

Waterbody Inventory for The Buffalo River/Eighteenmile Creek Watershed

Water Index Number	Waterbody Segment	Category
Buffalo River Watershed		
Ont 158..E- 1	Buffalo River (0103-0001)	Impaired Seg
Ont 158..E- 1*	Buffalo Creek, Lower, and minor tribs (0103-0003)	MinorImpacts
Ont 158..E- 1*	Buffalo Creek, Upper, and minor tribs (0103-0004)	NoKnownImpct
Ont 158..E- 1*-55-P??	Beaver Meadow Pond (0103-0010)	UnAssessed
Ont 158..E- 1- 4	Cazenovia Creek and tribs (0103-0009)	NoKnownImpct
Ont 158..E- 1- 4-14	East Br. Cazenovia, Lower, and tribs (0103-0011)	NoKnownImpct
Ont 158..E- 1- 4-14	East Br. Cazenovia, Upper, and tribs (0103-0012)	NoKnownImpct
Ont 158..E- 1- 4-15	West Br. Cazenovia, Lower, and tribs (0103-0013)	NoKnownImpct
Ont 158..E- 1- 4-15	West Br. Cazenovia, Upper, minor tribs (0103-0014)	NoKnownImpct
Ont 158..E- 1- 4-15-10	Pipe Creek and tribs (0103-0015)	UnAssessed
Ont 158..E- 1- 4-15-10-P??	Orchard Park Reservoir (0103-0016)	MinorImpacts
Ont 158..E- 1- 6	Cayuga Creek, Lower, and tribs (0103-0007)	MinorImpacts
Ont 158..E- 1- 6	Cayuga Creek, Middle, and minor tribs (0103-0017)	Need Verific
Ont 158..E- 1- 6	Cayuga Creek, Upper, and tribs (0103-0002)	UnAssessed
Ont 158..E- 1- 6- 2	Slate Bottom Creek and tribs (0103-0018)	UnAssessed
Ont 158..E- 1- 6- 6	Plumb Bottom Creek and tribs (0103-0019)	UnAssessed
Ont 158..E- 1- 6- 7	Little Buffalo Creek and tribs (0103-0008)	MinorImpacts
Ont 158..E- 1- 6-30	Right Branch/Gillett Creek and tribs (0103-0020)	NoKnownImpct
Tribes to Lake Erie, Lackawanna to Highland		
Ont 158..E- 2	Smoke Creek, Lower, and minor tribs (0101-0007)	MinorImpacts
Ont 158..E- 2	Smoke Creek, Upper, and tribs (0101-0035)	UnAssessed
Ont 158..E- 2- 1	South Branch, Lower, and tribs (0101-0036)	Impaired Seg
Ont 158..E- 2- 1	South Branch, Upper, and tribs (0101-0037)	UnAssessed
Ont 158..E- 2- 1-P81b	Green Lake (0101-0038)	MinorImpacts
Ont 158..E- 3	Rush Creek and tribs (0104-0018)	Impaired Seg
Ont 158..E- 4 thru 12	Minor Tribs to Lake Erie (0104-0038)	UnAssessed
Eighteenmile Creek Watershed		
Ont 158..E-13	Eighteenmile Creek, Lower, minor tribs (0104-0030)	Minor Impact
Ont 158..E-13	Eighteenmile Creek, Middle, and tribs (0104-0017)	NoKnownImpct
Ont 158..E-13	Eighteenmile Creek, Upper, and tribs (0104-0039)	NoKnownImpct
Ont 158..E-13- 4	South Br. Eighteenmile, Lower, and tribs (0104-0016)	NoKnownImpct
Ont 158..E-13- 4	South Br. Eighteenmile, Upper, and tribs (0104-0040)	NoKnownImpct
Ont 158..E-13- 6	Hampton Brook and tribs (0104-0041)	UnAssessed

...Buffalo River/Eighteenmile Creek Watershed

Water Index Number	Waterbody Segment	Category
Tribs to Lake Erie, Highland to Irving		
Ont 158..E-14 thru 22 (selected)	Minor Tribs to Lake Erie (0104-0042)	UnAssessed
Ont 158..E-15	Pike Creek, Lower, and tribs (0104-0043)	UnAssessed
Ont 158..E-15	Pike Creek, Upper, and tribs (0104-0044)	UnAssessed
Ont 158..E-19	Little Sister Creek, Lower, and tribs (0104-0045)	Impaired Seg
Ont 158..E-19	Little Sister Creek, Upper, and tribs (0104-0046)	UnAssessed
Ont 158..E-20	Big Sister Creek, Lower, and tribs (0104-0013)	MinorImpacts
Ont 158..E-20	Big Sister Creek, Upper, and tribs (0104-0047)	UnAssessed
Ont 158..E-20-13	Rythus Creek and tribs (0104-0048)	NoKnownImpct
Ont 158..E-21	Delaware Creek, Lower, and tribs (0104-0049)	MinorImpacts
Ont 158..E-21	Delaware Creek, Upper, and tribs (0104-0050)	UnAssessed
Ont 158..E-22	Muddy Creek, Lower, and tribs (0104-0051)	Impaired Seg
Ont 158..E-22	Muddy Creek, Upper, and tribs (0104-0052)	UnAssessed

Buffalo River (0103-0001)

Impaired Seg

Waterbody Location Information

Revised: 01/27/2005

Water Index No:	Ont 158..E- 1	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/070	Str Class:	C
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	13.5 Miles	Quad Map:	BUFFALO SOUTHEAST (J-05-3)
Seg Description:	entire stream and tribs, from mouth to Cayuga Creek		

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

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

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
 Suspected: D.O./Oxygen Demand, Pathogens, Silt/Sediment
 Possible: - - -

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT, Habitat Modification, Hydro Modification, Urban Runoff
 Suspected: COMB. SEWER OVERFLOW
 Possible: Industrial, Landfill/Land Disp., Municipal, Storm Sewers

Resolution/Management Information

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

Further Details

Fish consumption in the Buffalo River is impaired, while other recreational uses in the river remain somewhat impacted. CSOs, urban runoff, storm sewers, industrial inputs, hazardous waste sites, habitat and hydrologic modification of the stream - all typical of highly developed industrial urban waters - are concerns. Despite these impacts, water quality in this urban waterway has shown and continues to show notable improvement.

Fish consumption in the Buffalo River and Harbor is impaired due to a NYS DOH health advisory that recommends eating no carp because of elevated PCB levels. The sources of PCBs are attributed to contaminated sediment and previous industrial inputs. (2002-03 NYS DOH Health Advisories, October 2002).

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring of the Buffalo River in Buffalo, Erie County, is conducted annually (since 1968) at the Ohio Street bridge. This sampling location is 1.7 miles above the mouth at Lake Erie. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. The most recent assessment was conducted in 2001. In addition to water column chemistry, this Intensive Network sampling includes

sediment assessment, macroinvertebrate tissue analysis and toxicity testing, as well as macroinvertebrate community analysis (see below). Water column sampling revealed ammonia, dissolved oxygen, water temperature and iron to be parameters of concern. Toxicity testing of the water column showed no significant mortality or reproductive impacts. (DEC/DOW, BWAR/RIBS, January 2005)

A biological (macroinvertebrate) assessment of the Buffalo River in Buffalo (at Ohio Street) was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. Water quality has continued to improve through the 1980's and 1990's. Caddisflies were first collected in 1988, and more sensitive mayflies were first collected in 2000. The river has progressed from severely impacted in 1976 to moderately impacted in 1988 to slightly impacted in 1993 and 2000, based on resident macroinvertebrate communities. Municipal/industrial inputs remain the likely stressor. In the 2000 multiplate samples, 4 species of clean-water mayflies were found at the Ohio Street bridge site. Zebra mussels are now numerous in the river, and are occasionally numerous enough to invalidate the multiplate samples. (DEC/DOW, BWAR/SBU, April 2003)

The lower Buffalo River has been severely modified from extensive channel dredging, filling, and bulkheading activities. As a result, vegetation has been significantly altered and sedimentation is a problem. Upstream stream bed stabilization is believed to impede fish migration. The Buffalo River Remedial Action Plan (RAP) was developed to address sediments, water quality, habitat, and the overall restoration of beneficial uses. Starting late 2003, the Friends of the Buffalo Niagara Rivers (FBNR) received USEPA grant funding to provide RAP coordination and management. The focus is on sediment assessment, nonpoint source project implementation, habitat restoration, watershed open space improvements, and delisting considerations for this Great Lakes Area of Concern (AOC). A "Report Card" is near completion which defines the status of use impairments indicators. Public involvement is one goal of the RAP process. The RAP tracks and reports on projects affecting the AOC including: the City of Buffalo waterfront revitalization, the Buffalo Sewer Authority CSO correction, sediment evaluation, and habitat restoration. Three habitat improvement projects have been constructed to address habitat impairments with funding provided through USEPA. These habitat project plans were developed by Erie County in cooperation the City of Buffalo, US Fish and Wildlife Service, US Army Corps of Engineers (USACE), and New York State Department of Environmental Conservation (NYSDEC). The Buffalo Sewer Authority has received Bond Act funding to address sewer overflows. In addition, the SUNY Buffalo State College Research Foundation, in conjunction with the FBNR, is conducting a study funded by the USACE to assess river sediments and remedial needs. This study will evaluate the Hamburg Drain CSO, update land use, inventory land cover, assess surface sediments for bioaccumulation, define bed sediment characteristics and watershed sediment transport, and assess the impact of abandoned shoreline structures. EPA recently renewed the grant to continue the FBNR's RAP coordination beyond 2005.

This segment is included on Part 2b (fish consumption) of the NYS 2004 Section 303(d) List of Impaired Waters.

This segment includes the entire stream from the mouth to Cayuga Creek. The waters of the stream are Class C. Tribes to this reach/segment, including the Buffalo Ship Canal, are also Class C. Above Cayuga Creek, the stream become Buffalo Creek and is listed separately.

Buffalo Creek, Lower, and minor tribs (0103-0003)

MinorImpacts

Waterbody Location Information

Revised: 01/27/2005

Water Index No:	Ont 158..E- 1*	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/050	Str Class:	B
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	63.5 Miles	Quad Map:	ORCHARD PARK (J-06-4)
Seg Description:	stream and tribs, from mouth to trib -18		

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: SILT/SEDIMENT
 Suspected: - - -
 Possible: Nutrients, Thermal Changes

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, URBAN RUNOFF
 Suspected: AGRICULTURE
 Possible: Roadbank Erosion

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 Buffalo Creek is thought to be somewhat affected by elevated silt/sediment loads from urban runoff, streambank erosion and other nonpoint source inputs. In spite of some/these minor impacts, aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network (mini-study) monitoring of Buffalo Creek in Gardenville (at Route 277) was conducted in 2001. The focus of the limited mini-study was to re-sample this previous RIBS site to evaluate if conditions had changed since the 1993-94 sampling effort. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis (see below). Water column sampling revealed no parameters of concern. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Bottom sediment sampling results revealed cadmium and 6 PAHs to be exceeding the Threshold Effects level - levels at which adverse impacts occasionally occur. (DEC/DOW, BWAR/RIBS, January 2005)

A biological (macroinvertebrate) assessment of Buffalo Creek in Gardenville (at Route 277) was conducted in 2000 and 2001. Sampling results fluctuate somewhat but generally indicate slightly impacted water quality conditions, similar to assessments from 1976-1988. When sampled during high-flow years (1994, 2000) water quality was assessed as non-impacted, while samples during low-flow years (1993, 2001) result in assessments of slight impact. Siltation has

been indicated to be a factor at the Gardenville site. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth at Cayuga Creek to trib -18 near East Elma. The waters of this portion of the stream are Class B. Tribs to this reach/segment, including Pond Brook (-15), are primarily Class B; with some tribs designated Class C.

Buffalo Creek, Upper, and minor tribs (0103-0004)

NoKnownImpct

Waterbody Location Information

Revised: 01/27/2005

Water Index No:	Ont 158..E- 1*	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/050	Str Class:	A
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	285.3 Miles	Quad Map:	EAST AURORA (J-06-3)
Seg Description:	stream and tribs, above East Elma		

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:
TMDL/303d Status:	n/a ()	

Further Details

A biological (macroinvertebrate) assessment of Buffalo Creek in Wales Center (at Route 20A) was conducted in 2000. Sampling results indicate non-impacted water quality conditions. The 2000 macroinvertebrate sample was field-assessed as passing screening, and the sample was not laboratory-processed. Siltation has been indicated to be a factor influencing slightly impacted conditions at the Gardenville site. (DEC/DOW, BWAR/SBU, April 2003)

Biological (macroinvertebrate) assessments of two Buffalo Creek tribs were also conducted in 2000. In both Hunter Creek in Wales Center and Sheldon/Hollow Creek near Strykersville sampling results indicate non-impacted water quality conditions. These samples were field-assessed as passing screening criteria, and the sample was not laboratory-processed. (DEC/DOW, BWAR/SBU, April 2003)

Loss of riparian vegetation and stream cover and resulting increases in stream temperature have been cited as concerns by local agencies in the past. Other poor agricultural practices, such as cattle access to the streams, exacerbate streambank erosion and silt/sediment loads. Over the years, many streambank erosion problems have been addressed by installing rip-rap but problems still exist. Operation of on-site septic systems have also been a past concern. (Wyoming County WQCC, 1996)

This segment includes the portion of the stream and all tribs above/including trib -18 near East Elma. The waters of this portion of the stream are Class A. Tribs to this reach/segment, including Belowe Creek (-22), Ellis Brook (-23), Hunter Creek (-30), Hollow Creek (-40), Glade Creek (-45), Beaver Meadow Creek (-55) and Plato Creek (-59), are primarily Class C, C(T); with some tribs designated Class B, B(T) and D.

Cazenovia Creek and tribs (0103-0009)

NoKnownImpct

Waterbody Location Information

Revised: 05/08/2003

Water Index No:	Ont 158..E- 1- 4	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/070	Str Class:	B
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	51.7 Miles	Quad Map:	ORCHARD PARK (J-06-4)
Seg Description:	stream and tribs, from mouth to near East Aurora		

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network (mini-study) monitoring of xxx Creek in xxx (at xx) was conducted in 20xx. The focus of the limited mini-study was to re-sample this previous RIBS site to evaluate if conditions had changed since the 19xx-xx sampling effort. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis (see below) revealed... (DEC/DOW, BWAR/RIBS, April 2003)

Biological (macroinvertebrate) assessments of Cazenovia Creek in Cazenovia Park (at Parkside Drive) were conducted in 2000 and 2001. Sampling results indicate non-impacted to slightly impacted water quality conditions. The most downstream site, in Cazenovia Park in Buffalo, displayed a diverse fauna of clean-water mayflies, stoneflies, and caddisflies in 2000 and 2001 samples. The water quality assessment was non-impacted in 2000, a high-flow year, and slightly impacted in 2001, a low-flow year. Nonpoint source nutrient enrichment are silt/sediment are the primary stressors. The site was assessed as non-impacted in 1994. Previous samples of the creek, 2 miles upstream in West Seneca, showed the creek to be slightly impacted in 1976 and 1982. Despite some minor impacts, aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the entire stream and all tribs from the mouth to the confluence of the East and West Branches near East Aurora. The waters of the stream are primarily Class B, with a short reach near the mouth designated Class C. Tribs to this reach/segment, including Spring Brook (-7), are Class C,C(T). The East Branch and West Branch are listed separately.

East Br. Cazenovia, Lower, and tribs (0103-0011)

NoKnownImpct

Waterbody Location Information

Revised: 05/08/2003

Water Index No:	Ont 158..E- 1- 4-14	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/070	Str Class:	B
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	33.9 Miles	Quad Map:	EAST AURORA (J-06-3)
Seg Description:	stream and tribs, from mouth to South Wales		

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:
TMDL/303d Status:	n/a ()	

Further Details

A biological (macroinvertebrate) assessment of East Branch Cazenovia Creek in East Aurora (at Jewett Holmwood Road) was conducted in 2000. Sampling results indicate non-impacted water quality conditions. Some nonpoint nutrient enrichment was indicated, but the fauna remained diverse and well-balanced. Similar conditions were noted in 1994. Despite these conditions, aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth to trib -12 in South Wales. The waters of this portion of the stream are Class B. Tribs to this reach/segment, including Tannery Brook (-4), are primarily Class B, with some tribs designated Class C.

East Br. Cazenovia, Upper, and tribs (0103-0012)

NoKnownImpct

Waterbody Location Information

Revised: 05/08/2003

Water Index No:	Ont 158..E- 1- 4-14	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/070	Str Class:	B
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	93.7 Miles	Quad Map:	HOLLAND (K-06-2)
Seg Description:	stream and tribs, above South Wales		

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of East Branch Cazenovia Creek in Holland (at Greenwood Road) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs above/including trib -12 in South Wales. The waters of this portion of the stream are Class B, from trib -12 to Protection Creek (-26), and Class C(T) for the remainder of the reach. Tribs to this reach/segment are Class B, C, C(T).

West Br. Cazenovia, Lower, and tribs (0103-0013)

NoKnownImpct

Waterbody Location Information

Revised: 05/08/2003

Water Index No: Ont 158..E- 1- 4-15
Hydro Unit Code: 04120103/070 **Str Class:** B*
Waterbody Type: River
Waterbody Size: 25.1 Miles
Seg Description: stream and tribs, from mouth to West Falls

Drain Basin: Lake Erie-Niagara River
Reg/County: Buffalo/Eighteenmile
Quad Map: 9/Erie Co. (15)
Reg/County: 9/Erie Co. (15)
Quad Map: COLDEN (K-06-1)

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of West Branch Cazenovia Creek in East Aurora (at Jewett Holmwood Road) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. Similar conditions were noted in 1994. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth to Pipe Creek (-10) near West Falls. The waters of this portion of the stream are Class B from the mouth to trib -4, Class A between trib -4 and trib -5, and Class B for the remainder of the reach. Tribs to this reach/segment are Class B. Pipe Creek (-10) is listed separately.

West Br. Cazenovia, Upper, minor tribs (0103-0014)

NoKnownImpct

Waterbody Location Information

Revised: 05/08/2003

Water Index No:	Ont 158..E- 1- 4-15	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/070	Str Class:	B
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	73.8 Miles	Quad Map:	COLDEN (K-06-1)
Seg Description:	stream and tribs, above West Falls		

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of West Branch Cazenovia Creek in Colden (at Route 240) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs above Pipe Creek (-10) near West Falls. The waters of this portion of the stream are Class B. Tribs to this reach/segment, including Crump Brook (-19), Sprague Brook (-21), Spencer Brook (-22) and Graff Brook (-23), are also Class B. Pipe Creek (-10) is listed separately.

Orchard Park Reservoir (0103-0016)

Minor Impacts

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 1- 4-15-10-P?? **Drain Basin:** Lake Erie-Niagara River
Hydro Unit Code: 04120103/070 **Str Class:** A Buffalo/Eighteenmile
Waterbody Type: Lake(R) **Reg/County:** 9/Erie Co. (15)
Waterbody Size: 25.7 Acres **Quad Map:** COLDEN (K-06-1)
Seg Description: entire reservoir

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Known
Public Bathing	Stressed	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
Suspected: Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN 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

Drinking water supply use, public bathing, and recreational uses in Orchard Park Reservoir are affected by elevated nutrient levels. Sources of nutrients and other pollutants are thought to be nonpoint runoff related to the surrounding urban/commercial/residential land use.

Orchard Park Reservoir was included in the 2001 Lake Classification and Inventory study effort. Results of this study indicate elevated phosphorus levels that exceeded the criteria for support of bathing/recreation uses. However, there was insufficient data to evaluate the impact of these conditions on water supply use. (DEC/DOW, BWM/Lake Services, April 2003)

Cayuga Creek, Lower, and tribs (0103-0007)

MinorImpacts

Waterbody Location Information

Revised: 01/27/2005

Water Index No:	Ont 158..E- 1- 6	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/060	Str Class:	C
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	13.7 Miles	Quad Map:	LANCASTER (J-06-1)
Seg Description:	stream and selected tribs, from mouth to Lancaster		

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

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

Type of Pollutant(s)

Known: Metals, Priority Organics (PAHs)
 Suspected: NUTRIENTS, SILT/SEDIMENT
 Possible: Pathogens

Source(s) of Pollutant(s)

Known: - - -
 Suspected: STREAMBANK EROSION, URBAN RUNOFF
 Possible: Agriculture

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 and fish consumption in this portion of Cayuga Creek are thought to be stressed by nutrient enrichment and silt/sediment loads from urban runoff and various other nonpoint sources. Elevated levels of some organics and metals in macroinvertebrate tissue samples have also been documented. Despite these minor impacts, aquatic life and other uses are considered to be fully supported in the stream.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Cayuga Creek in Cheektowaga , Erie County, (at Route 277) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis (see below). Water column sampling revealed ammonia, dissolved oxygen and iron to be parameters of concern. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Bottom sediment sampling results revealed several PAHs to be exceeding the Probable Effects Level - a level at which adverse impacts are expected. Cadmium, PCBs, DDT, DDE and PAHs are also present at Threshold Effects level - levels at which adverse impacts occasionally occur. (DEC/DOW, BWAR/RIBS, January 2005)

Biological (macroinvertebrate) assessments of Cayuga Creek were conducted in Depew/Cheektowaga (at Route 277) in

2000 and 2001 and in East Lancaster (at Bowen Road) in 2000. Sampling results indicated slightly impacted water quality conditions in Depew. Nonpoint source nutrient enrichment and siltation were the primary causes of impact. Similar conditions at this site were documented in 1993 and 1994, maintaining good water quality following well-documented improvements in the 1980's. Sampling results indicated non-impacted conditions in East Lancaster. The fauna was dominated by clean-water mayflies and caddisflies. This represents an improvement in water quality compared to 1976 to 1988, when slight impact was documented. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Plumb Bottom Creek (-6) in Lancaster. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Slate Bottom Creek (-2) and Plumb Bottom Creek (-6) are listed separately.

Cayuga Creek, Middle, and minor tribs (0103-0017)

Need Verific

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 1- 6
Hydro Unit Code: 04120103/060 **Str Class:** B
Waterbody Type: River
Waterbody Size: 116.5 Miles
Seg Description: stream and selected tribs, from Lancaster to Folsomdale

Drain Basin: Lake Erie-Niagara River
Reg/County: Buffalo/Eighteenmile
Quad Map: 9/Erie Co. (15)
CLARENCE (J-06-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Possible
Recreation	Stressed	Possible

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, PATHOGENS, Silt/Sediment
Possible: D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: FAILING ON-SITE SYST (Cowlesville), Streambank Erosion
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DOW/BWAR
TMDL/303d Status: n/a ()

Resolution Potential: Medium

Further Details

Aquatic life support and recreational uses in this portion of Cayuga Creek may be affected by failing and/or inadequate on-site septic systems. The impact of the septic systems on the stream need to be verified.

There are concerns regarding failing and/or inadequate on-site septic systems in the hamlet of Cowlesville. About 100 homes are served by on-site systems. A referendum for a sewer project to be funded within the Construction Grants Program was voted down. There has been some more recent interest in wastewater facilities planning by the town. The community has applied for a Tier 3 grant. (DEC/DOW, Region 9, April 2003)

A biological (macroinvertebrate) assessment of Cayuga Creek in Lancaster (at Bowen Road), well below Cowlesville, was conducted in 2000. Sampling results indicated non-impacted water quality conditions. The fauna was dominated by clean-water mayflies and caddisflies. This represents an improvement in water quality compared to 1976 to 1988, when slight impact was documented. The most recent sampling upstream nearer to Cowlesville (Alden) conducted in 1993 indicated slight impact, likely due to nonpoint source nutrient enrichment. But conditions in this portion of the stream should be verified. (DEC/DOW, BWAR/SBU, April 2003) This segment includes the portion of the stream and selected/smaller tribs from Plumb Bottom Creek (-6) in Lancaster to Right Branch/Gillett Creek near Folsomdale. The

waters of this portion of the stream are Class B. Tribs to this reach/segment, including Red Brook (-24), are Class C. Plumb Bottom Creek (-6), Little Buffalo Creek (-7) and Right Branch/Gillett Creek (-30), are listed separately.

Little Buffalo Creek and tribs (0103-0008)

MinorImpacts

Waterbody Location Information

Revised: 01/27/2005

Water Index No: Ont 158..E- 1- 6- 7	Drain Basin: Lake Erie-Niagara River
Hydro Unit Code: 04120103/060 Str Class: C*	Buffalo/Eighteenmile
Waterbody Type: River	Reg/County: 9/Erie Co. (15)
Waterbody Size: 74.4 Miles	Quad Map: EAST AURORA (J-06-3)
Seg Description: entire stream and tribs	

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

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrology	Stressed	Suspected

Type of Pollutant(s)

Known: - - -
 Suspected: SILT/SEDIMENT
 Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
 Suspected: STREAMBANK EROSION
 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

Natural resources (fishery) habitat are thought to be affected by silt/sediment loadings and other nonpoint inputs. Streambank erosion from residential development and urbanization have been cited as the major sources of these impacts.

A biological (macroinvertebrate) assessment of Little Buffalo Creek near the mouth in East Lancaster (at Bowen Road) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. Clean-water mayflies, stoneflies, caddisflies, and beetles were present and no water quality problems were indicated. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the entire stream and all tribs. The waters of the stream are Class C from the mouth to trib -4, Class B between trib -4 and trib -6, and Class C,C(T) for the remainder of the reach. Tribs to this reach/segment are also Class C.

Right Branch/Gillett Creek and tribs (0103-0020)

NoKnownImpct

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 1- 6-30
Hydro Unit Code: 04120103/060 **Str Class:** C
Waterbody Type: River
Waterbody Size: 30.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: COWLESVILLE (J-07-4)

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of Right Branch/Gillette Creek in Bennington Center (at Route 77) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. Clean-water mayflies and caddisflies were numerous, although nonpoint source nutrient enrichment was also indicated. The sample satisfied field screening criteria and was returned to the stream. Despite some minor impacts, aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including French Brook (-4) and Fenton Creek (-4-1), are also C.

Smoke Creek, Lower, and minor tribs (0101-0007)

MinorImpacts

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 2	Drain Basin: Lake Erie-Niagara River
Hydro Unit Code: 04120103/040	Str Class: C
Waterbody Type: River	Reg/County: 9/Erie Co. (15)
Waterbody Size: 9.8 Miles	Quad Map: BUFFALO SOUTHEAST (J-05-3)
Seg Description: stream and selected tribs, fr mouth to Webster Corners	

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

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

Type of Pollutant(s)

Known: AESTHETICS (sludge banks)
 Suspected: NUTRIENTS (phosphorus), SILT/SEDIMENT
 Possible: D.O./Oxygen Demand, Water Level/Flow, Metals, Pathogens

Source(s) of Pollutant(s)

Known: URBAN RUNOFF
 Suspected: INDUSTRIAL
 Possible: Comb. Sewer Overflow, Hydro Modification, Municipal, Tox/Contam. Sediment, Storm Sewers

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 and recreational uses in Smoke Creek is considered to be somewhat affected by silt/sediment loads, sludge banks, nutrients and other pollutant associated with urban runoff and other nonpoint source inputs. In spite of some/these minor impacts, aquatic life is considered to be fully supported in the stream.

A biological (macroinvertebrate) assessment of Smoke Creek in Lackawanna (at South Park Avenue) was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. Impact Source Determination identified municipal/industrial effects and nonpoint sources effects, indicating that urban runoff is likely the primary stressor. Conditions in South Branch Smoke Creek (listed separately) were assessed as moderately impacted. (DEC/DOW, BWAR/SBU, April 2003)

The primary cause of impact to recreation is past industrial activities and discharges including sludge banks along the creek. Hydrologic modification of the lower creek for flood control is also a concern. (DEC/DOW, Region 9, 1996)

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Route 20 near Webster

Corners. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. South Branch (-1) is listed separately.

South Branch, Lower, and tribs (0101-0036)

Impaired Seg

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 2- 1 **Drain Basin:** Lake Erie-Niagara River
Hydro Unit Code: 04120103/040 **Str Class:** C Buffalo/Eighteenmile
Waterbody Type: River **Reg/County:** 9/Erie Co. (15)
Waterbody Size: 27.6 Miles **Quad Map:** BUFFALO SOUTHEAST (J-05-3)
Seg Description: stream and tribs, from mouth to Orchard Park

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

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), SILT/SEDIMENT, Aesthetics (sludge, debris)
Suspected: - - -
Possible: Pathogens

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, URBAN RUNOFF
Suspected: - - -
Possible: COMB. SEWER OVERFLOW, Industrial, Storm Sewers

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg9 **Resolution Potential:** Medium
TMDL/303d Status: 3b ()

Further Details

Aquatic life support and recreational uses in South Branch Smoke Creek are restricted by nutrient enrichment, silt/sediment loads and other pollutant associated with urban runoff, CSOs and other nonpoint source inputs.

A biological (macroinvertebrate) assessment of South Branch Smoke Creek in Lackawanna (at South Park Avenue) was conducted in 2000. Sampling results indicated moderately impacted water quality conditions. Impact Source Determination indicated that nonpoint nutrient enrichment was the likely cause of impact. Surrounding land use suggests urban/industrial runoff, streambank erosion and other nonpoint source inputs. (DEC/DOW, BWAR/SBU, April 2003)

CSOs from Erie County SD #6 which discharge to Smoke Creek have been identified as needing additional control measures. (DEC/BWP, March 2005)

This segment is included on Part 3b (needing verification of cause/pollutants) of the NYS 2004 Section 303(d) List of Impaired Waters due to suspected impacts from urban runoff and/or streambank erosion.

This segment includes the portion of the stream and all tribs from the mouth to Green Lake (P81b) in Orchard Park. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also C.

Green Lake (0101-0038)

Minor Impacts

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 2- 1-P81b	Drain Basin: Lake Erie-Niagara River
Hydro Unit Code: 04120103/040 Str Class: B	Buffalo/Eighteenmile
Waterbody Type: Lake	Reg/County: 9/Erie Co. (15)
Waterbody Size: 10.0 Acres	Quad Map: ORCHARD PARK (J-06-4)
Seg Description: entire lake	

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
 Suspected: Silt/Sediment
 Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
 Suspected: URBAN 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

Public bathing, and recreational (fishing, boating) uses in Green Lake are affected by elevated nutrient levels and low water clarity. Sources of nutrients and silt/sediment are thought to be nonpoint runoff related to the surrounding urban/commercial/residential land use.

Green Lake was included in the 2001 Lake Classification and Inventory study effort. Results of this study indicate elevated phosphorus levels that exceeded and water clarity readings that failed to meet the criteria for support of bathing/recreation uses. However, there was insufficient data to evaluate the actual impact of these conditions on recreational uses. Oxygen levels were adequate to support the fishery throughout the lake. (DEC/DOW, BWM/Lake Services, April 2003)

Rush Creek and tribs (0104-0018)

Impaired Seg

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E- 3 **Drain Basin:** Lake Erie-Niagara River
Hydro Unit Code: 04120103/030 **Str Class:** C Buffalo/Eighteenmile
Waterbody Type: River **Reg/County:** 9/Erie Co. (15)
Waterbody Size: 17.4 Miles **Quad Map:** BUFFALO SOUTHEAST (J-05-3)
Seg Description: entire stream and tribs

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

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Known
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: PATHOGENS, Aesthetics (sludge banks, odors), Oil and Grease
Suspected: NUTRIENTS (phosphorus), Unknown Toxicity
Possible: D.O./Oxygen Demand, Priority Organics

Source(s) of Pollutant(s)

Known: MUNICIPAL, URBAN RUNOFF
Suspected: Storm Sewers
Possible: Failing On-Site Syst

Resolution/Management Information

Issue Resolvability: 2 (Strategy Exists, Needs Funding/Resources)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DOW/Reg9 **Resolution Potential:** Medium
TMDL/303d Status: 1 (High Priority for TMDL Development by NYSDEC)

Further Details

Aquatic life, recreational uses (swimming, fishing) and aesthetics in Rush Creek are restricted by pathogens, nutrients, silt/sediment loads and other pollutant associated with municipal/industrial discharges, urban runoff and other nonpoint source inputs. Poor aesthetics in and along the stream (sludge banks, oil, grease, odors) also discourage uses. However, significant work and anticipated improvements have occurred in recent years; verification of water quality conditions is recommended.

A biological (macroinvertebrate) assessment of Rush Creek in Blasdell (at Mile Strip Road) was conducted in 2000. Sampling results indicated moderately impacted water quality conditions. Impact Source Determination indicated that municipal/industrial inputs of a toxic nature were the likely cause of impact. Surrounding land use suggests municipal impacts, urban/industrial runoff and other nonpoint source inputs. (DEC/DOW, BWAR/SBU, April 2003)

Periodic wet weather overflows of stormwater impact recreational use in the creek and in the nearby lake shore area at the creek mouth. The Town of Hamburg and the Village of Blasdell are under consent orders to abate SSO discharges

to Rush Creek. A revised schedule for reducing or eliminating overflows from the Electric Avenue Pump station is being prepared by Region 9 staff. Erie County is soliciting engineering consultants for the project.

The Erie County Fairground is also under DEC order to eliminate site runoff impacts on Rush Creek. Overflows from the Milestrip Road pump station in the Village of Blasdell were eliminated in 1995. Other sources of impacts to Rush Creek have been addressed. Failing/inadequate on-site septic systems in the residential area of Highland Acres, have been being addressed. The community was awarded \$1.95 million in CW/CA Bond Act funds and approximately 150 homes were sewerred in 1999. The second phase of the project to sewer an additional 30 homes was completed in the Fall of 2004. A consent order to address a discharge from the Erie County Fairgrounds was satisfied in January 1996. (DEC/DOW, BWC and Region 9, February 2005)

This stream enters Lake Erie at Woodlawn Beach. Woodlawn Beach was purchased by NYS and has been developed into a state park and bathing beach.

This segment is included on the NYS 2004 Section 303(d) List of Impaired Waters due to CSOs, municipal, urban runoff sources.

This segment includes the entire stream and all tribs. The waters of the stream are primarily Class C, with a 1/8 mile reach at the mouth designated Class B. Tribs to this reach/segment are also Class C.

Eighteenmile Creek, Lower, minor tribs (0104-0030)

MinorImpacts

Waterbody Location Information

Revised: 01/27/2005

Water Index No: Ont 158..E-13 **Drain Basin:** Lake Erie-Niagara River
Hydro Unit Code: 04120103/020 **Str Class:** B(T) Buffalo/Eighteenmile
Waterbody Type: River **Reg/County:** 9/Erie Co. (15)
Waterbody Size: 32.3 Miles **Quad Map:** EDEN (K-05-1)
Seg Description: stream and selected tribs, from mouth to Hamburg

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Possible
Habitat/Hydrology	Stressed	Suspected

Type of Pollutant(s)

Known: - - -
Suspected: SILT/SEDIMENT, Priority Organics (PCBs)
Possible: Thermal Changes

Source(s) of Pollutant(s)

Known: - - -
Suspected: STREAMBANK EROSION, URBAN RUNOFF, Hydro Modification, Tox/Contam. Sediment
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 2 (Problem Verified, Cause Unknown)
Lead Agency/Office: ext/WQCC **Resolution Potential:** Medium
TMDL/303d Status: n/a ()

Further Details

Aquatic life support and natural resources (fishery) habitat in Eighteenmile Creek is thought to be affected by elevated stream temperatures, silt/sediment and other nonpoint inputs related to streambank erosion, residential development in the surrounding suburban area, urban and stormwater runoff. Impacts on fish consumption are also of some concern based on elevated levels of PCBs found in sediments. The main branch is used by migratory rainbow trout from Lake Erie.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Eighteenmile Creek in Evans, Erie County, (at Lake Shore Road) was conducted in 2001. This sampling location is 0.6 miles above the mouth at Lake Erie. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis (see below). Water column sampling revealed no parameters of concern. Toxicity testing of the water column showed no significant mortality or reproductive impacts. However, bottom sediment sampling results revealed PCBs to be exceeding the Probable Effects Level - a level at which adverse impacts are expected. Nickle and 3 PAHs exceeded the Threshold Effects level - levels at which adverse impacts occasionally occur. (DEC/DOW, BWAR/RIBS, January 2005)

Biological (macroinvertebrate) assessments of Eighteenmile Creek in Highland on the Lake/Evans (at Lake Shore Road) were conducted in 2000 and 2001. Sampling results indicated slightly impacted water quality conditions. The primary cause of impact was determined to be nonpoint source nutrient enrichment. Despite these minor impacts, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, April 2003)

Previously cited on-site septic system impacts are no longer an issue as most of the area has been sewerred. Urban runoff from the Village of Hamburg and Hamlet of North Boston is possible source of silt and sediment problems. Silt and sediment is also coming from unstable banks further upstream. Irrigation water withdrawals from the creek lower water level causing thermal warming and stress in cold water fish. (Erie County WQCC, 1996)

This segment includes the portion of the stream and selected/smaller tribs from the mouth to the Hamburg water supply dam. The waters of this portion of the stream are Class B(T). Tribs to this reach/segment are Class B and C. South Branch (-4) and Hampton Brook (-6) are listed separately.

Eighteenmile Creek, Middle, and tribs (0104-0017)

NoKnownImpct

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E-13 **Drain Basin:** Lake Erie-Niagara River
Hydro Unit Code: 04120103/020 **Str Class:** A Buffalo/Eighteenmile
Waterbody Type: River **Reg/County:** 9/Erie Co. (15)
Waterbody Size: 47.9 Miles **Quad Map:** HAMBURG (K-05-2)
Seg Description: stream and tribs, from Hamburg to Patchin

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of Eighteenmile Creek in North Boston (at Route 277) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the Hamburg water supply dam to/including trib -27 in Patchin. The waters of this portion of the stream are Class A. Tribs to this reach/segment, including Neuman Creek (-8), are also Class A.

Eighteenmile Creek, Upper, and tribs (0104-0039)

NoKnownImpct

Waterbody Location Information

Revised: 05/09/2003

Water Index No:	Ont 158..E-13	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/020	Str Class:	A
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	72.3 Miles	Quad Map:	SPRINGVILLE (K-06-4)
Seg Description:	stream and tribs, above Patchin		

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:
TMDL/303d Status:	n/a ()	

Further Details

A biological (macroinvertebrate) assessment of Eighteenmile Creek in North Boston (at Route 277) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. Though this sampling point is just below the described segment, it is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs above trib -27 in Patchin. The waters of this portion of the stream are Class A, A(T). Tribs to this reach/segment, including Landon Brook (-46), are also Class A.

South Br. Eighteenmile, Lower, and tribs (0104-0016) NoKnownImpct

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E-13- 4
Hydro Unit Code: 04120103/020 **Str Class:** B
Waterbody Type: River
Waterbody Size: 77.8 Miles
Seg Description: stream and tribs, from mouth to New Oregon

Drain Basin: Lake Erie-Niagara River
Reg/County: Buffalo/Eighteenmile
Quad Map: 9/Erie Co. (15)
Reg/County: 9/Erie Co. (15)
Quad Map: HAMBURG (K-05-2)

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of South Branch Eighteenmile Creek in Eden Valley (at Eden Valley Road) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth to/including trib -23 near New Oregon. The waters of this portion of the stream are Class B,B(T). Tribs to this reach/segment, including Jennings Creek (-13), are also Class B.

South Br. Eighteenmile, Upper, and tribs (0104-0040) NoKnownImpct

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E-13- 4
Hydro Unit Code: 04120103/020 **Str Class:** C
Waterbody Type: River
Waterbody Size: 21.7 Miles
Seg Description: stream and tribs, above New Oregon

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: LANGFORD (K-05-3)

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:**
TMDL/303d Status: n/a ()

Further Details

A biological (macroinvertebrate) assessment of South Branch Eighteenmile Creek in Eden Valley (at Eden Valley Road) was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. Though this sampling point is just below the described segment, it is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs above trib -23 near New Oregon. The waters of this portion of the stream are Class C(TS). Tribs to this reach/segment are also Class C.

Little Sister Creek, Lower, and tribs (0104-0045)

Impaired Seg

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E-19	Drain Basin: Lake Erie-Niagara River
Hydro Unit Code: 04120103/010	Str Class: B
Waterbody Type: River	Reg/County: 9/Erie Co. (15)
Waterbody Size: 3.4 Miles	Quad Map: ANGOLA (K-04-2)
Seg Description: stream and tribs, from mouth to Route 5	

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

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Known
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known

Type of Pollutant(s)

Known: ---
 Suspected: NUTRIENTS (phosphorus), PATHOGENS, D.O./Oxygen Demand
 Possible: ---

Source(s) of Pollutant(s)

Known: ---
 Suspected: ---
 Possible: FAILING ON-SITE SYST

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))	
Verification Status: 4 (Source Identified, Strategy Needed)	
Lead Agency/Office: DOW/Reg9	Resolution Potential: Medium
TMDL/303d Status: 3b ()	

Further Details

Aquatic life support and recreational uses are impaired in this portion of Little Sister Creek. Additional sampling is necessary to determine the specific source of the problems. Based on surrounding land use, failing and/or inadequate on-site septic systems are a possible cause.

A biological (macroinvertebrate) assessment of Little Sister Creek in Evans Center (at Route 5) was conducted in 2000. Sampling results indicated moderately impacted water quality conditions. The fauna was dominated by midges and scuds, and Impact Source Determination indicated that municipal/industrial inputs were the primary cause of impact. (DEC/DOW, BWAR/SBU, April 2003)

This segment is included on Part 3b (needing verification of cause/pollutants) of the NYS 2004 Section 303(d) List of Impaired Waters due to suspected impacts from inadequate/failing on-site septic systems.

This segment includes the portion of the stream from the mouth to Route 5, including lower portion of trib -1. The waters of this reach/segment are Class B.

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Big Sister Creek, Lower, and tribs (0104-0013)

MinorImpacts

Waterbody Location Information

Revised: 01/27/2005

Water Index No: Ont 158..E-20 **Drain Basin:** Lake Erie-Niagara River
Hydro Unit Code: 04120103/010 **Str Class:** C* Buffalo/Eighteenmile
Waterbody Type: River **Reg/County:** 9/Erie Co. (15)
Waterbody Size: 19.6 Miles **Quad Map:** ANGOLA (K-04-2)
Seg Description: stream and tribs, from mouth to Pontiac

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Possible
Aquatic Life	Stressed	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: - - -
 Suspected: AESTHETICS (floatables), NUTRIENTS
 Possible: D.O./Oxygen Demand, Pathogens, Silt/Sediment

Source(s) of Pollutant(s)

Known: - - -
 Suspected: MUNICIPAL, Urban Runoff
 Possible: Failing On-Site Syst

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DEC/Reg9 **Resolution Potential:** Medium
TMDL/303d Status: n/a ()

Further Details

Aquatic life support and recreational uses (swimming, fishing) in this portion of Big Sister Creek are impacted by nutrient and possible sewage inputs. Some of the previously cited problems at the Angola WWTP have been addressed with plant upgrades and expansions in the mid 1990s. The wastewater treatment plant is in compliance with its SPDES permit. Based on surrounding land use, failing and/or inadequate on-site septic systems are a possible cause.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Big Sister Creek in Evans, Erie County, (at Route 5) was conducted in 2001. This sampling location is 2.0 miles above the mouth at Lake Erie. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis (see below). Water column sampling revealed iron to be the only parameter of concern. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Bottom sediment sampling results revealed arsenic, copper, nickle and zinc to be exceeding the Threshold Effects level - levels at which adverse impacts occasionally occur. (DEC/DOW, BWAR/RIBS, January 2005)

Biological (macroinvertebrate) assessments of Big Sister Creek in Evans Center (at Route 5) were conducted in 2000 and

2001. Slightly impacted water quality was assessed for the site in Evans Center, based on 2001 macroinvertebrate sampling. Nutrient enrichment and municipal/industrial inputs were the likely source of impacts. The fauna was dominated by facultative and tolerant midges. The site was previously assessed as moderately impacted in 1993 and 2000, and non-impacted in 1994. Due to the fluctuating water quality assessments, continued monitoring is recommended for this site. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth to Rythus Creek (-2) in Pontiac. The waters of this portion of the stream are Class B from the mouth to Old Lake Shore Road (0.6 mi) and Class C,C(T) for the remainder of the reach. Tribs to this reach/segment are also Class C. Rythus Creek (-2) is listed separately.

Rythus Creek and tribs (0104-0048)

NoKnownImpct

Waterbody Location Information

Revised: 05/09/2003

Water Index No:	Ont 158..E-20-13	Drain Basin:	Lake Erie-Niagara River
Hydro Unit Code:	04120103/010	Str Class:	C
Waterbody Type:	River	Reg/County:	9/Erie Co. (15)
Waterbody Size:	19.4 Miles	Quad Map:	EDEN (K-05-1)
Seg Description:	entire stream and tribs		

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:
TMDL/303d Status:	n/a ()	

Further Details

A biological (macroinvertebrate) assessment of Rythus Creek in Pontiac (at New Jerusalem Road) was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. The fauna was diverse, and only siltation was indicated as a source of impact. Despite these conditions, aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. (DEC/DOW, BWAR/SBU, April 2003)

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

Delaware Creek, Lower, and tribs (0104-0049)

MinorImpacts

Waterbody Location Information

Revised: 05/09/2003

Water Index No: Ont 158..E-21	Drain Basin: Lake Erie-Niagara River
Hydro Unit Code: 04120103/010	Str Class: B(TS) Buffalo/Eighteenmile
Waterbody Type: River	Reg/County: 9/Erie Co. (15)
Waterbody Size: 4.1 Miles	Quad Map: ANGOLA (K-04-2)
Seg Description: stream and tribs, from mouth to Route 5	

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
 Suspected: - - -
 Possible: FAILING ON-SITE SYST

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))	
Verification Status: 3 (Cause Identified, Source Unknown)	
Lead Agency/Office: DOW/Reg9	Resolution Potential: Medium
TMDL/303d Status: n/a ()	

Further Details

Aquatic life support and recreational uses are impacted in this portion of Delaware Creek. Additional sampling is necessary to determine the specific source of the problems. Based on surrounding land use, failing and/or inadequate on-site septic systems are a possible cause.

A biological (macroinvertebrate) assessment of Delaware Creek in Angola (at Route 5) was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. The fauna was dominated by facultative midges and black fly larvae, and municipal/industrial inputs was the likely cause of impact. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth to Route 5. The waters of this reach/segment are Class B(TS). Tribs to this reach/segment are Class B.

Muddy Creek, Lower, and tribs (0104-0051)

Impaired Seg

Waterbody Location Information

Revised: 01/27/2005

Water Index No: Ont 158..E-22
Hydro Unit Code: 04120103/010 **Str Class:** B
Waterbody Type: River
Waterbody Size: 1.6 Miles
Seg Description: stream and tribs, from mouth to tribs -a

Drain Basin: Lake Erie-Niagara River
Reg/County: Buffalo/Eighteenmile
Quad Map: 9/Erie Co. (15)
FARNHAM (K-04-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Known
Recreation	Stressed	Known

Type of Pollutant(s)

Known: ---
Suspected: UNKNOWN TOXICITY, Nutrients
Possible: ---

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: UNKNOWN SOURCE

Resolution/Management Information

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

Resolution Potential: Medium

Further Details

A biological (macroinvertebrate) assessment of Muddy Creek in Angola (at Lake Shore Road) was conducted in 2000. Sampling results indicated moderately impacted water quality conditions. Impact Source Determinate indicated that municipal/industrial inputs of a toxic nature were the likely cause of the impact. (DEC/DOW, BWAR/SBU, April 2003)

This segment includes the portion of the stream and all tribs from the mouth to trib -a. The waters of this reach/segment are Class B. Tribs to the reach/segment are also Class B.

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