

Schoharie/East Kill Watershed (0202000501)

Water Index Number

H-240- 82 (portion 7) H-240- 82 (portion 8) H-240- 82 (portion 9) H-240- 82-128 H-240- 82-133 H-240- 82-133-P649 H-240- 82-141 H-240- 82-142 thru 147b H-240- 82-145 H-240- 82-147b-1 H-240- 82-147b-1

Waterbody Segment

Schoharie Creek, Upper, Main Stem (1202-0021) Schoharie Creek, Upper, Main Stem (1202-0023) Schoharie Creek, Upper, and tribs (1202-0026) West Kill and tribs (1202-0062) East Kill and tribs (1202-0063) Colgate Lake (1202-0064) Minor Trib to Schoharie Creek (1202-0065) Minor Tribs to Schoharie Creek (1202-0066) Stony Grove Creek, Upper, and tribs (1202-0067) Tribs to Allen Brook (1202-0068) Onteora Pond/Tannersville Reservoirs (1202-0069) Lake Rip Van Winkle (1202-0070)

Category

MinorImpacts MinorImpacts NoKnownImpct MinorImpacts NoKnownImpct UnAssessed UnAssessed UnAssessed UnAssessed UnAssessed UnAssessed

Schoharie Creek, Upper, Main Stem (1202-0021)

Waterbody Location Information

Water Index No Hydro Unit Cod Waterbody Typ Waterbody Size Seg Description	 H-240- 82 (portion 02020005/010 River (Low Flow) 18.3 Miles from Schoharie Res 	7) Str Class: C(T)* ervoir (Prattsville) to	Drain Basin: Reg/County: Quad Map: Hunter	Mohawk River Schoharie Creek 4/Greene Co. (20) PRATTSVILLE (L-23-4)		
Water Qualit	y Problem/Issue Inf	ormation	(CAPS indic	ate MAJOR Use Impacts/Pollutants/Sources)		
Use(s) Impacted Habitat/Hydrol	l gy	Severity Stressed	Proble Knov	em Documentation wn		
Type of Polluta	nt(s)					
Known: S	SILT/SEDIMENT					
Suspected: -						
Possible: I	Problem Species (Japanese knotweed), Thermal Changes					
Source(s) of Pol	lutant(s)					
Known: S	STREAMBANK EROSI	ON				
Suspected: H	Habitat Modification					
Possible: 0	Construction, Roadbank Erosion					
Resolution/M	anagement Informa	tion				

Issue Resolvability:3 (Strategy Being Implemented)Verification Status:5 (Management Strategy has been Developed)Lead Agency/Office:ext/NYCWTMDL/303d Status:n/a

Resolution Potential: Medium

Further Details

Overview

Natural resources (fishery) habitat in Upper Schoharie Creek is affected by silt and sediment loadings and modification and erosion of streambanks. Impacts of the sediment loadings to and the resulting turbidity in the Schoharie Reservoir and the New York City Water Supply System are of particular concern.

Source Assessment

The Upper Schoharie Creek is the largest tributary to the Schoharie Reservoir and receives a considerable amount of flow and sediment load from East Kill, West Kill and the Batavia Kill, all of which have been identified by NYCDEP as principal contributors of sediment and turbidity to the Schoharie Reservoir. A section of the Schoharie Creek itself (from the reservoir to Lexington) has also been identified by DEP as a major source of sediment and turbidity to the reservoir. Along this reach riparian cover is inadequate to provide streambank stabilization and shading. Clay soils and exposed banks which contribute significantly to stream turbidity during rainfall runoff events have been documented. The resulting sediment loads and higher summer temperatures in the stream could affect this cold water fishery. Populations of Japanese knotweed which crowd out native plants but provide poor riparian cover are also a concern. (NYCDEP and Greene County SWCD/WQCC, April 2002)

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Schoharie Creek in Jewett, Schoharie

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Revised: 11/01/2002

County, (at Deming Road) was conducted in 2005 and 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling results indicated non-impacted to slightly 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. Water column chemistry indicated only iron to be present in concentrations that constitute a parameter of concern. However the median value is well below the assessment criteria and iron is considered to be naturally occurring and not a source of water quality impacts. Toxicity testing using water from this location detected 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 and recreational uses are considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. (DEC/DOW, BWAM/RIBS, January 2010)

A biological (macroinvertebrate) assessment of Schoharie Creek in Hunter was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, July 2002)

These results are consistent with a 1995 macroinvertebrate survey of Schoharie Creek from below Tannersville to below Hunter which found non-impacted conditions and no significant water quality impact at any of the five sampling sites. The survey was done at the request of the Region to determine if there was any significant impact caused by the wintertime withdrawal of water from the Creek to make snow for the ski resort. (Schoharie Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, July 1995)

Routine monitoring by NYCDEP at three locations on the Schoharie (Prattsville, Lexington and Hunter) also indicates good water quality with no chronic water quality problems. DEP biological monitoring of the stream found only occasion slight impacts to aquatic life. (NYCDEP, October 2002)

Watershed Management

DEP (in partnership with Greene County SWCD) is developing a stream management plan for the creek. The management plan will include a natural channel design demonstration project. This plan is scheduled to be completed in 2007. DEP is also assisting Greene County SWCD with streambank stabilization projects and the design of a floodplain restoration project in the Town of Prattsville to help alleviate flooding caused by seasonal ice jams. (NYCDEP and Greene County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the Schoharie Creek from the Schoharie Reservoir above Huntersfield Creek (-116) to unnamed trib (-140) in Hunter. The waters of this portion of the stream are primarily Class C(T), C(TS), with short portions above the reservoir Class A and B(T).

Schoharie Creek, Upper, Main Stem (1202-0023)

Waterbody Location Information

Water Index No: Hydro Unit Code: Waterbody Type: Waterbody Size: Seg Description:	H-240- 82 (portion 8) 02020005/010 Str Class: C(T)* River (Low Flow) 5.5 Miles from Hunter to near Tannersville	Drain Basin: Reg/County: Quad Map:	Mohawk River Schoharie Creek 4/Greene Co. (20) PRATTSVILLE (L-23-4)
Water Quality	Problem/Issue Information	(CAPS indic	ate MAJOR Use Impacts/Pollutants/Sources)
Use(s) Impacted Severity Habitat/Hydrolgy Stressed		Problem Documentation Suspected	
Type of Pollutant(Known:SIL Suspected:Possible:	s) T/SEDIMENT blem Species (Japanese knotweed)		
Source(s) of Pollut Known: STI Suspected: Hal Possible: Roa Resolution/Mar	ant(s) REAMBANK EROSION oitat Modification adbank Erosion nagement Information		

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

Resolution Potential: Medium

Further Details

Overview

Natural resources (fishery) habitat in Upper Schoharie Creek is affected by silt and sediment loadings and modification and erosion of streambanks.

Source Assessment

Riparian cover is inadequate to provide streambank stabilization and shading. The resulting sediment loads and higher summer temperatures in the stream affect this cold water fishery. Clay soils and exposed banks which contribute significantly to stream turbidity during rainfall runoff events have been documented. Populations of Japanese knotweed which crowd out native plants but provide poor riparian cover are also a concern. The local SWCD is working with NYCDEP to implement streambank stabilization projects in the watershed. (Greene County SWCD/WQCC, April 2002)

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Schoharie Creek in Jewett, Schoharie County, (at Deming Road) was conducted in 2005 and 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling results indicated non-impacted to slightly impacted conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Some additional

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species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Water column chemistry indicated only iron to be present in concentrations that constitute a parameter of concern. However the median value is well below the assessment criteria and iron is considered to be naturally occurring and not a source of water quality impacts. Toxicity testing using water from this location detected 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 and recreational uses are considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. (DEC/DOW, BWAM/RIBS, January 2010)

A biological (macroinvertebrate) assessment of Schoharie Creek in Hunter was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, July 2002)

These results are consistent with a 1995 macroinvertebrate survey of Schoharie Creek from below Tannersville to below Hunter which found non-impacted conditions and no significant water quality impact at any of the five sampling sites. The survey was done at the request of the Region to determine if there was any significant impact caused by the wintertime withdrawal of water from the Creek to make snow for the ski resort. (Schoharie Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, July 1995)

A biological (macroinvertebrate) assessment of Shanty Hollow Creek in Hunter (at confluence with Schoharie Creek) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and a the overall abundance of macroinvertebrates is lower. However, the effects on the fauna are relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate no enrichment in the stream and fauna that is most similar to natural communities with some impoundment influences. 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, January 2010)

Segment Description

This segment includes the portion of the Schoharie Creek from unnamed trib (-140) in Hunter to the Tannersville Auxilary Water Supply P656c. The waters of this portion of the stream are primarily Class C(TS), with a short portion in Hunter designated Class B(TS).

Schoharie Creek, Upper, and tribs (1202-0026)

Waterbody Location Information

Water Index No: Hydro Unit Code Waterbody Type: Waterbody Size: Seg Description:	H-240- 82 (portion 02020005/010 River (Low Flow) 21.3 Miles stream and select tri	9) Str Class: A bs abv Tanners	Drain Basin: (TS) Reg/County: Quad Map: sville water supply	Mohawk River Schoharie Creek 4/Greene Co. (20) HUNTER (M-24-1)
Water Quality	Problem/Issue Infe	ormation	(CAPS indica	ate MAJOR Use Impacts/Pollutants/Sources)
Use(s) Impacted NO USE IMPAI	RMNT	Severity	Proble	m Documentation
Type of PollutantKnown:-Suspected:-Possible:-	(s) - - -			
Source(s) of Pollu Known: Suspected: Possible:	tant(s) - -			

Resolution/Management Information

Issue Resolvability:	8 (No Known Use Impairment)
Verification Status:	(Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office:	n/a
TMDL/303d Status:	n/a

Resolution Potential: n/a

Further Details

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Schoharie Creek in Jewett, Schoharie County, (at Deming Road) was conducted in 2005 and 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling results indicated non-impacted to slightly 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. Water column chemistry indicated no significant contaminants to be present in concentrations that constitute parameters of concern. Toxicity testing using water from this location detected 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 and recreational uses are considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. Though this site is downstream of the waterbody segment, is it considered to be representative of water quality conditions in the upper reach. (DEC/DOW, BWAM/RIBS, January 2010)

These results are also consistent with a 1995 macroinvertebrate survey of Schoharie Creek from below Tannersville to below Hunter which found non-impacted conditions and no significant water quality impact at any of the five sampling sites. The survey was done at the request of the Region to determine if there was any significant impact caused by the wintertime

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withdrawal of water from the Creek to make snow for the ski resort. (Schoharie Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, July 1995)

Source (Drinking) Water Assessment

A source water assessment of Upper Schoharie Creek found only moderate susceptibility to contamination sources. This level of susceptibility is typical of many water supplies that experience no impacts to water supply use and reflects the need to protect the resource. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination and do not address the quality of treated finished potable tap water. This water supply source provides water to Tannersville. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description

This segment includes the portion of the Schoharie Creek and all tribs above the Tannersville Auxilary Water Supply P656c. The waters of this portion of the creek are Class A(TS). Tribs to this segment, including Cook Brook (-150) and Roaring Brook (-153) are Class C, C(T), C(TS).

West Kill and tribs (1202-0062)

Waterbody Location Information

Water Index N Hydro Unit Co Waterbody Ty Waterbody Siz Seg Description	o: H-240- 82-128 de: 02020005/010 pe: River (Low Flow e: 46.6 Miles h: entire stream and to	Str Class: (C)) ribs	C(TS)	Drain Basin: Reg/County: Quad Map:	Mohawk River Schoharie Creek 4/Greene Co. (20) WEST KILL (M-23-1)
Water Quali	ty Problem/Issue In	formation		(CAPS indica	ate MAJOR Use Impacts/Pollutants/Sources)
Use(s) Impacte Habitat/Hydro	d lgy	Severity Stressed		Proble Know	m Documentation wn
Type of Polluta Known: Suspected: Possible:	ant(s) AESTHETICS (turbidity), SILT/SEDIN	MENT		
Source(s) of Po Known: Suspected: Possible: Resolution/N	Ilutant(s) STREAMBANK EROS Habitat Modification Construction, Hydro Mo	ION dification ation			

Issue Resolvability:	3 (Strategy Being Implemented)
Verification Status:	5 (Management Strategy has been Developed)
Lead Agency/Office:	ext/NYCW
TMDL/303d Status:	n/a

Further Details

Overview

Natural resources (fishery) habitat in the West Kill is thought to be affected by silt/sediment loads and turbidity from excessive stream bank erosion along the stream. Impacts of the sediment loadings to the Schoharie Reservoir and the New York City Water Supply System are also of particular concern.

Source Assessment

The West Kill has been identified by NYCDEP as a principal contributor of sediment and turbidity to the Schoharie Reservoir. Along this reach riparian cover is inadequate to provide streambank stabilization and shading. Clay soils and exposed banks which contribute significantly to stream turbidity during rainfall runoff events have been documented. In fact much of the streambank destabilization began with a major flooding event in 1987. As a result, DEP (in partnership with Greene County SWCD) is developing a stream management plan for the creek. The management plan will include two natural channel design demonstration projects. This plan is scheduled to be completed in 2005. In association with these BMP projects, DEP has also entered into a SWDA funded research project with Penn State University to assess the performance of these BMPs and conduct an erosion and scour study which will include at least one site on the West Kill. (NYCDEP and Greene County SWCD, October 2002)

MinorImpacts

Revised: 11/01/2002

Resolution Potential: Medium

Water Quality Sampling

A biological (macroinvertebrate) assessment of West Kill in West Kill was conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, July 2002)

Routine monitoring by NYCDEP on the West Kill also indicates good water quality with no chronic water quality problems. DEP biological monitoring of the stream found no impacts to aquatic life. (NYCDEP, October 2002)

Segment Description

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

East Kill and tribs (1202-0063)

Waterbody Location Information

Water Index N	No:	H-240- 82-133			Drain Basin:	Mohawk River
Hydro Unit C	ode:	02020005/010	Str Class:	C(TS)		Schoharie Creek
Waterbody T	ype:	River (Low Flow)			Reg/County:	4/Greene Co. (20)
Waterbody Si	ize:	52.6 Miles			Quad Map:	LEXINGTON (M-23-2)
Seg Description	on:	entire stream and tri	ibs			
Water Qual	lity Pr	oblem/Issue Inf	ormation		(CAPS indicated)	ate MAJOR Use Impacts/Pollutants/Sources)
Use(s) Impact	ted		Severity		Proble	m Documentation
NO USE IM	PAIRM	NT				
Type of Pollut	tant(s)					
Known:						
Suspected:						
Possible:						
Source(s) of P	ollutan	tt(s)				
Known:						
Suspected:						
Possible:						
Resolution /	Mana	gement Informa	tion			

Issue Resolvability: 8 (No Known Use Impairment) **Verification Status:** (Not Applicable for Selected RESOLVABILITY) Lead Agency/Office: n/a TMDL/303d Status: n/a

Further Details

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of East Kill in Jewett Center, Greene County, (at Route 23A) was conducted in 2005 and 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) 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 results of a field assessment conducted at this site in 2000 which found a fauna that satisfied field screening criteria indicating non-impacted water quality. Water column chemistry indicates no contaminants to be present in concentrations that constitute parameters of concern. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated no sediment toxicity and no porewater toxicity was indicated. Bottom sediments analysis based on sediment quality guidelines developed for freshwater ecosystems revealed overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Based on the consensus of these established assessment methods, overall water quality at this site shows that aquatic life and recreational uses are considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. (DEC/DOW, BWAM/RIBS, January 2010)

Resolution Potential: n/a

Revised: 07/02/2010

Long-tern routine monitoring by NYCDEP on the West Kill also indicates good water quality with no chronic water quality problems. (NYCDEP, October 2002)

Water Quality Management

Excessive stream bank erosion along the stream was raised as a concern in previous assessments. However the East Kill does not seem to be as prone to sediment and turbidity problems as are other Schoharie tribs in the area. Nonetheless the stream is included in the NYCDEP stream management plan for the Schoharie Creek. This management plan is being developed with Greene County SWCD and includes natural channel design demonstration projects. (NYCDEP and Greene County SWCD, October 2002)

Segment Description

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

Minor Tribs to Schoharie Creek (1202-0066)

Waterbody Location Information

Water Index N Hydro Unit Co Waterbody Ty Waterbody Siz Seg Description	o: de: pe: e: n:	H-240- 82-142 thru 02020005/010 River (Low Flow) 2.3 Miles total length of select	147b Str Class: t tribs fr Hun	C ter to '	Drain Basin: Reg/County: Quad Map: Tannersville	Mohawk River Schoharie Creek 4/Greene Co. (20) HUNTER (M-24-1)
Water Quali	ty Pr	oblem/Issue Info	ormation		(CAPS indica	ate MAJOR Use Impacts/Pollutants/Sources)
Use(s) Impacte NO USE IMP	d AIRM	NT	Severity		Proble	m Documentation
Type of Polluta	ant(s)					
Known:						
Suspected:						
Possible:						
Source(s) of Po	ollutar	t(s)				
Known:						
Suspected:						
Possible:						
Resolution/Management Information						
Icena Racalvah	ility.	8 (No Known Use	Impairment)		

Issue Resolvability:8 (No Known Use Impairment)Verification Status:(Not Applicable for Selected RESOLVABILITY)Lead Agency/Office:n/aTMDL/303d Status:n/a

Resolution Potential: n/a

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Gooseberry Creek near Tannersville (at Bloomer Road) was conducted as part of the RIBS biological screening effort in 2005. 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. These results are consistent with results from sampling conducted at this site in 2000. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

These results reflect significant improvement from conditions reported in a 1986 biological assessment of Gooseberry Creek. This survey found moderately impacted water quality attributed to chorine toxicity from disinfection at the Tannersville WWTP. This problem has since been addressed. (Gooseberry Creek Rapid Biological Stream Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, October 1986)

Revised: 08/14/2002

A biological assessment of Stoney Grove Creek in Hunter (at Route 214) was also conducted as part of the RIBS biological screening effort in 2005. 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)

Though these are just two of several streams that make up this waterbody segment, it is considered representative of water quality in the segment as a whole. This segment is listed as being evaluated rather than monitored.

Segment Description

This segment includes the total length of selected/smaller tribs to Schoharie Creek between unnamed trib (-140) in Hunter and the Tannersville Auxilary Water Supply. Tribs within this segment, including Red Kill (-142) and Gooseberry Creek (-147b), are Class C, C(T), C(TS). Upper Stony Grove Creek (-145) and Tannersville Reservoir Tribs are listed separately.