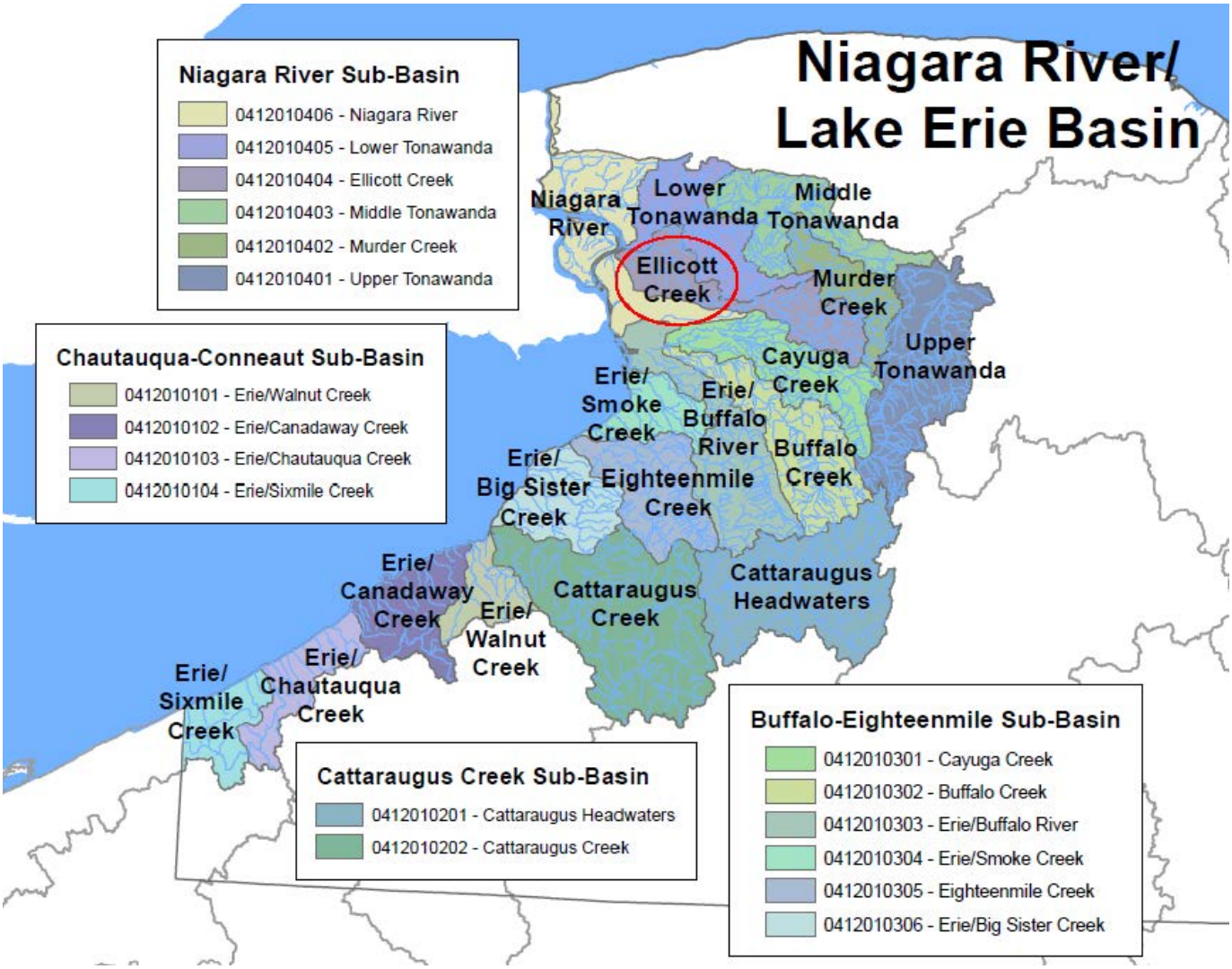

Ellicott Creek
(0412010404)

Water Index Number	Waterbody Segment	Category
Ont 158-12- 1	Ellicott Creek, Lower, and tribs(0102-0018)	**Impaired Seg**
Ont 158-12- 1	Ellicott Creek, Upper, and tribs (0102-0024)	**Need Verific**

Ellicott Creek, Lower, and tribs (0102-0018) Impaired

Waterbody Location Information

Revised: 7/6/2015

Water Index No:	Ont 158-12- 1		**Drain Basin:**	Lake Erie-Niagara River
Unit Code:		**Class:** B		Tonawanda Creek
Water Type/Size:	River/Stream	112 Miles	**Reg/County:**	9/Erie (15)
Description:	stream and tribs, from mouth to Alden			

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

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

Type of Pollutant(s)

Known:

Suspected: NUTRIENTS (PHOSPHORUS), PATHOGENS, Pesticides (chlordane), SILT/SEDIMENT

Unconfirmed:

Source(s) of Pollutant(s)

Known: OTHER NON-PERMITTED SANITARY DISCH, URBAN/STORM RUNOFF

Suspected: Tox/Contam. Sediment

Unconfirmed:

Management Information

Management Status: Restoration/Protection Strategy Needed

Lead Agency/Office: DOW/Reg9

IR/305(b) Code: Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

This portion of Ellicott Creek is assessed as an impaired waterbody due to aquatic life that is thought to be impaired. Other recreational uses are also considered to be stressed. Nutrients, pathogens and silt/sediment from urban/suburban runoff and nonpoint sources and sanitary sewer overflows have been identified. Hydrologic and habitat modifications (water withdrawals, channelization) are also thought to contribute to water quality impacts in the stream.

Use Assessment

This waterbody segment is a Class B waterbody, suitable for public bathing, general recreation use and support of

aquatic life, but not as a water supply.

Aquatic life is evaluated as impaired based on biological sampling that shows significant impacts. This sampling can also be used to infer that there may be 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 public bathing and other recreational uses. (DEC, DOW, BWAM, July 2015)

Fish Consumption use is considered to be unassessed. There are no health advisories limiting the consumption of fish from this waterbody (beyond the general advice for all waters). However due to the presence of impacts/contaminants in the stream and the uncertainty as to whether the lack of a waterbody-specific health advisory is based on actual sampling, fish consumption use is noted as unassessed, rather than fully supported but unconfirmed. (NYS DOH Health Advisories and DEC/DOW, BWAM, December 2014)

Water Quality Information

A biological (macroinvertebrate) assessment of Ellicott Creek in Williamsville (at Route 324/Sheridan Drive) was conducted as part of the RIBS biological screening effort in 2005. Sampling results reflect moderately impacted (poor) water quality, with sensitive taxa reduced, and the distribution of major taxonomic groups significantly different from what is naturally expected. Aquatic life is considered to be impaired. (DEC/DOW, BWAM/SBU, May 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network (mini-study) monitoring of Ellicott Creek in Amherst, Erie County, (at Route 324/Sheridan Drive) was also 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. A biological assessment of this site also indicated moderately impacted conditions. Water column sampling revealed total dissolved solids 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 chlordane to be exceeding the Probable Effects Level - a level at which adverse impacts are expected. Eight PAHs and DDT and its metabolites were found to be above Threshold Effects level - levels at which adverse impacts occasionally occur. PCB and metals were found to be below TELs. (DEC/DOW, BWAR/RIBS, January 2005)

A biological (macroinvertebrate) survey of Ellicott Creek at multiple sites between Amherst to Alden was also conducted in 2001. Sampling results indicated water quality conditions ranged between slightly and moderately impacted. Most of the impact is in the lower portion of the creek in Amherst. A site upstream of Bowmansville was assessed as moderately impacted in the 2001 sampling, but poor habitat may be partially responsible for that assessment. The Sheridan Avenue site between Williamsville and Amherst was clearly moderately impacted in the 1993 and 1994 samples, and again in 2001. The sampling in 2000, a high-flow year, yielded only slight impact at this site, with 2 species of mayflies found. Nonpoint source runoff is considered to be the major cause of impact, with municipal/industrial inputs indicated for the lower portion of the stream. Fish sampling at 7 sites in 2001 showed similar trends as the macroinvertebrates. (Ellicott Creek Biological Assessment Report, DEC/DOW, RIBS/SBU, March 2002)

Though streams with potential trout habitat are rare in northern Erie County, some exist in the upper reaches of the Ellicott Creek Watershed. These waters are less affected by urban/suburban nonpoint runoff, but agricultural sources and cattle access to streams contribute to silt/sediment loads and expose the stream to thermal warming. Dorsch Creek (-16) has been upgraded to C(T) and has considerable potential for trout habitat. A riparian corridor management plan has been discussed by DEC Fisheries staff and could produce beneficial results for this tributary. (DEC/DFWMR, Region 9, 1998)

Source Assessment

Based on the biologic community composition, surrounding land use and other knowledge of the waterbody, urban/suburban inputs and periodic sanitary sewer overflows from the City and Town of Tonawanda collection

systems are thought to be significant sources of these impacts. Hydrologic and habitat modifications (water withdrawals, channelization) are also thought to contribute to water quality impacts in the stream.

Management Actions

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

Ellicott Creek is included on the Section 303(d) List for eventual development of a TMDL or other restoration strategy (see below).

Section 303(d) Listing

Lower Ellicott Creek is included on the current (2014) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 3a of the List as an impaired waterbody for which TMDL development may be deferred pending verification of impairment. The waterbody is listed for phosphorus and silt/sediment. Pathogens are also a concern, but sampling has not been conducted to support a listing. This waterbody was first listed on the 2004 List. (DEC/DOW, BWAM/WQAS, July 2015)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to unnamed trib (-17) near Alden. The waters of the stream are Class C from the mouth to unnamed trib (-1) and Class B for the remainder of the reach. Tribs to this reach/segment, including Dorsch Creek (-16), are primarily Class C; with some portions designated B and C(T).

Ellicott Creek, Upper, and tribs (0102-0024) Need Verific

Waterbody Location Information

Revised: 05/05/2010

Water Index No:	Ont 158-12- 1			**Drain Basin:**	Lake Erie-Niagara River
Hydro Unit Code:	04120104/080	**Str Class:**	C*		Niagara River
Waterbody Type:	River			**Reg/County:**	9/Erie Co. (15)
Waterbody Size:	112.1 Miles			**Quad Map:**	CORFU (J-07-1)
Seg Description:	stream and tribs, above Alden				

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:	SILT/SEDIMENT
Possible:	Nutrients, Salts

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	AGRICULTURE
Possible:	Deicing (stor/appl)

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and corresponding recreational uses (fishing) in this portion of Ellicott Creek may be affected by agricultural activity, streambank erosion and various other nonpoint sources. Deicing practices may also contribute to water quality concerns.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Ellicott/Elevenmile Creek in Darien Center (at Sumner 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/some enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects. Aquatic life support at this site 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)

Source Assessment

Silt/sediment from streambank erosion and agricultural runoff increases turbidity in the creek. There are also concerns regarding a large dairy operation (CAFO) in the watershed that does not have adequate waste storage capacity. Runoff from sand/salt storage facilities and from the Six Flags Darien Lakes Amusement Park have also been cited as water quality concerns. Sampling at a downstream site is necessary to determine the extent of any impacts; the sampling noted above was conducted at a site upstream of these possible sources. (Genesee County WQCC/SWCD, May 2002)

Segment Description

This segment includes the portion of the stream and all tribs above trib -17 just below Alden. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Spring/Peck Creek (-18) and Crooked Brook (-21), are primarily Class C, C(T); with some headwaters designated Class B. Note that Upper Ellicott Creek above Crooked Creek (-21) is also referred to as Elevenmile Creek.