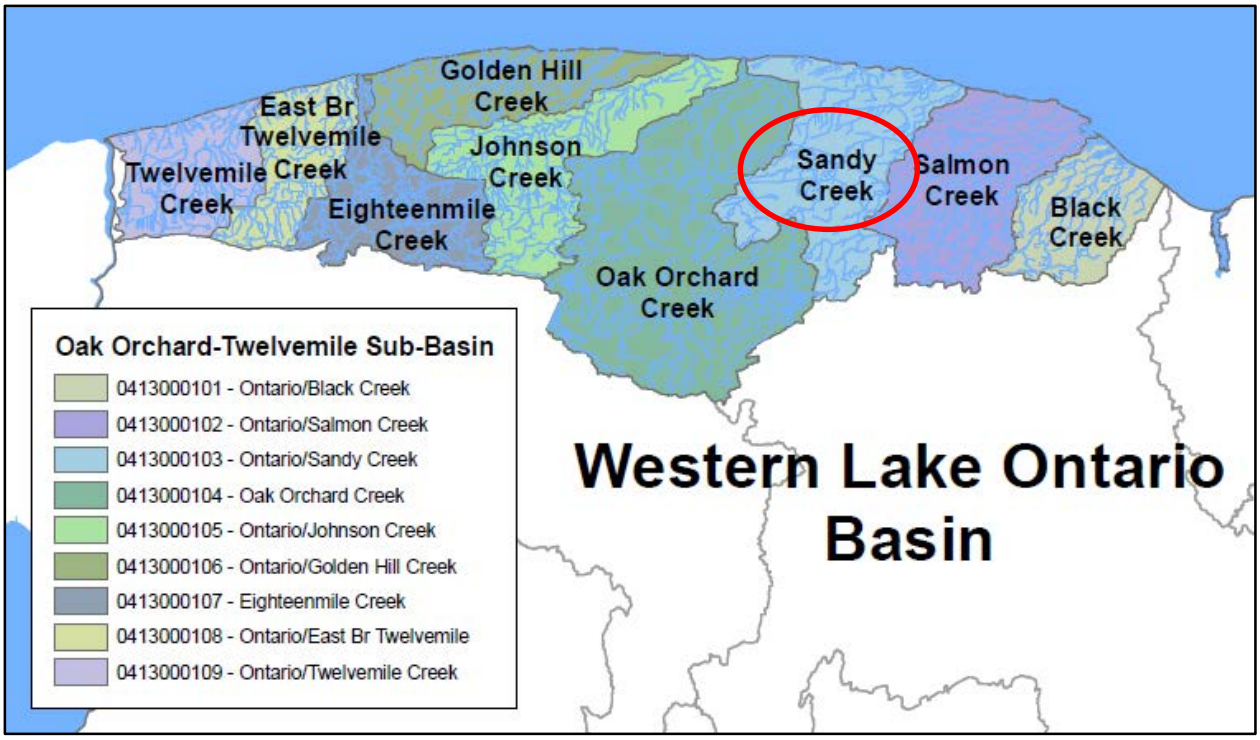

Lake Ontario/Sandy Creek Watershed
(0413000103)

Water Index Number	Waterbody Segment	Category
Ont (portion 19)	Lake Ontario Shoreline, Western (0301-0070)	Impaired Seg
Ont 130	Sandy Creek and minor tribs (0301-0006)	MinorImpacts
Ont 130- 1	East Branch and tribs (0301-0051)	MinorImpacts
Ont 130- 2	West Branch and tribs (0301-0052)	MinorImpacts
Ont 130- 2- 3-P162s	McCargo/Jefferson Lake (0301-0031)	UnAssessed
Ont 131	Yanty Creek and tribs (0301-0032)	UnAssessed
Ont 132 thru 137 (selected)	Minor Tribs to Lake Ontario (0301-0033)	UnAssessed
Ont 134	Bald Eagle Creek and tribs (0301-0034)	Need Verific

Lake Ontario Shoreline, Western (0301-0070) Impaired

Waterbody Location Information

Revised: 7/30/2015

Water Index No:	Ont (portion 19)			**Drain Basin:**	Lake Ontario
Unit Code:	04130001	**Class:**	A		Lake Ontario West
Water Type/Size:	G Lakes Shore	16.4 Miles		**Reg/County:**	8/Orleans (37)
Description:	shoreline from North Hamlin to Point Breeze				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Fully Supported	Known
Public Bathing	Impaired	Known
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Known
Fish Consumption	Impaired	Known
Conditions Evaluated		
Habitat/Hydrology	Fair	
Aesthetics	Fair	

Type of Pollutant(s)

Known:	ALGAL/PLANT GROWTH, NATIVE (CLADOPHORA), PESTICIDES (MIREX), PRIORITY ORGANICS (PCBS), PRIORITY ORGANICS (DIOXIN)
Suspected:	NUTRIENTS (PHOSPHORUS)
Unconfirmed:	- - -

Source(s) of Pollutant(s)

Known:	TOX/CONTAM. SEDIMENT, Atmospheric Deposition
Suspected:	AGRICULTURE, HABITAT ALTERATION, Urban/Storm Runoff
Unconfirmed:	Municipal Discharges

Management Information

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

Further Details

Overview

This portion of the Lake Ontario Shoreline is assessed as an impaired waterbody due to public bathing and other recreational uses, as well as fish consumption that is also considered to be impaired. Recreational uses are impaired by nutrient levels that result in dense algal and plant growth, while fish consumption is impaired by contamination from the past/historic discharge of organics (PCBs, dioxin) and pesticides (mirex).

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.

Public water supply use of Lake Ontario is fully supported. The waterbody is used as a public supply for numerous municipalities in Niagara, Orleans and and Monroe Counties, including Rochester. The most recent annual water quality reports indicate no contaminants in finished (treated) water exceed regulatory limits. A Source Water Assessment by the NYSDOH conducted in the early 2000s found that, in general, public water supplies that use Great Lakes sources are not very susceptible to contaminants because of the size and quality of the Great Lakes. (NYSDOH, Source Water Assessment Program, 2005)

Public bathing and general recreational uses of this waterbody are considered to be impaired due to the well-documented occurrence of algal blooms, particularly Cladophora, in the shallower nearshore waters. Cladophora is considered a nuisance, rather than harmful (toxic), algal species that creates aesthetic problems for recreational users of the nearshore waters and shoreline. Elevated levels of phosphorus are widely considered to be contributing to algal growth in these waters. These conditions also impact public bathing along the shore, although bacteriological sampling at western Lake Ontario Beaches reveal water quality conditions that are typically fully supporting of this use.

Recreational uses including public bathing of this waterbody are considered to be fully supported based on monitoring at area beaches that indicate bacteriological levels typically meet bathing beach criteria and rarely result in advisories. There are no monitored designated public beaches within this reach. (NYSDOH and OPRHP, Sanitary Beach Survey, 2010)

Lake Ontario supports a diverse and world-class recreational sporting fishery which includes trophy-sized trout, salmon and walleye in the open lake, as well as superb near-shore angling for smallmouth bass and panfish. However fish consumption in this portion of Lake Ontario (and all tribs to the first impassable barrier) is impaired due to a NYS DOH health advisory that recommends eating no channel catfish or carp, and eating no more than one meal per month of white sucker, larger lake trout (over 25 inches), or larger brown trout (over 20 inches) because of elevated levels of PCBs, dioxin and mirex. The advisory also recommends eating no more than on meal per month of white perch for portions of the lake east of Point Breeze. Harvest/possession of American eel is also prohibited. Restrictions for some species have been reduced in recent years. The source of organics/pesticides is contaminated lake sediments, the result of past/historic industrial discharges to the lake, the Niagara River and the Upper Great Lakes. The advisory for this lake was first issued prior to 1998-99. (2014-15 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2014)

Habitat concerns include the impact of invasive species, including zebra/quagga mussels, round goby, fishook and spiney waterflea, on the biologic community, as well as on other uses of the waterbody.

Water Quality Information

The Great Lakes are the focus of considerable national and international study. This assessment relies on monitoring data and information from the USEPA Great Lakes Program, the NYSDEC Great Lakes Program, and other participants in the Binational Great Lakes Water Quality Agreement, as well the work of numerous academic researchers. Monitoring of public bathing beaches along the Lake Ontario shore is conducted by NYS and local health departments.

Source Assessment

The primary sources of chemical pollutants that have the greatest impact on the waterbody include contaminated sediments and atmospheric deposition that result in health advisories for fish consumption. Habitat alteration, specifically the presence of ecosystem-altering invasive species, is also a source of impacts.

Management Actions

Efforts to restore and protect the waters of Lake Ontario are coordinated by the NYSDEC Great Lakes Program. Working with stakeholders throughout the basin, the Program has developed a new, fully integrated action plan that

guides restoration and conservation activities in New York's Great Lakes region. This action plan, or interim Great Lakes Action Agenda, is a multi-agency, multi-program, and cross-region strategic plan to support innovative programs and build new partnerships at multiple levels of local, state, and federal government across the state's Great Lakes basin. The plan identifies high priority actions and focuses federal and state funding opportunities to address the most critical challenges unique to this region, including contamination clean-up, restoration of fish and wildlife, waterfront and economic development, climate change resiliency strategies, and recreation and tourism development. (DEC, Great Lakes Program, July 2015)

The NYSDEC Great Lakes Program supports the commitments made by the governments of the United States and Canada, as part of the 1987 Great Lakes Water Quality Agreement (GLWQA) as amended in 2013, to develop a Lakewide Action and Management Plan (LAMP) for each of the five Great Lakes. The Lake Ontario LAaMP is a binational, cooperative effort that also involves a large number of local, statewide and federal partners. The goals of the LAMP are to restore and protect the health of Lake Ontario's water and aquatic ecosystem by reducing chemical pollutants entering the lake and addressing the biological and physical factors impacting the lake. The LAMP is being revised to reflect new Lake Ecosystem Objectives that will assess and address specific environmental stressors that adversely affect water quality and ecosystem health. (DEC, Great Lakes Program, July 2015)

Section 303(d) Listing

This portion of Lake Ontario shoreline is included on the current (2015) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 2b of the List as a waterbody impaired for fish consumption due to elevated PCBs, dioxin and mirex, and on Part 3b as a water for which TMDL development may be deferred pending verification of the cause/pollutant (phosphorus). In this case, verification relates to completion of the nutrient standards development effort as well as ongoing studies to identify the multiple factors contributing to the algal blooms. Based on the results of this verification, it may be appropriate to move the listings to another part of the list, or – if restoration measures other than a TMDL are found to be more appropriate – the waterbody listings could be modified or delisted as Category 4b waters. This waterbody was first listed for organics in 2010 and for phosphorus in 2010. (DEC/DOW, BWAM/WQAS, January 2015)

Segment Description

This segment includes the portion of the Lake Ontario shoreline from Sandy Harbour Beach at the mouth of Sandy Creek in North Hamlin to Point Breeze at the mouth of Oak Orchard Creek. The waters of this portion of the shoreline are Class A. Tribs to this reach/segment are listed separately.

Sandy Creek and minor tribs (0301-0006) MinorImpacts

Waterbody Location Information

Revised: 05/08/2007

Water Index No:	Ont 130			**Drain Basin:**	Lake Ontario
Hydro Unit Code:	04130001/080	**Str Class:**	C		Oak Orchard/12 Mile
Waterbody Type:	River			**Reg/County:**	8/Monroe Co. (28)
Waterbody Size:	32.7 Miles			**Quad Map:**	HAMLIN (H-09-4)
Seg Description:	entire stream and selected/smaller tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	AGRICULTURE
Possible:	- - -

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 Sandy Creek is known to experience minor impacts due to nutrient loads from various nonpoint sources in the watershed.

A biological (macroinvertebrate) assessment of Sandy Creek near North Hamlin (at Route 19) was conducted in 2006 and 2004. Sampling results indicated slightly impacted water quality conditions. Nonpoint source nutrient enrichment is identified as the primary cause of the impacts to the stream. Although aquatic life is supported in the stream, nutrient biotic evaluation indicates/suggests the level of eutrophication is sufficient to stress/threaten aquatic life support. (DEC/DOW, BWAM/SBU, June 2005)

The fishery resource of the creek provides substantial recreational opportunities and it experiences heavy fishing pressure. The Monroe County Water Watch program has adopted a portion of Sandy Creek. Monitoring by the group finds good to excellent water quality. Sedimentation in the harbor near the mouth of the creek limits boating by larger vessels. Agriculture is the dominant land use in the watershed. (Monroe County Health Department, April 2001)

This segment includes the entire stream and selected/smaller tribs. The waters of the stream and its tribs are primarily

Class C. East Branch (-1) and West Branch (-2) are listed separately. (May 2001)

East Branch and tribs (0301-0051) MinorImpacts

Waterbody Location Information

Revised: 05/08/2007

Water Index No: Ont 130- 1
Hydro Unit Code: 04130001/080 **Str Class:** C
Waterbody Type: River
Waterbody Size: 58.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Ontario
Oak Orchard/12 Mile
Reg/County: 8/Monroe Co. (28)
Quad Map: ()

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS (phos)
Possible: D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

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 East Branch Sandy Creek is known to experience minor impacts due to nutrient loads from various nonpoint sources in the watershed.

A biological (macroinvertebrate) assessment of East Branch Sandy Creek in Murray (at Groth Road) was conducted in 2006. Sampling results indicated slightly impacted water quality conditions. Nonpoint source nutrient enrichment was identified as the primary cause of the impacts to the stream. Similar conditions were noted during a field assessment and laboratory-sorting of the sample to order level in 1999. Although aquatic life is supported in the stream, nutrient biotic evaluation indicates/suggests the level of eutrophication is sufficient to stress/threaten aquatic life support. (DEC/DOW, BWAM/SBU, June 2007)

This segment includes the entire stream and all tribs. The waters of the stream and its tribs are primarily Class C. (May 2001)

West Branch and tribs (0301-0052) MinorImpacts

Waterbody Location Information

Revised: 05/08/2007

Water Index No: Ont 130- 2
Hydro Unit Code: 04130001/080 **Str Class:** C
Waterbody Type: River
Waterbody Size: 76.8 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Ontario
Oak Orchard/12 Mile
Reg/County: 8/Monroe Co. (28)
Quad Map: ()

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

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 West Branch Sandy Creek is known to experience minor impacts due to nutrient loads from various nonpoint sources in the watershed.

A biological (macroinvertebrate) assessment of West Branch Sandy Creek in Murray (at Route 33) was conducted in 2006. Sampling results indicated slightly impacted water quality conditions. Nonpoint source nutrient enrichment is identified as the primary cause of the impacts to the stream. Although aquatic life is supported in the stream, nutrient biotic evaluation indicates/suggests the level of eutrophication is sufficient to stress/threaten aquatic life support. (DEC/DOW, BWAM/SBU, November 2006)

This segment includes the entire stream and all tribs. The waters of the stream and its tribs are primarily Class C. (May 2001)

Bald Eagle Creek and tribs (0301-0034) Need Verific

Waterbody Location Information

Revised: 03/05/2002

Water Index No: Ont 134
Hydro Unit Code: 04130001/080 **Str Class:** C
Waterbody Type: River
Waterbody Size: 38.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Ontario
Reg/County: 8/Orleans Co. (37)
Quad Map: KENDALL (H-08-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Possible
Aesthetics	Stressed	Possible

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH (algal blooms)
Suspected: NUTRIENTS, Oil and Grease
Possible: Pathogens

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: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DOW/BWAM **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Recreational uses and aesthetics in Bald Eagle Creek may experience minor impacts from algal growth. Nonpoint source agricultural sources and the suspected source of nutrients that support the algal growth.

Previously, algal growth in the harbor at the mouth of Bald Eagle Creek was reported. Agricultural activity is the dominant land use in the watershed. Inadequate and/or failing on-site septic systems may also contribute to the problem. (Orleans County WQCC, April 2001)

This segment includes the entire stream and all tribs. The waters of the stream and its tribs are Class C. (May 2001)