



Chittenango Creek (0414020207)

Water Index Number

- Ont 66-11-P26-37
- Ont 66-11-P26-37
- Ont 66-11-P26-37
- Ont 66-11-P26-37- 8-P147
- Ont 66-11-P26-37- 8-P147-1-P148
- Ont 66-11-P26-37-(Old Erie Canal)
- Ont 66-11-P26-37-35
- Ont 66-11-P26-37-35-P153
- Ont 66-11-P26-37-35-P153-
- Ont 66-11-P26-37-47-P164

Waterbody Segment

- Chittenango Creek, Lower, and tribs (0703-0005)
- Chittenango Creek, Middle, and tribs (0703-0025)
- Chittenango Creek, Upper, and tribs (0703-0099)
- Green Lake (0703-0111)
- Round Lake (0703-0112)
- Old Erie Barge Canal (0703-0115)
- Cazenovia Lake Outlet (0703-0113)
- Cazenovia Lake (0703-0021)
- Tribs to Cazenovia Lake(0703-0114)
- Tuscarora Lake (0703-0022)

Category

- MinorImpacts
- NoKnownImpct
- UnAssessed
- UnAssessed
- UnAssessed
- UnAssessed
- UnAssessed
- MinorImpacts
- UnAssessed
- NoKnownImpct

Chittenango Creek, Lower, and tribs (0703-0005)

MinorImpacts

Waterbody Location Information

Revised: 05/25/2007

Water Index No: Ont 66-11-P26-37
Hydro Unit Code: 04140202/120 **Str Class:** C
Waterbody Type: River
Waterbody Size: 121.8 Miles
Seg Description: stream and tribs, from mouth to North Manilius

Drain Basin: Oswego-Seneca-Oneida
Oneida River
Reg/County: 7/Madison Co. (27)
Quad Map: CLEVELAND (I-17-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), SILT/SEDIMENT
Suspected: ---
Possible: ---

Source(s) of Pollutant(s)

Known: AGRICULTURE
Suspected: URBAN/STORM RUNOFF, Streambank Erosion
Possible: Municipal

Resolution/Management Information

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

Resolution Potential: Medium

Further Details

Aquatic life support and recreational use in this portion of Chittenango Creek are known to experience minor impacts due to nutrients and silt/sediment loadings from agricultural and other nonpoint sources.

A biological (macroinvertebrate) assessment of Chittenango Creek in Bridgeport (at Route 31) was conducted in 2001. Sampling results indicated slightly impacted water quality conditions. Species richness was very low in samples collected at this site in 1990, 1995 and 1996 as well. Although aquatic life is supported in the stream, nutrient biotic evaluation indicates the level of eutrophication is sufficient to stress aquatic life support. (DEC/DOW, BWAM/SBU, June 2005)

Restricted transparency and algae growth, the result of excessive turbidity and nutrient loading into Chittenango Creek, limits the growth of food supply to support juvenile fish. Runoff from tributaries such as Limestone and Butternut Creeks may also contribute to water quality issues in this reach. (DEC/DFWMR, Region 7, 2000)

Chittenango Creek is currently included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 3a of the List as a Water Requiring Verification of Impairment, however this updated assessment suggests that the suspected impacts to water quality and uses are not sufficient to warrant continued listing.

This segment includes the portion of the stream and all tribs from the mouth to Butternut Creek (-6) in North Manlius. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Black Creek (-4), are also Class C. Butternut Creek (-6) is listed separately.

Chittenango Creek, Middle, and tribs (0703-0025)

NoKnownImpct

Waterbody Location Information

Revised: 05/25/2007

Water Index No: Ont 66-11-P26-37 **Drain Basin:** Oswego-Seneca-Oneida
Hydro Unit Code: 04140202/110 **Str Class:** C(T) Oneida River
Waterbody Type: River **Reg/County:** 7/Madison Co. (27)
Waterbody Size: 98.6 Miles **Quad Map:** MANLIUS (I-17-4)
Seg Description: stream and tribs, from North Manilius to Cazenovia

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: 8 (No Known Use Impairment)

Verification Status: (Not Applicable for Selected RESOLVABILITY)

Lead Agency/Office: n/a

Resolution Potential: n/a

TMDL/303d Status: n/a

Further Details

A biological (macroinvertebrate) assessment of Chittenango Creek in Chittenango (at Route 5) was last conducted in 1990. Sampling results indicated slightly impacted water quality conditions. The fauna was generally good and nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Because this sampling is more than ten years old, additional follow-up sampling is recommended to verify conditions in the stream. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from Butternut Creek (-6) in North Manilius to Cazenovia Lake Outlet (-35) in Cazenovia. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Lake Brook (-8), Pools Brook (-9) and Munger Brook (-29), are also Class C,C(T). Butternut Creek (-6) and Cazenovia Lake Outlet (-35) are listed separately.

Cazenovia Lake (0703-0021)

Minor Impacts

Waterbody Location Information

Revised: 05/25/2007

Water Index No: Ont 66-11-P26-37-35-P153
Hydro Unit Code: 04140202/110 **Str Class:** A
Waterbody Type: Lake
Waterbody Size: 1184.1 Acres
Seg Description: entire lake

Drain Basin: Oswego-Seneca-Oneida
Oneida River
Reg/County: 7/Madison Co. (27)
Quad Map: CAZENOVIA (J-17-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH, PROBLEM SPECIES (Eurasian milfoil), Silt/Sediment
Suspected: NUTRIENTS
Possible: Pathogens

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION
Suspected: On-Site/Septic Syst, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

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

Resolution Potential: Medium

Further Details

Cazenovia Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1988 and continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesoliotrophic, or moderately unproductive. Cazenovia Lake has been slightly more productive (lower water clarity, higher nutrient and algae levels) in the north basin than in the south basin (primary sampling site), although the north basin was not sampled in 2005. Phosphorus levels in the lake are consistently below the state guidance values for impacted/stressed recreational uses. Corresponding transparency measurements consistently exceed what is recommended for swimming beaches. With a maximum depth of 15 m (49 ft), Cazenovia Lake undergoes thermal stratification and its deep waters become anoxic during summer. Total phosphorus (TP) concentrations are elevated in the deep waters during the summer, indicating that the lake sediments contribute to the annual phosphorus budget. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly to moderately colored. Zebra mussels have been found in the lake. (DEC/DOW, BWAM/CSLAP, March 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to have been lower in the most recent sampling year. The recreational suitability of the lake is described most frequently as "slightly impaired." The lake itself is most often described as "not quite crystal clear," an assessment that is consistent with the perceived water quality conditions in the lake and its measured water quality characteristics. Assessments have noted that aquatic plants regularly grow to the lake surface. Plant growth at the lake surface is not reported to be significantly dense, however it is reported that "excessive weed growth" impacts uses on the lake. Aquatic plants are dominated by non-native species, namely Eurasian water milfoil. (DEC/DOW, BWAM/CSLAP, March 2006)

This lake waterbody is designated class A, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Several watershed and in-lake management efforts are underway to curtail the sources and symptoms of excessive phosphorus and sediment loading. External (watershed) phosphorus sources include runoff from developed areas (the lake is surrounded by residential land use) and roadways, and groundwater seepage including effluent from individual on-site wastewater disposal systems. Storm related events create major sediment plumes where roadway culverts enter the lake, most noticeably at the south end of the lake (where Routes 20 and 92 intersect) as well as along East Lake Road. (Cazenovia Lake Association, 2005)

The Cazenovia Lake Association has conducted an aggressive weed harvesting program since the 1980's. Lakeshore residents utilize benthic barriers, hand harvesting, and mechanical raking to suppress weeds in nearshore areas. In addition, watershed management strategies were outlined as part of a collaborative, community-based planning effort completed in 2002 (The Cazenovia Area Planning Project, CAPP). Recommendations of CAPP are being implemented; local laws regarding impervious surfaces and on-site wastewater disposal systems have been updated. The Town and Village Boards are initiating a task force to re-examine the environmental benefits and costs associated with extending the sewered area surrounding the lake. Public education and outreach continue to inform residents of effective measures to protect this valuable resource. (Cazenovia Lake Association, 2005)

Tuscarora Lake (0703-0022)

NoKnownImpct

Waterbody Location Information

Revised: 08/13/2007

Water Index No: Ont 66-11-P26-37-47-P164	Drain Basin: Oswego-Seneca-Oneida
Hydro Unit Code: 04140202/110 Str Class: B	Oneida River
Waterbody Type: Lake	Reg/County: 7/Madison Co. (27)
Waterbody Size: 307.1 Acres	Quad Map: ERIEVILLE (J-17-3)
Seg Description: entire lake	

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: n/a

Further Details

Tuscarora Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1986 and continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesotrophic, or moderately productive. Phosphorus levels in the lake rarely exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically meet what is recommended for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly colored, and these conditions are likely natural. Deepwater nutrient levels are somewhat higher than surface levels, resulting in increased productivity during the growing season. (DEC/DOW, BWAM/CSLAP, February 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be favorable since the lake was first evaluated and continuing through the most recent assessment. The recreational suitability of the lake is described most frequently as "excellent." The lake

itself is most often described as "not quite crystal clear," an assessment that is slightly higher but consistent with the perceived water quality conditions in the lake and its measured water quality characteristics. Assessments have noted that aquatic plants typically grow to the lake surface. Aquatic plants are dominated by a diverse mix of native and non-native species. Weed growth has only rarely been cited as impacting recreational uses, but it is recommended that monitoring of aquatic weeds continue. (DEC/DOW, BWAM/CSLAP, February 2006)

This lake waterbody is designated class B, suitable for use as a public bathing beach, general recreation and aquatic life support, but not as a public water supply. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.