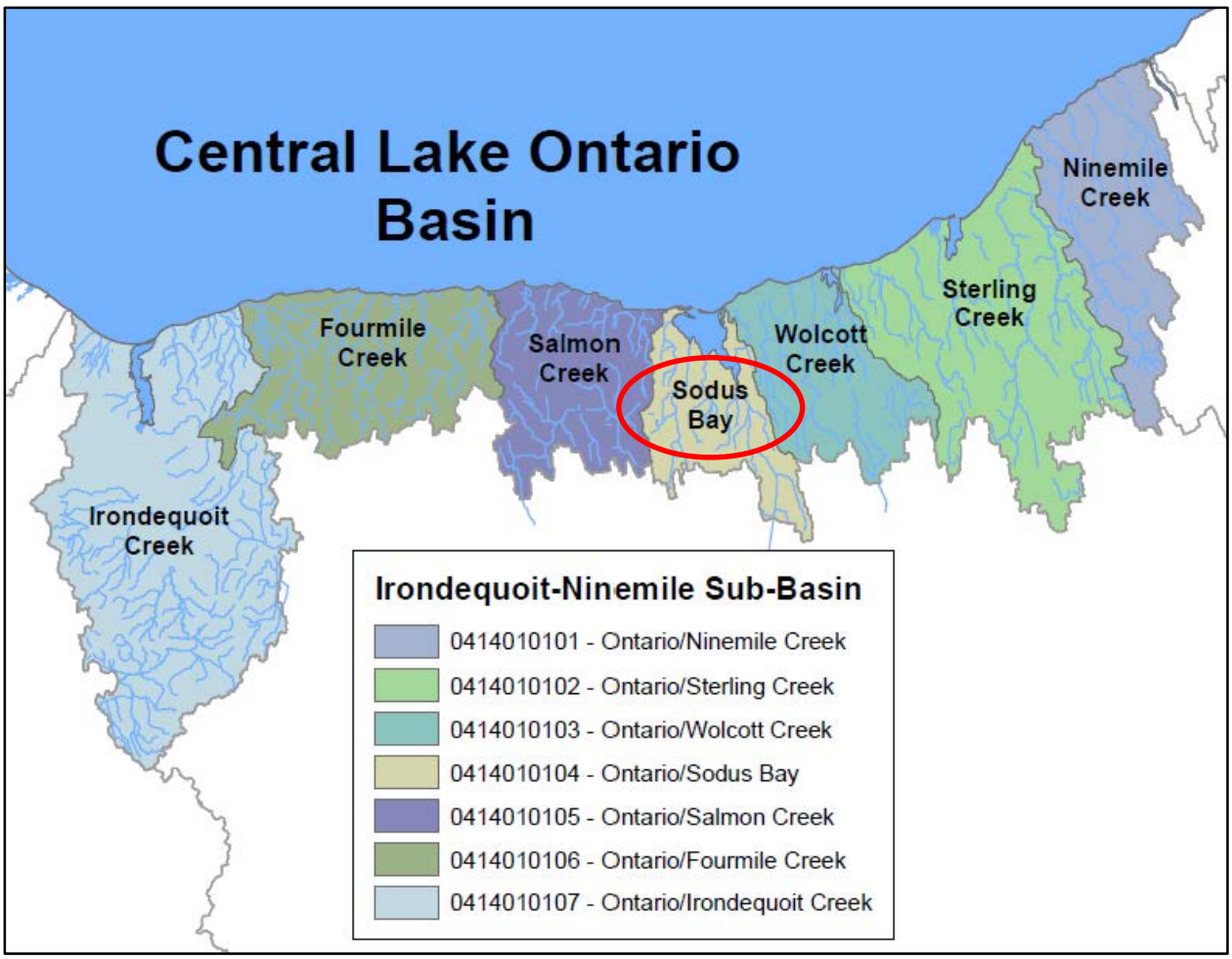


# Lake Ontario/Sodus Bay Watershed
## (0414010104)

| Water Index Number | Waterbody Segment | Category |
|---|---|---|
| Ont 84/P96 | Sodus Bay (0302 0020) | MinorImpacts |
| Ont 84/P96 | Minor Tribs to Sodus Bay (0302 0008) | UnAssessed |
| Ont 84/P96 4 | Sodus Creek and tribs (0302 0007) | Need Verific |
| Ont 84/P96 10 | Second Creek and tribs (0302 0063) | UnAssessed |

# Sodus Bay (0302-0020) Minor Impacts

## Waterbody Location Information

Revised: 09/19/2016

**Water Index No:** Ont 84/P96
**Hydro Unit Code:** Sodus Bay-Frontal Lake Ontario (0414010104)
**Water Type/Size:** Lake/Reservoir 3115.8 Acres
**Description:** entire bay
**Water Class:** B
**Drainage Basin:** Lake Ontario
**Reg/County:** 8/Wayne (59)

## Water Quality Problem/Issue Information

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

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

Known: Harmful Algal Blooms, Algal/Plant Growth, Pesticides (mirex), Priority Organics (PCBs, dioxin), Problem Species (Eurasian Milfoil)
Suspected: - - -
Unconfirmed: Silt/Sediment

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

Known: Habitat Alteration
Suspected: Unknown Source, Urban/Storm Runoff, Tox/Contam. Sediment
Unconfirmed: Agriculture

## Management Information

**Management Status:** Verification of Sources Needed
**Lead Agency/Office:** DOW/Region 8
**IR/305(b) Code:** Water Attaining Some Standards (IR Category 2)

## Further Details

Overview
Recreational uses in Sodus Bay are thought to experience minor impacts/threats due to invasive and other aquatic weed growth. Fish consumption is also restricted as a result of a health advisory for Lake Ontario that extends to tribs up to the first impassable barrier.

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

Recreation use and public bathing are known to be stressed, with impacts that may rise to the level of impairment due to the occurrence of harmful algal blooms. The most recent surveillence found HABs in multiple locations covering a significant spatial extent, with likelihood of annual recurrence. Additional bacteriological sampling is needed to more fully evaluate the impact of pathogen levels on public bathing (swimming) use. (DEC/DOW, BWAM/LMAS, July 2016)

Water Quality Information

Sodus Bay has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1988 through 1991 and again from 2001 continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the bay continues to be best characterized as mesotrophic, or moderately productive. These current conditions represent an improvement relative to readings from the late 1980s to early 1990s. Improved conditions have been recorded since 2001 when CSLAP sampling resumed on the bay, but may have dated back to closer to 1991, when CSLAP monitoring was ceased. With at least five years of data indicating lower productivity, it is reasonable to assume that this now represents the normal state of Sodus Bay. The bay becomes more productive (lower clarity, higher nutrient and algae levels) as the summer progresses, suggesting that the nutrient–enriched deepwaters may mix with the surface waters during the summer and after fall turnover, occasionally triggering greater algae growth. Phosphorus levels in the bay rarely (only once in the past two years) exceed the state guidance values indicating impacted/stressed recreational uses. This is in contrast to sampling from 1988 through 1991 when exceedences were found in 90% of samples collected. Higher clarity and fewer algal blooms) have also accompanied that changes over the last five years. The relative contributions from zebra mussels in the bay and from active management in the watershed are not yet known. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5; occasional high readings are not thought to have any ecological impacts. (DEC/DOW, BWAM/CSLAP, March 2006)

Public perception of the bay and its uses are also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the bay to be generally favorable. The recreational suitability of the bay described as "excellent" to "slightly impacted." The bay itself is most often described as "not quite crystal clear." The recreational assessment is mostly consistent with bay conditions but slightly lower than for other similar lakes/bays. The reduced perception of the bay is likely related to aquatic plant growth. Assessments have noted that aquatic plants regularly grow to the surface. Since 1990 when aquatic plants were dominated by native species, invasive exotic plants (Eurasian water milfoil) have been found in the lake, and have increased in density and coverage since its introduction. Perhaps not coincidentally, "excessive weed growth" has been more frequently cited as impacting water quality and recreational uses. (DEC/DOW, BWAM/CSLAP, Marc 2006)

Fish consumption advisories for Lake Ontario (and all tribs to the first barrier) also applies to this tributary water. A NYSDOH health advisory recommends eating no American eel, channel catfish, carp, chinook salmon, larger lake trout (over 25") or larger brown trout (over 20"). The advisory also recommends that consumption of white sucker, rainbow trout, smaller lake and brown trout, and larger coho salmon (over 25") be limited to no more than one meal per month. White perch is limited to one meal per month East of Point Breeze, and eat none west of the point. The fish consumption advisories are a result of PCB, mirex and dioxin contamination of lake sediments. (2006–07 NYS–DOH Health Advisories)

Source Assessment

Specific sources of pollutants to the waterbody have not been identified. Based on surrounding land use and other knowledge of the waterbody, various nonpoint sources are the likely sources of impacts to the waterbody.

Management Actions

No specific management actions have been identified for the waterbody. The Village of Sodus has proposed green infrastructure projects to help to control stormwater runoff. (DEC/DOW, Region 8, September 2016)

Section 303(d) Listing

Sodus Bay is not included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. There are impacts that might rise to the level of impairment that would justify the listing of this waterbody. This waterbody might be appropriate for addition to the List in the future. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes the total area of the entire bay.

# Sodus Creek and tribs (0302-0007) Need Verific

## Waterbody Location Information

Revised: 05/04/2007

**Water Index No:** Ont 84/P96- 4
**Hydro Unit Code:** 04140101/050 **Str Class:** C(T)
**Waterbody Type:** River
**Waterbody Size:** 37.6 Miles
**Seg Description:** entire stream and tribs

**Drain Basin:** Lake Ontario
Irondequoit/Ninemile
**Reg/County:** 8/Wayne Co. (59)
**Quad Map:** SODUS POINT (H-13-4)

## Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

| Use(s) Impacted | Severity | Problem Documentation |
|---|---|---|
| Aquatic Life | Threatened | Suspected |

**Type of Pollutant(s)**

Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT
Possible: D.O./Oxygen Demand

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

Known: - - -
Suspected: AGRICULTURE
Possible: On-Site/Septic Syst

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))
**Verification Status:** 4 (Source Identified, Strategy Needed)
**Lead Agency/Office:** ext/WQCC **Resolution Potential:** Medium
**TMDL/303d Status:** n/a

## Further Details

Aquatic life support in Sodus Creek is thought to experience threats due to nutrient loadings from nonpoint agricultural activity in the watershed.

A biological (macroinvertebrate) assessment of Sodus Creek in Glenmark (at Glenmark Road) was conducted in 2001. Sampling results indicated slightly impacted water quality conditions. Impact Source Determination indicated nonpoint nutrient enrichment to be the primary stressor of the stream. Poor sampling habitat also likely influences the sample results. Although aquatic life is supported in the stream, nutrient biotic evaluation suggests the level of eutrophication is sufficient to threaten aquatic life support. (DEC/DOW, BWAM/SBU, June 2005)

Previous studies by the Wayne County SWCD (1988) have shown that this stream is a significant contributor of excessive nutrients to Sodus Bay. Agricultural sources of nutrients as well as excessive sediment loads create a threat to this trout fishery. Concern has also been raised regarding the impact of septic systems in the hamlet of Rose. However such impacts have not been verified. (DEC/DOW, Region 7, 1998)

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this

reach/segment are Class C,C(TS).  Sodus Bay is listed separately.