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

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

#### Section 303(d) Listing

Stony Brook Harbor/West Meadow Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a TMDL to address the impairment. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the entire harbor and West Meadow Creek.

# Mill Pond (1702-0239)

Unassessed

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4b) LIS-SB-SBH-63-P336  
**Unit Code:** 0203020103      **Class:** C(T)  
**Water Type/Size:** Lake/Reservoir      7.3 Acres  
**Description:** entire lake

**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Long Island Sound  
1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	N/A	-
Public Bathing	N/A	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
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(T) waterbody, suitable for general recreation use and support of aquatic life, but not for water supply use or for public bathing. The waterbody is also designated as a cold water (trout) fishery.

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total area of the entire pond.



# Flax Pond (1702-0240)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4b) LIS-P339      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      62.1 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire tidal waterbody

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Flax Pond is assessed as an impaired waterbody due to shellfishing use that is considered to be precluded by pathogens. This assessment is based on year-round shellfishing closures.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be precluded in these waters. All of this waterbody (included

within Shellfish Growing Area #35) has been designated uncertified certified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is thought to be stressed based on shellfishing certification monitoring. 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. Restrictions on shellfishing represent an impact to recreational 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. 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

No specific management actions have been identified for the waterbody. Flax Pond is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below). However the identified sources of pollutants may limit the effectiveness of a TMDL approach.

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

#### Section 303(d) Listing

Flax Pond is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2c of the List as a shellfishing impaired waterbody requiring development of a TMDL for pathogens. This waterbody was first listed on the 2012 List. (DEC/DOW, BWAM/WQAS, January 2016)

**Segment Description**

This segment includes the total area of the pond.

# Port Jefferson Harbor, North, and tribs (1702-0015)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4c) LIS-PJH (portion 1)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      1001.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** portion of harbor, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, OTHER SOURCE (boat pollution)  
Suspected: Other Source (migratory fish species), Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

This portion of Port Jefferson Harbor is assessed as an impaired waterbody due to shellfishing use and public bathing that are considered to be impaired by pathogens. This assessment is based on year-round and seasonal shellfishing closures and a high number of beach closures. Nutrient-driven hypoxia is also a concern in the embayments of Long Island Sound. Fish consumption advisories for certain species are also in place. However these advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

Port Jefferson Harbor North is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be impaired in these waters. Much of this waterbody (included within Shellfish Growing Area #33) has been designated uncertified for the taking of shellfish for use as food. Most of the head of the harbor (southern end) is closed year-round; the rest of the harbor is seasonally or conditionally closed. Additionally, the northeast certified portions of the harbor are routinely closed on a temporary basis during summer holiday weekends due to the significant increase in boat traffic. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational uses and public bathing are also considered to be impaired due to high number of closures of public beaches to swimming. In recent years, elevated levels of bacteria have occurred in more than ten percent of samples and resulted in 10 to 25 beach closure days. Beaches within this waterbody segment include Bayberry Cove Beach, Indian Field Beach and Bayview Beach. Bacteriological sampling conducted through the shellfishing monitoring program also indicate elevated pathogen levels. However criteria for shellfishing are more stringent than those for public bathing. Restrictions on shellfishing and public bathing also represent an impact to recreational use. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

#### Source Assessment

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; direct waterfowl/wildlife inputs; and boats and marinas. The watershed is highly developed and slopes steeply into the harbor, resulting in significant stormwater runoff loads. Significant summer boat traffic also affects water quality. Various local initiatives aimed at and improving water quality in general and stormwater management in particular are underway. A vessel waste No Discharge Zone was established for the waters of Port Jefferson Harbor in 2001. (DEC/DOW, BWRM, September 2015)

#### Management Action

Port Jefferson Harbor North was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

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

#### Section 303(d) Listing

Port Jefferson Harbor North is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a TMDL to address the impairment. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the entire main harbor north of a line from the LILCO bulkhead to Beach Road. Setauket Harbor and Conscience Bay are listed separately.

# Port Jefferson Harbor, South, and tribs (1702-0241)

# Minor Impacts

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4c) LIS-PJH (portion 2)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SC      Long Island Sound  
**Water Type/Size:** Estuary Waters      118.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** portion of harbor, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, OTHER SOURCE (boat pollution)  
Suspected: Other Source (migratory fish species), Onsite/Septic Systems  
Unconfirmed: - - -

## 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 portion of Port Jefferson Harbor is assessed as having minor impacts due to recreational uses that are considered to be stressed by pathogens. Although there are no bathing beaches in this segment, public bathing is impaired by pathogens in other portions of the Harbor and is likely stressing recreational uses. The harbor is also monitored and designated as uncertified for shellfishing due to pathogens. However this waterbody is not designated for support of shellfishing use and the pathogen criteria for shellfishing are more stringent than for recreational use. Nutrient-driven hypoxia is also a concern in the embayments of Long Island Sound. Fish consumption advisories for certain species are also in place. However these advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

Port Jefferson Harbor South 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.

Recreational uses public bathing are considered to be stressed due to closures of public beaches to swimming in other portions of the Harbor; there are not public bathing beaches in this portion of the Harbor. Bacteriological sampling conducted through the shellfishing monitoring program also indicate elevated pathogen levels. However criteria for shellfishing are more stringent than those for recreational uses. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

All of this waterbody (included within Shellfish Growing Area #33) has been designated as uncertified for the taking of shellfish for use as food. Although these portions of this waterbody are monitored through the shellfish program and designated as uncertified, its Class SC designation does not include shellfishing as an appropriate use and this assessment does not include an evaluation for the support of shellfishing use. (DEC/DFWMR, Region 1, July 2015)

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

### Water Quality Information

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

### Source Assessment

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 highly developed urban and residential areas. 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

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



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

#### Section 303(d) Listing

Port Jefferson Harbor South is not included on the current (2014) 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 entire main harbor south of a line from the LILCO bulkhead to Beach Road.

# Conscience Bay and tidal tribs (1702-0091)

# Impaired

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4c) LIS-PJH-CB      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      228.4 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire bay

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, OTHER SOURCE (boat pollution)  
Suspected: Other Source (migratory fish species), Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Conscience Bay is assessed as an impaired waterbody due to shellfishing use and public bathing that are considered to be impaired by pathogens. This assessment is based on year-round and seasonal shellfishing closures and a high number of beach closures. Nutrient-driven hypoxia is also a concern in the embayments of Long Island Sound. Fish consumption advisories for certain species are also in place. However these advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. All of this waterbody (included within Shellfish Growing Area #33) has been designated uncertified or as only seasonally certified for the taking of shellfish for use as food. The head of the harbor (southern end) is closed year-round; the rest of the harbor is seasonally closed. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational uses and public bathing are also considered to be impaired due to high number of closures of public beaches to swimming. In recent years, elevated levels of bacteria have resulted in the year-long closure of Minasseroke Beach. Elevated bacteria levels at Grantland Beach resulted in 10 to 25 beach closure days in some years. Bacteriological sampling conducted through the shellfishing monitoring program also indicate elevated pathogen levels. However criteria for shellfishing are more stringent than those for public bathing. Restrictions on shellfishing and public bathing also represent an impact to recreational use. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

#### Source Assessment

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; direct waterfowl/wildlife inputs; and boats and marinas. Urban stormwater runoff in the watershed introduce pathogens to the waters affecting shellfish consumption, public bathing and other recreation. The watershed is highly developed and slopes steeply into the harbor, resulting in significant stormwater runoff loads. Poor flushing characteristics in the bay affects water quality. Significant summer boat traffic is also a concern. Various local initiatives aimed at and improving water quality in general and stormwater management in particular are underway. A vessel waste No Discharge Zone was established for the waters of Port Jefferson Harbor in 2001. (DEC/DOW, BWRM, September 2015)

#### Management Action

Conscience Bay was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

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

#### Section 303(d) Listing

Conscience Bay is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a TMDL to address the impairment. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the entire Bay. Port Jefferson Harbor is listed separately.

# Setauket Harbor (1702-0242)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4c) LIS-PJH-SH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      208.5 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, OTHER SOURCE (boat pollution)  
Suspected: Other Source (migratory fish species), Onsite/Septic Systems  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Setauket Harbor is assessed as an impaired waterbody due to shellfishing use and public bathing that are considered to be impaired by pathogens. This assessment is based on year-round and seasonal shellfishing closures and a high number of beach closures. Nutrient-driven hypoxia is also a concern in the embayments of Long Island Sound. Fish consumption advisories for certain species are also in place. However these advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be impaired in these waters. All of this waterbody (included within Shellfish Growing Area #33) has been designated uncertified or as only seasonally certified for the taking of shellfish for use as food. The head of the harbor (southern end) is closed year-round; the rest of the harbor is seasonally closed. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational uses and public bathing are also considered to be impaired due to high number of closures of public beaches to swimming. In recent years, elevated levels of bacteria have occurred in more than ten percent of samples and resulted in up to 10 beach closure days. Beaches within this waterbody segment include Little Bay Beach. Bacteriological sampling conducted through the shellfishing monitoring program also indicate elevated pathogen levels. However criteria for shellfishing are more stringent than those for public bathing. Restrictions on shellfishing and public bathing also represent an impact to recreational use. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

#### Source Assessment

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; direct waterfowl/wildlife inputs; and boats and marinas. Urban stormwater runoff in the watershed introduce pathogens to the waters affecting shellfish consumption, public bathing and other recreation. The watershed is highly developed and slopes steeply into the harbor, resulting in significant stormwater runoff loads. Poor flushing characteristics in the bay affects water quality. Significant summer boat traffic is also a concern. Various local initiatives aimed at and improving water quality in general and stormwater management in particular are underway. A vessel waste No Discharge Zone was established for the waters of Port Jefferson Harbor in 2001. (DEC/DOW, BWRM, September 2015)

#### Management Action

Setauket Harbor was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

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

#### Section 303(d) Listing

Setauket Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a TMDL to address the impairment. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the harbor. Port Jefferson Harbor is listed separately.

# Mt Sinai Harbor and tidal tribs (1702-0019)

**Impaired**

## Waterbody Location Information

Revised: 02/01/2016

**Water Index No:** (MW5.4d) LIS- MSH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020103      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      396.9 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor and tidal tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, OTHER SOURCE (boat pollution)  
Suspected: Other Source (migratory fish species)  
Unconfirmed: - - -

## Management Information

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

## Further Details

### Overview

Mt Sinai Harbor is assessed as an impaired waterbody due to shellfishing use that is considered to be precluded by pathogens. This assessment is based on year-round and seasonal shellfishing closures. Nutrient-driven hypoxia is also a concern in the embayments of Long Island Sound. Fish consumption advisories for certain species are also in place. However these advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

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



Shellfish harvesting for consumption is considered to be impaired in these waters. All of this waterbody (included within Shellfish Growing Area #32) has been designated as uncertified or as only seasonally certified for the taking of shellfish for use as food. Nearly all of the Harbor is closed on a seasonal basis, while a small portion (less than 10%) near the southern head of the harbor is closed year-round. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational uses and public bathing are thought to be stressed. 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. Restrictions on shellfishing represent an impact to recreational use. (DEC/DFWMR, July 2014)

Based on other available indicators for other related uses, this waterbody is expected to support an adequate marine water fishery. Low dissolved oxygen in the embayments of Long Island Sound are a concern, although no specific fishery or biological reports are included in this assessment.

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

#### Water Quality Information

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

#### Source Assessment

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. Urban stormwater runoff in the watershed introduce pathogens to the waters affecting shellfish consumption, public bathing and other recreation. The watershed is highly developed and slopes steeply into the harbor, resulting in significant stormwater runoff loads. Erosion within the watershed is a water quality issue. The harbor is very heavily used for boating and includes mooring capabilities for 1000 boats, a large docking area (marina) and a public boat launch. (DEC/DOW, BWRM, September 2015)

#### Management Action

Mt Sinai Harbor was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state

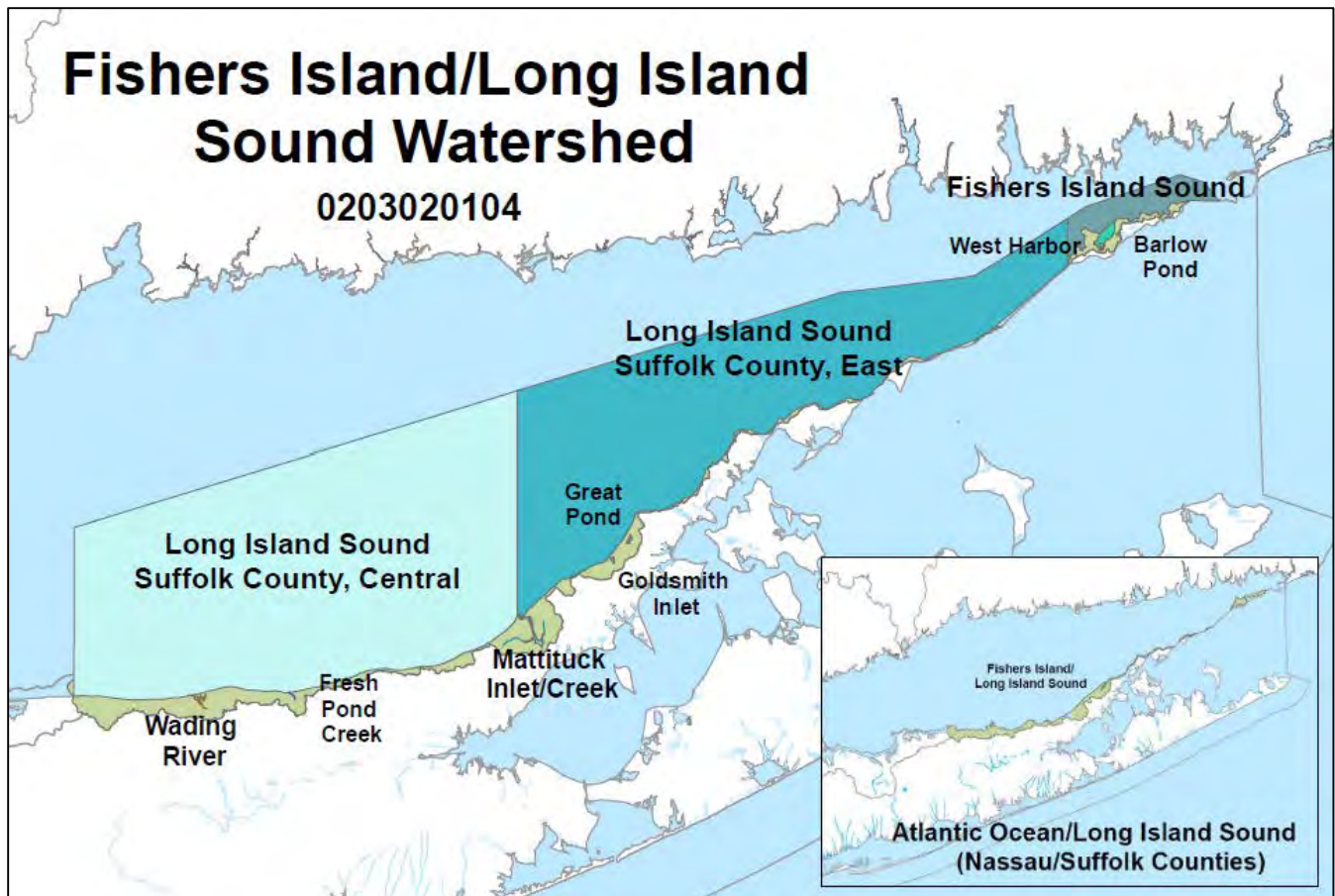
agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management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

#### Section 303(d) Listing

Mt Sinai Harbor is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a TMDL to address the impairment. (DEC/DOW, BWAM, January 2015)

#### Segment Description

This segment includes the total area of the entire harbor.



## Fishers Island/Long Island Sound Watershed (0203020104)

Water Index Number	Waterbody Segment	Category
(MW5.4d) LIS (portion 5)	Long Island Sound, Suffolk Co, Central (1702-0265)	Minor Impacts
(MW5.4d) LIS- 68	Wading River, Lower, and tidal tribs (1702-0099)	Needs Verification
(MW5.4d) LIS- 68	Wading River, Upper, and tribs (1702-0243)	Unassessed
(MW5.4d) LIS- 69	Fresh Pond Creek and tribs (1702-0244)	Unassessed
(MW5.4e) LIS (portion 6)	Long Island Sound, Suffolk County, East (1702-0266)	Minor Impacts
(MW5.4e) LIS- 71	Mattituck Inlet/Cr, Low, and tidal tribs (1702-0020)	Impaired
(MW5.4e) LIS- 71-	Tribs to Mattituck Creek (1702-0245)	Unassessed
(MW5.4e) LIS- 72	Goldsmith Inlet (1702-0026)	Impaired
(MW5.4e) LIS-P378	Great Pond (1702-0246)	No Known Impacts
(MW5.4g) LIS-FI	Fishers Island Sound (1702-0264)	Minor Impacts
(MW5.4g) LIS-FI-WH	West Harbor, Fishers Island (1702-0046)	Impaired
(MW5.4g) LIS-FI-WH-P1108	Barlow Pond, Fishers Island (1701-0285)	Unassessed

# Long Island Sound, Suffolk County, Central (1702-0265) Minor Impacts

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4d) LIS (portion 5)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters 182179.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** Sound from Sound Beach to Mattituck Inlet

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Stressed	Suspected
Recreation	Stressed	Suspected
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Suspected
<b>Conditions Evaluated</b>		
Habitat/Hydrology	Good	
Aesthetics	Good	

### Type of Pollutant(s)

Known: PATHOGENS  
Suspected: PRIORITY ORGANICS (PCBS/migratory fish)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: OTHER SOURCE (migratory fish species), URBAN/STORM RUNOFF  
Unconfirmed: - - -

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/LIS  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This portion of Long Island Sound is assessed as having minor impacts due to public bathing and recreational uses and fish consumption that are thought to be stressed by pathogens and PCBs. This segment had been assessed as impaired due to a higher frequency of public bathing beach closures however the frequency of closures has been very infrequent. In addition the boundary of this segment has been modified and most of the beaches with closures are now located in the segment to the west of this shoreline reach. These fish consumption advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody.

### Use Assessment

This portion of Long Island Sound is a Class SA waterbody, suitable for shellfishing, public bathing and general

recreation use, and support of aquatic life.

Shellfish harvesting for consumption is considered to be fully supported in these waters. Virtually all of this waterbody (included within Shellfish Growing Area #35) has been certified as safe for the taking of shellfish for use as food. The only restrictions in this segment are a year-round closures for areas within 500 yards of the shoreline around the mouth of Wading River. Because these areas represents less than 1% of the total area of this portion of the Sound, the waterbody is considered to be fully supporting of shellfishing use. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is thought to be supported but stressed based on monitoring and occasional beach closures at beaches in the segment. Beach monitoring revealed elevated bacteriological levels that occurred in generally less than ten percent of the samples collected at these beaches; these results resulted in occasional but infrequent (less than 10 days) beach closures at some beaches in some years. Occasional beach closures in the segment are largely pre-emptive closures during heavier rainstorms that are known to wash pollutants into the harbor. Beaches within this reach include Sound Beaches, Pickwick Beach, Tides Property Owners Beach, Teraces on the Sound Beach, Beech Road Beach, Broadway Beach, Friendship Drive, Shoreham Beach, Shoreham Shore Club Beach, Shoreham Village Beach, Wading River Beach, Camp DeWolfe, Wildwood State Park Beach, Camp Baiting Hollow Beach, Woodcliff Beach, Dorothy Flint Camp Beach, Reeves Beach, Iron Pier Beach and Mattituck Breakwater Beach. Additionally, bacteriological sampling conducted through the shellfishing monitoring program suggest public bathing is supported. (NYS DOH BEACH Act monitoring results, 2013 and DEC/DFWMR, July 2014)

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

#### Water Quality Information

Assessments of recreational uses and aquatic life in marine waters are based primarily on information from NYS and local health departments and the NYSDEC Division of Fish Wildlife and Marine Resources. This information is compiled and updated in regularly issued advisories and certifications regarding bathing beaches, shellfishing harvest and sportfish consumption. (NYS DOH 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. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance. (DEC/DOW, BWRM, September 2015)

#### Management Action

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to fully restoring and protecting the waters of the Sound. The LISS was formed by EPA, New York and Connecticut in 1985 to focus on the overall ecosystem. In 2015, the LISS revised its Comprehensive Conservation and Management Plan (CCMP) to address new environmental challenges (such as climate change, long-term sustainability, environmental justice, and ecosystem-based management), incorporate scientific and technological advances, and respond to changing community needs.

The new CCMP is organized around four themes: Clean Waters and Healthy Watersheds, Thriving Habitats and Abundant Wildlife, Sustainable and Resilient Communities, and Sound Science and Inclusive Management. The LISS partners have made significant strides to restore and protect Long Island Sound, giving priority to hypoxia, habitat restoration, public involvement and education and water quality monitoring. (DEC/DOW, BWQM/WQMS, July 2015)

#### Section 303(d) Listing

This portion of Long Island Sound is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL for pathogens. However this updated assessment suggests that the suspected impacts to water quality and uses are not sufficient to warrant continued listing. This waterbody will be considered for delisting pathogens during the next update of the List. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes all the waters of Long Island Sound within Suffolk County, east of a line due north of the western border of Sound Beach, north of the Long Island north shore, and west of line due north from Mattituck Inlet. The boundary of this segment has been modified (2016); previously, it had extended west to Old Field Point.

# Wading River, Lower, and tidal tribs (1702-0099)

# Needs Verification

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4d) LIS- 68  
**Unit Code:** 0203020104      **Class:** SC  
**Water Type/Size:** Estuary Waters      12.2 Acres  
**Description:** tidal portion of stream and tribs

**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Long Island Sound  
1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Lower (tidal) Wading River is assessed as needing verification of impacts to recreational uses that may be stressed by pathogens. The waterbody is uncertified for shellfishing but it is not certain if other recreational uses are impacted. Urban and storm runoff are the likely primary sources of pathogens, although various other sources such as inadequate onsite treatment/septic systems, boat discharges and waterfowl may also contribute. The river drains an undeveloped marshland with significant wildlife and waterfowl populations.

### Use Assessment

Lower Wading River is a Class SC waterbody, suitable for general recreation use and support of aquatic life, but not as a shellfishing water or for public bathing.

Recreational use including public bathing is thought to be stressed. 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. Water quality monitoring at beaches along the Long Island Sound shore near the mouth of Wading River (Shoreham

Beach, Wading River Beach and Camp DeWolfe Beach) indicate no significant impacts to uses. (DEC/DOW, BWAM, January 2016)

All of this waterbody (included within Shellfish Growing Area #31) 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)

This waterbody is thought to support a suitable 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. 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

No specific management actions have been identified for this waterbody.

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

#### Section 303(d) Listing

Lower Wading River is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There are no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the tidal portion of the stream and its tribs. This tidal portion of the stream and tidal tribs are designated Class SC. (Note that State Classification Regulations include this trib in Article 16, Part 921 – Peconic River-Flanders Bay Drainage Basin).



# Wading River, Upper, and tribs (1702-0243)

Unassessed

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4d) LIS- 68      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** C      Long Island Sound  
**Water Type/Size:** River/Stream      1.8 Miles      **Reg/County:** 1/Suffolk (52)  
**Description:** stream and tribs above tidal waters (freshwater)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total length of the freshwater portion of the stream. This freshwater portion of the stream, including unnamed ponds P353, P354, P355, is designated Class C. (Note that State Classification Regulations include this trib in Article 16, Part 921 – Peconic River-Flanders Bay Drainage Basin).

# Fresh Pond Creek and tribs (1702-0244)

Unassessed

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4d) LIS- 69      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** B      Long Island Sound  
**Water Type/Size:** River/Stream      0.5 Miles      **Reg/County:** 1/Suffolk (52)  
**Description:** entire stream and tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the freshwater portion of the stream and all tribs. The freshwater portion of the stream (including unnamed pond P356a) is Class B; tribs to this reach are Class C. (Note that State Classification Regulations include this trib in Article 16, Part 921 – Peconic River-Flanders Bay Drainage Basin).

# Long Island Sound, Suffolk County, East (1702-0266)

# Minor Impacts

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4e) LIS (portion 6)      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters 100709.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** Sound from Mattituck Inlet to East Point/Fishers Island

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

Known: - - -  
Suspected: PRIORITY ORGANICS (PCBS/migratory fish)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: OTHER SOURCE (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/LIS  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

This portion of Long Island Sound is assessed as having minor impacts due to fish consumption that is thought to be stressed by PCBs. These advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. All other evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody

(included within Shellfish Growing Area #36) has been certified as safe for the taking of shellfish for use as food. The only restrictions in this segment are year-round administrative closures for areas within a one-half mile radius of the Greenport STP outfall (312 acres) and along the north shore of Plum Island (704 acres). Because these areas represents only about 1% of the total area of this portion of the Sound, the waterbody is considered to be fully supporting of shellfishing use. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed no elevated bacteriological levels at beaches and no beach closures. Beaches within this reach include Mattituck Breakwater Beach, Peconic Dunes Camp Beach, Kenny's Beach, McCabe's Beach, Southhold Beach. Additionally, bacteriological sampling conducted through the shellfishing monitoring program suggest public bathing is supported. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

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

#### Water Quality Information

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

#### Source Assessment

Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

#### Section 303(d) Listing

This portion of Long Island Sound is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL

Waters. There are no impacts that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes all the waters of Long Island Sound within Suffolk County, east of a line due north of Mattituck Inlet, north of the Long Island north shore and a line from Orient Point through Plum Island to East Point and on to Fishers Island, and west of line due north from the western end of Fishers Island.

# Mattituck Inlet/Creek, and tidal tribs (1702-0020)

**Impaired**

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4e) LIS- 71      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      143.8 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** tidal portion of stream and tribs

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: PATHOGENS  
Suspected: Nutrients  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Mattituck Inlet/Creek is assessed as an impaired waterbody due to shellfishing use that is known to be precluded by pathogens. Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Public bathing and other recreational uses are supported, however these uses are thought to be stressed, as a result of the shellfishing restrictions and related pathogen levels.

### Use Assessment

Mattituck Inlet/Creek is a Class SA waterbody, suitable for shellfishing, public bathing and general recreation use, and support of aquatic life.



### Shellfishing Use

Shellfish harvesting for consumption is considered to be precluded in these waters. All of this waterbody (included within Shellfish Growing Area #30) has been designated as un certified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is thought to be stressed. 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. Water quality monitoring at beaches along the Long Island Sound shore near the mouth of Mattituck Inlet (Mattituck Breakwater Beach) indicate no known impacts to uses. (DEC/DOW, BWAM, January 2016)

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. 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

Mattituck Inlet/Creek was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

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

#### Section 303(d) Listing

Mattituck Inlet/Creek is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. Although it is assessed as an impaired water, it is categorized as an IR Category 4a water that is not listed due to the completion of a TMDL to address the impairment. (DEC/DOW, BWAM/WQAS, January 2016)

#### Segment Description:

This segment includes the entire inlet and tidal tribs. The inlet and tidal creek is Class SA; a tidal portion of unnamed trib (-1) is Class SA and SC. Freshwater tribs are listed separately.

# Tribs to Mattituck Creek (1702-0245)

Unassessed

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4e) LIS- 71-  
**Unit Code:** 0203020104      **Class:** C  
**Water Type/Size:** River/Stream      1.5 Miles  
**Description:** total length of selected (freshwater) tribs

**Drain Basin:** Atlantic-Long Island Sound  
**Reg/County:** Long Island Sound  
1/Suffolk (52)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

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

### Use Assessment

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

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total length of freshwater portions of tribs to Mattituck Creek (-71). The freshwater portions of these tribs are Class C. The lower portion of trib -1 is tidal and included with the Mattituck Inlet/Creek segment.

# Goldsmith Inlet (1702-0026)

# Impaired

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4e) LIS- 72      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      21.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire inlet

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

### Type of Pollutant(s)

Known: PATHOGENS  
Suspected: Nutrients  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

Goldsmith Inlet is assessed as an impaired waterbody due to shellfishing use that is known to be precluded by pathogens. Urban and storm runoff are the primary sources of pathogens, although inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Public bathing and other recreational uses are supported, however these uses are thought to be stressed, as a result of the shellfishing restrictions and related pathogen levels.

### Use Assessment

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

### Shellfishing Use

Shellfish harvesting for consumption is considered to be precluded in these waters. Virtually all of this waterbody (included within Shellfish Growing Area #67) has been designated as un certified for the taking of shellfish for use as food. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is thought to be stressed. 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. Water quality monitoring at beaches along the Long Island Sound shore near the mouth of Goldsmith Inlet (Peconic Dunes Camp Beach, Kenny's Beach) indicate no known impacts to uses. (DEC/DOW, BWAM, January 2016)

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. 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

Goldsmith Inlet was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

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

#### Section 303(d) Listing

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

#### Segment Description:

This segment includes the entire inlet and tidal tribs. The inlet, including the tidal pond (P376), is Class SA.

# Great Pond (1702-0246)

# No Known Impacts

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4e) LIS-P378      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** A      Long Island Sound  
**Water Type/Size:** Lake/Reservoir      30.1 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire lake

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Fully Supported	Unconfirmed
Public Bathing	Fully Supported	Unconfirmed
Recreation	Fully Supported	Suspected
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

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

## Management Information

**Management Status:** Reassessment Needed  
**Lead Agency/Office:** DOW/BWAM  
**IR/305(b) Code:** Water Attaining Some Standards (IR Category 2)

## Further Details

### Overview

Great Pond is considered to have no known impacts. The most recent assessments of the waterbody indicated no known impacts, however that assessment is based on older data and sampling to verify conditions is recommended.

### Use Assessment

This waterbody segment is a Class A waterbody, suitable for water supply [or shellfishing], public bathing and general recreation use, and support of aquatic life.

There is no evidence of recreation use impacts in Great Pond, consistent with relatively low lake productivity,



high water clarity, and the lack of invasive species and/or excessive aquatic vegetation. Public bathing is also considered to be fully supported based on the evaluation of overall recreational use, however bacteriological sampling is needed to more fully evaluate swimming use. (DEC/DOW, BWAM/LCI, January 2016)

Public water supply use of Great Pond is also thought to be fully supported. The waterbody is not currently believed to be used as a public supply, however other sampling information suggests the waterbody would support water supply use. (DEC/DOW, BWAM, January 2016)

Based on other available indicators for other related uses, this waterbody is reported 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

Water quality sampling of Great Pond has been conducted (single sample) through the NYSDEC Lake Classification and Inventory (LCI) Program in 2003. Results of this sampling indicate the lake is best characterized as oligotrophic, or unproductive. Chlorophyll samples were not collected but phosphorus concentrations are typically low. Lake clarity measurements indicate water transparency meets/exceeds the recommended minimum criteria for swimming beaches (Secchi disc was visible on bottom of lake at 2.5 m depth). Readings of pH fall within the range established in state water quality standards for protection of aquatic life. (DEC/DOW, BWAM/LMAS, May 2006)

#### Source Assessment

There are no apparent sources of pollutants to the waterbody.

#### Management Actions

No specific management actions have been identified or are deemed necessary for the waterbody.

#### Section 303(d) Listing

Great Pond is not included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. There appear to be no impacts/impairments that would justify the listing of this waterbody. (DEC/DOW, BWAM/WQAS, January 2015)

#### Segment Description

This segment includes the total area of the entire pond. The pond is Class A.

# Fishers Island Sound (1702-0264)

# Minor Impacts

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4g) LIS-FI      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      6036.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** estuary waters surrounding Fishers Island

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Fully Supported	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Good
Aesthetics	Good

### Type of Pollutant(s)

Known: - - -  
Suspected: PRIORITY ORGANICS (PCBS/migratory fish)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

Known: - - -  
Suspected: OTHER SOURCE (migratory fish species)  
Unconfirmed: - - -

## Management Information

**Management Status:** No Action Needed  
**Lead Agency/Office:** ext/LIS  
**IR/305(b) Code:** Water Attaining All Standards (IR Category 1)

## Further Details

### Overview

Fishers Island Sound is assessed as having minor impacts due to fish consumption that is thought to be stressed by PCBs. These advisories are the result of the migratory range of these fish species, and not related to any known contamination in this specific waterbody. All other evaluated uses are considered to be fully supported.

### Use Assessment

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

Shellfish harvesting for consumption is considered to be fully supported in these waters. All of this waterbody

(included within Shellfish Growing Area #66) has been certified as safe for the taking of shellfish for use as food. 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. Certified/uncertified shellfish area designations are revised regularly; for detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered supported based on monitoring at beaches in the waterbody and shellfishing certification monitoring. Beach monitoring revealed no elevated bacteriological levels at beaches and no beach closures. Beaches within this reach include Fisher Island Country Club Beach, Culloden Shores Beach and East Lake Drive Beach. Additionally, bacteriological sampling conducted through the shellfishing monitoring program suggest public bathing is supported. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

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

#### Water Quality Information

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

#### Source Assessment

Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

#### Management Action

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

#### Section 303(d) Listing

Fishers Island Sound is not included on the current (2014) 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 2015)

#### Segment Description

This segment includes tidal estuary waters east of a line extending due north from the western end of Fishers Island, and north north of a line extending due east from the Island's eastern end; excluding West Harbor which is listed separately.

# West Harbor, Fishers Island (1702-0046)

# Impaired

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4g) LIS-FI-WH      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** SA      Long Island Sound  
**Water Type/Size:** Estuary Waters      371.2 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire harbor, as described below

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Shellfishing	Impaired	Known
Public Bathing	Fully Supported	Known
Recreation	Fully Supported	Known
Aquatic Life	Fully Supported	Unconfirmed
Fish Consumption	Stressed	Suspected

**Conditions Evaluated**

Habitat/Hydrology	Unknown
Aesthetics	Unknown

### Type of Pollutant(s)

Known: PATHOGENS  
Suspected: Priority Organics (PCBs/migratory fish)  
Unconfirmed: - - -

### Source(s) of Pollutant(s)

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

## Management Information

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

## Further Details

### Overview

West Harbor 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 inadequate onsite wastewater treatment and various other sources such as boat discharges, waterfowl may also contribute. Public bathing and other recreational uses are supported, however these uses are thought to be stressed, as a result of the shellfishing restrictions and related pathogen levels.

### Use Assessment

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

### Shellfishing Use

Shellfish harvesting for consumption is considered to be precluded in these waters. Much of this waterbody (included within Shellfish Growing Area #51) has been designated as uncertified or only seasonally certified for the taking of shellfish for use as food. About 6% of the area is uncertified year-round including the southernmost head of the Harbor. A larger portion (36%) of the harbor is closed seasonally as a safeguard when boats are present in nearby marinas. Shellfish that grow in contaminated waters can accumulate disease-causing microorganisms (bacteria, viruses) that can be eaten with the shellfish. These shellfishing designations are based on results of water quality sampling and evaluation of data against New York State and National Shellfish Sanitation Program monitoring criteria and/or shoreline surveys of actual or potential sources of contamination. Certified/uncertified shellfish area designations are revised regularly; for the most up to date and detailed descriptions of current designations, go to [www.dec.ny.gov/regs/4014.html](http://www.dec.ny.gov/regs/4014.html). (DEC/DFWMR, Region 1, July 2010)

Recreational use including public bathing is considered fully supported based on monitoring at beaches in the waterbody. Beach monitoring revealed no elevated bacteriological levels at beaches and no beach closures. Beaches within this waterbody include Hay Harbor Club Beach. (NYSDOH BEACH Act monitoring results, 2010 and DEC/DFWMR, July 2014)

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

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

### Water Quality Information

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

### Source Assessment

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. Relative contributions from each type of source are very site-specific in nature, particularly in localized areas of study. (DEC/DOW, BWRM, September 2015)

Impacts to fish consumption are the result of elevated PCBs in fish species with a wide migratory range; there are no known PCB sources within the waterbody of significance.

### Management Action

West Harbor was among the waterbodies covered by the 2007 Shellfish Pathogen TMDL to address 27 shellfishing impaired waters in Long Island Sound embayments. (DEC/DOW, BWAM/WQMS, July 2010)

This waterbody is included in the Long Island Sound Study (LISS), a bi-state partnership consisting of federal and state

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

#### Section 303(d) Listing

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

#### Segment Description:

This segment includes harbor waters south of a line from Hawks Nest to Clay Point.

# Barlow Pond, Fishers Island (1701-0285)

Unassessed

## Waterbody Location Information

Revised: 01/19/2016

**Water Index No:** (MW5.4g) LIS-FI-P1108      **Drain Basin:** Atlantic-Long Island Sound  
**Unit Code:** 0203020104      **Class:** A      Atlantic Ocean  
**Water Type/Size:** Lake/Reservoir      12.6 Acres      **Reg/County:** 1/Suffolk (52)  
**Description:** entire lake

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Unassessed	-
Aquatic Life	Unassessed	-
Fish Consumption	Unassessed	-
<b>Conditions Evaluated</b>		
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 A waterbody, suitable for water supply, public bathing and general recreation use and support of aquatic life.

### Water Quality Information

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

#### Source Assessment

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

#### Management Actions

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

#### Section 303(d) Listing

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

#### Segment Description

This segment includes the total area of the entire pond.