



Tioughnioga River Watershed (0205010204)

Water Index Number

SR- 44-14 (portion 1)
 SR- 44-14 (portion 2)
 SR- 44-14 (portion 3)
 SR- 44-14- 1 thru 26 (selected)
 SR- 44-14-10
 SR- 44-14-27
 SR- 44-14-30
 SR- 44-14-33
 SR- 44-14-38
 SR- 44-14-43
 SR- 44-14-58
 SR- 44-14-58

Waterbody Segment

Tioughnioga River, Lower, Main Stem (0602-0066)
 Tioughnioga River, Middle, and mnr tribs (0602-0067)
 Tioughnioga River, Upper, and mnr tribs (0602-0002)
 Minor Tribs to Lower Tioughnioga River (0602-0123)
 Halfway/Ticknor Brook and tribs (0602-0124)
See Otselic River Watershed
 Dudley Creek and tribs (0602-0037)
 Jennings Creek/Big Brook and tribs (0602-0131)
 Hunts Creek and tribs (0602-0054)
 Gridley Creek and tribs (0602-0055)
 Trout Brook, Lower, and tribs (0602-0056)
 Trout Brook, Upper, and tribs (0602-0057)

Category

NoKnownImpct
 NoKnownImpct
 NoKnownImpct
 UnAssessed
 NoKnownImpct
 Minor Impacts
 NoKnownImpct
 NoKnownImpct
 NoKnownImpct
 NoKnownImpct
 NoKnownImpct
 NoKnownImpct

Tioughnioga River, Lower, Main Stem (0602-0066)

NoKnownImpct

Waterbody Location Information

Revised: 07/16/2009

Water Index No:	SR- 44-14 (portion 1)	Drain Basin:	Susquehanna River
Hydro Unit Code:	02050102/100	Str Class:	B
Waterbody Type:	River	Reg/County:	7/Broome Co. (4)
Waterbody Size:	14.9 Miles	Quad Map:	WHITNEY POINT (L-17-4) ...
Seg Description:	river from mouth to Whitney Point		

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 the Tioughnioga River in Chenango Forks (at Route 12) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. These results are consistent with previous sampling at this site in 1997. (DEC/DOW, BWAM/SBU, January 2009)

Water Quality Management

The Village of Whitney Point, located at the confluence of the Otselic and Tioughnioga Rivers, completed construction of a new sewage treatment plant in December 2007. The plant, which is designed to handle up to 110,000 gpd, serves the village and service is being extended to some nearby areas as well. Prior to the plant, going online, on-site wastewater (septic) systems, many of which were failing, served most homes in the village. (DEC/DOW, Region 7, June 2009)

Concerns were raised in previous assessments regarding the impact of flood control practices in Whitney Point Reservoir on recreational uses in the river. A new reservoir water release scenario is going into affect next year that will provide for additional releases from the reservoir during periods of low flow. This is expected to benefit the river uses. SRBC will be evaluating impacts of the low flow releases. (DEC/DFWMR, Region 7, June 2009)

Segment Description

This segment includes the main stem portion of the river from the mouth in Chenango Forks to the Otselic River (-27) in Whitney Point. This reach of the river is Class B.

Tioughnioga River, Middle, and mnr tribs (0602-0067) NoKnownImpct

Waterbody Location Information

Revised: 07/09/2009

Water Index No: SR- 44-14 (portion 2) **Drain Basin:** Susquehanna River
Hydro Unit Code: 02050102/100 **Str Class:** B Chenango River
Waterbody Type: River **Reg/County:** 7/Broome Co. (4) ...
Waterbody Size: 21.3 Miles **Quad Map:** MARATHON (L-16-2) ...
Seg Description: river and select tribs, fr Whitney Pt to Messengerville

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

Biological (macroinvertebrate) sampling of the Tioughnioga River in Lisle indicated the stream to be non-impacted. Filter-feeding caddisflies dominated the sample, but diversity was high with many mayflies present. A RIBS Intensive Network Monitoring site was located on the river in Marathon in 1998. Chemical monitoring at the site indicates no significant parameters of concern and water quality was assessed as good. A fishery assessment found an abundant and diverse fishery with suitable habitat. (DEC/DOW, RIBS, 2001)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the Otselic River (-27) in Whitney Point to Gridley Creek (-43) in Messengerville. The waters of this portion of the stream are Class B. Tribs to this reach/segment are Class C,C(T). Otselic River (-27), Dudley Creek (-30), Jennings Creek/Big Brook (-33), Hunts Creek (-38) and Gridley Creek (-43) are listed separately.

Tioughnioga River, Upper, and mnr tribs (0602-0002) NoKnownImpet

Waterbody Location Information

Revised: 09/16/2009

Water Index No: SR- 44-14 (portion 3) **Drain Basin:** Susquehanna River
Hydro Unit Code: 02050102/100 **Str Class:** B Chenango River
Waterbody Type: River (Med. Flow) **Reg/County:** 7/Cortland Co. (12)
Waterbody Size: 11.4 Miles **Quad Map:** MCGRAW (K-16-3) ...
Seg Description: river select tribs, from Messengersville to Cortland

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

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Tioughnioga River in Blodgett Mills, Cortland County, (at Blodgett Mills Road) was conducted in 2003 and 2004. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non- to slightly impacted water quality conditions, indicating good to very good water quality. Water column sampling revealed iron no parameter of concern to be present. Sediment screening for acute toxicity indicated possibility of slight sediment toxicity. While sediment sampling revealed some contaminants at low levels, based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Macroinvertebrates collected at this site and chemically analyzed for selected metals showed elevated levels of metals that should continue to be monitored. Toxicity testing using water from this location showed no significant mortality or reproductive effects on the test organism. Based on the consensus of these established assessment methods, overall water quality at this site shows that aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. (DEC/DOW, BWAR/RIBS, August 2009)

Previous biological sampling of the river below Cortland conducted in 1997 revealed a slightly impacted community. This marked a significant improvement of 1992 sampling results which reflected a moderate impact from the Cortland WWTP. The WWTP was upgraded in 1997-98. Sampling farther downstream in Blodgett Mills also found slight impacts. The fauna was dominated by filter-feeding midges and riffle beetles. Considerable macrophytes and duckweed were also noted. (DEC/DOW, BWAR/SBU, April 1998)

Previous Assessment

In a previous assessment effort in 1998, aquatic life in this reach of the Tioughnioga River was considered to be affected by nutrient loads, oxygen demand and various toxic pollutants. The Cortland WWTP was considered to be the most likely source. The plant has since been upgraded and more recent water quality sampling reveals improved conditions. (DEC/DOW, BWAM/WQAS, August 2009)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from Gridley Creek (-43) in Messengerville to the confluence of the East (-59) and West (-60) Branches in Cortland. The waters of this portion of the stream are Class B,B(T). Tribs to this reach/segment, including Hoxie Creek (-49), are also/primarily Class C,C(T),C(TS). Trout Brook (-58) is listed separately.

Halfway/Ticknor Brook and tribs (0602-0124)

NoKnownImpct

Waterbody Location Information

Revised: 06/25/2009

Water Index No: SR- 44-14-10
Hydro Unit Code: 02050102/100 **Str Class:** C
Waterbody Type: River
Waterbody Size: 45.2 Miles
Seg Description: entire stream and tribs

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Broome Co. (4)
Quad Map: ()

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 Halfway Creek in Itaska (at Cloverdale Road) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

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 Class C(T). Upper Halfway Brook continues along trib -8; the stream above trib -8 is known as Ticknor Brook.

Dudley Creek and tribs (0602-0037)

MinorImpacts

Waterbody Location Information

Revised: 06/25/2009

Water Index No:	SR- 44-14-30	Drain Basin:	Susquehanna River
Hydro Unit Code:	02050102/100	Str Class:	C
Waterbody Type:	River (Low Flow)	Reg/County:	7/Broome Co. (4) ...
Waterbody Size:	66.7 Miles	Quad Map:	MARATHON (L-16-2) ...
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, Nutrients, Thermal Changes
Possible: - - -

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION (stream bulldozing), STREAMBANK EROSION
Suspected: Agriculture (cattle grazing)
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

While water quality in Dudley Creek is generally good, aquatic habitat in the stream and its tribs is known to experience impacts due to the loss of riparian cover, streambank erosion and habitat modification (including bulldozing in the stream) limit the survival of wild brook trout. The county has expressed concerns about nonpoint runoff from agricultural activity and modest residential development in the watershed that may affect water quality. Restoration and protection of the stream has been identified as a high priority by local agencies. (DEC/DFWMR, Region 7 and Broome County WQCC, October 2000)

Water Quality Sampling

A biological (macroinvertebrate) assessment of Dudley Creek in Lisle (at Walker Avenue) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated 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 elevated enrichment in the stream and fauna that is most similar to communities influenced by excessive silt and sedimentation. In spite of these minor impacts, aquatic life support is considered to be fully supported in the stream. These results show somewhat

reduced water quality from sampling conducted at the same site in 1997 that showed non-impacted conditions. (DEC/DOW, BWAM/SBU, January 2009)

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 Culver Creek (-3), are Class C,C(T),C(TS).

Jennings Creek/Big Brook and tribs (0602-0131)

NoKnownImpct

Waterbody Location Information

Revised: 06/25/2009

Water Index No: SR- 44-14-33
Hydro Unit Code: 02050102/100 **Str Class:** C
Waterbody Type: River
Waterbody Size: 31.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Broome Co. (4)
Quad Map: ()

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 Jennings Creek/Big Brook in Killawog (at Jennings Creek Road) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

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 Class C,C(T).

Hunts Creek and tribs (0602-0054)

NoKnownImpet

Waterbody Location Information

Revised: 06/25/2009

Water Index No: SR- 44-14-38
Hydro Unit Code: 02050102/100 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 19.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Cortland Co. (12)
Quad Map: MARATHON (L-16-2) ...

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

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Hunts Creek in Marathon (at Galatia Road/CR 116) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Previous Assessment

Concerns were raised by local agencies in previous (1998) assessments regarding impacts from silt/sedimentation from stream and roadbank erosion. However this more recent sampling indicates there are no significant impacts to the stream from these or other sources.

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 are Class C.

Gridley Creek and tribs (0602-0055)

NoKnownImpet

Waterbody Location Information

Revised: 06/25/2009

Water Index No: SR- 44-14-43
Hydro Unit Code: 02050102/100 **Str Class:** C
Waterbody Type: River (Low Flow) **Reg/County:** 7/Cortland Co. (12)
Waterbody Size: 27.1 Miles **Quad Map:** MARATHON (L-16-2) ...
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:** n/a
TMDL/303d Status: n/a

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Gridley Creek in Messengerville (at Francis Road) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Previous Assessment

Water quality concerns include planned development of a ski resort, municipal discharges to the creek and impact on water supply aquifer. (Cortland County WQCC, April 1999)

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 are Class C.

Trout Brook, Lower, and tribs (0602-0056)

NoKnownImpct

Waterbody Location Information

Revised: 06/26/2009

Water Index No: SR- 44-14-58
Hydro Unit Code: 02050102/100 **Str Class:** C
Waterbody Type: River (Low Flow) **Reg/County:** 7/Cortland Co. (12)
Waterbody Size: 57.0 Miles **Quad Map:** MCGRAW (K-16-3) ...
Seg Description: stream and tribs, from mouth to McGraw

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) survey/assessment of Trout Brook in Pokeville (at Route 81 overpass) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. These results are reflect an improvement compared with previous sampling at this site in 1997 which found slight impacts. (DEC/DOW, BWAM/SBU, January 2009)

A biological (macroinvertebrate) assessment of a trib to Trout Brook, Smith Brook in McGraw (at East Academy Street) was also conducted as part of the RIBS biological screening effort in 2003. Sampling results also indicated non-impacted conditions and the aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to/including Smith Brook (-4) in McGraw. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Mosquito Creek (-3) and

Smith Brook (-4), are Class C,C(T). Upper Trout Brook is listed separately.

Trout Brook, Upper, and tribs (0602-0057)

NoKnownImpet

Waterbody Location Information

Revised: 06/26/2009

Water Index No:	SR- 44-14-58	Drain Basin:	Susquehanna River
Hydro Unit Code:	02050102/100	Str Class:	C
Waterbody Type:	River	Reg/County:	7/Cortland Co. (12)
Waterbody Size:	14.8 Miles	Quad Map:	MCGRAW (K-16-3)
Seg Description:	stream and tribs, above McGraw		

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 Trout Brook below this reach in Pokeville (at Route 81 overpass) 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 are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. These results are consistent with previous sampling at this site in 1997. Though this sampling point is just below the described segment, it is considered representative of water quality in the upper reach. This segment is listed as being evaluated rather than monitored. (DEC/DOW, BWAM/SBU, January 2009)

Previous Assessment

Concern had been raised by local agencies during previous (1999) assessments about impacts from silt/sedimentation from stream and roadbank erosion. Severe erosion has been noted in several areas along McGraw-Marathon Road. Several streambank stabilization projects have been undertaken. However these more recent sampling results indicate that these impacts do not have a significant effect on water quality. (Cortland County WQCC, April 1999)

Segment Description

This segment includes the portion of the stream and all tribs above Smith Brook (-4) in McGraw. The waters of this portion of the stream are Class C,C(TS). Tribs to this reach/segment, including Mayberry Brook (-7) and Solon Creek (-11), are Class C,C(T),C(TS). Lower Trout Brook is listed separately.