



West Branch Tioughnioga River Watershed (0205010202)

Water Index Number

SR- 44-14-60
 SR- 44-14-60- 1
 SR- 44-14-60- 2
 SR- 44-14-60- 4
 SR- 44-14-60- 6
 SR- 44-14-60-P67
 SR- 44-14-60-P67-2-P71
 SR- 44-14-60-P67a
 SR- 44-14-60-P67b
 SR- 44-14-60-P68
 SR- 44-14-60-P68-P72
 SR- 44-14-60-P68-P73
 SR- 44-14-60-P68-P73-3-P74-1-P75

Waterbody Segment

West Branch Tioughnioga River and minor tribs (0602-0060)
 Otter Creek and tribs (0602-0061)
 Dry Creek and tribs (0602-0062)
 Factory Brook and tribs (0602-0025)
 Cold Brook and tribs (0602-0011)
 Lower/Upper Little York Lakes (0602-0017)
 Green Lake (0602-0087)
 Green Lake (0602-0088)
 Goodale Lake (0602-0089)
 Tully Lake (0602-0018)
 Song Lake (0602-0019)
 Crooked Lake (0602-0090)
 Gatehouse Pond (0602-0091)

Category

NoKnownImpct
 UnAssessed
 UnAssessed
 Minor Impacts
 Need Verific
 Need Verific
 UnAssessed
 UnAssessed
 NoKnownImpct
 Need Verific
 Minor Impacts
 NoKnownImpct
 UnAssessed

West Branch Tiough River and minor tribs (0602-0060) NoKnownImpct

Waterbody Location Information

Revised: 07/10/2000

Water Index No: SR- 44-14-60
Hydro Unit Code: 02050102/080 **Str Class:** C
Waterbody Type: River
Waterbody Size: 54.4 Miles
Seg Description: entire stream and selected tribs

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Cortland Co. (12)
Quad Map: HOMER (K-16-1) ...

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

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of West Branch Tioughnioga River in Cortland (at Route 13) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated non-impacted conditions. Such samples are dominated by clean-water species and conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. These results are consistent with sampling conducted at the site in 1998. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are Class C,C(T),C(TS). Otter Creek (-1), Dry Creek (-2), Factory Brook (-4) and Cold Brook (-6) are listed separately.

Factory Brook and tribs (0602-0025)

MinorImpacts

Waterbody Location Information

Revised: 07/09/2009

Water Index No: SR- 44-14-60- 4
Hydro Unit Code: 02050102/080 **Str Class:** C(TS)
Waterbody Type: River (Low Flow) **Reg/County:** 7/Cortland Co. (12)
Waterbody Size: 26.6 Miles **Quad Map:** HOMER (K-16-1) ...
Seg Description: entire stream and tribs

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

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

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, 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

Overview

Aquatic life support in Factory Brook is thought to experience minor impacts due to silt/sedimentation from streambank erosion and agricultural activity.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Factory Brook above Homer (at Route 41) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated 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 suggests conditions are sufficient to cause some stress to aquatic life. Impact source determination found a community that is most similar to communities influenced by siltation, with some evidence of impoundment effects. Sampling of this site in 1997 and 1998 reflected non-impacted conditions. (DEC/DOW, BWAM/SBU, January 2009)

Previous Assessment

Concerns regarding the impact of agricultural activity in the watershed were raised by local agencies in previous (1998)

assessments. A milking barn (450 head of cattle) has been built near the headwater. (Cortland County WQCC, 1998)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T),C(TS). Tribs to this reach/segment, including Homer Gulf (-4), are Class C,C(TS).

Cold Brook and tribs (0602-0011)

Need Verific

Waterbody Location Information

Revised: 07/11/2000

Water Index No: SR- 44-14-60- 6
Hydro Unit Code: 02050102/080 **Str Class:** C(T)
Waterbody Type: River (Low Flow) **Drain Basin:** Susquehanna River
Waterbody Size: 24.7 Miles **Reg/County:** 7/Chenango Co. (9) ...
Seg Description: entire stream and tribs **Quad Map:** HOMER (K-16-1) ...

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

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

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: NUTRIENTS, SILT/SEDIMENT, Thermal Changes

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: AGRICULTURE, On-Site/Septic Syst

Resolution/Management Information

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

Further Details

Overview

Aquatic life support and aesthetics in Cold Brook and its tributaries may be limited by excessive sedimentation and nutrient loadings. The magnitude of impacts and specific sources have yet to e identified.

Previous Assessment

Concerns were raised regarding algae and rooted aquatic weed growth in the stream. Agricultural activities (barnyard runoff, manure spreading, livestock access to streams), and inadequate and/or failing on-site septic systems are possible sources of impacts. While the brook remains a fair trout stream, fishermen have recently been complaining about poor condition of the stream. (DEC/DOW, Region 7, 1996)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Callan Creek (-3), are Class C,C(T),C(TS).

Lower/Upper Little York Lakes (0602-0017)

Need Verific

Waterbody Location Information

Revised: 09/14/2009

Water Index No: SR- 44-14-60-P67
Hydro Unit Code: 02050102/080 **Str Class:** B
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 120.7 Acres
Seg Description: total area of both lakes

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Cortland Co. (12)
Quad Map: HOMER (K-16-1)

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

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

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: ALGAL/WEED GROWTH (aquatic vegetation), D.O./OXYGEN DEMAND, Nutrients

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: AGRICULTURE, Habitat Modification

Resolution/Management Information

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

Resolution Potential: Medium

Further Details

Overview

Aquatic life support and recreational uses in Lower/Upper York Lakes may experience minor impacts/threats due to low dissolved oxygen in deeper portions of the lake. These conditions may be naturally occurring.

Water Quality Sampling

The lake was last sampled by NYSDEC during a 1998 Lake Classification and Inventory (LCI) evaluation. This monitoring revealed hypoxia below 9 meters and anoxia below 12 meters during the summer months. While the impact of these conditions may or may not affect the fishery (in fact, they could represent natural lake conditions), they suggest at least threat to aquatic life. (DEC/DOW, BWM/Lake Services, August 2000).

Previous Assessment

Concern was raised by local agencies during a previous assessment in 1998 regarding impacts to recreational uses (swimming, fishing, boating) due to excessive weed growth in the lake. Weed harvesting to control rooted aquatic vegetation along the shore of the lake has been practiced in the past, but not at that time. Current conditions in the lake need to be verified. (DEC/DOW, BWAM/WQAS, August 2009)

Section 303(d) Listing

Lower/Upper York Lakes are included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included among the waters listed in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. This part of the List recognizes waterbodies where low dissolved oxygen in lake bottom waters may be the result of morphology and other natural conditions in thermally stratified lakes. This updated assessment is inconclusive regarding the level of fishery impact due to low dissolved oxygen and whether any incidences of low dissolved oxygen are naturally occurring. However because NYS water quality standards for dissolved oxygen do not include an explicit exception for natural conditions or averaging of dissolved oxygen over lake depth, USEPA requires that the Section 303(d) List recognize such waters. (DEC/DOW, BWAM/WQAS, June 2009)

Goodale Lake (0602-0089)

NoKnownImpct

Waterbody Location Information

Revised: 09/15/2009

Water Index No:	SR- 44-14-60-P67b	Drain Basin:	Susquehanna River
Hydro Unit Code:	02050102/080	Str Class:	C
Waterbody Type:	Lake	Reg/County:	7/Cortland Co. (12)
Waterbody Size:	38.0 Acres	Quad Map:	HOMER (K-16-1)
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	Resolution Potential: n/a
TMDL/303d Status:	n/a	

Further Details

Water Quality Sampling

Goodale Lake was sampled as part of the NYSDEC Lake Classification and Inventory (LCI) screening effort in 2008. Nutrient, chlorophyll a and clarity measurements taken at that time revealed no significant eutrophication of the lake and algal growth did not appear to impact recreational uses. Measurement of dissolved oxygen did not indicate any D.O. depletion that would affect the fishery or other aquatic resources. (DEC/DOW, BWAM/LCI, September 2009)

Tully Lake (0602-0018)

Need Verific

Waterbody Location Information

Revised: 09/14/2009

Water Index No:	SR- 44-14-60-P68	Drain Basin:	Susquehanna River
Hydro Unit Code:	02050102/080	Str Class:	B
Waterbody Type:	Lake (Unknown Trophic)	Reg/County:	7/Cortland Co. (12) ...
Waterbody Size:	226.1 Acres	Quad Map:	OTISCO VALLEY (J-16-4)
Seg Description:	entire lake		

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

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

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: D.O./OXYGEN DEMAND, Algal/Weed Growth (aquatic vegetation)

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: AGRICULTURE, Habitat Modification

Resolution/Management Information

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

Further Details

Overview

Aquatic life support and recreational uses in Tully Lake may experience minor impacts/threats due to low dissolved oxygen in deeper portions of the lake. These conditions may be naturally occurring. Weed growth may also be contributing to recreational use impacts.

Previous Assessment

Concerns were raised during previous assessments in 1998 that aquatic life support and recreational uses may be threatened by low dissolved oxygen. These conditions were noted during a 1998 Lake Classification and Inventory (LCI) evaluation. While the impact of these conditions may or may not affect the fishery (in fact, they could represent natural lake conditions), they suggest a possible threat to aquatic life and should be verified. (DEC/DOW, BWAM/WQAS, August 2009).

Public bathing and other recreational uses (swimming, fishing, boating) in the lake are also considered threatened by excessive weed growth (muskgrass) in the lake. Access to open water is difficult at times. Weed harvesting to control rooted aquatic vegetation along the shore of the lake has been conducted occasionally, most recently in 1999. A lake

management plan was developed jointly by Onondaga and Cortland Counties. (Onondaga County WQCC, December 2000)

The Tully WWTP permit was modified in 1990 to include a limit on phosphorus. (DEC/DOW, Region 7, 1998)

Section 303(d) Listing

Tully Lake is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included among the waters listed in Appendix B - Waters Not Meeting Dissolved Oxygen Standards. This part of the List recognizes waterbodies where low dissolved oxygen in lake bottom waters may be the result of morphology and other natural conditions in thermally stratified lakes. This updated assessment is inconclusive regarding the level of fishery impact due to low dissolved oxygen and whether any incidences of low dissolved oxygen are naturally occurring. However because NYS water quality standards for dissolved oxygen do not include an explicit exception for natural conditions or averaging of dissolved oxygen over lake depth, USEPA requires that the Section 303(d) List recognize such waters. (DEC/DOW, BWAM/WQAS, June 2009)

Song Lake (0602-0019)

MinorImpacts

Waterbody Location Information

Revised: 07/02/2009

Water Index No: SR- 44-14-60-P68-P72
Hydro Unit Code: 02050102/080 **Str Class:** B
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 105.4 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Cortland Co. (12)
Quad Map: OTISCO VALLEY (J-16-4)

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

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

Type of Pollutant(s)

Known: - - -
Suspected: ALGAL/WEED GROWTH (aquatic vegetation), NUTRIENTS (phosphorus)
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: On-Site/Septic Syst

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

Public Bathing and other recreational uses in Song Lake are thought to experience minor impacts due to elevated nutrient levels that contribute to algal and weed growth. Agricultural activities and other nonpoint sources in the watershed are the likely source of the pollutants.

Water Quality Sampling

Song Lake was sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) in 2007. Prior to that, the lake was sampling through CSLAP in 1988. An Interpretive Summary report of the findings of this sampling was published in 2008. These data indicate that the lake continues to be best characterized as mesoeutrophic, or moderately productive. Phosphorus levels in the lake occasionally exceeded the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically exceed what is the recommended minimum for swimming beaches. Measurements of pH are somewhat high but typically fall within the state water quality range of 6.5 to 8.5. The lake water is slightly colored, but color does not limit water transparency. (DEC/DOW, BWAM/CSLAP, January 2008)

Recreational Assessment

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 mostly favorable in 2008. The recreational suitability of the lake is described most frequently as "could not be nicer" or "excellent." The lake itself is most often described as "not quite crystal clear" or having "definite algal greenness," an assessment that is somewhat more favorable than occurs in lakes with similar water quality. Assessments have noted that aquatic plants do not grow to the lake surface. (DEC/DOW, BWAM/CSLAP, January 2008)

Lake Uses

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.

Previous Assessment

Based on previous CSLAP sampling in 1988, recreational uses in Song Lake were assessed as possibly being stressed. However impacts to the lake were noted as needing verification. The more recent sampling suggests impacts to uses are present but fairly minor. (DEC/DOW, BWM/Lake Services, January 2008).

Segment Description

This segment includes the total area of the lake.

Crooked Lake (0602-0090)

NoKnownImpct

Waterbody Location Information

Revised: 07/08/2009

Water Index No:	SR- 44-14-60-P68-P73	Drain Basin:	Susquehanna River
Hydro Unit Code:	02050102/080	Str Class:	B
Waterbody Type:	Lake (Mesotrophic)	Reg/County:	7/Onondaga Co. (34)
Waterbody Size:	105.6 Acres	Quad Map:	OTISCO VALLEY (J-16-4)
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	Resolution Potential: n/a
TMDL/303d Status:	n/a	

Further Details

Water Quality Sampling

Crooked Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1986 through 1990 and from 1993 continuing through 1998. An Interpretive Summary report of the findings of this sampling was published in 1999. These data indicate that the lake continues to be best characterized as mesotrophic, or moderately productive. Phosphorus levels in the lake only rarely exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements routinely exceed the recommended minimum for swimming beaches. Measurements of pH are occasionally high but typically fall within the state water quality range of 6.5 to 8.5. (DEC/DOW, BWAM/CSLAP, 1999)

Recreational Assessment

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. The recreational suitability of the lake is described most frequently as "excellent" to "slightly" impacted. The lake itself is most often described as "not quite crystal clear" and occasionally as "having a definite algal greenness," an assessment that is consistent with measured water quality characteristics. Assessments have noted that rooted aquatic plants typically grow to the lake surface, but are not frequently cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, 1999)

Lake Uses

This lake waterbody is designated class B, suitable for a public bathing beach, for general recreation use and aquatic life support, but not for drinking 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.

Segment Description

This segment includes the total area of the entire lake.