

# Waterbody Inventory for The Tioga/Canisteo River Watershed

Water Index Number	Waterbody Segment	Category
<b>Tioga River Watershed</b>		
Pa 3-57	Tioga River, Main Stem (0503-0004)	MinorImpacts
Pa 3-57- 1 thru 20	Minor Tribs to Tioga River (0503-0010)	UnAssessed
<b>Lower/Middle Canisteo River Watershed</b>		
Pa 3-57- 5 (portion 1)	Canisteo River, Lower, and minor tribs (0503-0011)	NoKnownImpct
Pa 3-57- 5 (portion 2)	Canisteo River, Middle, and minor tribs (0503-0006)	MinorImpacts
Pa 3-57- 5 (portion 3)	Canisteo River, Middle, and minor tribs (0503-0012)	MinorImpacts
Pa 3-57- 5 (portion 4)	Canisteo River, Middle, and minor tribs (0503-0001)	Impaired Seg
Pa 3-57- 5- 5	Goodhue Creek and tribs (0503-0014)	UnAssessed
Pa 3-57- 5- 5-P27	Goodhue Lake (0503-0015)	UnAssessed
Pa 3-57- 5- 8	Tuscarora Creek, Lower, and tribs (0503-0016)	NoKnownImpct
Pa 3-57- 5- 8	Tuscarora Creek, Middle, and tribs (0503-0017)	NoKnownImpct
Pa 3-57- 5- 8	Tuscarora Creek, Upper, and tribs (0503-0018)	Need Verific
Pa 3-57- 5- 8-11	North Branch Tuscarora, Lower, and tribs (0503-0019)	NoKnownImpct
Pa 3-57- 5- 8-11	North Branch Tuscarora, Upper, and tribs (0503-0020)	UnAssessed
Pa 3-57- 5- 8-21	South Branch Tuscarora Creek and tribs (0503-0021)	UnAssessed
Pa 3-57- 5-19-P28	Cranberry Pond (0503-0022)	UnAssessed
Pa 3-57- 5-38	Colonel Bills Creek (0503-0023)	MinorImpacts
Pa 3-57- 5-40	Bennetts Creek, Lower, and minor tribs (0503-0007)	MinorImpacts
Pa 3-57- 5-40	Bennetts Creek, Upper, and tribs (0503-0024)	MinorImpacts
Pa 3-57- 5-40- 1	Purdy Creek and tribs (0503-0025)	MinorImpacts
<b>Canacadea Creek Watershed</b>		
Pa 3-57- 5-47	Canacadea Creek, Lower, and tribs (0503-0008)	MinorImpacts
Pa 3-57- 5-47	Canacadea Creek, Upper, and minor tribs (0503-0005)	MinorImpacts
Pa 3-57- 5-47- 4	Karr Valley Creek and tribs (0503-0026)	NoKnownImpct
Pa 3-57- 5-47- 9-P??	Ag Tech Lake (0503-0027)	UnAssessed
Pa 3-57- 5-47-P27c	Almond Lake (0503-0003)	Impaired Seg
<b>Upper Canisteo River Watershed</b>		
Pa 3-57- 5 (portion 5)	Canisteo River, Upper, and minor trbs (0503-0013)	NoKnownImpct
Pa 3-57- 5-48	Big Creek and tribs (0503-0028)	UnAssessed
Pa 3-57- 5-49	Seeley/Carrington Cr, Lower, and tribs (0503-0029)	NoKnownImpct
Pa 3-57- 5-49	Seeley/Carrington Cr, Upper, and tribs (0503-0030)	UnAssessed
Pa 3-57- 5-49-P34,P35,P36	Hornell Reservoirs (0503-0031)	UnAssessed
Pa 3-57- 5-52- 1-P??	Arkport Reservoir (0503-0032)	UnAssessed

# ...Tioga/Canisteo River Watershed

Water Index Number	Waterbody Segment	Category
<b>Upper Tioga River Watershed</b>		
Pa 3-57- 9	Glendening Creek/South Branch and tribs (0503-0033)	UnAssessed
Pa 3-57- 9- 2	North Branch Glendening Creek and tribs (0503-0034)	UnAssessed
Pa 3-57-21	Cowanesque River and tribs (0503-0035)	UnAssessed
<b>Tribs to Pennsylvania</b>		
Pa 11 thru 20	Minor Tribs to Pennsylvania (0503-0036)	<b>NoKnownImpct</b>
Pa 21 thru 29	Minor Tribs to Pennsylvania (0503-0037)	UnAssessed
Pa 25	Troups Creek, Lower, and tribs (0503-0009)	<b>NoKnownImpct</b>
Pa 25	Troups Creek, Upper, and tribs (0503-0038)	<b>NoKnownImpct</b>

# Tioga River, Main Stem (0503-0004)

# MinorImpacts

## Waterbody Location Information

Revised: 02/05/2007

**Water Index No:** Pa 3-57  
**Hydro Unit Code:** 02050104/170      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 15.2 Miles  
**Seg Description:** from Painted Post to NY-Pa state line

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** ADDISON (M-12-4)

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

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

### Type of Pollutant(s)

Known: SILT/SEDIMENT  
Suspected: WATER LEVEL/FLOW, ACID/BASE (PH), Metals  
Possible: - - -

### Source(s) of Pollutant(s)

Known: Streambank Erosion  
Suspected: HYDRO MODIFICATION (reservoir releases), OTHER SOURCE (acid mine drainage), Resource Extraction (acid mine drainage)  
Possible: Landfill/Land Disp.

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 3 (Cause Identified, Source Unknown)  
**Lead Agency/Office:** DOW/Reg8      **Resolution Potential:** Medium  
**TMDL/303d Status:** n/a

## Further Details

Aquatic life support in Tioga River is thought to experience minor impacts due to various pollutants. The more significant impacts are in the upper reaches of the river, near the Pennsylvania border. Acid mine drainage and siltation have been suggested as sources of the impacts. The stream also experiences hydrologic/habitat impacts. Upstream reservoir releases and steep gradient, flashy tributary streams result in excessive streambank erosion and sediment loads.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Tioga River in Presho, Steuben County, (at Presho-Lindley Road) was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. The biological (macroinvertebrate) assessment for the site indicated non-impacted water quality conditions although indicators of nutrient enrichment were present. Clean-water mayflies dominated the fauna and large hellgrammites were present. Crayfish collected for tissue analysis did not show metals, PCBs, or PAHs above levels of concern, but elevated levels of pesticides were present. Water column sampling revealed no substances to be parameters of concern. Coliform levels varied widely, with some very high counts. Bottom sediment sampling found indications

of some toxicity but not at a level sufficient to cause chronic impacts to aquatic life. Toxicity testing of the water column showed no significant mortality or reproductive impacts. A fishery assessment found fish community metrics at this site reflected good water quality, with 3 of 4 metrics in the slightly impacted category. Many tolerant species were present, including bluntnose minnow, central stoneroller, golden shiner, spotfin shiner, fathead minnow, creek chub, and white sucker. Also numerous were banded darter, shield darter, tessellated darter, smallmouth bass, and river chub. (DEC/DOW, BWAM/RIBS, January 2005)

Biological (macroinvertebrate) assessments of the Tioga River Black Creek in Gang Mills (at RR bridge off Lumber Street) and in Presho (at Presho-Lindley Road) were also conducted in 2002 as part of the RIBS Biological Screening effort. Sampling results at the downstream site in Gang Mills indicated non-impacted water quality conditions. The fauna was dominated by mayflies and included many clean-waters stoneflies, caddisflies and hellgrammites. All metrics were within the range on non-impacted. However the river was assessed as slightly impacted at the Presho site, and sampling over the past 10-15 years reveals a steady declining trend in water quality at this site. Impact Source Determination suggests siltation as the primary contributor to the impacts, however this needs to be verified. (DEC/DOW, BWAM/SBU, June 2005)

Sampling results from a 2006 Susquehanna River Basin Chemung River Subbasin Survey indicated no biological impacts and excellent habitat condition. Previous sampling at this site in 1998 found slight impacts. (SRBC, March 2007)

Acid mine drainage in the headwaters of the Tioga River (in Pennsylvania) contribute to poor water quality in the river. The Tioga-Hammond Reservoir acts to buffer some of the more serious effects of the acid mine drainage, however there is some evidence of continuing water quality impacts below the reservoir in New York State. Plans were designed to further reduce the effects of the low pH waters by mixing Tioga-Hammond Reservoir and the Cowanesque Reservoir waters. Initially, however, the location and operation of the release gate allowed high sediment loads to enter the stream. The Army Corps of Engineers has since (2000) addressed this issue. (DEC/DOW, BWAM & Region 8 and SRBC and Steuben County WQCC, 2004)

Additional bank erosion has also been reported in recent years. Losses were measured at 5-6 acres of agricultural land, 15-20 feet deep. This erosion is the result of upstream reservoir releases at the Cowanesque Dam. Prolonged high water levels saturate the silt loam banks are result in bank failures. Additional bank stress is caused by deposition of sediment loads at the mouths of steep gradient tributary streams (Steamtown Creek, Watson Creek, others) which diverts flows against opposite banks. (Steuben County WQCC, August 2004)

Previously the Lindley Landfill, an inactive hazardous waste disposal site (Site No. 8-51-008) on the South Branch of Glendening Creek had been suggested as a possible source of contamination. However all remediation work in conjunction with a 1998 Record of Decision was determined to have been completed in conformance with the ROD and the operation and maintenance (O&M) plan for the landfill has been implemented. There is ongoing long-term groundwater monitoring at the site to ensure that nearby private wells will not be impacted. Completion of the remedial action eliminated any direct contact exposure pathways. (DEC/DER, Environmental Site Remediation Database, 2006)

This segment includes the main stem of the river from the mouth at the confluence with the Cohocton River in Painted Post to NY-Pa state line near Lawrenceville. The waters of the stream are Class C. This segment was previously listed as 0501-0001. (The segment ID was changed to reflect the correct basin/sub-basin location).

# Canisteo River, Lower, and minor tribs (0503-0011)

NoKnownImpct

## Waterbody Location Information

Revised: 01/31/2007

**Water Index No:** Pa 3-57- 5 (portion 1)      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/070      **Str Class:** C      Tioga River  
**Waterbody Type:** River      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 22.5 Miles      **Quad Map:** ADDISON (M-12-4)  
**Seg Description:** stream and selected tribs, from mouth to Addison

## 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 Canisteo River in Erwins (at Route 73/Hills Road) was conducted in 2002. Field sampling results indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. A sample taken just upstream of this segment in 2002 was laboratory-processed and found to be non-impacted as well. 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, June 2005)

This segment includes the portion of the stream and selected/smaller tribs from the mouth in Erwins to Tuscarora Creek (-8) in Addison. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Cole Creek (-1), Beekman Hollow Creek (-3) and Reuben Brook (-6a), are also Class C. Goodhue Creek (-5) and Tuscarora Creek (-8) are listed separately.

# Canisteo River, Middle, and minor tribs (0503-0006)

# MinorImpacts

## Waterbody Location Information

Revised: 02/05/2007

**Water Index No:** Pa 3-57- 5 (portion 2)      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/070      **Str Class:** C      Tioga River  
**Waterbody Type:** River      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 70.1 Miles      **Quad Map:** RATHBONE (M-11-2)  
**Seg Description:** stream and selected tribs, from Addison to Cameron

## 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: SILT/SEDIMENT  
Suspected: ---  
Possible: ---

### Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, Roadbank Erosion  
Suspected: ---  
Possible: Agriculture

## 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

Hydrologic/habitat uses in this portion of Canisteo River are thought to experience minor impacts due to silt/sedimentation from streambank erosion.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Canisteo River in Derby Switch, Steuben County, (at Newcomb Road) was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. The biological (macroinvertebrate) assessment for the site indicated non-impacted water quality conditions although indicators of nutrient enrichment were present. Abundant filamentous algae, but the fauna was diverse. Crayfish collected for tissue analysis did not show metals, PCBs, or PAHs above levels of concern, but elevated levels of pesticides were present. Water column sampling revealed iron to be a parameter of concern, exceeding its assessment criterion in three of ten samples collected. Bottom sediment sampling found indications of some toxicity but not at a level sufficient to cause chronic impacts to aquatic life. Toxicity testing of the water column showed no significant mortality or reproductive impacts. (DEC/DOW, BWAM/RIBS, January 2005)

Biological (macroinvertebrate) assessments of Canisteo River in Derby Switch (at Route 73/Hills Road) and Cameron

(at Route 22) were also conducted in 2002 as part of the RIBS Biological Screening effort. Sampling results indicated non-impacted water quality conditions at the downstream site in Derby Switch. The most recent sampling prior to that was in 1997-98 when slightly impacted conditions were found. At the upstream site in Cameron, water quality was assessed as slightly impacted. Nutrient enrichment and siltation were the primary factors influencing the fauna. However, nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, June 2005)

Silt and sedimentation from the erosion of stream banks is thought to negatively impact the stream habitat and limit the fishery. Silty soils and the absence of riparian buffer zones make river banks highly susceptible to erosion. (One farm field in Rathbone lost 2 acres to erosion during a single flood event in 1996.) High sediment loads from Colonel Bills Creek and other tributaries also contribute to the problem. Agriculture and roadbank erosion are also cited as possible sources. Annual air photographs of the stream by Steuben County SWCD have documented the erosion. A road ditch assessment of this watershed by Upper Susquehanna Coalition/SWCD also documents the erosion. (Steuben County WQCC, August 2004)

This segment includes the portion of the stream and all tribs from Tuscarora Creek (-8) in Addison to/including Cameron Creek (-22) in Cameron. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Catherine Creek (-10), Canatoga Creek (-12), Myers Creek (-14), Tracy Creek (-18) and Helmer Creek (-20), are also Class C. Tuscarora Creek (-8) is listed separately.

# Canisteo River, Middle, and minor tribs (0503-0012)

# MinorImpacts

## Waterbody Location Information

Revised: 02/05/2007

**Water Index No:** Pa 3-57- 5 (portion 3)      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/070      **Str Class:** C      Tioga River  
**Waterbody Type:** River      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 60.9 Miles      **Quad Map:** CANISTEO (L-10-3)  
**Seg Description:** stream and selected tribs, from Cameron to Canisteo

## 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: SILT/SEDIMENT  
Suspected: ---  
Possible: ---

### Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, Roadbank Erosion  
Suspected: ---  
Possible: Agriculture

## Resolution/Management Information

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

## Further Details

Hydrologic/habitat uses in this portion of the Canisteo River are thought to experience minor impacts due to silt/sedimentation from streambank erosion.

A biological (macroinvertebrate) assessment of Canisteo River below Canisteo (at Carson bridge) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. Nutrient enrichment and siltation were the primary factors influencing the fauna. However, 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. (DEC/DOW, BWAM/SBU, June 2005)

Silt and sedimentation from the erosion of stream banks is thought to negatively impact the stream habitat and limit the fishery. Silty soils and the absence of riparian buffer zones make river banks highly susceptible to erosion from flashy flow in steep gradient streams and tribs. Erosion of streambanks and agricultural property has occurred at various sites and multiple bank failures have been noted. High sediment loads from other tributaries, including Colonel Bills Creek and Bennetts Creek, also contribute to the problem. Annual air photographs of the stream by Steuben County SWCD have documented the erosion. A road ditch assessment of this watershed by Upper Susquehanna Coalition/SWCD also

documents road bank erosion. (Steuben County WQCC, August 2004)

This segment includes the portion of the stream and selected/smaller tribs from Cameron Creek (-22) in Cameron to Bennetts Creek (-40) in Canisteo. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Mud Hollow Brook (-32), Baker Creek (-36), Taylor Hollow Creek (-36a) and Baker/Orbs Creek (-39), are Class C,C(T). Colonel Bills Creek (-38) and Bennetts Creek (-40) are listed separately.

# Canisteo River, Middle, and minor tribs (0503-0001)

Impaired Seg

## Waterbody Location Information

Revised: 02/05/2007

**Water Index No:** Pa 3-57- 5 (portion 4)      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/070      **Str Class:** C      Tioga River  
**Waterbody Type:** River      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 57.5 Miles      **Quad Map:** HORNELL (L-10-4)  
**Seg Description:** stream and selected tribs, from Canisteo to Hornell

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

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

### Type of Pollutant(s)

Known: WATER LEVEL/FLOW, RESTRICTED PASSAGE  
Suspected: UNKNOWN TOXICITY, Thermal Changes  
Possible: Chlorine, Silt/Sediment

### Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION  
Suspected: Urban/Storm Runoff  
Possible: UNKNOWN SOURCE, Landfill/Land Disp., Municipal

## Resolution/Management Information

**Issue Resolvability:** 1 (Needs Verification/Study (see STATUS))  
**Verification Status:** 2 (Problem Verified, Cause Unknown)  
**Lead Agency/Office:** DOW/BWAM      **Resolution Potential:** Medium  
**TMDL/303d Status:** 1\*

## Further Details

Aquatic life support in this portion of the Canisteo River is impaired by unknown toxicity. Possible sources of this impact have been suggested but the actual source has yet to be verified. Nonpoint source nutrient enrichment from within and above the segment watershed may also contribute to water quality impacts. Hydrologic/habitat uses in this reach of the Canisteo River is also impaired by habitat modification related to flood control projects in the City of Hornell. The conflicting uses of the river for flood control and fishery habitat may be difficult to resolve.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Canisteo River in Canisteo, Steuben County, (at Depot Street) was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. The biological (macroinvertebrate) assessment for the site indicated slightly impacted water quality conditions, an improvement over moderate impacts noted in 2002 (see below). Tolerant worms continue to represent a substantial portion of the fauna, likely reflecting effects of the Hornell Water Pollution Control Facility discharge, approximately 3 miles upstream. Habitat may also be a factor at this site, with the substrate consisting of rock and silt. Crayfish collected for tissue analysis did not show metals, PCBs, or PAHs above levels of concern, but levels of some pesticides

were elevated. Water column sampling revealed iron, aluminum and mercury to be parameters of concern; these substances exceeded the respective assessment criterion in two to four of the ten samples collected. Coliform sampling was limited but did reveal some high counts. Bottom sediment sampling found indications of some toxicity but not at a level sufficient to cause chronic impacts to aquatic life. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Fish community metrics reflected very good water quality. The most numerous species were spotfin shiner and tessellated darter. Also present were chain pickerel, rosyface shiner, mimic shiner, banded darter, largemouth bass, smallmouth bass, and rock bass. (DEC/DOW, BWAM/RIBS, January 2005)

A biological (macroinvertebrate) assessment of Canisteo River in Canisteo (at Depot Street) was also conducted in 2002 as part of the RIBS Biological Screening effort. Sampling results indicated moderately impacted water quality conditions. A significant biological impact consistent with chlorinated sewage wastes, similar to results for 1988 sampling, was found. However, the Hornell plant is not required to disinfect its effluent, so it is not a likely source of chlorine toxicity. Most recently the plant has been consistently meeting its tertiary treatment permit limits. Similar but somewhat more impacted results were found in Hornell (at Ashbaugh Hill Road) in 1988 sampling. (DEC/DOW, BWAM/SBU, June 2005)

It had also been suggested that the impact in this segment may be due, in part, to poor water quality in Canacadea Creek which enters the Canisteo above this site. However, follow-up biological sampling in 1989 indicated that, at that time, water quality impacts from this tributary stream were not as significant as those found in the vicinity of the facility discharge (B.Bode memo to Butler, 2/2/90).

Possible contamination of the stream from the adjacent Conrail Demolition Landfill Hazardous Waste Site (Site No. 8-51-002) in Hornell has also been noted. Phase II Remediation Investigation of the site was completed in 1992. Analysis of surface and groundwater confirmed the migration of contaminants. Initial studies showed significant levels of lead in sediment and PCB and benzene in the water column. The site has also been noted as a source of excessive siltation. Two other hazardous waste sites are also located in the area: a (former) General Electric Inactive Hazardous Waste Site (Site No. 8-51-009) and the Hornell Street Extension Hazardous Substance Waste Disposal Site. (DEC/DER, Hazardous Waste Site database, 2006).

The flood control project in the City of Hornell impairs fishery habitat in portions of the Canisteo River, as well as lower Canacadea Creek, Chauncey Run and Crosby Creek. The project includes 2 miles of channel paving, nearly 4 miles of channel widening and realignment over 5 miles of concrete flood wall, 6 miles of earthen levees with riprap protection, 5 check dams, 4 drop structures and 4 weirs. These structures and their maintenance requirements (including periodic sediment removal from check dams, etc) reduce in-stream habitat, restrict fish passage and limit recreational access to the river. (Steuben County WQCC, August 2004)

This segment includes the portion of the stream and selected/smaller tribs from Bennetts Creek (-40) in Canisteo to the Seneca Street Bridge in Hornell. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Hammer Creek (-41), Cunningham Creek (-42), Crosby Creek (-45) and Chauncey Run (-46), are also Class C. Bennetts Creek (-40) and Canacadea Creek (-47) are listed separately.

# Tuscarora Creek, Lower, and tribs (0503-0016)

NoKnownImpct

## Waterbody Location Information

Revised: 01/19/2007

**Water Index No:** Pa 3-57- 5- 8  
**Hydro Unit Code:** 02050104/060      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 44.2 Miles  
**Seg Description:** stream and tribs, from mouth to above South Addison

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** ADDISON (M-12-4)

## 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

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Tuscarora Creek in Addison, Steuben County, (at Orr Hill/South Road) was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. The biological (macroinvertebrate) assessment for the site indicated non-impacted water quality conditions. The fauna was dominated by clean-water mayflies. Crayfish collected for tissue analysis did not show metals, organochlorine pesticides, PCBs, or PAHs above levels of concern. Water column sampling revealed no substances to be parameters of concern. Bottom sediment sampling was not conducted at this site. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Fish community metrics reflected very good water quality. The fish community was dominated by longnose dace, blacknose dace, central stoneroller, and mottled sculpin. Other species included cutlips minnow, pearl dace, yellow bullhead, brown bullhead, banded darter, shield darter, largemouth bass, smallmouth bass, and rock bass. (DEC/DOW, BWAM/RIBS, January 2005)

A biological (macroinvertebrate) assessment of Tuscarora Creek in Addison (at South Street) was conducted in 2002. Field sampling results indicated non-impacted water quality conditions. Although the site is in an agricultural area and the stream had considerable filamentous algae and supersaturated dissolved oxygen indicating high productivity, the

fauna was diverse and dominated by sensitive mayflies. All screening criteria for waters having no known impacts were met. A 1997 sample from a site just above this reach in South Addison was laboratory-processed and revealed a similar assessment. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth in Addison to North Branch Tuscarora Creek above South Addison. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Elk Creek (-9), are also Class C. North Branch Tuscarora Creek (-11) is listed separately.

## Tuscarora Creek, Middle, and tribs (0503-0017)

NoKnownImpct

### Waterbody Location Information

Revised: 01/19/2007

**Water Index No:** Pa 3-57- 5- 8  
**Hydro Unit Code:** 02050104/060      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 22.2 Miles  
**Seg Description:** stream and tribs, from above South Addison to Woodhull

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** BORDEN (M-11-3)

### 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

Biological (macroinvertebrate) assessments of Tuscarora Creek in East Woodhull (at Route 417) and in Woodhull (at Main Street) were conducted in 2002. Field sampling results indicated non-impacted water quality conditions. Although the site is in an agricultural area and the stream had considerable filamentous algae and supersaturated dissolved oxygen indicating high productivity, the fauna was diverse and dominated by sensitive mayflies. All screening criteria for waters having no known impacts were met. A 1997 sample from a site in South Addison (at Route 85) was laboratory-processed and revealed a similar assessment. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from North Branch Tuscarora Creek above South Addison to South Branch Tuscarora Creek in Woodhull. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including East Lick Creek (-18), are also Class C. North Branch Tuscarora Creek (-11) and South Branch Tuscarora Creek (-21) are listed separately.

# Tuscarora Creek, Upper, and tribs (0503-0018)

Need Verific

## Waterbody Location Information

Revised: 02/05/2007

**Water Index No:** Pa 3-57- 5- 8  
**Hydro Unit Code:** 02050104/060      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 39.1 Miles  
**Seg Description:** stream and tribs, above Woodhull

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** WOODHULL (M-11-4)

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

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

### Type of Pollutant(s)

Known: ---  
Suspected: AESTHETICS, D.O./OXYGEN DEMAND, AMMONIA, NUTRIENTS  
Possible: Pathogens

### Source(s) of Pollutant(s)

Known: ---  
Suspected: MUNICIPAL (Jasper WWTP)  
Possible: ---

## 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

## Further Details

Aquatic life support and recreational uses in this portion of Tuscarora Creek may experience impacts from the wastewater treatment facility in the Hamlet of Jasper.

Construction of a new USBF (Upflow Sludge Blanket Filtration) wastewater treatment plant to address failing residential onsite septic systems in Jasper began in early May 2005, and the WWTP went on-line on in December 2005. The plant receives an average of about 15,000 GPD. However during its first year of operation the WWTP has been unable to consistently meet SPDES permit limits for: BOD, total suspended solids (TSS) and ammonia. Personnel of MRB Group (the consultant engineering firm) and Purestream (the supplier of the major equipment within the plant), are working with the operators of the plant to identify and solve the causes of these exceedences. (DEC/DOW, Region 8, January 2007)

The plant is located at the end of Grange Street in the Hamlet of Jasper, and uses an Upflow Sludge Blanket Filtration process. The plant and collection system serve approximately 117 EDU's (equivalent dwelling units) and consist of approximately 13,000 feet of 8-inch diameter sewer pipe, 2,500 feet of 2-inch diameter forcemain pipe, manholes, pumping stations, and grinder type pumping units. Grants totaling 2.13 million dollars from the Governor's Office for

Small Cities, US Department of Agriculture (Rural Development Section), the Appalachian Regional Commission and the Environmental Facilities Corporation made this 3.28 million-dollar project possible. (DEC/DOW, Region 8, January 2007)

A biological (macroinvertebrate) assessment of Tuscarora Creek in Woodhull (at Main Street) was conducted in 2002. Field sampling results indicated non-impacted water quality conditions. Although the site is in an agricultural area and the stream had considerable filamentous algae and supersaturated dissolved oxygen indicating high productivity, the fauna was diverse and dominated by sensitive mayflies. All screening criteria for waters having no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs above South Branch Tuscarora Creek in Woodhull. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. South Branch Tuscarora Creek (-21) is listed separately.

# North Branch Tuscarora, Lower, and tribs (0503-0019) NoKnownImpct

## Waterbody Location Information

Revised: 01/19/2007

**Water Index No:** Pa 3-57- 5- 8-11                      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/060           **Str Class:** C                      Tioga River  
**Waterbody Type:** River                      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 21.2 Miles                      **Quad Map:** BORDEN (M-11-3)  
**Seg Description:** stream and tribs, from mouth to Hedgesville

## 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) assessments of North Branch Tuscarora Creek near South Addison (at Holden Road) was conducted in 2002. Field sampling results indicated non-impacted water quality conditions. Although the site is in an agricultural area and the stream had considerable filamentous algae and supersaturated dissolved oxygen indicating high productivity, the fauna was diverse and dominated by sensitive mayflies. All screening criteria for waters having no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

Sampling results from a 2006 Susquehanna River Basin Chemung River Subbasin Survey indicated slight impacts, but these may have been the result of degraded habitat conditions rather than water quality conditions. Water chemistry results did not reveal any impacts. (SRBC, March 2007)

This segment includes the portion of the stream and all tribs from the mouth above South Addison to/including unnamed trib (-7) in Hedgesville. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Upper North Branch Tuscarora Creek is listed separately.

# Colonel Bills Creek (0503-0023)

# MinorImpacts

## Waterbody Location Information

Revised: 02/05/2007

<b>Water Index No:</b> Pa 3-57- 5-38	<b>Drain Basin:</b> Chemung River
<b>Hydro Unit Code:</b> 02050104/050	<b>Str Class:</b> C
<b>Waterbody Type:</b> River	<b>Reg/County:</b> 8/Steuben Co. (51)
<b>Waterbody Size:</b> 37.4 Miles	<b>Quad Map:</b> SOUTH CANISTEO (M-10-2)
<b>Seg Description:</b> entire stream and tribs	

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

<b>Use(s) Impacted</b>	<b>Severity</b>	<b>Problem Documentation</b>
Habitat/Hydrology	Stressed	Suspected

### Type of Pollutant(s)

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

### Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, Roadbank Erosion  
 Suspected: ---  
 Possible: Agriculture

## Resolution/Management Information

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

## Further Details

Hydrologic/habitat uses in Colonel Bills Creek are thought to experience minor impacts due to silt/sedimentation from streambank erosion.

Silt and sedimentation from the erosion of stream banks is thought to negatively impact the stream habitat and limit the fishery. Silty soils and the absence of riparian buffer zones make river banks highly susceptible to erosion from flashy flow in steep gradient streams and tribs. Sediment loads and deposition in this creek are among the most severe in the county. The municipal highway departments remove approximately 35,000 cubic yards of gravel from the lower reach of the stream annually. The stream is wide and shallow with multiple braided channels and no low flow channel. A road ditch assessment of this watershed by Upper Susquehanna Coalition/SWCD documents road bank erosion problems. Maintenance of flood control structures downstream of these sites require regular sediment removal by NYSDEC. (Steuben County WQCC, August 2004)

A biological (macroinvertebrate) assessment of Colonel Bill's Creek near Canisteo (at Route 36) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. The fauna was dominated by facultative midges that indicate nonpoint source nutrient enrichment. Some possible indications of toxicity were also noted. However,

nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including Gravel Run (-4), Two Bridge Run (-5), Red Spring Run (-7), Rock Run (-8), Jefferson Creek (-9), Dennis Creek (-10) and Milwaukee Creek (-11), are also Class C.



biological (macroinvertebrate) assessment for the site indicated slightly impacted water quality conditions. Silt and algae were prominent, and stoneflies were not found at the site. However, nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream. Crayfish collected for tissue analysis did not show metals, PCBs, or PAHs above levels of concern, although some elevated levels of pesticides were noted. Water column sampling revealed iron to be a parameter of concern, exceeding the assessment criterion in two of ten samples collected. Coliform levels varied widely, but some high counts were noted. Bottom sediment sampling found indications of some toxicity but not at a level sufficient to cause chronic impacts to aquatic life. Toxicity testing of the water column showed no significant mortality or reproductive impacts. Fish community metrics at this site reflected very good water quality, based on 2003 sampling. The most numerous species were tessellated darter, bluntnose minnow, white sucker, and banded darter. Also present were fantail darter, mottled sculpin, spottail shiner, and smallmouth bass. (DEC/DOW, BWAM/RIBS, January 2005)

Biological (macroinvertebrate) assessments of Bennetts Creek in Canisteo (at Route 36) and in Bennetts (at Route 248) were also conducted in 2002 as part of the RIBS Biological Screening effort. Field sampling results at both sites indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. Some agricultural effects were noted, including diatoms, filamentous algae and supersaturated dissolved oxygen levels. However, in spite of these observations, aquatic life support is considered to be fully supported in the stream. At site farther upstream in Greenwood was also field-assessed as non-impacted. (DEC/DOW, BWAM/SBU, June 2005)

For most of its length, Bennetts Creek flows through a mix of forest and agricultural lands, with scattered residential development. Near its mouth, the creek enters the Village of Canisteo where it is stabilized by two check dams and flanked by flood control levees.

This segment includes the portion of the stream and selected/smaller tribs from the mouth in Canisteo to/including Slate Creek (-6) in Bennetts. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Fall Creek (-2), Sugar Creek (-3) and Slate Creek (-6), are also Class C. Purdy Creek (-1) and Upper Bennetts Creek are listed separately.

# Bennetts Creek, Upper, and tribs (0503-0024)

# MinorImpacts

## Waterbody Location Information

Revised: 02/05/2007

<b>Water Index No:</b> Pa 3-57- 5-40	<b>Drain Basin:</b> Chemung River	
<b>Hydro Unit Code:</b> 02050104/040	<b>Str Class:</b> C	Tioga River
<b>Waterbody Type:</b> River	<b>Reg/County:</b> 8/Steuben Co. (51)	
<b>Waterbody Size:</b> 80.7 Miles	<b>Quad Map:</b> REXVILLE (M-10-4)	
<b>Seg Description:</b> stream and tribs, above Bennetts		

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

<b>Use(s) Impacted</b> Habitat/Hydrology	<b>Severity</b> Stressed	<b>Problem Documentation</b> Suspected
---------------------------------------------	-----------------------------	-------------------------------------------

### **Type of Pollutant(s)**

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

### **Source(s) of Pollutant(s)**

Known: STREAMBANK EROSION, Roadbank Erosion  
Suspected: ---  
Possible: Agriculture

## Resolution/Management Information

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

## Further Details

Hydrologic/habitat uses in Bennetts Creek are thought to experience minor impacts due to silt/sedimentation from streambank erosion.

Silt and sedimentation from the erosion of stream banks is thought to negatively impact the stream habitat and limit the fishery. Silty soils and the absence of riparian buffer zones make river banks highly susceptible to erosion from flashy flow in steep gradient streams and tribs. Erosion of streambanks and agricultural property has occurred at various sites (particularly near Greenwood) and multiple bank failures have been recorded. High sediment loads from other tributaries also contribute to the problem. Annual air photographs of the stream by Steuben County SWCD have documented the erosion. A road ditch assessment of this watershed by Upper Susquehanna Coalition/SWCD also documents road bank erosion. Maintenance of flood control structures downstream of these sites require regular sediment removal by NYSDEC. (Steuben County WQCC, August 2004)

Biological (macroinvertebrate) assessments of Bennetts Creek in Bennetts (at Route 248) and in Greenwood (at Route 248) were conducted in 2002. Field sampling results at both sites indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. Some agricultural effects

including diatoms, filamentous algae and supersaturated dissolved oxygen levels were noted at the site in Bennetts. However, in spite of these observations, aquatic life support is considered to be fully supported in the stream. A site downstream near the mouth in Canisteo was also field-assessed as non-impacted. (DEC/DOW, BWAM/SBU, June 2005)

Sampling results from a 2006 Susquehanna River Basin Chemung River Subbasin Survey indicated more significant impacts, and habitat condition was considered supporting and not thought to be an influence on the sample. Water chemistry results revealed elevated nutrient (phosphorus) and temperature. (SRBC, March 2007)

While native reproduction of brown trout occurs in this segment, sedimentation, thermal changes and possible nutrient loadings are a concern below Greenwood. The primary source of the sediment is from erosion of streambanks. The channel is generally wide and shallow with little shading vegetation. Channel instability is revealed by areal photographs. (Steuben Co WQCC and Cohocton Chapter of Trout Unlimited, August 2004)

This segment includes the portion of the stream and all tribs above Slate Creek (-6) in Bennetts. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Colby Creek (-7), Erskin Hollow Brook (-8), Norton Hollow Brook (-10), Rock Creek (-11), Woodward Hollow Brook (-12), Cole Hollow Brook (-13) and Christian Hollow Brook (-14), are Class C,C(T),C(TS). Lower Bennetts Creek is listed separately.

## Purdy Creek and tribs (0503-0025)

## MinorImpacts

### Waterbody Location Information

Revised: 02/05/2007

<b>Water Index No:</b>	Pa 3-57- 5-40- 1	<b>Drain Basin:</b>	Chemung River
<b>Hydro Unit Code:</b>	02050104/040	<b>Str Class:</b>	C
<b>Waterbody Type:</b>	River		Tioga River
<b>Waterbody Size:</b>	42.4 Miles	<b>Reg/County:</b>	8/Steuben Co. (51)
<b>Seg Description:</b>	entire stream and tribs	<b>Quad Map:</b>	GREENWOOD (M-10-1)

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

<b>Use(s) Impacted</b>	<b>Severity</b>	<b>Problem Documentation</b>
Habitat/Hydrology	Stressed	Suspected

#### **Type of Pollutant(s)**

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

#### **Source(s) of Pollutant(s)**

Known: STREAMBANK EROSION, Roadbank Erosion  
Suspected: ---  
Possible: Urban/Storm Runoff

### Resolution/Management Information

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

### Further Details

Hydrologic/habitat uses in Purdy Creek are thought to experience minor impacts due to silt/sedimentation from streambank erosion.

Silt and sedimentation from the erosion of stream banks is thought to negatively impact the stream habitat and limit the fishery. Silty soils and the absence of riparian buffer zones make river banks highly susceptible to erosion from flashy flow in steep gradient streams and tribs. These sediment loads necessitated the construction of a concrete debris dam in the creek as part of the Canisteo flood protection project. Erosion of streambanks and agricultural property has occurred at various sites (particularly near Greenwood) and multiple bank failures have been recorded. High sediment loads from other tributaries also contribute to the problem. Annual air photographs of the stream by Steuben County SWCD have documented the erosion. A road ditch assessment of this watershed by Upper Susquehanna Coalition/SWCD also documents road bank erosion. Maintenance of flood control structures downstream of these sites require regular sediment removal by NYSDEC. (Steuben County WQCC, August 2004)

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



above the provisional level of concern. Macroinvertebrate tissue analysis in 1997 did not reveal mercury to be elevated, but nickel as well as PAHs were at levels indicating parameters of concern. (DOW/BWAM, RIBS Unit, 1994.)

Sampling results from a 2006 Susquehanna River Basin Chemung River Subbasin Survey indicated more significant impacts, and habitat condition was considered supporting and not thought to be an influence on the sample. Water chemistry results revealed elevated aluminum and sodium which may contribute to the toxicity that was noted in the NYSDEC assessment. (SRBC, March 2007)

This segment includes the portion of the stream and all tribs from the mouth in Hornell to Almond Lake. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Almond Lake and Upper Canacadea Creek are listed separately.

# Canacadea Creek, Upper, and minor tribs (0503-0005) MinorImpacts

## Waterbody Location Information

Revised: 03/05/2007

<b>Water Index No:</b>	Pa 3-57- 5-47	<b>Drain Basin:</b>	Chemung River
<b>Hydro Unit Code:</b>	02050104/030	<b>Str Class:</b>	C
<b>Waterbody Type:</b>	River	<b>Reg/County:</b>	9/Allegany Co. ( 2)
<b>Waterbody Size:</b>	47.1 Miles	<b>Quad Map:</b>	ALFRED (L-09-3)
<b>Seg Description:</b>	stream and selected tribs, above Almond Reservoir		

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

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

### Type of Pollutant(s)

Known: SILT/SEDIMENT, Thermal Changes  
Suspected: Nutrients, Pathogens  
Possible: - - -

### Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, Municipal (Alfred STP), Resource Extraction  
Suspected: On-Site/Septic Syst, Private/Comm/Inst  
Possible: Roadbank Erosion, Other Sanitary Disch, Urban/Storm Runoff

## Resolution/Management Information

<b>Issue Resolvability:</b>	1 (Needs Verification/Study (see STATUS))	
<b>Verification Status:</b>	4 (Source Identified, Strategy Needed)	
<b>Lead Agency/Office:</b>	DOW/Reg9	<b>Resolution Potential:</b> Medium
<b>TMDL/303d Status:</b>	n/a	

## Further Details

Aquatic life support in this portion of Canacadea Creek is known to experience minor impacts due to siltation. There are some indications of nutrient enrichments as well. Recreational uses may also be impacted.

A biological (macroinvertebrate) survey of Canacadea Creek at multiple sites from Hornell to Almond was conducted in 1998. Sampling results indicated slightly impacted water quality conditions at all sites with siltation being identified as the primary factor influencing the fauna. (DEC/DOW, BWAM/SBU, June 2005)

Sediment loadings in the creek are due at least in part to highly erodible soils resulting in some natural instability. However Army Corps of Engineers flood control maintenance in the reach of the stream above Almond Lake may be impacting (increasing) erosion in reaches upstream. (DEC/DFWMR and DMR, Region 9, January 2007)

Previously, coliform bacteria sampling in the creek conducted by both the Allegany County Health Department and by Alfred University indicated that although there does not appear to be an overall bacteria problem, there are occasional "spikes" especially near the Alfred STP. However the Alfred WWTP underwent an upgrade primarily to add nitrification

but that also included a UV disinfection system. The WWTP is currently meeting SPDES effluent discharge limits and there are no reports of impacts related to the facility. Inadequate onsite septic systems serving homes in and around Alfred may also be contributing nutrients, and other pollutants to the stream. (DEC/DOW, Region 9, January 2007)

Numerous household direct discharges and failing on-site septic systems throughout the Canacadea Valley were also noted during surveys in the 1980s. If these have not been corrected, they may also contribute to elevated levels of coliform and other pollutants. (DEC/BWAM, WQ Evaluation, 1998)

This segment includes the portion of the stream and selected/smaller tribs above Almond Lake. The waters of this portion of the stream are Class C,C(TS). Tribs to this reach/segment are Class C,C(T). Karr Valley Creek (-4), Almond Lake and Lower Canacadea Creek are listed separately.

# Karr Valley Creek and tribs (0503-0026)

NoKnownImpct

## Waterbody Location Information

Revised: 01/23/2007

**Water Index No:** Pa 3-57- 5-47- 4  
**Hydro Unit Code:** 02050104/030      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 46.6 Miles  
**Seg Description:** entire stream and tribs

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 9/Allegany Co. ( 2)  
**Quad Map:** ALFRED (L-09-3)

## 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

A biological (macroinvertebrate) assessment of Karr Valley Creek in Almond (at Route 21) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. The stream was dominated by facultative mayflies and midges indicating nonpoint source nutrient enrichment as the primary factor influencing water quality. Abundant algae was also noted in the stream. However, 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. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including McHenry Valley Creek (-1), are also Class C.

# Almond Lake (0503-0003)

Impaired Seg

## Waterbody Location Information

Revised: 03/05/2007

<b>Water Index No:</b> Pa 3-57- 5-47-P27c	<b>Drain Basin:</b> Chemung River
<b>Hydro Unit Code:</b> 02050104/030	<b>Str Class:</b> B
<b>Waterbody Type:</b> Lake(R)	<b>Reg/County:</b> 9/Allegany Co. ( 2)
<b>Waterbody Size:</b> 480.1 Acres	<b>Quad Map:</b> HORNELL (L-10-4)
<b>Seg Description:</b> entire lake	

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

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Precluded	Known
Recreation	Stressed	Known

### Type of Pollutant(s)

Known: SILT/SEDIMENT, Water Level/Flow  
 Suspected: AESTHETICS (water clarity)  
 Possible: Pathogens

### Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION, STREAMBANK EROSION  
 Suspected: On-Site/Septic Syst  
 Possible: - - -

## Resolution/Management Information

<b>Issue Resolvability:</b> 5 (Not Resolvable, natural/conflicting use)	
<b>Verification Status:</b> (Not Applicable for Selected RESOLVABILITY)	
<b>Lead Agency/Office:</b> ext/WQCC	<b>Resolution Potential:</b> n/a
<b>TMDL/303d Status:</b> 4c (Impaired by Pollution, Not Pollutant(s), Not Listed)	

## Further Details

Public bathing and recreational use in Almond Lake is impaired by conflict with its use for flood control. Sediment and flood debris is deposited in this flood control reservoir, limiting its use for public bathing.

Almond Lake is a flood control reservoir on Canacadea Creek that was constructed and is maintained by the US Army Corps of Engineers. When sediment filled the original impoundment, the lake level was raised an additional 5 feet in 1987. Recent (1997) bathometric surveys suggest the loss of about 25% of the volume within the existing lake over the last 10 years. Because the majority of the sediment accumulation occurs within the permanent impoundment, the impact on the flood storage capacity of the reservoir is minimal. Under normal operating conditions, the lake occupies about 160 acres. The 90-foot high Almond Dam is designed to provide a maximum flood control storage of 14,640 acre-feet. Under these conditions the lake would cover 660 acres. (Steuben County WQCC, August 2004)

A county park (Kanakadea Park) is located on the north shore of the reservoir. Many recreational activities (boating, fishing, hiking, picnicking) are supported in the park. However recreational use of the reservoir is often in conflict with its use for flood control. The public beach on the lake is closed to swimming (and has been since the 1980s) for reasons

that include the large amount of sediment and flood debris that has been deposited in the lake and high turbidity. Sediment loadings from upper Canacadea Creek are due at least in part to highly erodible soils resulting in some natural instability. However Army Corps of Engineers flood control maintenance in the reach of the stream above Almond Lake may be impacting (increasing) erosion in reaches upstream. (DEC/DFWMR and DMR, Region 9, January 2007)

Previously, coliform bacteria sampling in Canacadea Creek conducted by both the Allegany County Health Department and by Alfred University indicated that although there does not appear to be an overall bacteria problem, there are occasional "spikes" especially near the Alfred STP. However the Alfred WWTP underwent an upgrade primarily to add nitrification but that also included a UV disinfection system. The WWTP is currently meeting SPDES effluent discharge limits and there are no reports of impacts related to the facility. (DEC/DOW, Region 9, January 2007)

Numerous household direct discharges and failing on-site septic systems throughout the Canacadea Valley were also noted during surveys in the 1980s. If not corrected, these may also contribute to coliform violations. (DEC/BWM, H.Samide memo to J.Myers, 6/1/98)

See also Canacadea Creek (Segment ID 0503-0005).

# Canisteo River, Upper, and minor trbs (0503-0013)

NoKnownImpct

## Waterbody Location Information

Revised: 01/31/2007

**Water Index No:** Pa 3-57- 5 (portion 5)      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/010      **Str Class:** C      Tioga River  
**Waterbody Type:** River      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 117.1 Miles      **Quad Map:** ARKPORT (L-10-1)  
**Seg Description:** stream and selected tribs, above Hornell

## 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 Canisteo River above Hornell (at Route 65) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. Some signs of nutrient enrichment and siltation were noted. However, 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. (DEC/DOW, BWAM/SBU, June 2005)

See also segment 0503-0001 (Canisteo River, Middle, and tribs) regarding habitat modification impacts related to flood control projects in Hornell.

This segment includes the portion of the stream and selected/smaller tribs above the Seneca Street Bridge in Hornell. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Hollis Creek (-51) and Marsh Ditch (-52), are also Class C. Big Creek (-48) and Seeley/Carrington Creek (-49) are listed separately.

# Seeley/Carrington Cr, Lower, and tribs (0503-0029)

NoKnownImpct

## Waterbody Location Information

Revised: 01/22/2007

**Water Index No:** Pa 3-57- 5-49      **Drain Basin:** Chemung River  
**Hydro Unit Code:** 02050104/070      **Str Class:** C      Tioga River  
**Waterbody Type:** River      **Reg/County:** 8/Steuben Co. (51)  
**Waterbody Size:** 0.0 Miles      **Quad Map:** HORNELL (L-10-4)  
**Seg Description:** stream and selected tribs, mouth to Hornell Reservoirs

## 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 Seeley Creek in North Hornell (at Seneca Street) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and selected/smaller tribs from the mouth in Hornell to the outlet of the Hornell Water Supply Reservoirs. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Upper Seeley/Carrington Creek is listed separately.

## Minor Tribs to Pennsylvania (0503-0036)

NoKnownImpct

### Waterbody Location Information

Revised: 01/22/2007

**Water Index No:** Pa 11 thru 20  
**Hydro Unit Code:** 02050104/130      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 25.8 Miles  
**Seg Description:** total length of selected tribs (within NYS)

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** BORDEN (M-11-3)

### 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

A biological (macroinvertebrate) assessment of Camp Brook near Osceola, PA, (off Route 127) was conducted in 2002. Field sampling results indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

Camp Brook is just one of several streams that make up this waterbody segment, but it is considered representative of water quality in the segment as a whole. This segment is listed as being evaluated rather than monitored.

This segment includes the total length of selected/smaller tribs to Pa (between the Tioga River and Troups Creek). Tribs within this segment, including Mapes Creek (-11), Strait Creek (-13), Camp Brook (-18), Holden Creek (-19), Redhouse Hollow Brook (-19a) and Buckley Brook (-20), are Class C. Troups Creek (Pa 25) is listed separately.

# Troups Creek, Lower, and tribs (0503-0009)

NoKnownImpct

## Waterbody Location Information

Revised: 02/09/2007

**Water Index No:** Pa 25  
**Hydro Unit Code:** 02050104/110      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 50.8 Miles  
**Seg Description:** stream and tribs, from state line to Troupsburg

**Drain Basin:** Chemung River  
Tioga River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** TROUPSBURG (M-10-3)

## 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

Biological (macroinvertebrate) assessments of Troups Creek in South Troupsburg (off Route 36) was conducted by the Susquehanna River Basin Commission in 2006. Sampling results were evaluated by NYSDEC as indicating slightly impacted water quality conditions. The fauna was dominated by midges, but mayflies, stoneflies and caddisflies were also present. A site farther downstream in Knoxville PA showed clearly non-impacted water quality. In spite of the minor impacts at the upstream site, aquatic life is considered to be fully supported in the stream and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, January 2007)

A new \$2.2 million Town of Troupsburg wastewater treatment plant and collection system went on-line in late May 2004. A total of 83 new service connections are hooked up to the new system, including the Jasper-Troupsburg Central School Building. This project addressed the widespread direct discharge of raw sewage and septic tank effluent from residences and public buildings in the hamlet. Although the WWTP had some initial problems with percent removals, ammonia, and TSS, it is currently operating well and meeting SPDES permit limits. The WWTP consists of a 35,000 gallon primary anaerobic treatment tank, an RBC unit, clarifier, dosing chamber, tertiary sand filters, post aeration tank, and outfall to Troup's Creek. This project has resulted in major public health benefits, as well as protection of Troups Creek. The project was made possible by a unique co-funding package that included a Rural Development Office grant,

(\$1.3M), a Governor's Office of Small Cities grant (\$400K) and NYS Department of State (\$150K). (DEC/DOW, Region 8, January 2007)

This segment includes the portion of the stream and all tribs from the NY-Pa state line to/including West Branch Troups Creek (-7) below Troupsburg. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Squab Hollow Brook (-5) and West Branch Troups Creek (-7), are Class C,C(TS). Upper Troups Creek is listed separately.

# Troups Creek, Upper, and tribs (0503-0038)

NoKnownImpct

## Waterbody Location Information

Revised: 01/22/2007

**Water Index No:** Pa 25  
**Hydro Unit Code:** 02050105/110      **Str Class:** C  
**Waterbody Type:** River  
**Waterbody Size:** 16.9 Miles  
**Seg Description:** stream and tribs, above Troupsburg

**Drain Basin:** Chemung River  
**Reg/County:** 8/Steuben Co. (51)  
**Quad Map:** TROUPSBURG (M-10-3)

## 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

A biological (macroinvertebrate) assessment of Troups Creek in Troupsburg (at Hopper Hill Road) was conducted in 2002. Field sampling results indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs above West Branch Troups Creek (-7) below Troupsburg. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Lower Troups Creek is listed separately.

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