



Hudson/Anthony Kill Watershed (0202000311)

Water Index Number

H (portion 1)
H (portion 2)
H (portion 3)
H-241 thru 261 (EOH)
H-241-1-P1072
H-244 thru 263 (WOH)
H-247
H-247
H-260
H-260- 2
H-260- 2-P1083
H-260- 6
H-260-P1089
H-260-P1089-
H-260-P1089-3
H-260-P1089-3-P1090
H-260-P1089-3-P1090-
H-260-P1089-5-P1094
H-264
H-265
H-266 thru 300 (selected)

Waterbody Segment

Upper Hudson, Main Stem (1101-0002)
Upper Hudson, Main Stem (1101-0042)
Upper Hudson, Main Stem (1101-0043)
Minor Tribs to East of Upper Hudson (1101-0053)
Lansingburgh Reservoir (1101-0054)
Minor Tribs to West of Upper Hudson (1101-0055)
Deep Kill, Lower, and tribs (1101-0056)
Deep Kill, Upper, and tribs (1101-0057)
Anthony Kill and minor tribs (1101-0025)
Plum Brook, Upper, and tribs (1101-0058)
Mechanicville Reservoir (1101-0059)
Dwaas Kill and tribs (1101-0007)
Round Lake (1101-0060)
Minor Tribs to Round Lakes (1101-0037)
Ballston Creek and tribs (1101-0061)
Ballston Lake (1101-0036)
Tribs to Ballston Lake (1101-0062)
Little Round Lake (1101-0063)
See *Hoosic River Watershed*
Schuyler Creek and tribs (1101-0093)
Minor Tribs to Upper Hudson (1101-0064)

Category

Impaired Seg
Impaired Seg
Impaired Seg
UnAssessed
UnAssessed
UnAssessed
NoKnownImpct
NoKnownImpct
MinorImpacts
UnAssessed
UnAssessed
Impaired Seg
Need Verific
UnAssessed
UnAssessed
MinorImpacts
UnAssessed
UnAssessed
Impaired Seg
UnAssessed

Upper Hudson, Main Stem (1101-0002)

Impaired Seg

Waterbody Location Information

Revised: 09/09/2008

Water Index No: H (portion 1) **Drain Basin:** Upper Hudson River
Hydro Unit Code: 02020003/ **Str Class:** A Upper Hudson-Hoosic
Waterbody Type: River **Reg/County:** 5/Saratoga Co. (46)
Waterbody Size: 10.9 Miles **Quad Map:** TROY NORTH (J-26-4)
Seg Description: from Waterford/Troy to near Mechanicville

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

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected
Public Bathing	Stressed	Suspected
FISH CONSUMPTION	Precluded	Known

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: Pathogens
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: Municipal
Possible: TOX/CONTAM. SEDIMENT, Industrial

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: EPA/DER **Resolution Potential:** High
TMDL/303d Status: 3c,4b (Waterbody Being Addressed by Other Means, more)

Further Details

Fish consumption in this portion of the Upper Hudson River is impaired by health advisories recommending that no fish (any species) be eaten due to historic industrial discharges of PCBs to the river. The remediation of the river is the focus of a Federal Superfund dredging project. Frequent detections of phenolic compounds also threaten fish consumption as well as drinking water supply use. This reach of the Upper Hudson includes a municipal water supply withdrawal (Waterford).

Fish consumption in the Upper Hudson River from Troy Dam to Route 9 bridge in South Glens Falls is impaired due to a NYS DOH health advisory that recommends eating no fish (all species) because of elevated PCB levels. The sources of PCBs are attributed to historic industrial discharges. From approximately 1947 to 1977, the General Electric Company (GE) discharged as much as 1.3 million pounds of polychlorinated biphenyls (PCBs) from its capacitor manufacturing plants at the Hudson Falls and Fort Edward facilities into the Hudson River. In 1976, because of the concern over the bioaccumulation of PCBs in fish and other aquatic organisms and their subsequent consumption by people, the State of New York banned fishing in the Upper Hudson River and commercial fishing of striped bass, and several other species, in the Lower Hudson. In August 1995, the Upper Hudson was re-opened to fishing, but only on a catch and release basis. (2004-05 NYS DOH Health Advisories and DEC/DFWMR, Habitat, June 2004).

The approximately 200-mile stretch of the Hudson River from Hudson Falls to the Battery in New York City has since been declared a Federal Superfund site. The Upper Hudson River, an approximately 40 mile reach of the river from Hudson Falls to Troy, in Washington, Saratoga and Rensselaer Counties, is the major focus of the investigations, and is the reach that is being targeted for remediation. Previous studies identified 40 hot spots in the Upper Hudson, defined as sediments contaminated with greater than 50 parts per million (ppm) of PCBs. Also included in the site are five remnant deposits, which are river sediments that were exposed when the level of the river was lowered due to the removal of the Fort Edward Dam, in 1973.

This site is being addressed through a combination of Federal and potential responsible party actions. EPA is the lead agency for cleanup of the Hudson River PCBs Superfund site. The New York State Department of Environmental Conservation (NYSDEC) is the support agency for this project. The United States Department of Interior (Fish and Wildlife Service) and the United States Department of Commerce (National Oceanic and Atmospheric Administration) are also involved as federal trustees of natural resources. The February 2002 Record of Decision (ROD) calls for targeted environmental dredging and removal of approximately 2.65 million cubic yards of PCB-contaminated sediment from a 40-mile stretch of the Upper Hudson. In the ROD, EPA selected a plan that addresses the risks to people and the environment associated with PCBs in the sediments of the Upper Hudson River. More information regarding the remediation effort can be found on the EPA website at <http://www.epa.gov/hudson/>.

The Town of Waterford obtains water from the Upper Hudson River; this is the only municipal water supply intake below Fort Edward and above the Troy Dam.

NYSDEC Rotating Integrated Basin Studies (RIBS) Routine Network monitoring of the Upper Hudson River in Waterford is conducted annually at the Route 4 bridge. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling media are assessed to augment water chemistry findings and gain a broader overall assessment of water quality. During the most recent Intensive Network sampling in 2002, water chemistry, macroinvertebrate community assessment, (sampled in 2001) and toxicity testing were used to determine support of aquatic life and drinking water supply uses. In water column monitoring, high water temperatures exceeding water quality standards were measured on 33% of the 2002 sampling dates, and in 23% of the samples taken over the period from 1993-2002. However, based on resident benthic communities, water quality was assessed as non-impacted. Mayflies and caddisflies were well-represented in the 2001 sample. This indicates an improvement from slightly impacted conditions in 1988 and slightly to non-impacted conditions in 1993 and 1994. In addition, no significant mortality or reproductive impairment was found in toxicity testing. Based on these biological endpoints, water quality in this reach is considered to support its aquatic life use. However, water column chemistry shows mercury and total phenol to be parameters of concern for the drinking water supply and fish consumption use. Mercury concentrations exceeded the assessment criterion in 1 of 6 samples (17%) in 2002 and in 16% of the 50 samples collected in the period from 1993-2002 and is considered a parameter of concern. Total phenols violated the water quality standard in 3 of 6 samples (50%) in 2002, and in 42% of the 52 samples collected in the period from 1993-2002. (DEC/DOW, BWAM/SWMS, June 2005).

The most recent macroinvertebrate tissue sampling at this site was conducted in 1993. Caddisfly larvae collected at this site in 1993 showed high levels of PCBs (6400 ug/kg) greatly exceeding 1000 ug/kg provisional levels of concern. Lead and copper levels in the tissue samples were also elevated. In spite of the PCB contamination of the river and the resulting impact on fish consumption, water quality in this reach is considered to be full supporting of aquatic life uses. (DEC/DOW, BWAM/SBU, June 2005)

Swimmable Hudson

In response to the improvement in Hudson River water quality since the 1970s, there has been a rise in recreational use and a public call for increased swimming opportunities. Currently swimming occurs in popular anchoring spots along the shore, including areas not designated for swimming. However, in spite of growing use publicly available swimming areas in the Hudson remain limited. To reach the goal of a swimmable Hudson River, the NYSDEC Hudson River Estuary Program: and Division of Water are focusing on four primary areas of water quality impact

1) the need for seasonal disinfection of municipal and other wastewater discharges, 2) the reduction of CSO impacts through appropriate control strategies, 3) implementation and compliance with Phase II Stormwater permit program, and 4) continued support of a vessel No Discharge Zone in the Hudson. While the impetus for the Swimmable Hudson initiative was largely focused on the estuary waters of the Lower Hudson, the effort extends into the Upper Hudson Basin as well and includes disinfection of municipal plant discharges impacting this segment. (DEC/HREP and DEC/DOW, BWAM, May 2008)

This portion of the Hudson is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 3c of the List as a Water for which TMDL Development may be Deferred (because the impairment is being addressed through other restoration measures).

This segment includes the waters of the Hudson River from the Mohawk River in Waterford to Lock 2 below Mechanicville. This portion of the Hudson River is Class A.

Upper Hudson, Main Stem (1101-0042)

Impaired Seg

Waterbody Location Information

Revised: 09/09/2008

Water Index No: H (portion 2) **Drain Basin:** Upper Hudson River
Hydro Unit Code: 02020003/ **Str Class:** C Upper Hudson-Hoosic
Waterbody Type: River **Reg/County:** 5/Saratoga Co. (46)
Waterbody Size: 4.2 Miles **Quad Map:** MECHANICVILLE (J-26-1)
Seg Description: from Mechanicville to Riverside

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

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Suspected
FISH CONSUMPTION	Precluded	Known

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: Pathogens
Possible: - - -

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: Municipal
Possible: - - -

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: EPA/DER **Resolution Potential:** High
TMDL/303d Status: 3c,4b (Waterbody Being Addressed by Other Means, more)

Further Details

Fish consumption in this portion of the Upper Hudson River is impaired by health advisories recommending that no fish (any species) be eaten due to historic industrial discharges of PCBs to the river. The remediation of the river is the focus of a Federal Superfund dredging project. Other uses of the river are considered to be fully supported.

Fish consumption in the Upper Hudson River from Troy Dam to Route 9 bridge in South Glens Falls is impaired due to a NYS DOH health advisory that recommends eating no fish (all species) because of elevated PCB levels. The sources of PCBs are attributed to historic industrial discharges. From approximately 1947 to 1977, the General Electric Company (GE) discharged as much as 1.3 million pounds of polychlorinated biphenyls (PCBs) from its capacitor manufacturing plants at the Hudson Falls and Fort Edward facilities into the Hudson River. In 1976, because of the concern over the bioaccumulation of PCBs in fish and other aquatic organisms and their subsequent consumption by people, the State of New York banned fishing in the Upper Hudson River and commercial fishing of striped bass, and several other species, in the Lower Hudson. In August 1995, the Upper Hudson was re-opened to fishing, but only on a catch and release basis. (2004-05 NYS DOH Health Advisories and DEC/DFWMR, Habitat, June 2004).

The approximately 200-mile stretch of the Hudson River from Hudson Falls to the Battery in New York City has since been declared a Federal Superfund site. The Upper Hudson River, an approximately 40 mile reach of the river from

Hudson Falls to Troy, in Washington, Saratoga and Rensselaer Counties, is the major focus of the investigations, and is the reach that is being targeted for remediation. Previous studies identified 40 hot spots in the Upper Hudson, defined as sediments contaminated with greater than 50 parts per million (ppm) of PCBs. Also included in the site are five remnant deposits, which are river sediments that were exposed when the level of the river was lowered due to the removal of the Fort Edward Dam, in 1973.

This site is being addressed through a combination of Federal and potential responsible party actions. EPA is the lead agency for cleanup of the Hudson River PCBs Superfund site. The New York State Department of Environmental Conservation (NYSDEC) is the support agency for this project. The United States Department of Interior (Fish and Wildlife Service) and the United States Department of Commerce (National Oceanic and Atmospheric Administration) are also involved as federal trustees of natural resources. The February 2002 Record of Decision (ROD) calls for targeted environmental dredging and removal of approximately 2.65 million cubic yards of PCB-contaminated sediment from a 40-mile stretch of the Upper Hudson. In the ROD, EPA selected a plan that addresses the risks to people and the environment associated with PCBs in the sediments of the Upper Hudson River. More information regarding the remediation effort can be found on the EPA website at <http://www.epa.gov/hudson/>

No recent biological sampling has been conducted in this reach of the Upper Hudson. However, biological (macroinvertebrate) assessments of the Hudson River in both Schuylerville just above the reach and in Waterford just below the reach show water quality to be non-impacted. These assessments represent steady improvement over conditions of slightly impacted in the late 1980s and 1990s. Mayflies and caddisflies were well-represented in the most recent sampling. Clean-water stoneflies not previously found at these sites were found at Schuylerville in 2001. In spite of the PCB contamination of the river and the resulting impact on fish consumption, water quality in this reach is considered to be full supporting of aquatic life uses. (DEC/DOW, BWAM/SBU, June 2005)

NYSDEC Rotating Integrated Basin Studies (RIBS) Routine Network monitoring of the Upper Hudson River in Waterford is conducted annually at the Route 4 bridge. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling media are assessed to augment water chemistry findings and gain a broader overall assessment of water quality. During the most recent Intensive Network sampling in 2002, water chemistry, macroinvertebrate community assessment, (sampled in 2001) and toxicity testing were used to determine support of aquatic life and drinking water supply uses. In water column monitoring, high water temperatures exceeding water quality standards were measured on 33% of the 2002 sampling dates, and in 23% of the samples taken over the period from 1993-2002. However, based on resident benthic communities, water quality was assessed as non-impacted. Mayflies and caddisflies were well-represented in the 2001 sample. This indicates an improvement from slightly impacted conditions in 1988 and slightly to non-impacted conditions in 1993 and 1994. In addition, no significant mortality or reproductive impairment was found in toxicity testing. Based on these biological endpoints, water quality in this reach is considered to support its aquatic life use. However, water column chemistry shows mercury and total phenol to be parameters of concern for the drinking water supply and fish consumption use. Mercury concentrations exceeded the assessment criterion in 1 of 6 samples (17%) in 2002 and in 16% of the 50 samples collected in the period from 1993-2002 and is considered a parameter of concern. Total phenols violated the water quality standard in 3 of 6 samples (50%) in 2002, and in 42% of the 52 samples collected in the period from 1993-2002. Though this sampling site is located below this segment, it is considered to be representative of water quality in the upper reach. (DEC/DOW, BWAM/SWMS, June 2005)

Swimmable Hudson

In response to the improvement in Hudson River water quality since the 1970s, there has been a rise in recreational use and a public call for increased swimming opportunities. Currently swimming occurs in popular anchoring spots along the shore, including areas not designated for swimming. However, in spite of growing use publicly available swimming areas in the Hudson remain limited. To reach the goal of a swimmable Hudson River, the NYSDEC Hudson River Estuary Program: and Division of Water are focusing on four primary areas of water quality impact

1) the need for seasonal disinfection of municipal and other wastewater discharges, 2) the reduction of CSO impacts through appropriate control strategies, 3) implementation and compliance with Phase II Stormwater permit program, and

4) continued support of a vessel No Discharge Zone in the Hudson. While the impetus for the Swimmable Hudson initiative was largely focused on the estuary waters of the Lower Hudson, the effort extends into the Upper Hudson Basin as well and includes disinfection of municipal plant discharges impacting this segment. (DEC/HREP and DEC/DOW, BWAM, May 2008)

This portion of the Hudson is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 3c of the List as a Water for which TMDL Development may be Deferred (because the impairment is being addressed through other restoration measures).

This segment includes the waters of the Hudson River from Lock 2 below Mechanicville to Lock 3 in Riverside, above Mechanicville. This portion of the Hudson River is Class C.

Upper Hudson, Main Stem (1101-0043)

Impaired Seg

Waterbody Location Information

Revised: 09/09/2008

Water Index No:	H (portion 3)	Drain Basin:	Upper Hudson River
Hydro Unit Code:	02020003/	Str Class:	B
Waterbody Type:	River	Reg/County:	5/Saratoga Co. (46)
Waterbody Size:	19.4 Miles	Quad Map:	MECHANICVILLE (J-26-1)
Seg Description:	from Riverside to Schuylerville		

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

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Suspected
FISH CONSUMPTION	Precluded	Known

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: Pathogens
Possible: - - -

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: Municipal
Possible: - - -

Resolution/Management Information

Issue Resolvability:	3 (Strategy Being Implemented)	
Verification Status:	5 (Management Strategy has been Developed)	
Lead Agency/Office:	EPA/DER	Resolution Potential: High
TMDL/303d Status:	3c,4b (Waterbody Being Addressed by Other Means, more)	

Further Details

Fish consumption in this portion of the Upper Hudson River is impaired by health advisories recommending that no fish (any species) be eaten due to historic industrial discharges of PCBs to the river. The remediation of the river is the focus of a Federal Superfund dredging project.

Fish consumption in the Upper Hudson River from Troy Dam to Route 9 bridge in South Glens Falls is impaired due to a NYS DOH health advisory that recommends eating no fish (all species) because of elevated PCB levels. The sources of PCBs are attributed to historic industrial discharges. From approximately 1947 to 1977, the General Electric Company (GE) discharged as much as 1.3 million pounds of polychlorinated biphenyls (PCBs) from its capacitor manufacturing plants at the Hudson Falls and Fort Edward facilities into the Hudson River. In 1976, because of the concern over the bioaccumulation of PCBs in fish and other aquatic organisms and their subsequent consumption by people, the State of New York banned fishing in the Upper Hudson River and commercial fishing of striped bass, and several other species, in the Lower Hudson. In August 1995, the Upper Hudson was re-opened to fishing, but only on a catch and release basis. (2004-05 NYS DOH Health Advisories and DEC/DFWMR, Habitat, June 2004).

The approximately 200-mile stretch of the Hudson River from Hudson Falls to the Battery in New York City has since been declared a Federal Superfund site. The Upper Hudson River, an approximately 40 mile reach of the river from

Hudson Falls to Troy, in Washington, Saratoga and Rensselaer Counties, is the major focus of the investigations, and is the reach that is being targeted for remediation. Previous studies identified 40 hot spots in the Upper Hudson, defined as sediments contaminated with greater than 50 parts per million (ppm) of PCBs. Also included in the site are five remnant deposits, which are river sediments that were exposed when the level of the river was lowered due to the removal of the Fort Edward Dam, in 1973.

This site is being addressed through a combination of Federal and potential responsible party actions. EPA is the lead agency for cleanup of the Hudson River PCBs Superfund site. The New York State Department of Environmental Conservation (NYSDEC) is the support agency for this project. The United States Department of Interior (Fish and Wildlife Service) and the United States Department of Commerce (National Oceanic and Atmospheric Administration) are also involved as federal trustees of natural resources. The February 2002 Record of Decision (ROD) calls for targeted environmental dredging and removal of approximately 2.65 million cubic yards of PCB-contaminated sediment from a 40-mile stretch of the Upper Hudson. In the ROD, EPA selected a plan that addresses the risks to people and the environment associated with PCBs in the sediments of the Upper Hudson River. More information regarding the remediation effort can be found on the EPA website at <http://www.epa.gov/hudson/>

A biological (macroinvertebrate) assessment of the Hudson River in Schuylerville was conducted in 2001 and 1993. Multiplate sampling results indicated non-impacted conditions with numerous mayflies and caddisflies. Stoneflies were noted in some samples; these clean-water indicators were not previously collected at this site indicating improving water quality. In spite of the PCB contamination of the river and its impact on fish consumption, water quality in this reach is considered to be full supporting of aquatic life uses. (DEC/DOW, BWAM/SBU, June 2005)

Swimmable Hudson

In response to the improvement in Hudson River water quality since the 1970s, there has been a rise in recreational use and a public call for increased swimming opportunities. Currently swimming occurs in popular anchoring spots along the shore, including areas not designated for swimming. However, in spite of growing use publicly available swimming areas in the Hudson remain limited. To reach the goal of a swimmable Hudson River, the NYSDEC Hudson River Estuary Program: and Division of Water are focusing on four primary areas of water quality impact 1) the need for seasonal disinfection of municipal and other wastewater discharges, 2) the reduction of CSO impacts through appropriate control strategies, 3) implementation and compliance with Phase II Stormwater permit program, and 4) continued support of a vessel No Discharge Zone in the Hudson. While the impetus for the Swimmable Hudson initiative was largely focused on the estuary waters of the Lower Hudson, the effort extends into the Upper Hudson Basin as well and includes disinfection of municipal plant discharges impacting this segment. (DEC/HREP and DEC/DOW, BWAM, May 2008)

This portion of the Hudson is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 3c of the List as a Water for which TMDL Development may be Deferred (because the impairment is being addressed through other restoration measures).

This segment includes the waters of the Hudson River from Lock 3 in Riverside, above Mechanicville, to the Batten Kill (-301) near Schuylerville.

Deep Kill, Lower, and tribs (1101-0056)

NoKnownImpct

Waterbody Location Information

Revised: 07/05/2005

Water Index No: H-247
Hydro Unit Code: 02020003/250 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 11.6 Miles
Seg Description: stream and tribs from mouth to Grant Hollow

Drain Basin: Upper Hudson River
Reg/County: 4/Rensselaer Co. (42)
Quad Map: TROY NORTH (J-26-4)

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of Deep Kill in Grant Hollow (at Grant Hollow Road) was conducted in 2001. Sampling results indicated non-impacted water quality conditions. The stream showed evidence of nonpoint source nutrient enrichment, but faunal metrics were within the range of non-impact. No prior data were available for the stream. (DEC/DOW, BWAR/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth to the unnamed pond (P1073) just above Grant Hollow. The waters of the stream are Class C,C(T). Tribs to this reach are also Class C,C(T).

Deep Kill, Upper, and tribs (1101-0057)

NoKnownImpct

Waterbody Location Information

Revised: 07/05/2005

Water Index No: H-247
Hydro Unit Code: 02020003/250 **Str Class:** A
Waterbody Type: River
Waterbody Size: 15.8 Miles
Seg Description: stream and tribs above Grant Hollow

Drain Basin: Upper Hudson River
Upper Hudson-Hoosic
Reg/County: 4/Rensselaer Co. (42)
Quad Map: TOMHANNOCK (J-26-3)

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
TMDL/303d Status: n/a ()

Resolution Potential:

Further Details

A biological (macroinvertebrate) assessment of Deep Kill in Grant Hollow (at Grant Hollow Road) was conducted in 2001. Sampling results indicated non-impacted water quality conditions. The stream showed evidence of nonpoint source nutrient enrichment, but faunal metrics were within the range of non-impact. Though this sampling point is just below the described segment, it is considered representative of water quality in the upper reach. This segment is listed as being evaluated rather than monitored. (DEC/DOW, BWAR/SBU, June 2005)

This segment includes the portion of the stream and all tribs above the unnamed pond (P1073) just above Grant Hollow (P1073). The waters of the stream are Class A. Tribs to this reach are also Class A.

Anthony Kill and minor tribs (1101-0025)

MinorImpacts

Waterbody Location Information

Revised: 11/06/2006

Water Index No: H-260
Hydro Unit Code: 02020003/240 **Str Class:** C
Waterbody Type: River
Waterbody Size: 33.1 Miles
Seg Description: entire stream and selected/smaller tribs

Drain Basin: Upper Hudson River
Reg/County: 5/Saratoga Co. (46)
Quad Map: MECHANICVILLE (J-26-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Known

Type of Pollutant(s)

Known: PATHOGENS
Suspected: Aesthetics (floatables)
Possible: - - -

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW, URBAN RUNOFF
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 2 (Strategy Exists, Needs Funding/Resources)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DOW/BWP
TMDL/303d Status: n/a ()

Resolution Potential: High

Further Details

Recreational uses in the Anthony Kill experience minor impacts to water quality due to elevated levels of pathogens. Combined sewer overflows (CSOs) in Mechanicville are presumed to be the likely source.

NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring of the Anthony Kill in Mechanicville was conducted in 2001 and 2002. In 2001 biological screening, the macroinvertebrate community at two sites in Mechanicville was found to be well-balanced, and contain large numbers of clean-water mayflies. Screening for acute toxicity indicated slight sediment toxicity, but no porewater toxicity, to be present. In 2002 intensive sampling, water quality, as determined by macroinvertebrate community assessment, was again considered to be non-impacted. Of analyzed water column parameters, only iron was found in concentrations above assessment criteria, and this is not believed to affect designated uses for this waterbody. Elevated coliform results support the concern regarding area CSOs. Macroinvertebrates collected at this site and chemically analyzed for contaminants show no organochlorine pesticides, PAHs, or PCBs present in concentrations above established guidance values. Sediments contain some contaminants in concentrations that may be of concern, but based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Chronic toxicity testing using water from this location shows 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 minor impacts, but

supports its aquatic life and recreation uses. (DEC/DOW, BWAM/RIBS, June 2005).

This segment includes the entire stream and selected/smaller tribs, from the mouth to Round Lake. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Lower Plum Brook (-2), are Class C,C(T). Upper Plum Brook (-2) and Dwaas Kill (-6) are listed separately.

Dwaas Kill and tribs (1101-0007)

Impaired Seg

Waterbody Location Information

Revised: 11/06/2006

Water Index No: H-260- 6
Hydro Unit Code: 02020003/240 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 43.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Upper Hudson River
Upper Hudson-Hoosic
Reg/County: 5/Saratoga Co. (46)
Quad Map: ROUND LAKE (J-25-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Known
Recreation	Stressed	Known

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: CONSTRUCTION, URBAN RUNOFF, Failing On-Site Syst
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DOW/Reg5 **Resolution Potential:** Medium
TMDL/303d Status: 1 (Individual Waterbody Impairment Requiring a TMDL))

Further Details

Recreational uses and aquatic life support in the Dwaas Kill is impaired by nutrient enrichment and elevated levels of pathogens attributed to urban/stormwater runoff and possible failing/inadequate on-site wastewater treatment systems.

NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring of the Dwaas Kill in the town of Halfmoon hamlet of Ushers, was conducted in 2001 and 2002. In 2001 biological screening, the macroinvertebrate community was found to be moderately impacted, while in 2002, slight impact was indicated. In both years, filter-feeding caddisflies and algal-scraping riffle beetles were dominant, and nutrient enrichment was shown to be the primary factor affecting the fauna. Screening for acute toxicity indicated moderate sediment toxicity to be present. In 2002 intensive sampling, mercury was found in the water column in concentrations above the assessment criterion indicating a parameter of concern. Macroinvertebrates collected at this site and chemically analyzed for metals, organochlorine pesticides, PAHs, and PCBs, contained zinc in concentrations above established guidance values, but no sediments were found to contain contaminants that exceeded the threshold effects concentration, indicating a low likelihood of toxicity to sediment-dwelling organisms. Chronic toxicity testing using water from this location shows no significant mortality or reproductive effects on the test organism. However, based on a moderately impacted macroinvertebrate community, and the presence of moderate acute sediment toxicity, water quality at this location is not considered to

support its aquatic life use. Mercury levels in the water also suggest possible impacts on fish consumption. A general advisory for limiting the consumption of sportfish from all waters of the state is in place due to the common occurrence of some chemicals (such as mercury and PCBs) in fish, the inability to test all waters and the possibility of other unidentified contaminants. (DEC/DOW, BWAM/RIBS, June 2005).

Biological (macroinvertebrate) assessments of an additional site on the Dwaas Kill in Clifton Park (at Vischer Ferry Road) was conducted in 2000. Water quality of the stream at this site was assessed as slightly impacted. Nonpoint source nutrient enrichment was the primary stressor. (DEC/DOW, BWAR/SBU, July 2002)

Water quality impacts on the fishery due to silt and sedimentation from construction activities have been noted in previous assessments of the stream and its tribs. The watershed is subject to considerable residential and commercial development pressures. The regional staff indicates that inadequate stormwater controls (predating the Phase II stormwater effort) result in sedimentation in the streams. Sewage discharges from commercial and residential areas have been noted in the past. Because of this past history, impacts from inadequate and/or failing on-site septic systems is listed as a possible source of pollutants.

Dwaas Kill and tribs is included on the NYS 2006 Section 303(d) List of Impaired Waters. This river segment is included on Part 1 of the List as a waterbody segment requiring the development of a TMDL or other strategy to attain water quality standards for phosphorus and silt/sediment.

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Long Kill (-3) and Cooley Kill (-4), are Class C,C(T),C(TS).

Round Lake (1101-0060)

Need Verific

Waterbody Location Information

Revised: 02/08/2007

Water Index No:	H-260-P1089	Drain Basin:	Upper Hudson River
Hydro Unit Code:	02020003/240	Str Class:	B
Waterbody Type:	Lake	Reg/County:	5/Saratoga Co. (46)
Waterbody Size:	320.1 Acres	Quad Map:	ROUND LAKE (J-25-2)
Seg Description:	entire lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Possible

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: OTHER POLLUTANTS

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: OTHER SOURCE

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

Various potential sources of impacts to this waterbody have been identified in previous assessments. However, actual impacts to uses need to be verified/reverified. Previous assessments indicate that: Bathing, fish propagation and aesthetics are impaired by high water levels flooding public beach and spawning areas and dislodging vegetative debris/scum. Beaver dams have raised water level by approximately 2 1/2 feet. A proposed public beach improvement project is funded except for sewer connection. Investigation of a fish kill in spring of 1993 noted spawning areas of largemouth bass are under stress. Construction (Lakehill Estates) threatens bathing and aesthetics due to siltation and urban runoff. Lawn pesticides and fertilizers from same area threaten fish survival.

This segment includes the total length of selected/smaller tribs to Round Lake and Little Round Lake.

Ballston Lake (1101-0036)

Impaired

Waterbody Location Information

Revised: 06/07/2016

Water Index No: H-260-P1089-3-P1090
Hydro Unit Code: Anthony Kill-Hudson River (0202000311)
Water Type/Size: Lake/Reservoir 263.4 Acres
Description: entire lake

Water Class: A
Drainage Basin: Upper Hudson River
Reg/County: 5/Saratoga (46)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Pollutants/Sources)

Uses Evaluated	Severity	Confidence
Water Supply	Stressed	Known
Public Bathing	Stressed	Suspected
Recreation	Impaired	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Fully Supported	Unconfirmed

Conditions Evaluated

Habitat/Hydrology	Fair
Aesthetics	Fair

Type of Pollutant(s)

Known:	NUTRIENTS (phosphorus), ALGAL/PLANT GROWTH, Harmful Algal Blooms, Aquatic Invasive Species
Suspected:	Silt/Sediment
Unconfirmed:	Pathogens, Water Level/Flow

Source(s) of Pollutant(s)

Known:	ON-SITE/SEPTIC SYSTEMS
Suspected:	STREAMBANK EROSION, Habitat Alteration
Unconfirmed:	Agriculture, Hydro Alteration, Urban/Storm Runoff

Management Information

Management Status:	Funding for Strategy Implementation Needed
Lead Agency/Office:	ext/WQCC
IR/305(b) Code:	Impaired Water Requiring a TMDL (IR Category 5)

Further Details

Overview

Ballston Lake is assessed as an impaired waterbody due to recreational uses that are known to be impaired by residential onsite septic systems, streambank erosion and other nonpoint sources. Water supply use and public bathing are also considered to be at least stressed – with impacts that could rise to the level of impairment – due to the same conditions. Eutrophic conditions in the lake have been well documented, and water quality conditions by most measures are degrading.

Use Assessment

Ballston Lake is a Class A waterbody, suitable for a water supply, public bathing, general recreation use and support of aquatic life.

Regarding water supply use, note that the evaluation of this use focuses on the source water prior to treatment, and does not necessarily reflect the quality of water distributed for use after treatment. Monitoring of water quality at the tap is conducted by local water suppliers and public health agencies. That being said water supply use is considered to be stressed due to high chlorophyll and phosphorus levels, and the occurrence of HABs. Though classified for water supply

use, there are currently no public water supply withdraws on the Lake.

Recreation uses are considered to be impaired due to elevated nutrients (phosphorus), excessive algae, and occasional harmful algal blooms. Non-contact recreation (boating, fishing) is affected by excessive aquatic vegetation and the presence of invasive plant growth (Eurasian watermilfoil, water chestnut). Aesthetic conditions of the lake are considered to be poor due to excessive algae, shoreline algal blooms and excessive aquatic vegetation. Public bathing use is also thought to be stressed, although additional bacteriological sampling is needed to more fully evaluate the impact of pathogen levels on public bathing (swimming) use. (DEC/DOW, BWAM/LMAS, January 2016)

Aquatic life is considered to be fully supported based on DFW assessments that indicate a healthy warmwater fishery. Ballston Lake has excellent fishing for largemouth bass. Other species found within this lake include smallmouth bass, yellow perch, brown bullhead, northern pike, bluegill, carp, redbfin pickerel, black crappie, longear sunfish, pumpkinseed, rock bass, and walleye. (DEC/DFW, Region 5, January 2014)

There are no health advisories in place limiting the consumption of fish from this waterbody (beyond the general advice for all waters). Fish consumption is considered to be fully supported based on the absence of any waterbody-specific advisory, but is noted as unconfirmed since routine monitoring of contaminants in fish is limited. (NYS DOH Health Advisories and DEC/DOW, BWAM, January 2014)

Water Quality Information

Water quality sampling of Ballston Lake has been conducted through the Citizens Statewide Lake Assessment Program (CSLAP) since 1991. Results of this sampling indicate the lake is best characterized as eutrophic, or highly productive. Chlorophyll/algal levels are above criteria corresponding to impaired recreational uses, while phosphorus concentrations are typically high (TP of 37 ug/l over most recent 5-year average). Lake clarity measurements indicate water transparency often fail to meet the recommended minimum criteria for swimming beaches. Readings of pH typically fall within the range established in state water quality standards for protection of aquatic life. (DEC/DOW, BWAM/LMAS, May 2016)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment also show the lake to be generally supportive of recreational uses, with the lake being described as "excellent" to "slightly impacted" for most uses. However assessments have been somewhat less favorable in more recent years. Weed growth is not dense enough to have an impact of recreational uses or aesthetic quality of the lake, although invasive weeds grow to the surface in some locations. (DEC/DOW, BWAM/CSLAP, May 2016)

Source Assessment

Watershed studies have identified onsite/septic systems serving lakeside residences as sources of nutrient loads and possibly other pollutants to the Lake. Nonpoint stormwater runoff from the lake watershed is also known to contribute to pollutant loads to the lake. (Note: a previously identified pollutant source – wastewater discharge from a local lakeside restaurant (Carney's Restaurant) – has been addressed through NYSDEC enforcement action. (DEC/DOW, BWAM and Region 5, January 2016)

Habitat alteration – specifically, the occurrence of various aquatic invasive species – has also been identified as a source of impacts to recreational uses. (DEC/DOW, BWAM, January 2016)

Management Action

Management of Ballston Lake is led by the Ballston Lake Improvement Association. The BLIA is local non-profit organization focused on the preservation of the legacy and quality of the Lake and its watershed. A Ballston Clean Water Committee has been working for the last several years to bringing sewers to the communities surrounding Ballston Lake. A referendum to go forward with a sewer project was approved in 2015 and an application for the formation of a sewer district is under review. (BLIA and DEC/DOW, Region 5, May 2016)

Section 303(d) Listing

Ballston Lake is included on the current (2016) NYS Section 303(d) List of Impaired/TMDL Waters. The waterbody is included on Part 1 of the List as an impaired waterbody requiring development of a TMDL to address phosphorus. This waterbody first appeared on the 2012 List. (DEC/DOW, BWAM/WQAS, January 2016)

Segment Description

This segment includes the total area of the entire Lake.

Schuyler Creek and tribs (1101-0093)

Impaired Seg

Waterbody Location Information

Revised: 12/05/2006

Water Index No: H-265
Hydro Unit Code: 02020003/100 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 0.0 Miles
Seg Description: entire stream and tribs

Drain Basin: Upper Hudson River
Reg/County: 5/Saratoga Co. (46)
Quad Map: MECHANICVILLE (J-26-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Impaired	Suspected
RECREATION	Impaired	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
Suspected: D.O./OXYGEN DEMAND, PATHOGENS
Possible: - - -

Source(s) of Pollutant(s)

Known: PRIVATE/COMM/INST (Hillside Colony Trail.Pk.)
Suspected: Urban Runoff
Possible: - - -

Resolution/Management Information

Issue Resolvability: 2 (Strategy Exists, Needs Funding/Resources)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DOW/Reg5
TMDL/303d Status: 1* ()

Resolution Potential: High

Further Details

Aquatic life support and recreational uses in Schuyler Creek are considered to be impaired by nutrients, pathogens and low dissolved oxygen attributed to untreated/partially treated sewage from an aging and inadequate WWTP serving a trailer park. Although the impact to aquatic life does not quite reach the level of impairment for this particular use, the discharge has a significant impact on aquatic life that is measureable and suggests highly stressed conditions.

A biological (macroinvertebrate) survey of Schuyler Creek at multiple sites in the vicinity of Stillwater was conducted in 2003. Sampling results indicated slightly impacted water quality conditions at all sites. Although there was no exceedence of the Biological Impairment Criteria, the data did show that there was an impact on the stream biota attributed to the Hillside Colony trailer park discharge. The fauna below the discharge was heavily dominated by aquatic worms while more sensitive stone flies and mayflies that were numerous at upstream sites were rare or absent below the discharge. (DEC/DOW, BWAR/SBU, August 2003)

Effluent from an aging 30 year old wastewater treatment plant serving the Hillside Trailer Park discharges untreated/partially treated wastewater into the creek periodically, primarily during wet weather. The collection

systems experiences significant infiltration and inflow, resulting in high flows that the plant is unable to handle. These overflows contribute to sludge deposits, discharge of solids and odors in the creek. The situation is the focus of a consent order. (DEC/DOW, Region 5, Dec 2006)

This segment includes the entire stream and all tribs. The waters of the stream are Class C from the mouth to unnamed trib (-2) and Class C(T) for the remainder of the reach. Tribs to this reach/segment are Class C.