



Eighteenmile Creek Watershed (0413000107)

Water Index Number	Waterbody Segment	Category
Ont 148	Eighteenmile Creek, Lower, and tribs (0301-0002)	Impaired Seg
Ont 148	Eighteenmile Creek, Middle, and tribs (0301-0054)	Impaired Seg
Ont 148	Eighteenmile Creek, Upp, and minor tribs (0301-0055)	Impaired Seg
Ont 148- 3	East Branch 18-mile Cr, Lower, and tribs (0301-0056)	MinorImpacts
Ont 148- 3	East Branch 18-mile Cr, Upper, and tribs (0301-0057)	MinorImpacts
Ont 148- 4	18-mile trib/The Gulf trib and tribs (0301-0058)	UnAssessed
NYS Barge Canal (portion 2a)	NYS Barge Canal (portion 2a) (0301-0073)	NoKnownImpct

Eighteenmile Creek, Lower, and tribs (0301-0002)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2007

Water Index No: Ont 148
Hydro Unit Code: 04130001/040 **Str Class:** B
Waterbody Type: River
Waterbody Size: 0.4 Miles
Seg Description: stream and tribs, from mouth to Olcott

Drain Basin: Lake Ontario
Reg/County: 9/Niagara Co. (32)
Quad Map: NEWFANE (H-06-4)

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Suspected

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: - - -
Possible: Metals, Nutrients, Unknown Toxicity

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: - - -
Possible: Agriculture, Private/Comm/Inst, Urban/Storm Runoff

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Medium
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in this portion of Eighteenmile Creek is impaired due to a health advisory due to PCB levels from past industrial discharges. Aquatic life and recreational uses are also thought to be impacted by these and various other sources.

Fish consumption in Eighteenmile Creek is impaired/precluded due to a NYS DOH health advisory that recommends eating no fish of any species because of elevated PCB levels. The source of PCBs is contaminated sediments from past/historic industrial discharges. A health advisory for Lake Ontario (and all tribs to the first barrier) also applies to Lower Eighteenmile Creek and Olcott Harbor. The Lake Ontario advisory recommends eating no American eel, channel catfish, carp, chinook salmon, lake trout (over 25") or brown trout (over 20"). The advisory also recommends that consumption of white perch, white sucker, rainbow trout, smaller lake and brown trout, and coho salmon (over 25") be limited to no more than one meal per month. The fish consumption advisories are a result of PCB, mirex and dioxin contamination of lake sediments. The advisories for these waters were first issued prior to 1998-99. is (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

In 1985, Eighteenmile Creek (downstream of the Burt Dam) was designated as a Great Lakes Area of Concern (AOC) by the International Joint Commission because of water quality and bottom sediment problems associated with past industrial and municipal discharge practices, the disposal of waste and the use of pesticides. Over the years, numerous contaminants have been identified in creek sediments which have a detrimental effect to the AOC and Lake Ontario. These contaminants include but are not limited to; Polychlorinated Biphenyls (PCBs); Mercury; Dioxins and Furans; Dieldrin; Mirex; DDT; Lead; and Copper. Sediments contaminated with these substances have contributed to the restrictions of fish and wildlife consumption, degradation of benthic organisms, and restrictions on dredging activities in the AOC. It is also suspected that these contaminated sediments contribute to a degradation of fish and wildlife populations, the presence of fish tumors, and the prevalence of bird and animal deformities or reproductive problems. A Remedial Action Plan (RAP) to assess conditions in the Area of Concern and evaluate sources of problems identified is under development. The Niagara County Soil and Water Conservation District took responsibility for coordination of the Eighteenmile Creek RAP in 2005.

Biological (macroinvertebrate) assessments of Eighteenmile Creek upstream of this segment near Lockport (at Stone Road) and in Corwin (at Jacques Road) were conducted in 2000. Sampling results indicated moderately to slightly impacted water quality conditions. Moderately impacted water quality was assessed for the site below Lockport. Impact Source Determination indicated that toxic inputs were the primary cause of impact. No prior data were available for this site. Water quality at Corwin was assessed as slightly-impacted, an apparent improvement from moderately impacted conditions in 1989 and 1990. Municipal/industrial inputs were the likely cause of impacts in Corwin. Further sampling is recommended to verify the improving trend at this site. Past macroinvertebrate tissue sampling in the creek has shown elevated levels of PCBs, dioxins and metals. Various sources contribute to impacts in the stream. Inorganic/toxic pollutants from industrial activities and in sediments are a suspected cause of impacts. Municipal inputs are also a contributing source. Though this sampling point is just above the described segment, it is considered representative of water quality in this downstream reach. (DEC/DOW, BWAM/SBU, April 2003)

Eighteenmile Creek is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

This segment includes the portion of the stream from mouth to unnamed trib (-a) in Olcott. The waters of this portion of the stream are Class B.

Eighteenmile Creek, Middle, and tribs (0301-0054)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2007

Water Index No: Ont 148
Hydro Unit Code: 04130001/040 **Str Class:** C
Waterbody Type: River
Waterbody Size: 9.5 Miles
Seg Description: stream and tribs from Olcott to Newfane

Drain Basin: Lake Ontario
Reg/County: 9/Niagara Co. (32)
Quad Map: NEWFANE (H-06-4)

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
Aquatic Life	Stressed	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: ---
Suspected: PRIORITY ORGANICS, Nutrients, Silt/Sediment, Unknown Toxicity
Possible: Metals

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: Agriculture, Municipal, Urban/Storm Runoff
Possible: ---

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/Reg9
TMDL/303d Status: 2b*

Resolution Potential: Medium

Further Details

Fish consumption in this portion of Eighteenmile Creek is impaired due to a health advisory due to PCB levels from past industrial discharges. Aquatic life support and recreational uses of this reach are also thought to experience impacts due unidentified toxic inputs and nonpoint sources.

Fish consumption in Eighteenmile Creek is impaired/precluded due to a NYS DOH health advisory that recommends eating no fish of any species because of elevated PCB levels. The source of PCBs is contaminated sediments from past/historic industrial discharges. The advisory for this stream was first issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Biological (macroinvertebrate) assessments of Eighteenmile Creek below Lockport (at Stone Road) and in Corwin (at Jacques Road) were conducted in 2000. Sampling results indicated moderately to slightly impacted water quality conditions. Moderately impacted water quality was assessed for the site below Lockport. Impact Source Determination indicated that toxic inputs were the primary cause of impact. No prior data were available for this site. Water quality

at Corwin was assessed as slightly-impacted, an apparent improvement from moderately impacted conditions in 1989 and 1990. Municipal/industrial inputs were the likely cause of impacts in Corwin. Further sampling is recommended to verify the improving trend at this site. Past macroinvertebrate tissue sampling in the creek has shown elevated levels of PCBs, dioxins and metals. Various sources contribute to impacts in the stream. Inorganic/toxic pollutants from industrial activities and in sediments are a suspected cause of impacts. Municipal inputs are also a contributing source. Though this sampling point is just above the described segment, it is considered representative of water quality in this downstream reach. (DEC/DOW, BWAM/SBU, April 2003)

Eighteenmile Creek is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

This segment includes the portion of the stream and all tribs from/including unnamed trib (-a) to/including unnamed trib (-d) in Newfane. The waters of this portion of the stream are Class C. Tribs to this reach/segment are primarily Class D.

Eighteenmile Creek, Upp, and minor tribs (0301-0055)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2007

Water Index No: Ont 148
Hydro Unit Code: 04130001/040 **Str Class:** D
Waterbody Type: River
Waterbody Size: 75.7 Miles
Seg Description: stream and selected tribs above Newfane

Drain Basin: Lake Ontario
Reg/County: 9/Niagara Co. (32)
Quad Map: NEWFANE (H-06-4)

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
AQUATIC LIFE	Impaired	Suspected
RECREATION	Impaired	Suspected

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: NUTRIENTS, UNKNOWN TOXICITY
Possible: Pathogens

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: COMB. SEWER OVERFLOW, INDUSTRIAL, MUNICIPAL (unknown), Agriculture, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DOW/Reg9
TMDL/303d Status: 2b*

Resolution Potential: Medium

Further Details

Fish consumption in this portion of Eighteenmile Creek is impaired due to a health advisory due to PCB levels from past industrial discharges. Aquatic life support and recreational uses of this reach are also know to experience impacts due unidentified toxic inputs and nonpoint sources.

Fish consumption in Eighteen Mile Creek is impaired/precluded due to a NYS DOH health advisory that recommends eating no fish of any species because of elevated PCB levels. The source of PCBs is contaminated sediments from past/historic industrial discharges. The advisory for this stream was first issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Biological (macroinvertebrate) assessments of Eighteenmile Creek below Lockport (at Stone Road) and in Corwin (at Jacques Road) were conducted in 2000. Sampling results indicated moderately to slightly impacted water quality conditions. Moderately impacted water quality was assessed for the site below Lockport. Impact Source Determination

indicated that toxic inputs were the primary cause of impact. No prior data were available for this site. Water quality at Corwin was assessed as slightly-impacted, an apparent improvement from moderately impacted conditions in 1989 and 1990. Municipal/industrial inputs were the likely cause of impacts in Corwin. Further sampling is recommended to verify the improving trend at this site. Past macroinvertebrate tissue sampling in the creek has shown elevated levels of PCBs, dioxins and metals. Various sources contribute to impacts in the stream. Inorganic/toxic pollutants from industrial activities and in sediments are a suspected cause of impacts. Municipal inputs are also a contributing source. (DEC/DOW, BWAM/SBU, April 2003)

Eighteenmile Creek is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

This segment includes the portion of the stream and selected/smaller tribs above unnamed trib (-d) in Newfane. The waters of this portion of the stream are Class D. Tribs to this reach/segment are also/primarily Class D. East Branch (-3) and Eighteenmile Trib/The Gulf (-4) are listed separately.

East Branch 18-mile Cr, Lower, and tribs (0301-0056) MinorImpacts

Waterbody Location Information

Revised: 05/07/2007

Water Index No:	Ont 148- 3	Drain Basin:	Lake Ontario
Hydro Unit Code:	04130001/040	Str Class:	C
Waterbody Type:	River	Reg/County:	9/Niagara Co. (32)
Waterbody Size:	87.8 Miles	Quad Map:	LOCKPORT (I-06-1)
Seg Description:	stream and tribs, from mouth to Gasport		

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ---
Suspected: NUTRIENTS
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: AGRICULTURE, URBAN/STORM RUNOFF
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 Eighteenmile Creek are thought to experience minor impacts due to nutrient enrichment from nonpoint sources.

A biological (macroinvertebrate) assessment of East Branch Eighteenmile Creek near Gasport (at Quaker Road) was conducted in 2000. Sampling results indicated slightly impacted water quality conditions, similar to previous sampling in 1989. Nonpoint source nutrient enrichment was identified as the most significant contributing factor causing the impacts. Although aquatic life is supported in the stream, nutrient biotic evaluation indicates the level of eutrophication is sufficient to stress aquatic life support. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth to Mirror Lake (P182b) in Gasport. The waters of this portion of the stream are Class C. Tribs to this reach/segment are primarily Class D; with a portion of an unnamed trib (-2) designated Class C(T).

East Branch 18-mile Cr, Upper, and tribs (0301-0057)

MinorImpacts

Waterbody Location Information

Revised: 05/07/2007

Water Index No: Ont 148- 3
Hydro Unit Code: 04130001/040 **Str Class:** A
Waterbody Type: River
Waterbody Size: 32.1 Miles
Seg Description: stream and tribs, above Gasport

Drain Basin: Lake Ontario
Reg/County: 9/Niagara Co. (32)
Quad Map: GASPORT (I-06-2)

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ---
Suspected: NUTRIENTS
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: AGRICULTURE, URBAN/STORM RUNOFF
Possible: ---

Resolution/Management Information

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

Resolution Potential: Medium

Further Details

Aquatic life support in East Branch Eighteenmile Creek are thought to experience minor impacts due to nutrient enrichment from nonpoint sources.

A biological (macroinvertebrate) assessment of East Branch Eighteenmile Creek below this reach near Gasport (at Quaker Road) was conducted in 2000. Sampling results indicated slightly impacted water quality conditions, similar to previous sampling in 1989. Nonpoint source nutrient enrichment was identified as the most significant contributing factor causing the impacts. Although aquatic life is supported in the stream, nutrient biotic evaluation indicates the level of eutrophication is sufficient to stress aquatic life support. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs above/including Mirror Lake (P182b) in Gasport. The waters of this portion of the stream are Class B to unnamed pond (P182d), and Class A for the remainder of the reach. Tribs to this reach/segment are Class A.

NYS Barge Canal (portion 2a) (0301-0073)

NoKnownImpct

Waterbody Location Information

Revised: 08/02/2007

Water Index No: NYS Barge Canal (portion 2a) **Drain Basin:** Lake Ontario
Hydro Unit Code: 04130001/ **Str Class:** C **Reg/County:** 9/Niagara Co. (32)
Waterbody Type: Canal **Quad Map:** ()
Waterbody Size: 20.0 Miles
Seg Description: from Lockport to Middleport

Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: 8 (No Known Use Impairment)
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: n/a **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

A biological (macroinvertebrate) assessment of the Barge Canal in Gasport (at Telegraph Road) was conducted in 2004. Multiplate sampling results indicated non-impacted water quality conditions. Conditions at the Gasport site have steadily improved since sampling in 1975 showed clearly moderate impacts. The most recent sampling revealed fauna with several species of mayflies and caddisflies. Diminished municipal/industrial inputs is thought to be the likely cause of improvement. The influx of zebra mussels, first observed in 1990, have apparently changed the ecosystem dynamics of the canal and may also be responsible for some of the observed changes. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the canal from Lock 34 in Lockport at the Niagara River-Lake Ontario watershed boundary to the Niagara-Orleans County line near Middleport. The waters in this portion of the canal are Class C.