



Cayuga Creek (0412010301)

Water Index Number

Ont 158..E- 1- 6
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 Ont 158..E- 1- 6-30

Waterbody Segment

Cayuga Creek, Lower, and tribs (0103-0007)
 Cayuga Creek, Middle, and minor tribs (0103-0017)
 Cayuga Creek, Upper, and tribs (0103-0002)
 Slate Bottom Creek and tribs (0103-0018)
 Plumb Bottom Creek and tribs (0103-0019)
 Little Buffalo Creek and tribs (0103-0008)
 Right Branch/Gillett Creek and tribs (0103-0020)

Category

MinorImpacts
 Need Verific
 NoKnownImpct
 UnAssessed
 Impaired Seg
 MinorImpacts
 NoKnownImpct

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

Minor Impacts

Waterbody Location Information

Revised: 7/6/2015

Water Index No:	Ont 158..E- 1- 6	Drain Basin:	Lake Erie-Niagara River
Unit Code:		Class:	C
Water Type/Size:	River/Stream	13.5 Miles	Reg/County: 9/Erie (15)
Description:	stream and selected tribs, from mouth to Lancaster		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

Conditions Evaluated

Habitat/Hydrology	Unknown
Aesthetics	Unknown

Type of Pollutant(s)

Known: PATHOGENS
Suspected: Metals, NUTRIENTS, Priority Organics (PAHs), SILT/SEDIMENT
Unconfirmed:

Source(s) of Pollutant(s)

Known: OTHER NON-PERMITTED SANITARY DISCH
Suspected: Streambank Erosion, Urban/Storm Runoff
Unconfirmed: Agriculture

Management Information

Management Status:	Verification of Source Needed
Lead Agency/Office:	DOW/Reg9
IR/305(b) Code:	Water Attaining Some Standards (IR Category 2)

Further Details

Overview

This portion of Cayuga Creek is assessed as having minor impacts due to recreational uses and aquatic life that are known to be stressed by nutrient enrichment, elevated pathogens and silt sediment from urban/storm runoff, wet-weather sanitary sewer overflows and 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.

Use Assessment

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

Aquatic life is evaluated as supported but stressed based on biological sampling that shows slight impacts. This sampling can also be used to infer that there are no significant impacts to recreational (fishing) uses, although more specific sampling is necessary to confirm this is the case. Additional (bacteriological) sampling is needed to more fully evaluate other recreational uses. (DEC, DOW, BWAM, July 2014)

Water Quality Information

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Cayuga Creek in Cheektowaga, Erie County, (at Route 277) was conducted in 2005 and 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found fauna that is most similar to communities influenced by nonpoint sources and silt and sediment loadings. Water column chemistry indicates pathogens and iron to be present at levels that constitute parameters of concern. However, iron is considered to be naturally occurring and not a source of water quality impacts. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated some possible sediment toxicity and no porewater toxicity was indicated. Bottom sediments analysis based on sediment quality guidelines developed for freshwater ecosystems revealed overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms, however some metals and organic substances were found to be present at elevated levels. Based on the consensus of these established assessment indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream. (DEC/DOW, BWAM/RIBS, June 2010)

These results are consistent with biological sampling conducted at this site in 2000 and 2001. Sampling results also indicated slightly impacted water quality conditions. 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 present at elevated levels. (DEC/DOW, BWAR/RIBS, January 2005)

Biological 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)

Source Assessment

Sanitary sewer overflows (SSOs) from the Village of Depew and the Town of Cheektowaga are considered to be a source of pathogens to the basin. Urban/storm runoff may also be contributing a source.

Management Actions

Efforts to address sanitary sewer overflows from the Village of Depew and the Town of Cheektowaga collection systems are ongoing. (DEC/DOW, Region 9, July 2015)

Section 303(d) Listing

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

Segment Description:

This segment includes the 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) Needs Verification

Waterbody Location Information

Revised: 7/10/2015

Water Index No: Ont 158..E- 1- 6 **Drain Basin:** Lake Erie-Niagara River
Unit Code: **Class:** B Buffalo River
Water Type/Size: River/Stream 116.6 Miles **Reg/County:** 9/Erie (15)
Description: stream and selected tribs, from Lancaster to Folsomdale

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Unassessed	-
Public Bathing	Unassessed	-
Recreation	Stressed	Unconfirmed
Aquatic Life	Stressed	Unconfirmed
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unassessed	
Aesthetics	Unassessed	

Type of Pollutant(s)

Known: PATHOGENS
Suspected: NUTRIENTS, Silt/Sediment
Unconfirmed: Low D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: Other Non-Permitted Sanitary Disch
Suspected: On-Site/Septic Syst (Cowlesville), Streambank Erosion
Unconfirmed:

Management Information

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

Further Details

Overview:

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.

Water Quality Sampling:

A biological (macroinvertebrate) assessment of Cayuga Creek in Lancaster (at Bowen Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the upper range of slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source

determination indicate low enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. (DEC/DOW, BWAM/SBU, May 2010)

A biological (macroinvertebrate) assessment of Cayuga Creek at this site was also 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.

Water Quality Management:

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. There has been some interest in wastewater facilities planning by the town, however since the community has been connected to a public water and residents are no longer using private wells, interest in replacing onsite systems has lessened. (DEC/DOW, Region 9, August 2010)

Efforts to address sanitary sewer overflows from the Village of Lancaster collection system are ongoing. (DEC/DOW, Region 9, July 2015)

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)

Segment Description:

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.

Cayuga Creek, Upper, and tribs (0103-0002)

NoKnownImpct

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158..E- 1- 6
Hydro Unit Code: 04120103/060 **Str Class:** B
Waterbody Type: River
Waterbody Size: 57.3 Miles
Seg Description: stream and selected tribs, above Folsomdale

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: ATTICA (J-07-3)

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

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Cayuga Creek in North Sheldon (at Route 77) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the upper range of slightly impacted conditions, very nearly non-impacted. In such samples the community is only slightly altered from natural conditions. Some sensitive species may be missing and the overall abundance of macroinvertebrates is somewhat lower. However, the effects on the fauna appear to be insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects and some nonpoint sources. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. (DEC/DOW, BWAM/SBU, May 2010)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs above Right Branch/Gillett Creek near Folsomdale. The waters of this portion of the stream are Class B. Tribs to this reach/segment are Class C. Right Branch/Gillett Creek (-30) is listed separately.

Plumb Bottom Creek and tribs (0103-0019)

Impaired Seg

Waterbody Location Information

Revised: 05/07/2010

Water Index No: Ont 158..E- 1- 6- 6
Hydro Unit Code: 04120103/060 **Str Class:** C
Waterbody Type: River
Waterbody Size: 27.2 Miles
Seg Description: entire stream and tribs

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

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ---
Suspected: UNKNOWN TOXICITY, D.O./Oxygen Demand, Nutrients
Possible: Pathogens

Source(s) of Pollutant(s)

Known: ---
Suspected: UNKNOWN SOURCE, Municipal, , Urban/Storm Runoff
Possible: ---

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 (Waterbody Requiring Verification of Cause/Pollutant)

Resolution Potential: Medium

Further Details

Overview

Aquatic life in Plumb Bottom Creek is impaired. Specific pollutants have not been definitively identified, but elevated nutrient loadings in the stream are indicated while other pollutants may also be contributing to the impairments. Municipal/industrial sources and/or organic sewage wastes were identified as possible sources. Urban runoff likely contributes to the impacts as well.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Plumb Bottom Creek in Lancaster (at Central Avenue) was conducted as part of the RIBS biological screening effort in 2004. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates elevated enrichment and impact source determination suggests a community that reflects impacts from organic inputs and possibly municipal/industrial discharges. Water quality is considered to be poor and aquatic life is not fully supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, November 2009)

Section 303d Listing

Plumb Bottom Creek was added to the NYS Section 303(d) List of Impaired Waters in 2010. A listing for the stream for a

pollutant of aquatic toxicity was added to Part 3b of the 2010 List , indicating a waterbody for which TMDL development is deferred pending the verification of the cause/pollutant. (DEC/DOW, BWAM/WQAS, May 2010)

Segment Description

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

Little Buffalo Creek and tribs (0103-0008)

MinorImpacts

Waterbody Location Information

Revised: 01/27/2005

Water Index No: Ont 158..E- 1- 6- 7
Hydro Unit Code: 04120103/060 **Str Class:** C*
Waterbody Type: River
Waterbody Size: 74.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Erie-Niagara River
Buffalo/Eighteenmile
Reg/County: 9/Erie Co. (15)
Quad Map: EAST AURORA (J-06-3)

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
TMDL/303d Status: n/a

Resolution Potential: Medium

Further Details

Overview

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.

Water Quality Sampling

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)

Segment Description

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 **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

Water Quality Sampling

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)

Segment Description

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.