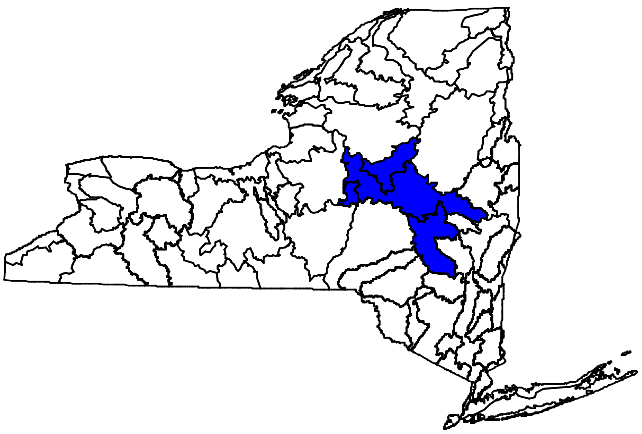
Bureau of Watershed Assessment and Management
Division of Water
NYS Department of Environmental Conservation

The Mohawk River Basin Waterbody Inventory and Priority Waterbodies List

Encompassing all or portions of
Albany, Delaware, Fulton, Greene,
Hamilton, Herkimer, Lewis, Madison,
Montgomery, Oneida, Otsego, Saratoga,
Schenectady and Schoharie Counties



July 2010

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The Waterbody Inventory and Priority Waterbodies List

In order to fulfill certain requirements of the Federal Clean Water Act, the New York State Department of Environmental Conservation (NYSDEC) must provide regular, periodic assessments of the quality of the water resources in the state and their ability to support specific uses. These assessments reflect monitoring and water quality information drawn from a number of programs and sources, both within and outside NYSDEC. This information has been compiled by NYSDEC Division of Water and merged into an inventory database of all waterbodies in New York State. The database is used to record current water quality information, characterize known and/or suspected water quality problems and issues, and track progress toward their resolution. This inventory of water quality information is the division's Waterbody Inventory/Priority Waterbodies List (WI/PWL).

In addition to providing a baseline assessment of water quality, the Waterbody Inventory/Priority Waterbodies List supports program management within the Division of Water in other ways. For example:

A Focus for Division Program Activities
Because of limited resources, various division programs (monitoring, compliance, restoration and protection activities, grant funding) need to address those specific water quality issues – both statewide problems (e.g., stormwater, toxic/contaminated sediment) and site/waterbody-specific concerns – where program efforts will have the greatest impact.

A Consistent and Objective Inventory
WI/PWL assessments of water quality problems and issues are used in the development of program-specific priority ranking/scoring systems and efforts.

A Record of Water Quality History
Because the WI/PWL provides information for specific waterbodies, staff can easily respond to questions – from both within and outside the division (including the public) – concerning what is known about the water quality of specific rivers, lakes and watersheds.

A Measure of Progress
The WI/PWL also aids in the tracking of progress by division programs and other efforts toward improving the water resources of the state.

Comprehensive Assessment Strategy

The Waterbody Inventory/Priority Waterbodies List is a key component of the Division of Water's larger *Comprehensive Assessment Strategy*. This strategy is designed to integrate a variety of division activities into a more coordinated and comprehensive water quality program. The specific goals of the *Comprehensive Assessment Strategy* are to provide a:

- thorough (appropriate to available resources) monitoring of state waters;
- complete evaluation and consideration of all available monitoring data;
- comprehensive assessment of the quality of all waters in the state; and
- coordinated approach to improving and protecting these water resources.

Implementation of the *Comprehensive Assessment Strategy* relies on a rotating drainage basin approach. This approach focuses water quality monitoring and assessment activities on a portion of the state for a designated period of time, and then turns attention to other parts of the state. The use of the rotating basin approach enables the updating of the WI/PWL in two or three of its seventeen drainage basins (about 20% of the state) each year. This schedule allows for a comprehensive reassessment of the water quality throughout the state over a five-year cycle (see Figure 1).

Statewide Waters Monitoring Program

Prior to the updating of the WI/PWL, the division conducts a two-year monitoring effort in the targeted drainage basins. These basin studies – conducted within the Division of Water's Statewide Waters Monitoring Program – involve a variety of sampling activities conducted by the division, other NYSDEC programs, and water quality partners outside NYSDEC.

Division monitoring activities in the first year of these basin studies focuses on *biological screening* as well as the review of existing water quality information and the incorporation of monitoring efforts being conducted by other basin/watershed partners. Biological screening relies on the use of resident biological communities as indicators of water quality. The primary biological communities are fish, macroinvertebrates (aquatic insects) and algae. Of these, macroinvertebrates have proven the most appropriate for screening water quality at a large number of sites in a reasonable amount of time.

The second year of the basin studies involves more intensive chemical and biological monitoring. This includes water chemistry sampling at selected sites, sediment chemistry/toxicity sampling, multiple site surveys along specific river reaches, and other site- or problem-specific monitoring investigations.

Water Quality Assessments: Updating the WI/PWL

At the conclusion of the monitoring effort in a basin, the water quality data are evaluated to assess the ability of the waterbodies to support specific water uses (water supply, public bathing, aquatic life, secondary recreation, etc). As was the case with the monitoring effort, the evaluation and assessment of data and subsequent updating of WI/PWL information incorporates input from division/department staff and outside partners as well. WI/PWL assessment workshops are conducted for NYSDEC regional staff and watershed partners within each targeted basin, and participants are encouraged to submit assessment worksheets for waterbodies for which they have information. This information – along with Statewide Waters Monitoring Program information – is compiled and distributed to participants for review and comment before the Final WI/PWL Assessment Report is issued.

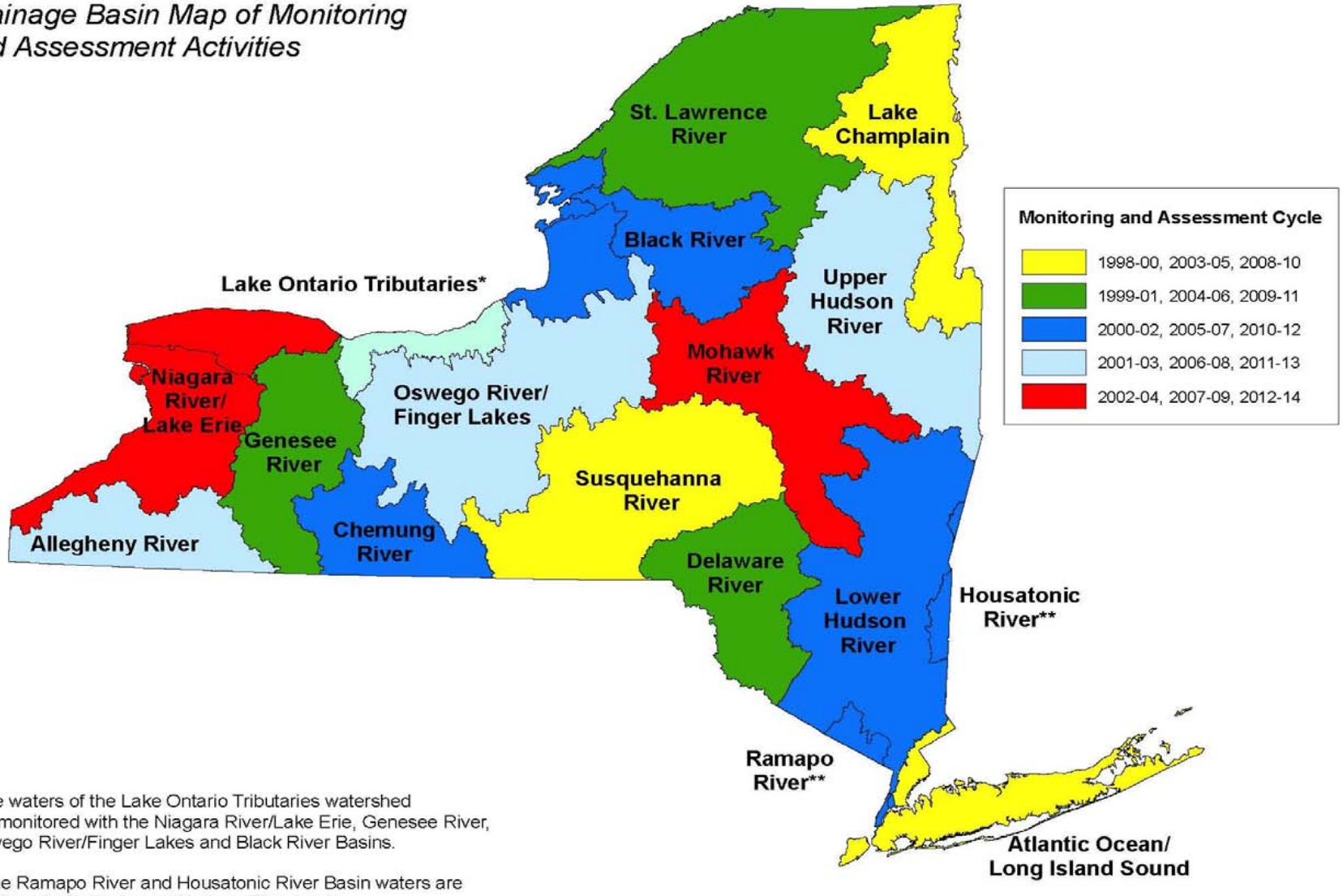
An Expanded Waterbody Inventory

Upon its inception in 1983 and through the mid-1990s, the Priority Waterbodies List was limited to recording information for only those waters with known or suspected water quality problems. The expansion of the database to include *all* waters in the state, including those with good and unknown water quality, is a fairly recent effort. However, while this expanded waterbodies database provides more complete water quality information, for program management purposes the division must also be able to cull a subset of "*priority*" waterbodies from the inventory of all waters on which the division should spend resources. In other words, there is a need for both a comprehensive *Waterbody Inventory* of water quality information for all waters in the state and a subset of this inventory that is limited to segments with well documented, potentially resolvable, higher priority problems and issues. This subset of the Waterbody Inventory is the *Priority Waterbodies List*.

Figure 1

Comprehensive Assessment Strategy

Drainage Basin Map of Monitoring and Assessment Activities



*The waters of the Lake Ontario Tributaries watershed are monitored with the Niagara River/Lake Erie, Genesee River, Oswego River/Finger Lakes and Black River Basins.

**The Ramapo River and Housatonic River Basin waters are monitored with the Lower Hudson River basin.

In order to achieve these multiple objectives, segments in the larger comprehensive Waterbody Inventory are segregated into one of six (6) *Water Quality Assessment Categories*. These are outlined below.

WI/PWL Waterbody Assessment Categories

Impaired Waters: These are waterbodies with well documented water quality problems that result in precluded or impaired uses (waters with stressed or threatened uses are not included in this category). This category includes High and Medium Resolvability segments where the Division of Water considers the expenditure of additional resources to improve water quality to be worthwhile given public interest and/or the expectation that a measurable improvement can be achieved; and Low Resolvability segments with persistent/intractable problems on which the division is not likely to spend any significant resources (e.g., segments affected by atmospheric deposition, etc.).

Waters with Minor Impacts: These are waterbodies where less severe water quality impacts are apparent but uses are still considered fully supported. These segments correspond to waters listed as having stressed uses.

Threatened Waterbodies: These are waterbodies for which uses are not restricted and no water quality problems exist but where specific land use or other changes in the surrounding watershed are known or strongly suspected of threatening water quality. Also included in this category are waterbodies where the support of a specific and/or distinctive use (e.g., unfiltered public water supply) make the waterbody more susceptible to water quality threats.

Waterbodies with Impacts Needing Verification: These are segments that are thought to have water quality problems or impacts but for which there is not sufficient or definitive documentation. These segments require additional monitoring to determine whether uses are restricted.

Waterbodies Having No Known Impacts: These are segments where monitoring data and information indicate that there are no restrictions to overall uses, although minor impacts to component indicators (such as biological assessments) may be present.

UnAssessed Waterbodies: These are segments where there is insufficient water quality information available to assess the support of designated uses.

Taken together, *Impaired Waters, Waters with Minor Impacts* and *Threatened Waterbodies* comprise the Division of Water Priority Waterbodies List (PWL). These segments are the focus of remedial/corrective and resource protection activities by the division and its water quality partners.

***Waterbodies with Impacts Needing Verification, Waterbodies Having No Known Impacts* and *UnAssessed Waterbodies* are tracked on the comprehensive Waterbody Inventory, but are not considered to be included among waters on the Priority Waterbodies List.** For these waters, additional monitoring and assessment activities to document possible or potential future impacts, causes and sources are more appropriate than remedial/corrective action or resource protection efforts.

Maintaining a comprehensive Waterbody Inventory allows division staff to easily respond to questions – from both within and outside NYSDEC – concerning the water quality of specific rivers, lakes and watersheds. By segregating the database in the manner described above, the division can also identify specific priorities where the coordination of limited resources can most effectively address water quality problems.

The Mohawk River Basin

Basin Description

The Mohawk River Basin, located in central New York State, is the largest tributary to the Hudson River. Its approximately 3,460 square mile drainage area represents just over 25% of the entire Hudson River Basin. The Mohawk originates between the Adirondack Mountains and Tug Hill Plateau in north central New York State and flows toward the east carving a wide valley between the Adirondacks to the north and the Central Appalachian Mountains to the south. Numerous population centers are located along the main stem of the Mohawk and the parallel/coincident New York State (NYS) Barge Canal, which has long served as a primary navigation route to the west. The entire Mohawk River Basin is within the borders of New York State. The drainage Basin area includes all of Montgomery County, most of Schoharie County, large parts of Schenectady, Greene, Fulton, Herkimer and Oneida Counties, and portions of Albany, Saratoga, Delaware, Otsego, Hamilton, Madison and Lewis Counties.

The population of the Mohawk River Basin totals about 583,500 people (2000). Larger population centers (either partially or entirely within the basin) include Albany (95,658, partial), Schenectady (61,821), Amsterdam (18,355), Utica (60,651) and Rome (34,950). Outside these centers, the basin is largely rural and forested to the north of the river and agricultural along the river and to the south.

There are about 6,609 miles of rivers and streams (and canal) and 136 significant* lakes, ponds and reservoirs (covering 18,856 acres) in the basin. The length of the main stem of the Mohawk River itself from Delta Dam to the Hudson is about 140 miles. The largest tributaries to the Mohawk include the Schoharie with 1,650 or 25% of basin stream miles, West Canada Creek (1,165 miles, 18%) and East Canada Creek (515 miles, 8%). Of the lakes/reservoirs, the four largest (Hinckley Reservoir, Delta Reservoir, Schoharie Reservoir and Peck Lake) represent about 42% of the total amount of lake acres in the basin.

Water Quality Issues and Problems

The Mohawk River Basin, like much of New York State, encompasses a diverse area that includes highly urbanized and industrial areas, commercial strips and surrounding suburban residential communities, rural agricultural areas and lightly populated tracts of forested land. Not surprisingly, water quality issues in the basin are also quite diverse. The more significant point source impacts are located along the more urban and populated Mohawk River/NYS Barge Canal corridor. But various nonpoint source impacts are evident throughout the basin. The more significant water quality issues in the basin are discussed below.

Urban/Industrial Impacts

Various recreational uses, aquatic life support and aesthetics in stretches of the urban waterways of and along the Mohawk River main stem and NYS Barge Canal are significantly restricted by pollutants from various industrial, municipal, commercial and other sources. Industrial and municipal point sources, including combined sewer overflows, are identified concerns in some parts of the basin. These impacts are most significant in the Utica and Rome areas. Nonpoint urban runoff also flushes a variety of pollutants and debris from the numerous population centers and surrounding communities along the river/canal into its waters. Contaminated sediments, inactive hazardous waste sites and other impacts attributed to past/historic discharges also limit uses.

Atmospheric Deposition/Acid Rain

Low pH attributed to atmospheric deposition/acid rain has been documented in many small lakes and ponds in the basin. Such conditions have a significant impact on aquatic ecosystems, impairing and often precluding the propagation and survival of fish in some lakes and ponds. Previous water quality assessments and Priority Waterbodies Lists have included large numbers of smaller (less than 10 acres) lakes and ponds impacted by acid rain. However, with the expansion of the WI/PWL database to accommodate all waterbodies, it was necessary to limit the tracking of individual lakes to those 0.01 square miles (6.4 acres) in size or larger. Although these lakes and ponds are no longer tracked individually, and the lake area affected as a percentage of total lake area in the basin is not that large, acid rain remains a significant water quality issue affecting a large number of waterbodies in the basin.

Fish Consumption Advisories

Various waters in the Mohawk River Basin are impaired due to waterbody-specific fish consumption advisories for the protection of human health. Consumption advisories in the Mohawk River, NYS Barge Canal and smaller tributaries in the Utica-Rome area are a result of elevated PCB levels. The source of PCBs are largely contaminated sediments and hazardous waste sites/landfills, although continuing sources may also be present. Fish consumption in Schoharie Reservoir and Ferris Lake is limited by advisories due to mercury levels. Atmospheric deposition of mercury is the likely source.

New York City Water Supply Reservoir System

The Schoharie Reservoir is part of the New York City Water Supply's Catskill District, which makes up about 24% of the entire City water supply, and which serves nearly half the population of the state. Reservoir water is diverted from the Schoharie/Mohawk Basin to the Upper Esopus Creek and the Ashokan Reservoir in the Lower Hudson Basin via the Shandaken Tunnel. The turbidity in the reservoir is sufficiently high as to limit its use as a drinking water supply. The water discharged through the Shandaken Tunnel, has the potential to be a major contributor of suspended sediment to the Esopus Creek. The discharge has been a matter of litigation in federal court and has resulted in SPDES control measures. These problems are primarily the result of the erosion of glacial clay deposits indigenous to the watershed. Some in-reservoir processes, such as near shore wave action, can contribute to reservoir turbidity. However, the ultimate source of most turbidity in the reservoir is watershed streams. New York City Department of Environmental Protection (NYCDEP) has undertaken an extensive program of stream stabilization upstream of the reservoir. Beyond these efforts NYCDEP is currently managing turbidity in the reservoir and its impact on the water supply operationally, by regulating (limiting) the amount of water being diverted from the Schoharie to the Ashokan Reservoir. However, this approach represents a trade of water quantity for quality and does not address the underlying sources of turbidity in the watershed.

Agricultural Activity and Impacts

Considerable agricultural activity in rural watersheds of the Mohawk River Basin also have a significant impact on aquatic life support and recreational uses of the waters. Agricultural runoff and various other nonpoint sources contribute nutrient and silt/sediment loads to the streams. Poor agricultural management practices, including allowing livestock unrestricted access to streams, improper manure application on fields, lack of silage leachate, manure or milkhouse wastewater treatment facilities, intensively cultivated row croplands with little riparian buffer and nutrient (fertilizer) and pesticides application to fields in the absence of approved nutrient/pesticide management plans, have a significant impact on water quality. Various state and local (county) agencies are working with the farming community to address these issues.

Failing and/or Inadequate Onsite Septic Systems

Recreational uses and aesthetics of lakes and streams in a number of rural communities are impacted by failing and/or inadequate onsite septic systems. In many cases, raw sewage discharges have been observed. Such conditions also raise obvious public health concerns as well. Efforts to address these problems are hindered by fiscal considerations. Correcting individual systems and/or the sewering of a larger neighborhood or community results in significant (often insurmountable) financial burden.

Hydrologic Modification

Natural resources fishery) habitat and recreational (fishing, boating) uses in various waters of the basin are significantly affected by hydrologic modifications. Fluctuations in stream flows and lake water levels are a result of various uses, including hydropower generation, flood control, drinking water supply use, and augmentation of water in the NYS Barge Canal. The impacts of the conflicting uses of these water resources will be difficult to resolve.

Mohawk River Basin Program

NYSDEC has recently initiated a Mohawk River Basin Program to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The program will serve to coordinate basin wide activities, the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. The Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program, to accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing water resources. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014.

Groundwater Resources

Although groundwater resources are not specifically tracked through the WI/PWL, they are considered Priority Waters nonetheless. Groundwater provides drinking water for about one-third of the population of New York State and is the source of base flow for most rivers and streams in the state. Management and protection of both the quantity and quality of this resource is critical for protecting public health, and is also a key element of surface water quality and wetland management efforts.

Groundwater is not incorporated into the WI/PWL because of the difficulties with regard to monitoring, assessing and even defining “waterbody segments.” In addition, the emphasis on protection of groundwater now (rather than restoration later) also makes the WI/PWL an inadequate tool to manage this resource. While the WI/PWL discusses water quality threats to some degree, the more typical WI/PWL approach tracks the need for periodic assessment, the determination of impacts and impairments, and the progress toward restoration of uses. While this approach is adequate for surface waters, the use of groundwater for drinking water supplies, the corresponding impact on public health, and the considerable difficulty in restoring groundwater resources once degraded, requires a different approach. The proper management of groundwater resources requires a greater emphasis on threats (both known and potential) than the WI/PWL provides, and less focus on restoration. In the Mohawk River Basin, the more significant of these threats include agricultural sources, inadequately maintained and/or failing on-site septic systems and salt storage and application for road deicing.

Mohawk River Basin Water Quality Assessment

The series of charts presented on the following pages provides an overall assessment of water quality conditions in the entire Mohawk River Basin. For each waterbody type (rivers/streams and lakes/reservoirs) the pie charts show the portion of the miles/acres of waters in the basin which fall into the various water quality assessment categories. The **dark purple** portion of the first pie indicates waters characterized as *Not Supporting Uses*. The **light purple** portion represents waters with *Minor Impacts/Threats*. Taken together, these two categories of waters comprise the *Priority Waterbodies* for that waterbody type. The portion of waters which fall into the other water quality assessment categories – waterbodies having *No Known Impacts*, *UnAssessed Waters*, and waterbodies with *Impacts Needing Verification* – are shown in **blue**, **light blue**, and **green** respectively.

The second pie chart shows the severity of the most significant use impact or restriction for waters on the Priority Waterbodies List (PWL). The levels of severity are:

Precluded: waters do not support appropriate uses;
Impaired: waters frequently do not support appropriate uses;
Stressed: waters support appropriate uses, but other water quality impacts are apparent; and
Threatened: waters support uses and have no impacts, but activities threaten future use support.

More detailed descriptions of these levels of severity are outlined in *Appendix A - Assessment Methodology*.

The bar charts indicate the pollutant sources that are most frequently cited as major contributors to the water quality impacts for Priority Waterbodies in the Mohawk River Basin. The charts reflect the percentage of miles/acres of the total waterbody area included on the Priority Waterbodies List where a

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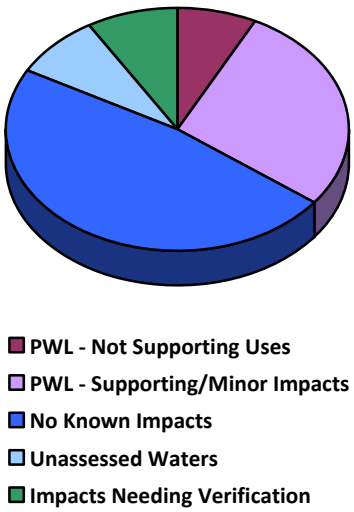
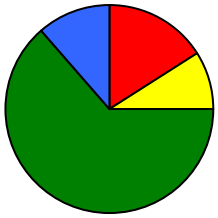
Rivers and Streams Assessment

Water Quality Assessment



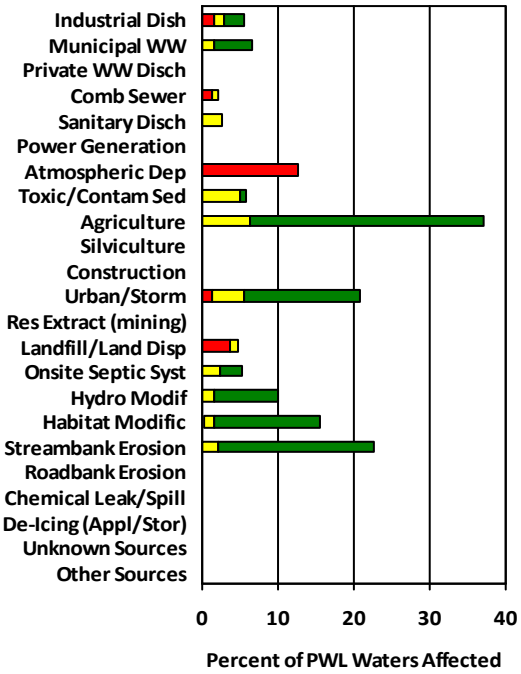
Severity of Impact

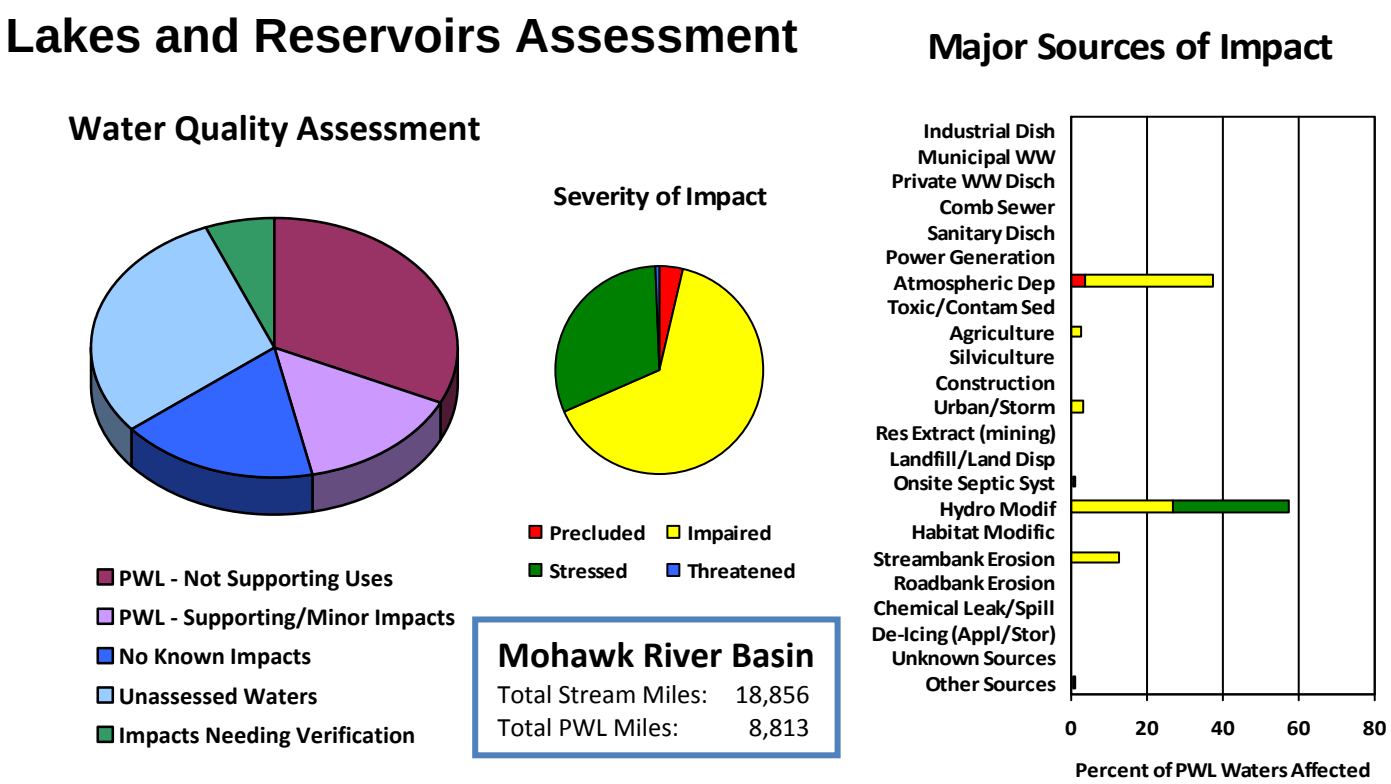


Mohawk River Basin

Total Stream Miles:	6,609
Total PWL Miles:	2,340

Major Sources of Impact





particular source is listed as a major contributor to the water quality impact. For each source, the color shading of the bar indicates the severity level (Precluded, Impaired, Stressed, Threatened) of the most significant water use impact to the waterbody.

Basin Water Quality Summary

About one-third (35%, or 2,340 miles) of the 6,609 river miles in the Mohawk River Basin are included on the Priority Waterbodies List as either not supporting uses or having minor impacts or threats to water quality. Most (79%) of these Priority Waterbody Listed river miles are considered *Stressed* or *Threatened* waters that fully support appropriate uses but have minor impacts/threats to uses. Only about seven percent (7 %) of all basin river miles are *Impaired* and do not fully support appropriate uses.

Twenty-seven (27) of the 136 separate lake segments in the basin are included on the PWL as having either impaired uses or minor impacts/threats to uses. These impaired/impacted lakes represent nearly one-half (47%) of the total lake acres in the basin. Impairments to two of the four largest lakes in the basin (Delta Reservoir and Schoharie Reservoir) account for over 3,500 impaired acres, or 58% of the total impaired lake acres in the basin where fish consumption, recreational uses and/or aquatic life are not fully supported.

The most frequently cited sources of impacts affecting water quality in the basin are atmospheric deposition, agricultural activities, habitat/hydrologic modification and streambank erosion. These sources along with urban/storm runoff, toxic/contaminated sediments, combined sewer overflows, and municipal and industrial discharges are responsible for the water quality impairment that occurs in the basin. The wide range of sources reflects the diverse nature of the basin which includes older urban centers, extensive farming areas and remote forested lands.

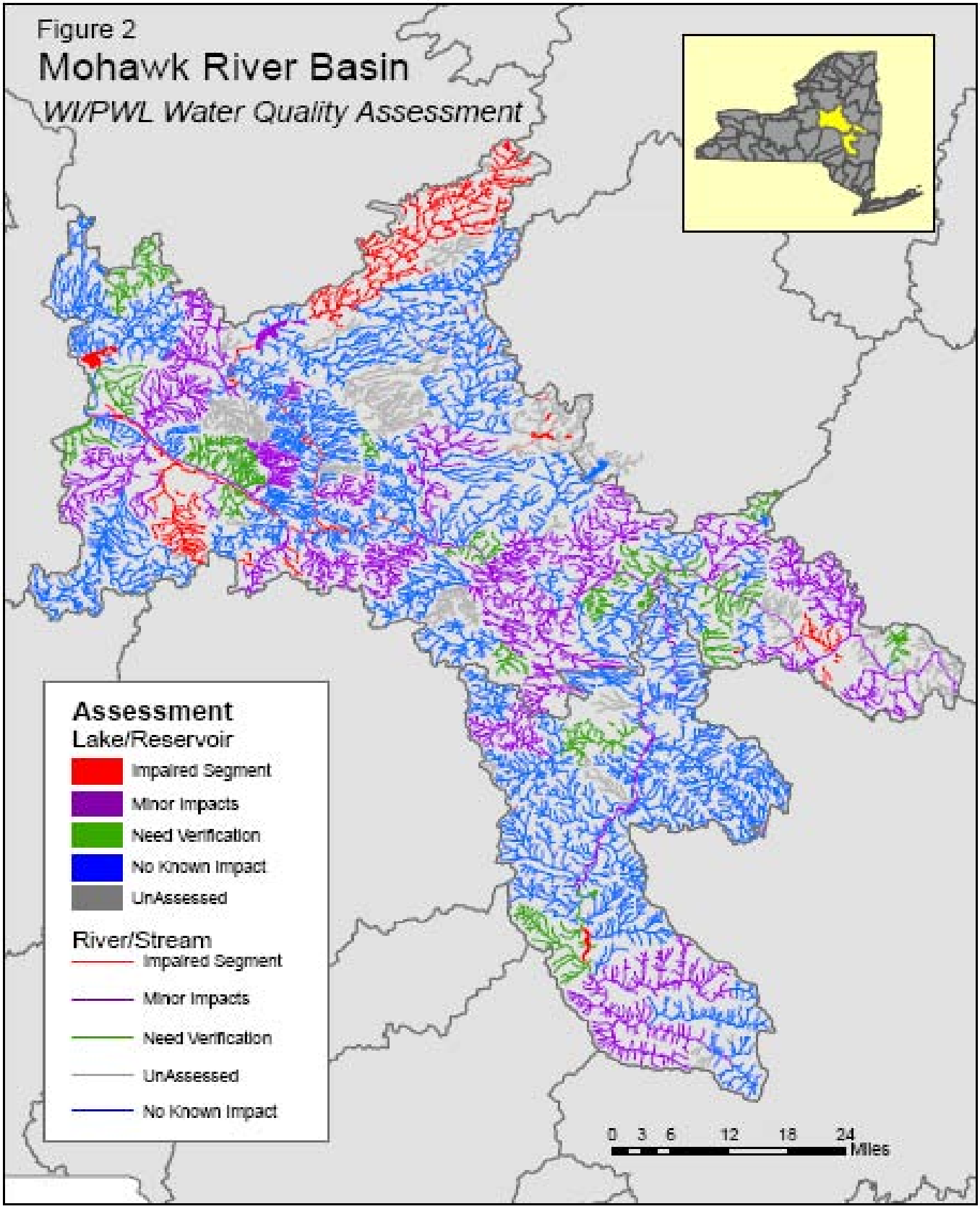


Figure 2
Mohawk River Basin
WI/PWL Water Quality Assessment
Assessment
Lake/Reservoir
Impaired Segment
Minor Impacts
Need Verification
No Known Impact
UnAssessed
River/Stream
Impaired Segment
Minor Impacts
Need Verification
UnAssessed
No Known Impact
0 3 6 12 18 24
Miles

The Mohawk River Basin Waterbody Inventory/Priority Waterbodies List

This compilation of water quality information includes individual waterbody *Data Sheets* describing the water quality conditions in the Mohawk River Basin of New York State. Causes (pollutants) and sources of water quality problems for those waterbodies with known or suspected impacts are also outlined.

The data sheets are presented in hydrologic order, beginning with the most downstream waters and continuing upstream through the basin. Waterbody data sheets are grouped by US Geological Survey Hydrologic Unit Code (HUC) basin and presented as separate sections of this report (see Figure 3). A Waterbody Inventory of the specific waterbody segments in each watershed is included at the beginning of each watershed section.

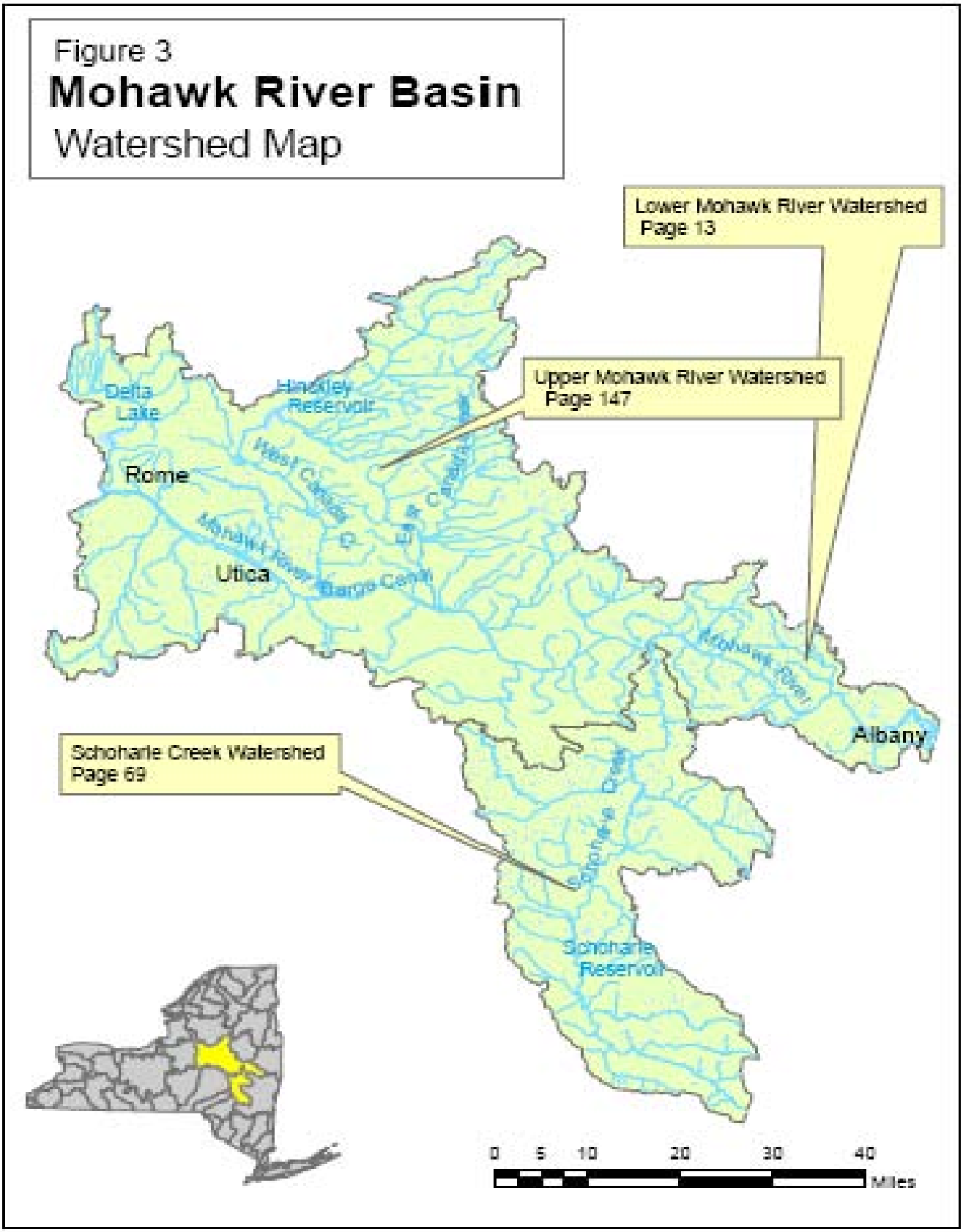
Data sheets are included for each waterbody that has been assessed; i.e., waterbodies listed as *Impaired Waters* (Not Supporting Uses), Waters with *Minor Impacts*, *Threatened Waters*, waters with water quality impacts *Need Verification*, or waterbodies with *No Known Impact*. *UnAssessed* waterbodies are included in the Waterbody Inventory for each watershed, but because they have not been assessed data sheets for these waters have not been included.

The information outlined on the data sheets includes *Waterbody Location Information*, *Water Quality Problem/Issue Information*, *Resolution/Management Information* and *Further Details*. See *Appendix B – Waterbody Inventory Data Sheet Background Information* for more details about the data sheets.

Note that the assessments in this report reflect the best available water quality information at the time of publication. Water quality information may be added or modified subsequent to the preparation of this edition of the Waterbody Inventory and Priority Waterbodies List. When information is updated, the data sheet for the corresponding waterbody segment is issued with the date of revision. More recently revised data sheets supercede the corresponding waterbody information in this listing.

Following the individual waterbody data sheets in the watershed sections, a *Summary Listing of Priority Waters* provides a brief overview of all *Priority Waterbodies*, i.e., waterbodies listed as *Impaired Waters* (Not Supporting Uses), Waters with *Minor Impacts* and *Threatened Waters*.

Indices of waterbody data sheets by both county and alphabetically by segment name are included as Appendix C and D, respectively.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Delta Lake
Hinckley Reservoir
Rome
West Canada Creek
East Canada Creek
Mohawk River
Barge Canal
Utica
Mohawk River
Albany
Schoharie Creek
Schoharie Reservoir
0 5 10 20 30 40
Miles

Waterbody Inventory
for the
Lower Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
Lower Mohawk River, Main Stem		
H-240 (portion 1)	Mohawk River, Lower, Main Stem (1201-0085)	**MinorImpacts**
H-240 (portion 2)	Mohawk River, Lower, Main Stem (1201-0042)	**MinorImpacts**
H-240 (portion 3)	NYS Barge Canal (portion 8) (1201-0086)	UnAssessed
H-240 (portion 4)	Mohawk River/NYS Barge Canal, Main Stem (1201-0073)	**MinorImpacts**
H-240 (portion 5)	Mohawk River/NYS Barge Canal, Main Stem (1201-0006)	**MinorImpacts**
H-240 (portion 6)	Mohawk River/NYS Barge Canal, Main Stem (1201-0087)	**MinorImpacts**
H-240 (portion 7)	Mohawk River/NYS Barge Canal, Main Stem (1201-0088)	**MinorImpacts**
H-240- 1 thru 12 (selected)	Minor Tribs to Mohawk River (1201-0095)	UnAssessed
Tribs to Lower Mohawk River, Cohoes to Rotterdam		
H-240- 11	Shaker Creek and tribs (1201-0079)	**MinorImpacts**
H-240- 11-P496/P498	Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	**Impaired Seg**
H-240- 13	Lisha Kill and tribs (1201-0074)	**MinorImpacts**
H-240- 14	Stony Creek, Lower, and tribs (1201-0097)	**NoKnownImpct**
H-240- 14	Stony Creek, Upper, and tribs (1201-0051)	**Need Verific**
H-240- 14-P503a	Stony Creek (Colonie) Reservoir (1201-0098)	**Need Verific**
H-240- 15 thru 19	Minor Tribs to Mohawk River (1201-0022)	UnAssessed
H-240- 20	Alplaus Kill and minor tribs (1201-0099)	**MinorImpacts**
H-240- 20- 2	Indian Kill and tribs (1201-0100)	**MinorImpacts**
H-240- 21 thru 28	Minor Tribs to Mohawk River (1201-0040)	**Impaired Seg**
H-240- 22-P519	Collins Lake (1201-0077)	**Impaired Seg**
H-240- 24-P525	Iroquios Lake (1201-0101)	UnAssessed
H-240- 26	Poentic Kill and tribs (1201-0005)	**MinorImpacts**
H-240- 29	Plotter Kill and tribs (1201-0102)	**MinorImpacts**
Tribs to Lower Mohawk River, Rotterdam to Fort Hunter		
H-240- 30 thru 50	Minor tribs to Mohawk River (1201-0226)	UnAssessed
H-240- 45	Sandsea Kill and tribs (1201-0103)	**NoKnownImpct**
H-240- 51 thru 68	Minor Tribs to Mohawk River (1201-0104)	**Need Verific**
H-240- 61	Cranes Hollow Creek and tribs (1201-0105)	**NoKnownImpct**
H-240- 69	North Chuctanunda Cr, Lower, and tribs (1201-0031)	**MinorImpacts**
H-240- 69	North Chuctanunda Cr, Middle, and tribs (1201-0106)	**MinorImpacts**
H-240- 69	North Chuctanunda Cr, Upper, and tribs (1201-0107)	**Need Verific**
H-240- 69- 1	Bunn Creek, Upper, and tribs (1201-0108)	**MinorImpacts**
H-240- 69-P556	Harrower Pond (1201-0109)	UnAssessed
H-240- 69-P563	Galway Lake (Amsterdam Reservoir) (1201-0110)	**NoKnownImpct**
H-240- 69-P564	Lake Butterfield (1201-0111)	UnAssessed

…Lower Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
Tribs to Lower Mohawk River, Rotterdam to Fort Hunter (con't)		
H-240- 70	South Chuctanunda Cr, Lower, and tribs (1201-0082)	**NoKnownImpct**
H-240- 70	South Chuctanunda Cr, Upper, and tribs (1201-0112)	**Need Verific**
H-240- 70-P570	Mariaville Lake (1201-0113)	**Impaired Seg**
H-240- 70-P570- 4-P571	Featherstonhaugh Lake (1201-0114)	UnAssessed
H-240- 71 thru 88 (selected)	Minor Tribs to Mohawk River (1201-0030)	**Need Verific**
H-240- 76	Kayaderosseras/McQueen Creeks and tribs (1201-0115)	**NoKnownImpct**

Mohawk River, Lower, Main Stem (1201-0085) MinorImpacts

Waterbody Location Information

Revised: 03/20/2003

Water Index No:	H-240 (portion 1)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/400 **Str Class:** C		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	4/Albany Co. (1) ...
Waterbody Size:	4.4 Miles	**Quad Map:**	TROY NORTH (J-26-4)
Seg Description:	from mouth to dam above Cohoes Falls		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Known
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: AMMONIA, NUTRIENTS (phosphorus), PATHOGENS, Silt/Sediment
Suspected: Water Level/Flow
Possible: - - -

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF, Comb. Sewer Overflow
Suspected: AGRICULTURE, Hydro Modification
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life support and recreational uses (fishing, swimming) in this portion of the Mohawk River, are affected by silt/sediment loads, elevated nutrient concentrations and pathogens. Urban runoff and municipal CSOs are considered the primary sources. Although there is no agriculture along this reach of the river, nonpoint source loadings from agricultural activities throughout the basin are also thought to contribute to impacts in this reach. Hydromodification and flow diversions also impact water uses.

Water Quality Sampling
NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in Cohoes, Albany County, is conducted annually at the Route 32 bridge. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality; such sampling was last conducted at this site in 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling using multiplate samplers indicated non- to slightly impacted conditions. Water column chemistry indicates iron to be present at levels that constitute a parameter of concern. However, iron is considered to be naturally occurring and not a source of water quality impacts. Dissolved aluminum and water temperature both exceeded

assessment criteria in one of 6 samples, but median values for these parameters are well below applicable criteria. Toxicity testing using water from this location detected no mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated slight 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, although PCB, PAHs, pesticides and metals levels were found to be somewhat elevated. Based on the consensus of these established assessment indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, 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)

Previous Sampling

Water quality (chemical) sampling has been conducted annually at the Route 32 Bridge in Cohoes as part of the NYSDEC/DOW RIBS Routine Network sampling program. In addition, when RIBS Intensive Network monitoring is conducted every five years in the Mohawk basin, additional sampling methods are employed to gain an overall assessment of water quality. The most recent overall assessments are from 2000 and 2001. Water column sampling found elevated nutrient (ammonia) concentrations and high total and fecal coliform levels. Some of the coliform values could be the result of a large resident population of geese along the river near the site. (DEC/DOW, BWAR/RIBS, April 2003)

A biological (macroinvertebrate) assessment of the Mohawk River in Cohoes was conducted in 2000 as part of the RIBS sampling. Multiplate sampling results indicated slightly impacted water quality conditions. This is consistent results obtained during the period from 1972 to the present. The communities are dominated by filter-feeding midges and caddisflies, indicative of rivers that are nutrient-rich and high is suspended particulates; conditions that describe the Mohawk. In spite of these minor impacts, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, July 2002)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river/canal from the mouth to the dam above Cohoes Falls.

Mohawk River, Lower, Main Stem (1201-0042) MinorImpacts

Waterbody Location Information

Revised: 04/01/2010

Water Index No:	H-240 (portion 2)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/400 **Str Class:** A		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	4/Albany Co. (1) ...
Waterbody Size:	0.8 Miles	**Quad Map:**	TROY NORTH (J-26-4)
Seg Description:	from dam above Cohoes Falls to Crescent Dam		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Stressed	Suspected
Recreation	Stressed	Suspected

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS (phosphorus), PATHOGENS, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, MUNICIPAL, URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Drinking water supply and recreational uses (fishing, swimming) in this portion of the Mohawk River, are known to experience minor impacts and threats from silt/sediment loads, elevated nutrient concentrations and pathogens. Urban runoff and municipal wastewater discharges in the watershed are considered the primary sources. Although there is no agriculture along this reach of the river, nonpoint source loadings from agricultural activities throughout the basin are also thought to contribute to impacts in this reach. Hydromodification and flow diversions also impact water uses.

Source (Drinking) Water Assessment
A source water assessment of this water supply reach of the Mohawk found an elevated (very high) susceptibility to contamination from pathogens and protozoa due to the extensive amount of agricultural pastureland as well as the total amount of wastewater discharges in the watershed. 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 reach of the Mohawk River is one of only a handful of surface water supplies in the state that received assessments as high as "very high"

susceptibility. This water supply source provides water to the Town of Latham and City of Cohoes. (NYSDOH, Source Water Assessment Program, 2005)

Water Quality Sampling

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in Cohoes, Albany County, just below this reach, is conducted annually at the Route 32 bridge. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality; such sampling was last conducted at this site in 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling using multiplate samplers indicated non- to slightly impacted conditions. Water column chemistry indicates iron to be present at levels that constitute a parameter of concern. However, iron is considered to be naturally occurring and not a source of water quality impacts. Dissolved aluminum and water temperature both exceeded assessment criteria in one of 6 samples, but median values for these parameters are well below applicable criteria. Toxicity testing using water from this location detected no mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated slight 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, although PCB, PAHs, pesticides and metals levels were found to be somewhat elevated. Based on the consensus of these established assessment indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, 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 sampling point is just below the bounds of this segment, it is considered representative of water quality in the upstream reach of the river. This segment is listed as being evaluated rather than monitored. (DEC/DOW, BWAM/RIBS, January 2010)

Previous Assessment

Previously cited water quality issues, including dissolved oxygen stratification, fish consumption advisories, impacts from airport runoff, have either been addressed or have not been sufficiently documented and have been removed from the listing. Although there is no agriculture along this reach of the river, agriculture is listed as a possible source due to significant nonpoint source loadings from agricultural activities throughout the basin. (DEC/DOW, Region 4, April 2002)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the diversion channel from the river to the City of Cohoes public water supply intake.

Mohawk River/NYS Barge Canal, Main Stem (1201-0073) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240 (portion 4)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/370 **Str Class:** A		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	4/Schenectady Co. (47) ...
Waterbody Size:	19.4 Miles	**Quad Map:**	NISKAYUNA (J-25-3)
Seg Description:	from Crescent Dam to Schenectady		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT
Possible: Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, URBAN/STORM RUNOFF, Comb. Sewer Overflow,
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Water supply use, aquatic life support and recreational use in this portion of the Mohawk are thought to experience minor impacts and threats due to nutrient and sediment loads from various urban and agricultural nonpoint sources. Pathogen contamination from agricultural and municipal wastewater sources is also a concern.

Source Assessment
This portion of the river flows through a developed urban area and is subject to nutrient and sediment loadings from urban runoff, stormwater discharges and other nonpoint sources. Some water quality improvements have been noted. Implementation of Phase II stormwater regulations are expected to continue this improvement. Occasional intermittent discharges from various industrial facilities -- a problem in the late 1980s and early 1990s -- are largely under control. DEC/DFWMR Bureau of Habitat PISCES sampling in the Poentic Kill (a trib along this reach) in 1995 detected low levels of PCBs from a General Electric property. (DEC/DOW, Region 4, April 2002)

Water Quality Management
The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk

River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river/canal from the Cresent Dam above Cohoes to the Schenectady-Scotia (Route 5) bridge in Schenectady.

Mohawk River/NYS Barge Canal, Main Stem (1201-0006) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240 (portion 5)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/350 **Str Class:** A		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	10.2 Miles	**Quad Map:**	SCHENECTADY (J-25-4)
Seg Description:	from Schenectady to Pattersonville		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT
Possible: Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, URBAN/STORM RUNOFF, Comb. Sewer Overflow,
Possible: Industrial

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Water supply use, aquatic life support and recreational use in this portion of the Mohawk are thought to experience minor impacts and threats due to nutrient and sediment loads from various urban and agricultural nonpoint sources. Pathogen contamination from agricultural and municipal wastewater sources is also a concern.

Source Assessment
This portion of the river flows through a developed urban area and is subject to nutrient and sediment loadings from urban runoff, stormwater discharges and other nonpoint sources. Some water quality improvements have been noted. Implementation of Phase II stormwater regulations are expected to continue this improvement. Occasional intermittent discharges from various industrial facilities -- a problem in the late 1980s and early 1990s -- are largely under control. DEC/DFWMR Bureau of Habitat PISCES sampling in the Poentic Kill (a trib along this reach) in 1995 detected low levels of PCBs from a General Electric property. (DEC/DOW, Region 4, April 2002)

Water Quality Management
The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk

River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river/canal from the Schenectady-Scotia (Route 5) bridge in Schenectady to the Schenectady-Montgomery County line near Pattersonville.

Mohawk River/NYS Barge Canal, Main Stem (1201-0087) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No: H-240 (portion 6)
Hydro Unit Code: 02020004/330 **Str Class:** C
Waterbody Type: River (High Flow)
Waterbody Size: 9.2 Miles
Seg Description: from Pattersonville to Fort Johnson

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Schenectady Co. (47)
Quad Map: PATTERSONVILLE (J-24-2)

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: NUTRIENTS, SILT/SEDIMENT
Possible: Pathogens

Source(s) of Pollutant(s)
Known: - - -
Suspected: AGRICULTURE, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4
TMDL/303d Status: n/a
Resolution Potential: Medium

Further Details

Overview
Aquatic life support and recreational uses (fishing, boating) in this reach of the Mohawk River may be affected by various urban and agricultural nonpoint runoff sources. Although this reach provides a productive and popular recreational fishery and the most recent monitoring indicates good water quality, fairly recent monitoring has shown significant water quality impacts. The presence or absence of water quality impacts in this reach need to be verified.

A biological (macroinvertebrate) assessment of the Mohawk River in Fonda, above this reach, was conducted in 2000. Multiplate sampling results indicated non-impacted water quality conditions. Previous sampling at this site has generally resulted in assessments of moderately impacted conditions. Until non-impacted assessment is replicated in future years, aquatic life will continue to be listed as stressed. Note that although this sampling was conducted above the described reach, the sampling results are considered to be reflective of conditions in this segment. (DEC/DOW, BWAR/SBU, July 2002)

Source Assessment
Agricultural management practices in small watershed tributary to this reach of the Mohawk contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area

farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Municipal discharges from the City of Amsterdam have previously been cited as cause of impacts in the Mohawk. However these impacts have been addressed with an upgrade of the sludge processing facility.

Water Quality Management

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Segment Description

This segment includes the portion of the river/canal from the Schenectady-Montgomery County line near Pattersonville to McQueen Creek (-76) near Fort Johnson (just above Amsterdam). This portion of the river is designated Class C.

Mohawk River/NYS Barge Canal, Main Stem (1201-0088) MinorImpacts

Waterbody Location Information

Revised: 03/21/2003

Water Index No: H-240 (portion 7)
Hydro Unit Code: 02020004/300 **Str Class:** B
Waterbody Type: River (High Flow)
Waterbody Size: 4.7 Miles
Seg Description: from Fort Johnson to Auriesville

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: TRIBES HILL (J-23-2)

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: NUTRIENTS, SILT/SEDIMENT
Possible: Pesticides, Pathogens

Source(s) of Pollutant(s)
Known: - - -
Suspected: AGRICULTURE, STREAMBANK EROSION
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and recreational uses (fishing, boating) in this reach are thought to experience minor impacts from agricultural runoff, streambank erosion and other nonpoint sources. Silt and sediment loads from the Schoharie Creek are significant; a visual contrast is apparent at the confluence at Fort Hunter.

Water Quality Sampling
A biological (macroinvertebrate) assessment of the Mohawk River in Fonda (at Route 30A) was conducted as part of the RIBS biological screening effort in 2005. Though these sites are just above and just below the actual reach, they are considered to be representative of water quality conditions in this segment. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggest conditions that cause some stress to aquatic life. The results from the site at Fonda show some variation from results collected in previous years. Samples collected at this site in 1990 and 1995 were moderately impacted. Then in 2000, results reflected non-impacted water quality; an improvement that was attributed to improved water quality in Cayadutta Creek. Additional sampling is necesary to determine if the 2000 or 2005 sampling is most reflective of long-term conditions. (DEC/DOW, BWAM/SBU, January 2010)

Source Assessment

Agricultural management practices in small watersheds tributary to this reach of the Mohawk contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to streams, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river/canal from McQueen Creek (-76) near Fort Johnson (just above Amsterdam) to Auries Creek (-84) near Auriesville.

Shaker Creek and tribs (1201-0079) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No: H-240- 11
Hydro Unit Code: 02020004/400 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 15.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Albany Co. (1)
Quad Map: NISKAYUNA (J-25-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
Suspected: SILT/SEDIMENT
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: Chemical Leak/Spill (Albany Internat'l Airport), Industrial

Resolution/Management Information

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

Further Details

Overview
Aquatic life support in Shaker Creek is known to experience impacts due to nutrients, silt/sediment loads and other pollutants from various urban nonpoint sources, including airport runoff. The stream flows through the Albany International Airport. Previously cited concerns regarding impacts from deicing runoff have been largely addressed, but other impacts persist.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Shaker Creek in Latham (at Mill Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly to moderately impacted conditions. In such samples sensitive species are notably reduced and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are exhibit more tolerant species. The nutrient biotic index indicates elevated enrichment. These results indicate clearly impacted water quality. Further investigation and/or other indicators are required to determine whether water quality impacts reach the level of impairment of uses. (DEC/DOW, BWAM/SBU, January 2010)

A biological assessment of Shaker Creek was also conducted at this site in 2000. Sampling results indicated slightly impacted water quality conditions. Impact Source Determination pointed to municipal/industrial sources, with a likely toxic element. (DEC/DOW, BWAR/SBU, July 2002)

A 1996 biological survey of Shaker Creek found moderately impacted water quality along the entire reach and suggested airport runoff as the probable source of impact. (Shaker Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1997)

Water Quality Management

Recent airport construction included efforts to address the runoff of deicing fluids (propylene glycol) into the creek. Despite of a few isolated spill incidents, deicing control appears to be adequate and there has been an improvement in water quality in the creek. (DEC/DOW, Region 4, June 2002)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Ann Lee (Shakers) Pond, Stump Pond (1201-0096) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240- 11-P496/P498
Hydro Unit Code: 02020004/400 **Str Class:** C
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 17.1 Acres
Seg Description: total area of both lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Albany Co. (1)
Quad Map: ALBANY (K-25-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)
Known: ALGAL/WEED GROWTH, NUTRIENTS (phosphorus)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: UNKNOWN SOURCE, URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: 1,4c (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Recreational (fishing, boating) uses and aesthetics in Ann Lee Pond, Stump Pond are known to be impaired by nutrients that result in excessive weed growth and algal blooms in the lake.

Water Quality Sampling
Ann Lee Pond was included in the 1996 Lake Classification and Inventory monitoring effort. Results of this study indicate that phosphorus criteria associated with "impaired" conditions have been exceeded during each of the sampling sessions at the lake. The lake is also covered extensively with canopy-forming submergent, floating, and emergent aquatic plants, as well as epiphytic filamentous algae. Information about specific use impairments are limited but indicate that conditions impact recreational and aesthetic uses of the lake. (DEC/DOW, BWM/Lake Services, February 2002)

Section 303(d) Listing
The Ann Lee Pond, Stump Pond segment is included on the NYS 2008 Section 303(d) List of Impaired Waters due to phosphorus levels in Ann Lee Pond. The lakes are included on Part 1 of the List as a Water Requiring Development of a TMDL to meet water quality standards and restore uses. (DEC/DOW, BWAM/WQAS, January 2010)

Lisha Kill and tribs (1201-0074) MinorImpacts

Waterbody Location Information

Revised: 02/05/2010

Water Index No:	H-240- 13			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/400	**Str Class:**	B(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Albany Co. (1)
Waterbody Size:	28.5 Miles			**Quad Map:**	NISKAYUNA (J-25-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: HABITAT MODIFICATION, STREAMBANK EROSION, URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 2 (Problem Verified, Cause Unknown)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life and natural resources (trout fishery) habitat in Lisha Kill are thought to experience impacts from elevated stream temperatures, nutrients, silt/sediment and other nonpoint inputs. Urban stormwater runoff and streambank modifications, including the removal of riparian buffers and stream cover, are the reason for this concern.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Lisha Kill in Niskayuna (at Route 7) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of siltation and enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint sources. These results are consistent with sampling at the site in 2000 and 2001. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Lisha Kill in Niskayuna was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate

community analysis. Biological (macroinvertebrate) sampling revealed slightly impacted conditions. Because of limited resources, water column samples were taken only 4 times, so water quality impacts should be verified, but total dissolved solids and fecal coliform were identified as parameters of concern. No contaminants above levels of concern were found in sediments or invertebrate tissues, and no toxicity was present in the water column on the date of sampling. (DEC/DOW, BWAR/RIBS, April 2003)

These results are also consistent with conditions reported in a 1996 biological survey of the Lisha Kill. This survey also found slightly impacted water quality along the entire reach. These impacts were also attributed to urban nonpoint sources, including the Colonie Golf Course through which the stream runs. (Lisha Kill Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1996)

Fishery Assessment

DEC Regional Fisheries office stocks the stream with trout. Much of the stream has adequate riparian vegetation, and it does not appear to suffer from urban runoff problems that limit some other streams in the area. (DEC/DOW, Region 4, June 2002.)

Segment Description

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

Stony Creek, Lower, and tribs (1201-0097) NoKnownImpct

Waterbody Location Information

Revised: 08/12/2002

Water Index No:	H-240- 14	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/380 **Str Class:** C(T)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	5/Saratoga Co. (46)
Waterbody Size:	1.9 Miles	**Quad Map:**	NISKAYUNA (J-25-3)
Seg Description:	stream and tribs, from mouth to Stony Creek Reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Stoney Creek in Vischers Ferry (at Riverview Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggest conditions are sufficient to cause some stress to aquatic life. Nutrient enrichment in the stream appeared to be low. Impact source determination found a community that is most similar to water experiencing impoundment effects. These effects/conditions are known to skew biological sampling results and are not a true reflection of water quality. Further investigation and/or other indicators are required to determine the extent of water quality impacts, if any. (DEC/DOW, BWAM/SBU, January 2009)

A biological (macroinvertebrate) assessment of Stony Creek in Vischer Ferry was conducted in 1990. Sampling results indicated slightly impacted water quality conditions. Nonpoint nutrient enrichment was indicated during this sampling. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description
This segment includes the portion of the stream and all tribs from the mouth to the Stony Creek (Colonie) Reservoir. The waters

of this portion of the stream are Class C(T). The reservoir (P503a) and upper creek are listed separately.

Stony Creek, Upper, and tribs (1201-0051) Need Verific

Waterbody Location Information

Revised: 08/12/2002

Water Index No:	H-240- 14			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/380	**Str Class:**	A(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Saratoga Co. (46)
Waterbody Size:	15.4 Miles			**Quad Map:**	NISKAYUNA (J-25-3)
Seg Description:	stream and tribs, above Stony Creek Reservoir				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: ALGAL/WEED GROWTH, SILT/SEDIMENT, Nutrients
Possible: Pesticides

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: Construction

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in Upper Stony Creek may experience impacts due to sediment loads and habitat modification in the streams related to residential development in the surrounding suburban area. Algal growth in the waters are also a concern.

Source Assessment
The watershed encompasses significant housing developments. Many reaches of the stream have been channelized, thought to result in diminished fish habitat. Several ponds within the watershed are reported as being eutrophic and silted. Lawn/golf course runoff (pesticides, herbicides, fertilizers) are also a concern. (Town Of Clifton Park, April 2002)

Source (Drinking) Water Assessment
The waters of this segment comprise the watershed of the Stoney Creek Reservoir. A source water assessment of the Stony Creek Reservoir found only a moderate level of susceptibility to contaminants. Silt/sediment loads, nutrient inputs and other pollutants from various urban and residential nonpoint runoff are potential 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 the Town of Clifton Park. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description

This segment includes the portion of the stream and all tribs above the Stony Creek (Colonie) Reservoir. The waters of this portion of the stream are Class A(T). Tribs to this reach/segment are also Class A,A(T). The Stony Creek (Colonie) Reservoir (P503a) is listed separately.

Stony Creek (Colonie) Reservoir (1201-0098) Need Verific

Waterbody Location Information

Revised: 08/12/2002

Water Index No: H-240- 14-P503a
Hydro Unit Code: 02020004/380 **Str Class:** A
Waterbody Type: Lake(R) (Unknown Trophic)
Waterbody Size: 366.3 Acres
Seg Description: entire reservoir

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Saratoga Co. (46)
Quad Map: NISKAYUNA (J-25-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)

Known: - - -
Suspected: ALGAL/WEED GROWTH, NUTRIENTS (phosphorus), SILT/SEDIMENT
Possible: Pesticides

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

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

Further Details

Source (Drinking) Water Assessment
A source water assessment of Stony Creek Reservoir found only a moderate level of susceptibility to contaminants. Silt/sediment loads, nutrient inputs and other pollutants from various urban and residential nonpoint runoff are potential 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 the Town of Clifton Park. (NYSDOH, Source Water Assessment Program, 2005)

Alplaus Kill and minor tribs (1201-0099) MinorImpacts

Waterbody Location Information

Revised: 02/01/2010

Water Index No:	H-240- 20			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/360	**Str Class:**	B		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	101.7 Miles			**Quad Map:**	BURNT HILLS (J-25-1)
Seg Description:	entire stream and selected/smaller tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known:	NUTRIENTS (phosphorus)
Suspected:	Pathogens
Possible:	D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	AGRICULTURE, URBAN/STORM RUNOFF
Possible:	- - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life and recreational uses in Alplaus Kill are known to experience minor impacts/threats due to nutrient enrichment from agricultural and other nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) survey of Alplaus Kill at multiple sites between Galway and Alplaus was conducted in 2005. Sampling results indicated slightly impacted water quality conditions at all sites. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Nutrient enrichment was the primary factor influencing the fauna in the stream and nutrient biotic indices indicated some level of eutrophic condition at most sites. These results indicate somewhat greater impacts than were noted during previous sampling at the downstream site in Glenville in 2000 and 2001. (Alplaus Kill Biological Assessment Report, 2006, Bode, et al, DEC/DOW, BWAM/SBU, February 2006)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Alplaus Kill in Glenville was conducted in

2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Because of limited resources, water column samples were taken only 4 times, so water quality impacts should be verified, but fecal coliform was identified as a parameter of concern. Sediments were found to contain arsenic and nickel in levels elevated above background. However, no contaminants above guidance values were found in invertebrate tissues, and no toxicity was present in the water column on the date of sampling. (DEC/DOW, BWAR/SBU, April 2003)

Segment Description

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class B,B(T). Tribs to this reach/segment, including Laures Creek (-8) and Crabb Kill (-P513-4), are Class C,C(T). Indian Kill (-2) is listed separately.

Indian Kill and tribs (1201-0100) MinorImpacts

Waterbody Location Information

Revised: 04/06/2010

Water Index No:	H-240- 20- 2			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/360	**Str Class:**	A		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	17.5 Miles			**Quad Map:**	BURNT HILLS (J-25-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Possible
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Possible
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: - - -
Suspected: SILT/SEDIMENT, THERMAL CHANGES, Nutrients, Pathogens
Possible: - - -

Source(s) of Pollutant(s)

Known: URBAN/STORM RUNOFF
Suspected: HYDRO MODIFICATION, On-Site/Septic Syst, Private/Comm/Inst (Mayfair Plaza), Other Sanitary Disch
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life in the Indian Kill is thought to experience minor impacts due to silt/sediment loads, nutrient inputs and other impacts from urban nonpoint and stormwater runoff sources. Public bathing and recreational uses may be affected by elevated coliform from urban/stormwater runoff. Natural resources (fishery) habitat may also be affected by habitat modification.

Water Quality Sampling
A biological (macroinvertebrate) survey of the stream was conducted by NYS DEC in 2000. The purpose of this study was to evaluate water quality and follow-up on earlier work done by the Environmental Study Team (EST), a volunteer environmental group comprised of area high school students. The NYS DEC study found water quality to be generally slightly impacted, with sites in the South Branch and in the vicinity of the Mayfair Plaza to have moderate impacts. The entire stream was found to be influenced by nonpoint source nutrient enrichment, reflected in high numbers of filter-feeding caddisflies. Due to a higher level of taxonomic resolution the DEC study determined most sites to be slightly impacted, where the EST study assessed most sites as moderately impacted. (DEC/DOW, BWAR/SBU, Indian Kill Biological Assessment Report, March 2001)

The EST study also documented several features that potentially affect water quality in the Indian Kill. These include stormwater catchment pond, a farm dump, areas of streambank erosion, discharge from the Mayfair Plaza, and drainage from a swim club. Coliform sampling also suggest possible on-site septic system impacts. (Environmental Study Team, The Indian Kill Study, 2000)

The Indian Kill is designated as a trout water and is stocked annually in support of a youth fishing derby. Local Trout Unlimited chapter is conducting a temperature study to determine ability to the stream to support trout. (DEC/DOW, Region 4, April 2002)

Water Quality Management

Since the initial assessment sewer extension work and connection of areas along Route 50 near the stream to the Schenectady WWTP has been undertaken. Follow-up monitoring to verify current conditions in the stream is recommended. (DEC/DOW, Region 4, April 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T) from the mouth to unnamed pond (P509 and Class A,A(T) for the remainder of the reach. Tribs to this reach/segment, including Hatchery Brook (-1), are also Class A,A(T).

Minor Tribs to Mohawk River (1201-0040) Impaired Seg

Waterbody Location Information

Revised: 11/04/2009

Water Index No:	H-240- 21 thru 28			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/350	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	27.2 Miles			**Quad Map:**	SCHENECTADY (J-25-4)
Seg Description:	total length of selected tribs, in Schenectady				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Suspected
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: UNKNOWN TOXICITY, Aesthetics, Restricted Passage
Suspected: D.O./Oxygen Demand, Nutrients (phosphorus), Priority Organics, Pathogens, Salts
Possible: - - -

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, URBAN/STORM RUNOFF
Suspected: INDUSTRIAL, Landfill/Land Disp., Tox/Contam. Sediment,
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 2 (Problem Verified, Cause Unknown)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a->3b

Further Details

Overview
Aquatic life, recreational use and natural resources (fishery) habitat in these urban tribs to the Mohawk River are impaired. The impairment is the result of various pollutants from industrial activities, previously contaminated sediments and urban/storm runoff as well as extensive stream habitat modification.

Water Quality Sampling
Biological (macroinvertebrate) surveys of selected tribs to the Mohawk in the Schenectady area were conducted in 2006 and in 2007. Sampling results indicated clearly impaired water quality in College Creek (-23), Cowhorn Creek (24), Schemerhorn Creek (-25), Brandywine Creek (-25-1) and other tribs to Schemerhorn Creek, with assessments ranging from moderately to severely impacted in these urban tribs. In such samples sensitive species are significantly reduced or missing entirely and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates elevated enrichment. Water quality is considered to be poor and aquatic life is not fully supported in the stream. (Biological Assessments of Stream of Schenectady Area, DEC/DOW, BWAM/SBU, March 2007 and January 2009)

Habitat Assessment

Many reaches of these tributaries have been incorporated into the City of Schenectady storm drainage system. Some have been channelized while other sections have been piped underground. In both instances, these modification have seriously disrupted the aquatic and fishery habitat of the tribs. Proposed phase II stormwater regulations may benefit water quality in these waters. (DEC/DOW, Region 4, April 2002)

Source Assessment

A number of previously identified sources of impact to these tribs have been resolved. A sewer overflow that discharged into and was the source of significant water quality problems in College Creek (-23) has been resolved. The Nott Street Industrial Park, the source of other problems, has been closed; including the General Electric operation. Previously reported problems in Schemerhorn Creek (-24) related to the Cheltingham Avenue Landfill have been largely resolved through a consent order. However, other sources continue to affect the streams. These include past legacy pollutants from industrial operations, runoff and seeps from current commercial and industrial activity, urban/storm runoff from the largely impervious watershed. The channelization and piping of these stream underground also impacts water quality and natural resource value. (DEC/DOW, Region 4 and BWAM/SBU, January 2009)

Section 303(d) Listing

These tribs are not currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody segment on the 2010 List. It is recommended that the segment be listed for unknown toxicity and be added to Part 3b, as a waterbody for which TMDL development is deferred pending the identification of specific pollutants. (DEC/DOW, BWAM/WQAS, November 2009)

Segment Description

This segment includes the total length of selected/smaller tribs to the Mohawk River between the Aphaus Kill near Rexford to the Plotter Kill near Wyatts. Tribs within this segment, including College Creek (-23), Schemerhorn Creek (-24), Cowhorn Creek/Oil Mill Creek (-25) and Longegate Kill (-25-2), are Class C. Poentic Kill (-26) is listed separately.

Collins Lake (1201-0077) Impaired Seg

Waterbody Location Information

Revised: 07/02/2010

Water Index No:	H-240- 22-P519			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/350	**Str Class:**	B		Mohawk River
Waterbody Type:	Lake (Eutrophic)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	55.9 Acres			**Quad Map:**	SCHENECTADY (J-25-4)
Seg Description:	entire lake				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH, NUTRIENTS (phosphorus)
Suspected: Silt/Sediment
Possible: Pathogens, Salts

Source(s) of Pollutant(s)

Known: - - -
Suspected: OTHER SOURCE (waterfowl), URBAN/STORM RUNOFF, Hydro Modification
Possible: Deicing (stor/appl), Streambank Erosion

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/BWM **Resolution Potential:** Medium
TMDL/303d Status: 1,4c (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Public Bathing, recreational (fishing, boating) uses and aesthetics in Collins Lake are restricted by excessive weed growth and algal blooms. Elevated nutrient levels from nonpoint urban runoff sources contribute to the weed/algal growth. Resident geese throughout the summer and impacts from salt storage are also concerns.

Water Quality Sampling
Collins Lake was sampled as part of the NYSDEC Lake Classification and Inventory (LCI) sampling effort, a component of the Rotating Intensive Basin Studies (RIBS) Program, in 2006. Nutrient, chlorophyl and clarity measurements taken at that time reveal the lake was best characterized as eutrophic, although water quality conditions in the lake were noticeably improved from previous conditions. Algae levels are sufficiently high to render the lake susceptible to harmful algal blooms, although it is not known if algal toxins or taste and odor compounds are produced by the algae in the lake. The Lake appears to have benefitted from multiple management actions. Nuisance aquatic plant growth was reduced by the application of fluridone, an aquatic herbicide, although at least three exotic plant species (Eurasian watermilfoil, curly leafed pondweed, and water chestnut) are still found in the lake. Bacteriological testing conducted as part of the LCI and by the Village of Scotia indicated a substantial reduction in fecal coliform counts in the lake, allowing for the beach to maintain summer operation. Despite the improvements

in the lake, water quality conditions are still typical of impaired lakes. (DEC/DOW, BWAM/RIBS, June 2010)

Previous sampling conducted in 2001 found consistently high phosphorus levels and poor water clarity that indicated impaired recreational uses waters during the entirety of the summer season. Recent (at that time) infestations of Myriophyllum spicatum (Eurasian milfoil) led to more active led control measures. Town-initiated strategies appear to have contributed to improving water quality in the lake. (DEC/Lake Services Section, June 2010)

Water Quality Management

Collin Lake was the focus of a Phase II Clean Lakes project (1985-1992). The project included hydraulic dredging to increase water depth by one meter to reduce growth of the exotic plant, Curleyleaf pondweed. However, dredging has also been noted as a pollution source. The lake has also undergone some work under the Aid to Localities Program. (DEC/DOW, Lake Services Section, June 2002)

Segment Description

This segment includes the total area of the entire lake.

Poentic Kill and tribs (1201-0005) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240- 26			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/350	**Str Class:**	B		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	14.4 Miles			**Quad Map:**	ROTTERDAM JUNCTION (J-24-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT
Possible: Priority Organics (18)

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: Industrial, Landfill/Land Disp. (Burdick Street Landfill)

Resolution/Management Information

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

Further Details

Overview
Aquatic life support in the Poentic Kill is known to experience minor impacts due to nutrient enrichment, sediment loads and other pollutants from urban nonpoint runoff. There are some remaining concerns about possible impacts from landfills.

Water Quality Sampling
A biological (macroinvertebrate) survey of Poentic Kill at four sites in Rotterdam was conducted in 2002. Sampling results indicated mostly slightly impacted water quality conditions, with one site indicating moderate impacts. Mayflies, stoneflies, and caddisflies were present, but species richness was low. In spite of the low metrics, no major water quality problems were indicated and aquatic life support is considered to be fully supported. (Poentic Kill Biological Assessment Report, Bennett, Novak, et al., DEC/DOW, BWAR/SBU, April 2003)

These results are consistent with conditions reported in 1988 and 1989 biological surveys of Poentic Kill. These surveys were conducted to evaluate the impact of the relocation of a portion of the stream to accommodate the construction of a shopping mall (Rotterdam Mall). Sampling found the relocated reaches to be recolonized and similar to upstream sites. The 1989 survey found slightly impacted water quality along the stream and no significant water quality problems were indicated. A 1988 biological survey of the Poentic Kill was significantly affected by a sewage spill to the creek that occurred a few days prior to

sampling. The stream was found to have recovered from the impacts from this spill during the 1989 survey. (Poentic Kill Biological Stream Assessment Reports, Bode et al., DEC/DOW, BWAR/SBU, April 1988 and January 1989)

Historically, there has been documentation of abnormalities in fish. These have appeared in various reports including one by the Bureau of Environmental Protection. The Burdick Street Landfill (since closed) was the suspected source of the problems. DEC/DFWMR Bureau of Habitat PISCES sampling of the creek in 1995 detected low levels of PCBs from the General Electric property that warrant continued monitoring. (DEC/DOW, Region 4, April 2002)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class B. Tribs to this reach/segment are Class C.

Plotter Kill and tribs (1201-0102) MinorImpacts

Waterbody Location Information

Revised: 02/05/2010

Water Index No: H-240- 29
Hydro Unit Code: 02020004/350 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 11.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Schenectady Co. (47)
Quad Map: ROTTERDAM JUNCTION (J-24-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 2 (Problem Verified, Cause Unknown)
Lead Agency/Office: DOW/Reg4
TMDL/303d Status: n/a
Resolution Potential: Medium

Further Details

Overview
Aquatic life in Plotter Kill is thought to experience impacts from elevated stream elevated nutrients and silt/sediment rom urban stormwater runoff and other nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Plotter Kill in Rotterdam Junction (at Route 5S) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of siltation and enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Sandsea Kill and tribs (1201-0103) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240- 45
Hydro Unit Code: 02020004/350 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 20.2 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Schenectady Co. (47)
Quad Map: ROTTERDAM JUNCTION (J-24-3)

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

Water Quality Sampling
A biological (macroinvertebrate) survey/assessment of Sandsea Kill in Pattersonville (at Route 5S) 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. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are Class C.

Minor Tribs to Mohawk River (1201-0104) Need Verific

Waterbody Location Information

Revised: 01/14/2010

Water Index No:	H-240- 51 thru 68			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	42.2 Miles			**Quad Map:**	AMSTERDAM (J-24-1)
Seg Description:	total length of sel. tribs, Pattersonville to Amsterdam				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: UNKNOWN TOXICITY
Possible: Nutrients, Silt/Sediment

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, URBAN/STORM RUNOFF
Possible: Streambank Erosion

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

Overview
Aquatic life in these tribs to the Mohawk River may experience minor impacts. Various sources, including agricultural activity and urban runoff are possible contributors of pollutants. However water quality monitoring to date has been limited and inconclusive. Impacts on water uses need to be verified.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Terwilliger Creek in South Amsterdam (at RR Bridge off Route 5S) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates low enrichment. However sampling was conducted during exceptionally low flow using alternative sample collection protocols (Robertson Kick). Such conditions are known to skew biological sampling results and are not a true reflection of water quality. Further investigation and/or other indicators are required to determine the extent of water quality impacts, if any. (DEC/DOW, BWAM/SBU, January 2010)

Previous Assessment
Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to streams. Some

barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. Morphys Creek (-65) has been specifically identified by the county. (Montgomery County SWCD/WQCC, April 2002)

Segment Description

This segment includes the total length of selected/smaller tribs to the Mohawk River between the Schenectady-Montgomery County line near Pattersonville and North, South Chuctanunda Creeks (-69, -70) in Amsterdam. Tribs within this segment, including Lewis Creek (-59), Terwilliger Creek (-63), Degraf Creek (-64) and Morphys Creek (-65), are Class C,C(T). Cranes Hollow Creek (-61) and North, South Chuctanunda Creeks (-69, -70) are listed separately.

Cranes Hollow Creek and tribs (1201-0105) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No: H-240- 61
Hydro Unit Code: 02020004/ **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 21.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: AMSTERDAM (J-24-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Cranes Hollow Creek in Cranesville (at Route 5) 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are primarily Class C,C(TS); with one trib designated Class D.

North Chuctanunda Cr, Lower, and tribs (1201-0031) MinorImpacts

Waterbody Location Information

Revised: 04/02/2010

Water Index No:	H-240- 69			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/320	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	9.7 Miles			**Quad Map:**	AMSTERDAM (J-24-1)
Seg Description:	stream and minor tribs, from mouth to Hagaman				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), PATHOGENS
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, URBAN/STORM RUNOFF
Possible:

Resolution/Management Information

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

Further Details

Overview
Aquatic life and recreational uses in this portion of North Chuctanunda Creek are known to experience minor impacts due to elevated nutrient loads and levels of pathogens. The sources of these pollutants are thought to be a combination of urban runoff at the site in Amsterdam and agricultural nonpoint sources from throughout the larger watershed.

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of North Chuctanunda Creek in Amsterdam, Montgomery County, (at Willow Street) 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 indicated slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively minor and overall water quality is considered to be good. However the nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to communities influenced by nonpoint nutrients and agricultural sources. Water column chemistry indicates elevated levels of pathogens (coliform) that constitute a parameter 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 some 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, although elevated levels of metals, PAHs and pesticides were noted. Based on the consensus of these established assessment indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream. (DEC/DOW, BWAM/RIBS, January 2010)

A biological (macroinvertebrate) assessment of North Chuctanunda Creek at the mouth in Amsterdam was also 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)

Fishery Assessment

A conservation release from Galway Lake may benefit water quality in the stream. The stream supports a warm water fishery. Though the stream may not be suitable for trout the stream is not designated a trout stream and is considered to fully support an appropriate fishery resource. Some sections may have been stocked with trout by sportsmen in the past. (DEC/DFWMR, Region 4, June 2002)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Harrrower Pond (P556) in Hagaman. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Lower Bunns Creek (-1), are also Class C. Upper Bunns Creek is listed separately.

North Chuctanunda Cr, Middle, and tribs (1201-0106) MinorImpacts

Waterbody Location Information

Revised: 04/02/2010

Water Index No: H-240- 69
Drain Basin: Mohawk River
Hydro Unit Code: 02020004/320 **Str Class:** C
Mohawk River
Waterbody Type: River (Low Flow)
Reg/County: 5/Fulton Co. (18)
Waterbody Size: 39.7 Miles
Quad Map: AMSTERDAM (J-24-1)
Seg Description: stream and tribs, from Hagaman to Galway Lake

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: NUTRIENTS (phosphorus)
Suspected: - - -
Possible: Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

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

Further Details

Overview

Aquatic life and recreational uses in this portion of North Chuctanunda Creek may experience minor impacts due to nutrient loads attributed to agricultural nonpoint sources. This assessment is based on monitoring downstream on this reach that is believed to be reflective of conditions in this segment, but that need to be verified.

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of North Chuctanunda Creek a few miles below this reach in Amsterdam (at Willow Street) 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 indicated slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively minor and overall water quality is considered to be good. However the nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to communities influenced by nonpoint nutrients and agricultural sources. Water column chemistry indicates elevated levels of pathogens (coliform) that constitute a parameter 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 some 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, although elevated levels of metals, PAHs and pesticides were noted. Based on the consensus of these established assessment indicators, overall water quality at this site was noted as having minor impacts to uses. (DEC/DOW, BWAM/RIBS, January 2010)

A biological (macroinvertebrate) assessment of North Chuctanunda Creek at the mouth in Amsterdam 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. Though this sampling location is just below the described segment, it is considered indicative of conditions in this reach. (DEC/DOW, BWAR/SBU, July 2002)

Fishery Assessment

A conservation release from Galway Lake may benefit water quality in the stream. The stream supports a warm water fishery. Though the stream may not be suitable for trout the stream is not designated a trout stream and is considered to fully support an appropriate fishery resource. Some sections may have been stocked with trout by sportsmen in the past. (DEC/DFWMR, Region 4, June 2002)

Other Issues

Possible nonpoint agricultural impacts are a concern raised by the Fulton County SWCD/WQCC. Runoff from a tree nursery causes excessive turbidity in a (Caneys Brook (-9) during major rain events. (DEC/DOW, Region 5, May 2002)

Segment Description

This segment includes the portion of the stream and all tribs from Harrower Pond (P556) in Hagaman to Galway Lake (P563). The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Healy Kill (-8) and Caneys Brook (-9), are primarily Class C,C(T); with one trib designated Class D.

North Chuctanunda Cr, Upper, and tribs (1201-0107) Need Verific

Waterbody Location Information

Revised: 04/02/2010

Water Index No: H-240- 69
Hydro Unit Code: 02020004/320 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 11.6 Miles
Seg Description: stream and tribs, above Galway Lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: GALWAY (I-24-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: NUTRIENTS
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: AGRICULTURE
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

Overview
Aquatic life in this portion of North Chuctanunda Creek may experience minor impacts due to elevated nutrient loadings attributed to agricultural nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) survey/assessment of North Chuctanunda Creek in North Galway (at Green Corners Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. However impact source determination found the fauna to be most similar to natural communities. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the portion of the stream and all tribs above the outlet of Galway Lake (P563). The waters of this portion of the stream are Class C. Tribs to this reach/segment are primarily Class C,C(T),C(TS); with one trib designated Class D.

Bunn Creek, Upper, and tribs (1201-0108) MinorImpacts

Waterbody Location Information

Revised: 02/05/2010

Water Index No: H-240- 69- 1
Hydro Unit Code: 02020004/320 **Str Class:** A
Waterbody Type: River (Low Flow)
Waterbody Size: 9.3 Miles
Seg Description: stream and tribs, above Amsterdam

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: AMSTERDAM (J-24-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life in Bunn Creek is known to experience impacts from elevated nutrient and silt/sediment loads from urban stormwater runoff and other nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Bunn Creek in Amsterdam (at Route 15) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of siltation and enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the portion of the stream and all tribs above the unnamed pond (P546). The waters of this portion of the stream are Class A,A(T). Tribs to this reach/segment are also/primarily Class C,C(T).

Galway Lake (Amsterdam Reservoir) (1201-0110) NoKnownImpct

Waterbody Location Information

Revised: 10/30/2002

Water Index No: H-240- 69-P563
Hydro Unit Code: 02020004/320 **Str Class:** B
Waterbody Type: Lake(R) (Mesotrophic)
Waterbody Size: 523.0 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Saratoga Co. (46)
Quad Map: GALWAY (I-24-3)

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: n/a

Further Details

Water Quality Sampling
Galway Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP), most recently in 2001. An Interpretive Summary report of the findings of this sampling was published in 2002. These data indicate that the lake continues to be best characterized as mesotrophic, or moderate productive. Phosphorus levels in the lake rarely exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically meet the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is moderately colored, but color does not limit water transparency. (DEC/DOW, BWAM/CSLAP, August 2002)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be very favorable. The recreational suitability of the lake is described most frequently as "could not be nicer" or "excellent." The lake itself is most often described as "not quite crystal clear." Assessments have noted that aquatic plants occasionally grow to the lake surface but have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, August 2002)

Previous Assessment

Although water quality in the lake currently supports uses, local/county agencies have raised concerns regarding extensive development of the lake front, limited lots sizes and the potential impact of on-site septic systems. Invasive species (purple loosestrife and Eurasian milfoil) are also noted. The Galway Lake Association completed a study of the lake in 2001. (Saratoga County WQCC, April 2002)

South Chuctanunda Cr, Lower, and tribs (1201-0082) NoKnownImpct

Waterbody Location Information

Revised: 04/02/2010

Water Index No: H-240- 70 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/310 **Str Class:** C Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 4/Montgomery Co. (29)
Waterbody Size: 22.7 Miles **Quad Map:** AMSTERDAM (J-24-1)
Seg Description: stream and tribs, from mouth to Scotch Bush

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of South Chuctanunda Creek in South Amsterdam, Montgomery County, (at Florida Street and Snooks Corners 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 indicated the upper range of slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively minor and overall water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to natural communities. Water column chemistry indicates fecal coliform at levels that constitute a parameter 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 indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, 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)

Previous Sampling

A biological (macroinvertebrate) assessment of South Chuctanunda Creek in South Amsterdam was conducted in 2000. Sampling results indicated non-impacted water quality conditions. The fauna was dominated by clean-water mayflies and caddisflies. (DEC/DOW, BWAR/SBU, July 2002)

Other Issues

Hydrologic and habitat conditions are affected by the removal of riparian vegetation and heavy stream bank erosion. In one area the eroding bank threatens a home. Considerable agricultural activity (including one CAFO) in the upper watershed are also of concern to DEC Regional staff. (DEC/DOW, Region 4, June 2002)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to trib (-12) near Scotch Bush. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C.

South Chuctanunda Cr, Upper, and tribs (1201-0112) Need Verific

Waterbody Location Information

Revised: 02/11/2010

Water Index No: H-240- 70
Hydro Unit Code: 02020004/310 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 25.3 Miles
Seg Description: stream and tribs, above Scotch Bush

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: AMSTERDAM (J-24-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: SILT/SEDIMENT, Nutrients
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: HABITAT MODIFICATION, STREAMBANK EROSION, Agriculture
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
TMDL/303d Status: n/a
Resolution Potential: Medium

Further Details

Overview
Hydrologic and habitat conditions in this portion of South Chuctanunda Creek may experience impacts due to the removal of riparian vegetation and heavy stream bank erosion. Considerable agricultural activity (including one CAFO) in the upper watershed are also of concern to DEC Regional staff. (DEC/DOW, Region 4, June 2002)

Segment Description
This segment includes the portion of the stream and all tribs from the mouth to trib (-12) near Scotch Bush. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment are also Class C,C(T).

Mariaville Lake (1201-0113) Impaired Seg

Waterbody Location Information

Revised: 04/06/2010

Water Index No:	H-240- 70-P570			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/310	**Str Class:**	B		Mohawk River
Waterbody Type:	Lake (Eutrophic)			**Reg/County:**	4/Schenectady Co. (47)
Waterbody Size:	193.1 Acres			**Quad Map:**	AMSTERDAM (J-24-1)
Seg Description:	entire lake				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DOW/Reg4 **Resolution Potential:** Medium
TMDL/303d Status: n/a->4b?

Further Details

Overview
Public bathing and other recreational uses (swimming, fishing, boating) in Mariaville Lake are impaired due to high nutrient loads, excessive aquatic weed growth, occasional algal blooms and reduced water clarity. Inadequate on-site septic systems are considered the source of greatest concern.

Water Quality Sampling
Mariaville Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 2002 continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2009. These data indicate that the lake continues to be best characterized as eutrophic, or highly productive. Phosphorus levels in the lake typically exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements have begun to occasionally fail to meet the recommended minimum for swimming beaches. Measurements of pH are occasionally high but typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly to moderately colored, but color does not influence water transparency. (DEC/DOW, BWAM/CSLAP, January 2009)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates

recreational suitability of the lake to be mostly unfavorable. The recreational suitability of the lake is described most frequently as "slightly" or"substantially" impacted. The lake itself is most often described as "having a definite algal greenness," an assessment that is consistent measured water quality characteristics. Assessments have noted that aquatic plants regularly grow to the lake surface, often densely and are routinely cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, January 2009)

Lake Uses

This lake waterbody is designated class B, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support, but not as a public water supply. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Previous Assessment

The lake is relatively shallow (11 feet) and subject to summer algal blooms and dense aquatic weed growth. Conversion of summer cottages to year-round residences with inadequate and/or failing on-site septic systems all along the lake shore was previously noted as a major contributing source of pollution to the lake. However the lake shore area was sewered in 2006 with the creation of the Mariaville Lake SD#2 and onsite impacts are no longer considered a significant source. Other nonpoint sources as well as previous nutrient loadings remaining in the lake are the most likely current sources. (DEC/DOW, Region 4, April 2010)

Section 303(d) Listing

Mariaville Lake is not currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to consider this waterbody for future listing due to elevated phosphorus. Alternatively, a listing as a Category 4b water for which other required control measures (i.e., the WWTP) are adequate to address the impairment may be more appropriate. (DEC/DOW, BWAM/WQAS, January 2010)

Minor Tribs to Mohawk River (1201-0030) Need Verific

Waterbody Location Information

Revised: 08/13/2002

Water Index No:	H-240- 71 thru 88 (selected)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/300 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	49.5 Miles	**Quad Map:**	TRIBES HILL (J-23-2)
Seg Description:	total length of sel tribs, fr Amsterdam to Fonda/Fville		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, PATHOGENS, SILT/SEDIMENT, Pesticides
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Streambank Erosion
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Various agricultural activity in these smaller tribs to the Mohawk River might be affecting water quality. There is very little specific monitoring data on these waters, and the impact on water uses needs to be verified.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Danascara Creek near the mouth in Tribes Hill 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)

Source Assessment
Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. Danascara Creek (-85) (see below) and tribs -74 and -78 have been specifically

singled out by the county. Regional staff have been to Danascara Creek on several occasions to investigate water quality problems over the past 3 to 5 years. (Montgomery County SWCD/WQCC and DEC/DOW, Region 4, April 2002)

Segment Description

This segment includes the total length of selected/smaller tribs to the Mohawk River between North, South Chuctanunda Creeks (-69, -70) in Amsterdam and Cayadutta Creek in Fonda/Fultonville. Tribs within this segment, including Dove Creek (-73) and Danascara Creek (-85), are Class C. Kayaderosseras/McQueen Creek (-76), Schoharie Creek (-82) and Auries Creek (-84) are listed separately.

Kayaderosseras/McQueen Creeks and tribs (1201-0115) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240- 76
Hydro Unit Code: 02020004/300 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 30.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: AMSTERDAM (J-24-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of McQueen Creek in Fort Johnson (at Route 67) 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 some elevated enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects. 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 2009)

Previous Assessment
Concerns were raised by local agencies and stakeholders during previous assessment efforts regarding impacts from various agricultural activity in the watershed that might be affecting water quality. Management practices at several dairy and other farms near the streams may contribute livestock waste loadings to McQueen Creek; DEC/DOW Regional staff indicate there is little agricultural activity in the Kayaderosseras Creek watershed. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment

facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. The most recent sampling reveals no significant impacts to the stream, so these activities are considered to be potential threats that nonetheless require some attention. (Montgomery County SWCD/WQCC, April 2002)

Recreational cold water fishing is supported and enhanced by annual Regional stocking of trout. (DEC/DFWMR, Region 4, October 2002)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C(T); McQueen Creek (-1) is Class C(TS). Tribs to this reach/segment, including Fort Johnson Brook (-2), are also Class C,C(T),C(TS).

Waterbody Inventory for the Schoharie Creek Watershed

Water Index Number	Waterbody Segment	Category
Schoharie Creek, Main Stem		
H-240- 82 (portion 1)	Schoharie Creek, Lower, Main Stem (1202-0003)	**MinorImpacts**
H-240- 82 (portion 2)	Schoharie Creek, Lower, Main Stem (1202-0010)	**MinorImpacts**
H-240- 82 (portion 3)	Schoharie Creek, Lower, Main Stem (1202-0024)	**MinorImpacts**
H-240- 82 (portion 4)/P630a	Lower Blenheim-Gilboa Reservoir (1202-0011)	**Need Verific**
H-240- 82 (portion 5)	Schoharie Creek, Middle, Main Stem (1202-0025)	**Need Verific**
H-240- 82 (portion 6)/P638a	Schoharie Reservoir (1202-0012)	**Impaired Seg**
H-240- 82 (portion 7)	Schoharie Creek, Upper, Main Stem (1202-0021)	**MinorImpacts**
H-240- 82 (portion 8)	Schoharie Creek, Upper, Main Stem (1202-0023)	**MinorImpacts**
H-240- 82 (portion 9)	Schoharie Creek, Upper, and tribs (1202-0026)	**NoKnownImpct**
Tribs to Lower Schoharie Creek, Fort Hunter to Central Bridge		
H-240- 82- 1 thru 62	Minor Tribs to Schoharie Creek (1202-0027)	**NoKnownImpct**
H-240- 82- 57	Fly Creek and tribs (1202-0028)	**NoKnownImpct**
H-240- 82- 58	Cripplebush Creek and tribs (1202-0029)	UnAssessed
Cobleskill Creek Watershed		
H-240- 82- 63	Cobleskill Creek, Lower, and tribs (1202-0019)	**Need Verific**
H-240- 82- 63	Cobleskill Creek, Upper, and minor tribs (1202-0030)	**NoKnownImpct**
H-240- 82- 63- 1	Cobleskill Creek Trib (1202-0031)	UnAssessed
H-240- 82- 63- 1-P579/P579a	Central Bridge Reservoirs (1202-0016)	**Need Verific**
H-240- 82- 63- 9	Cobleskill Creek Trib (1202-0032)	UnAssessed
H-240- 82- 63- 9-P583	Cobleskill Reservoirs (1202-0015)	**Need Verific**
H-240- 82- 63-10	Panther Creek and tribs (1202-0033)	**NoKnownImpct**
H-240- 82- 63-10-2-P584	Russell Lake (1202-0034)	UnAssessed
H-240- 82- 63-13	West Creek, Lower, and tribs (1202-0018)	**MinorImpacts**
H-240- 82- 63-13	West Creek, Upper, and tribs (1202-0035)	**NoKnownImpct**
H-240- 82- 63-13-14-P589a/P589b	Clausen, Bowmaker Ponds (1202-0036)	UnAssessed
H-240- 82- 63-19-9-P589	Engleville Pond (1202-0009)	**Impaired Seg**
H-240- 82- 63-19-P596	Bear Gulch Pond (1202-0037)	UnAssessed
H-240- 82- 63-P599	Richmondville Reservoir (1202-0038)	UnAssessed
H-240- 82- 63-P599-	Tribs to Richmondville Water Supply (1202-0039)	UnAssessed
Tribs to Middle Schoharie Creek, Central Bridge to Schoharie Reservoir		
H-240- 82- 64 thru 109	Minor Tribs to Schoharie Creek (1202-0040)	**NoKnownImpct**
H-240- 82- 67	Fox Creek, Lower, and tribs (1202-0008)	**NoKnownImpct**
H-240- 82- 67	Fox Creek, Middle, and minor tribs (1202-0041)	**NoKnownImpct**
H-240- 82- 67	Fox Creek, Upper, and tribs (1202-0004)	**NoKnownImpct**
H-240- 82- 67-10-P605	Echo Pond (1202-0042)	UnAssessed
H-240- 82- 67-24	Switz Kill and tribs (1202-0007)	**NoKnownImpct**
H-240- 82- 67-24-10-P605a,P605b	White Birch Pond, Fawn Lake (1202-0006)	UnAssessed

…Schoharie Creek Watershed

Water Index Number	Waterbody Segment	Category
Tribs to Middle Schoharie Creek, Central Bridge to Schoharie Reservoir (con't)		
H-240- 82- 67-24-P608	Onderdonk Lake (1202-0005)	**MinorImpacts**
H-240- 82- 67-26	Beaverdam Creek and tribs (1202-0043)	**NoKnownImpct**
H-240- 82- 67-33-1-P609	Warners Lake (1202-0044)	**NoKnownImpct**
H-240- 82- 87	Line Creek and tribs (1202-0045)	UnAssessed
H-240- 82- 89	Little Schoharie Creek, Lower, and tribs (1202-0046)	**NoKnownImpct**
H-240- 82- 89	Little Schoharie Creek, Upper, and tribs (1202-0047)	**NoKnownImpct**
H-240- 82- 95	Panther Creek and tribs (1202-0048)	**NoKnownImpct**
H-240- 82- 95-P616	Rossman Fly (1202-0049)	UnAssessed
H-240- 82-104	West Kill/Mill Creek and tribs (1202-0050)	**NoKnownImpct**
H-240- 82-104-11-P627	Brozie/Baldwin Pond (1202-0051)	UnAssessed
H-240- 82-104-P629	Summit Lake (1202-0014)	**Impaired Seg**
H-240- 82-106	Mine Kill and tribs (1202-0052)	**NoKnownImpct**
H-240- 82-108	Platter Kill and tribs (1202-0053)	**NoKnownImpct**
H-240- 82-108-2-P630b	Upper Blenheim-Gilboa Reservoir (1202-0071)	**Need Verific**
Tribs to Upper Schoharie Creek, above Schoharie Reservoir		
H-240- 82-110 thru 115	Minor Tribs to Schoharie Reservoir (1202-0054)	**Need Verific**
H-240- 82-112	Manor Kill and tribs (1202-0017)	**NoKnownImpct**
H-240- 82-113-P643	Mayham Pond (1202-0055)	UnAssessed
H-240- 82-116	Huntersfield Creek, Upper, and tribs (1202-0056)	**NoKnownImpct**
H-240- 82-116 thru 140	Minor Tribs to Schoharie Creek (1202-0057)	**MinorImpacts**
H-240- 82-117	Batavia Kill, Lower, and tribs (1202-0001)	**MinorImpacts**
H-240- 82-117	Batavia Kill, Middle, and tribs (1202-0058)	**MinorImpacts**
H-240- 82-117	Batavia Kill, Upper, and tribs (1202-0059)	**NoKnownImpct**
H-240- 82-117-14-P647a	Lake Heloise (1202-0060)	UnAssessed
H-240- 82-117-P647b	Silver Lake (1202-0061)	UnAssessed
H-240- 82-128	West Kill and tribs (1202-0062)	**MinorImpacts**
H-240- 82-133	East Kill and tribs (1202-0063)	**NoKnownImpct**
H-240- 82-133-P649	Colgate Lake (1202-0064)	UnAssessed
H-240- 82-141	Minor Trib to Schoharie Creek (1202-0065)	UnAssessed
H-240- 82-142 thru 147b	Minor Tribs to Schoharie Creek (1202-0066)	**NoKnownImpct**
H-240- 82-145	Stony Grove Creek, Upper, and tribs (1202-0067)	UnAssessed
H-240- 82-147b-1	Tribs to Allen Brook (1202-0068)	UnAssessed
H-240- 82-147b-1..P655a, b, c	Onteora Pond/Tannersville Reservoirs (1202-0069)	UnAssessed
H-240- 82-147b-P656a	Lake Rip Van Winkle (1202-0070)	UnAssessed

Schoharie Creek, Lower, Main Stem (1202-0003) MinorImpacts

Waterbody Location Information

Revised: 08/21/2002

Water Index No: H-240- 82 (portion 1)
Hydro Unit Code: 02020005/130 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 31.6 Miles
Seg Description: from mouth to Central Bridge

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Montgomery Co. (29)
Quad Map: TRIBES HILL (J-23-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)
Known: WATER LEVEL/FLOW, SILT/SEDIMENT
Suspected: Thermal Changes
Possible: - - -

Source(s) of Pollutant(s)
Known: HYDRO MODIFICATION, STREAMBANK EROSION
Suspected: Agriculture
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in Lower Schoharie Creek is affected by hydrologic modification and silt and sediment loadings. Much of the impact is a result of the operation of the upstream water supply reservoirs.

Source Assessment
Stream flow is significantly influenced by operation of the Schoharie Reservoir. Flow from the reservoir is restricted when the dam is not spilling. The lack of flow can be a particular problem during the summer when low flow and resulting increase in water temperature affect the fishery. However, the creek generally supports an adequate and abundant warmwater fishery featuring smallmouth bass and walleye. (DEC/DOW, Region 4, April 2002)

The creek flows through an intensive agricultural (vegetables, grain and silage) valley with many dairy and horse farms. These activities contribute sediment loads (and likely nutrients) to the creek. The fluctuating water levels also exacerbate streambank erosion and sediment loadings. Gravel beds are exposed during low flow, but during spring runoff and other high flow events low lying agricultural fields are flooded. During high flows, the creek becomes quite turbid. (Schoharie County SWCD/WQCC, April 2002)

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Schoharie Creek in Fort Hunter, Montgomery County, (at Route 5S) 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 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 appear to be (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. Water column chemistry indicates iron to be present in concentrations that constitute parameters of concern. However, 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. Sediment screening for acute toxicity indicated no significant 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 is/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)

RIBS Intensive Network monitoring of Schoharie Creek in Fort Hunter (at Route 5S) was also conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Biological sampling revealed non-impacted water quality. This sampling found no significant parameters of concern. A sediment sample identified cadmium to be present in levels elevated from background, but no parameters of concern were present in the water column. No contaminants above levels of concern were found in invertebrate tissues and no toxicity was present in the water column on the date of sampling. (DEC/DOW, BWAR/RIBS, April 2003)

A biological assessment of Schoharie Creek in Burtonsville (at Braman Corners Road) 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 appear to be (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. 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 the mouth to Cobleskill Creek (-63) in Central Bridge. The waters of this portion of the stream are Class C.

Schoharie Creek, Lower, Main Stem (1202-0010) MinorImpacts

Waterbody Location Information

Revised: 08/21/2002

Water Index No: H-240- 82 (portion 2)
Hydro Unit Code: 02020005/110 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 19.8 Miles
Seg Description: from Central Bridge to Fultonham

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48) ...
Quad Map: SCHOHARIE (K-23-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)
Known: WATER LEVEL/FLOW, SILT/SEDIMENT
Suspected: Thermal Changes
Possible: - - -

Source(s) of Pollutant(s)
Known: HYDRO MODIFICATION, STREAMBANK EROSION
Suspected: Agriculture
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in Lower Schoharie Creek is affected by hydrologic modification and silt and sediment loadings. Much of the impact is a result of the operation of the upstream water supply reservoirs.

Source Assessment
Stream flow is significantly influenced by operation of the Schoharie Reservoir. Flow from the reservoir is restricted when the dam is not spilling. The lack of flow is a particular problem during the summer when low flow and resulting increase in water temperature affect the fishery. (DEC/DOW, Region 4, April 2002)

The creek flows through an intensive agricultural (vegetables, grain and silage) valley. These activities contribute sediment loads to the creek. The fluctuating water levels also exacerbate streambank erosion and sediment loadings. Gravel beds are exposed during low flow, but during spring runoff and other high flow events low lying agricultural fields are flooded. During high flows, the creek becomes quite turbid. (Schoharie County SWCD/WQCC, April 2002)

Water Quality Sampling
A biological assessment of Schoharie Creek in Burtonsville (at Braman Corners Road) 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 appear to be (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. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Although this site is just below this reach, it is considered to be representative of water quality in the upstream reach. (DEC/DOW, BWAM/SBU, January 2010)

Biological assessments of Schoharie Creek below this reach near the mouth in Fort Hunter and in Burtonsville were conducted in 2000 and 2001, respectively. Sampling results indicated non-impacted water quality conditions at both sites. The fauna at Fort Hunter included many species of clean-water mayflies and caddisflies. The Burtonsville sample was heavily dominated by clean-water mayflies. Though these sampling point are below the described segment, they is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description

This segment includes the portion of the Schoharie Creek from Cobleskill Creek (-63) in Central Bridge to Pleasant Valley Brook (-92) in Fultonham. The waters of this portion of the stream are Class C.

Schoharie Creek, Lower, Main Stem (1202-0024) MinorImpacts

Waterbody Location Information

Revised: 08/21/2002

Water Index No: H-240- 82 (portion 3)
Hydro Unit Code: 02020005/070 **Str Class:** B
Waterbody Type: River (Low Flow)
Waterbody Size: 11.8 Miles
Seg Description: from Fultonham to Blenheim-Gilboa Reservoir

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: BREAKABEEN (K-23-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)
Known: WATER LEVEL/FLOW
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: HYDRO MODIFICATION
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in Lower Schoharie Creek is affected by hydrologic modification and silt and sediment loadings. Much of the impact is a result of the operation of the upstream water supply reservoirs.

Source Assessment
Stream flow is significantly influenced by operation of the Schoharie Reservoir. Flow from the reservoir is restricted when the dam is not spilling. The lack of flow is a particular problem during the summer when low flow and resulting increase in water temperature affect the fishery. (DEC/DOW, Region 4, April 2002)

The creek flows through an intensive agricultural (vegetables, grain and silage) valley. These activities contribute sediment loads (and likely nutrients) to the creek. The fluctuating water levels also exacerbate streambank erosion and sediment loadings. Gravel beds are exposed during low flow, but during spring runoff and other high flow events low lying agricultural fields are flooded. During high flows, the creek becomes quite turbid. (Schoharie County SWCD/WQCC, April 2002)

Water Quality Sampling
A biological assessment of Schoharie Creek in Burtonsville (at Braman Corners Road) 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 appear to be (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. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Although this site is just below this reach, it is considered to be representative of water quality in the upstream reach. (DEC/DOW, BWAM/SBU, January 2010)

Biological assessments of Schoharie Creek below this reach near the mouth in Fort Hunter and in Burtonsville were conducted in 2000 and 2001, respectively. Sampling results indicated non-impacted water quality conditions at both sites. The fauna at Fort Hunter included many species of clean-water mayflies and caddisflies. The Burtonsville sample was heavily dominated by clean-water mayflies. Though these sampling point are below the described segment, they is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description

This segment includes the portion of the Schoharie Creek from Pleasant Valley Brook (-92) in Fultonham to the Blenheim-Gilboa Reservoir dam. The waters of this portion of the stream are Class B to unnamed trib (-98) near Breakabeen, and Class C to the reservoir.

Lower Blenheim-Gilboa Reservoir (1202-0011) Need Verific

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240- 82 (portion 4)/P630a
Hydro Unit Code: 02020005/070 **Str Class:** B
Waterbody Type: Lake(R) (Unknown Trophic)
Waterbody Size: 292.2 Acres
Seg Description: entire reservoir

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: GILBOA (L-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Threatened	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: ALGAL/WEED GROWTH, SILT/SEDIMENT
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: STREAMBANK EROSION, Hydro Modification
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Recreational (fishing, boating) uses and aesthetics in Lower Gilboa Reservoir are thought to be threatened by excessive algal growth and silt and sediment loads transported along Schoharie Creek.

Water Quality Sampling
Lower Gilboa Reservoir was included in a 2001 Lake Classification and Inventory study effort. Results of this study indicate clarity fell below the criteria associated with Threatened uses, due to high algae levels. There was insufficient data collected to evaluate the impact of these problems on recreational uses of the lake. (DEC/DOW, BWM/Lake Services, August 2002)

Schoharie Creek, Middle, Main Stem (1202-0025) Need Verific

Waterbody Location Information

Revised: 08/21/2002

Water Index No: H-240- 82 (portion 5) **Drain Basin:** Mohawk River
Hydro Unit Code: 02020005/070 **Str Class:** B Schoharie Creek
Waterbody Type: River (Low Flow) **Reg/County:** 4/Schoharie Co. (48)
Waterbody Size: 11.9 Miles **Quad Map:** GILBOA (L-23-1)
Seg Description: from Blenheim-Gilboa Reservoir to Schoharie Reservoir

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Possible
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)
Known: WATER LEVEL/FLOW, SILT/SEDIMENT
Suspected: Thermal Changes
Possible: - - -

Source(s) of Pollutant(s)
Known: HYDRO MODIFICATION, STREAMBANK EROSION
Suspected: Agriculture
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in Lower Schoharie Creek is affected by hydrologic modification and silt and sediment loadings. Much of the impact is a result of the operation of the upstream water supply reservoirs. Aquatic life support may also be limited by these impacts, but such impacts need to be verified.

Source Assessment
Stream flow is significantly influenced by operation of the Schoharie Reservoir. Flow from the reservoir is restricted when the dam is not spilling. The lack of flow is a particular problem during the summer when low flow and resulting increase in water temperature affect the fishery. (DEC/DOW, Region 4, April 2002)

The creek flows through an intensive agricultural (vegetables, grain and silage) valley. These activities contribute sediment loads (and likely nutrients) to the creek. The fluctuating water levels also exacerbate streambank erosion and sediment loadings. Gravel beds are exposed during low flow, but during spring runoff and other high flow events low lying agricultural fields are flooded. During high flows, the creek becomes quite turbid. (Schoharie County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the Schoharie Creek from the Blenheim-Gilboa Reservoir to the Schoharie Reservoir. The waters of this portion of the stream are Class B.

Schoharie Reservoir (1202-0012) Impaired Seg

Waterbody Location Information

Revised: 11/13/2002

Water Index No:	H-240- 82 (portion 6)/P638a	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/010 **Str Class:** AA(TS)		Schoharie Creek
Waterbody Type:	Lake(R) (Unknown Trophic)	**Reg/County:**	4/Greene Co. (20) ...
Waterbody Size:	1131.5 Acres	**Quad Map:**	GILBOA (L-23-1)
Seg Description:	entire reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
WATER SUPPLY	Impaired	Known
FISH CONSUMPTION	Impaired	Known

Type of Pollutant(s)

Known: METALS (mercury), SILT/SEDIMENT
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION
Suspected: ATMOSPH. DEPOSITION, Agriculture
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/NYCW **Resolution Potential:** High
TMDL/303d Status: 1,4a (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Fish consumption and water supply use in Schoharie Reservoir are impaired due to mercury levels and high turbidity. The mercury is a results of atmospheric deposition. The high turbidity is a result of excessive silt and sediment loadings from streambank erosion and other nonpoint sources in the reservoir watershed.

Water Supply Assessment
Excessive silt and sediment loads to the reservoir from watershed tributaries results in high turbidity in the reservoir. The Schoharie Reservoir is part of the New York City Water Supply's Catskill District, which makes up about 24% of the entire water supply, and which serves nearly half the population of the state. The turbidity in the reservoir is sufficiently high as to limit its use as a drinking water supply. These problems are primarily the result of the erosion of glacial clay deposits indigenous to the watershed. Some in-reservoir processes, such as near shore wave action, can contribute to reservoir turbidity. However the ultimate source of most turbidity in the reservoir is watershed streams. NYCDEP has studied the issue of turbidity in the Catskill Watershed and identified the West Kill, Batavia Kill and Upper Schoharie Creek as major contributors of silt, sediment and turbidity. The water quality problems in these tribs, and NYCDEP's management of these streams, are discussed in further detail on the appropriate individual waterbody segment data sheets. (NYCDEP, October 2002)

Fish Consumption

Fish consumption in Schoharie Reservoir is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of walleye because of elevated mercury levels. The source of mercury is considered to be atmospheric deposition, as there are not other apparent sources in the lake watershed. The advisory for this lake was first issued in 2002-03. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2009).

Water Quality Sampling

NYCDEP conducts year-round monitoring at 13 stream locations throughout the basin in addition to in-reservoir and aqueduct monitoring. DEP has also conducted biological monitoring at 22 Schoharie watershed stream sites. In spite of the turbidity and atmospheric mercury issues, these monitoring efforts reveal generally high water quality and non-impacted aquatic life in the watershed. (NYCDEP, October 2002)

New York City Watershed

The Schoharie Reservoir is a part of the Catskill/Delaware System of New York City water supply reservoirs. The Catskill/Delaware System provides about 90% of New York City water supply, the other 10% is supplied by the Croton System. The Ashokan Reservoir receives water from the 250 square mile watershed of the Upper Esopus Creek and serves as a collecting reservoir for the water from the other reservoir - Schoharie Reservoir - in the Catskill system. Water quality in this upstream reservoir influences water quality in the Ashokan Reservoir. (Water quality issues in the Ashokan Reservoir and its watershed are discussed more fully in the Mohawk River Waterbody Inventory and Priority Waterbody List.) The capacity of the Catskill water system is 550 MGD. Water from the Schoharie Reservoir travels through the Shandaken Tunnel and the Upper Esopus Creek to the Ashokan Reservoir, and then via the Catskill Aqueduct to the Kensico Reservoir. In order to protect the New York City water supply, a comprehensive long-range watershed protection program is in place. These protections enable the city to receive a series of waivers from a federal requirement to filter water from the Catskill/Delaware supply. (NYCDEP, July 2006)

Water Quality Management

To help protect this resource, NYC DEP has developed and entered into a Watershed Agreement with local Watershed communities. This agreement sets forth protection goals and programs and funding to address water quality issues. Programs to address and improve water quality in the Schoharie Watershed include agricultural BMPs, upgrading of WWTPs, septic system rehabilitation (including remediating failed/inadequate systems and/or connecting failed or marginal systems to WWTPs), improved urban stormwater controls, stream management planning and stream restoration projects. A Phase II TMDL for phosphorus for all the NYC reservoirs including the Schoharie was approved by USEPA in October 2000. Phosphorus levels in the Schoharie do not exceed limits set forth in the TMDL. (NYC DEP, April 2002)

Currently NYCDEP is managing turbidity in the reservoir and its impact on the water supply operationally, by regulating (limiting) the amount of water being diverted from the Schoharie to the Ashokan Reservoir. However this approach represents a trade of water quantity for quality and does not address the underlying sources of turbidity in the watershed. (NYCDEP, October 2002)

Reservoir water is diverted from the Schoharie/Mohawk Basin to the Upper Esopus Creek and the Ashokan Reservoir in the Lower Hudson Basin via the Shandaken Tunnel. The water discharged through the Shandaken Tunnel, has the potential to be a major contributor of suspended sediment to the Esopus Creek. The discharge was a matter of litigation in federal court that resulted in control measures through the SPDES permit process. (DEC/DOW and NYCDEP, January 2010)

Water Quality Management/TMDL

In 2007, The New England Interstate Water Pollution Control Commission (NEIWPCC), on behalf of its member states including New York, submitted and USEPA approved a TMDL to address mercury deposition in lakes throughout the Northeastern United States, including Ferris Lake. The Northeast Regional Mercury TMDL notes that between 1998 and 2002 the Northeast states reduced in-region deposition of mercury by more than 70 percent. In addition these state have enforceable controls in place to meet the remaining reduction goals. Despite these reductions water quality impairment due to mercury still exists and elevated mercury levels in certain fish species remain great concern. The TMDL shows the demonstrates that the need for significant reductions in the mercury reaching waters of the Northeast from sources outside the region by way of

atmospheric deposition is essential to restoring these waters. (Northeast Regional Mercury TMDL, NEIWPCC, 2007)

Section 303(d) Listing The reservoir is included on the NYS 2008 Section 303(d) List of Impaired/TMDL Waters. The reservoir was included on Part 1 as an impaired water with high priority for TMDL development due to silt/sediment concerns. The reservoirs was included on previous Section 303(d) List of Impaired Waters due to impairments resulting from fish consumption advisories. However the lake was delisting with regard to this impairment in 2008 due to the Northeast Regional Mercury TMDL. and Part 2b of the List as a Fish Consumption Water.

Segment Description
This segment includes the total area of the entire reservoir.

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

Waterbody Location Information

Revised: 11/01/2002

Water Index No:	H-240- 82 (portion 7)			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/010	**Str Class:**	C(T)*		Schoharie Creek
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	18.3 Miles			**Quad Map:**	PRATTSVILLE (L-23-4)
Seg Description:	from Schoharie Reservoir (Prattsville) to Hunter				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: SILT/SEDIMENT
Suspected: - - -
Possible: Problem Species (Japanese knotweed), Thermal Changes

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION
Suspected: Habitat Modification
Possible: Construction, Roadbank Erosion

Resolution/Management Information

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

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

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) MinorImpacts

Waterbody Location Information

Revised: 08/21/2002

Water Index No:	H-240- 82 (portion 8)			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/010	**Str Class:**	C(T)*		Schoharie Creek
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	5.5 Miles			**Quad Map:**	PRATTSVILLE (L-23-4)
Seg Description:	from Hunter to near Tannersville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: SILT/SEDIMENT
Suspected: Problem Species (Japanese knotweed)
Possible: - - -

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION
Suspected: Habitat Modification
Possible: Roadbank Erosion

Resolution/Management Information

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

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

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) NoKnownImpct

Waterbody Location Information

Revised: 02/11/2010

Water Index No: H-240- 82 (portion 9) **Drain Basin:** Mohawk River
Hydro Unit Code: 02020005/010 **Str Class:** A(TS) Schoharie Creek
Waterbody Type: River (Low Flow) **Reg/County:** 4/Greene Co. (20)
Waterbody Size: 21.3 Miles **Quad Map:** HUNTER (M-24-1)
Seg Description: stream and select tribs abv Tannersville water supply

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of 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

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).

Minor Tribs to Schoharie Creek (1202-0027) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No: H-240- 82- 1 thru 62
Drain Basin: Mohawk River
Hydro Unit Code: 02020005/130 **Str Class:** C
Schoharie Creek
Waterbody Type: River (Low Flow)
Reg/County: 4/Montgomery Co. (29)
Waterbody Size: 122.6 Miles
Quad Map: TRIBES HILL (J-23-2)
Seg Description: total length of selected tribs, mouth to Central Bridge

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Wilsey Creek in Burtonsville (at Burtonsville Road) 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 some elevated enrichment in the stream but with a fauna that is most similar to natural communities. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Though Wilsey Creek is just one 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. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the total length of selected/smaller tribs to the Schoharie Creek from the mouth to Central Bridge. Tribs within this segment, including Irish Creek (-22), Wilsey Creek (-33), Bowman Creek (-36), are Class C. Fly Creek (-57) and Cripplebush Creek (-58) are listed separately.

Fly Creek and tribs (1202-0028) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 82- 57
Hydro Unit Code: 02020005/120 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 47.5 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: ESPERANCE (J-23-3)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Fly Creek near the mouth in Sloansville 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream and its tribs are Class C.

Cobleskill Creek, Lower, and tribs (1202-0019) Need Verific

Waterbody Location Information

Revised: 04/06/2010

Water Index No: H-240- 82- 63
Hydro Unit Code: 02020005/100 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 46.2 Miles
Seg Description: stream and tribs, from mouth to Cobleskill

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: COBLESKILL (K-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Suspected
Habitat/Hydrolgy	Stressed	Possible

Type of Pollutant(s)

Known: - - -
Suspected: Silt/Sediment
Possible: PATHOGENS, Nutrients

Source(s) of Pollutant(s)

Known: Agriculture
Suspected: Streambank Erosion
Possible: ON-SITE/SEPTIC SYST (Central Bridge), Habitat Modification, Hydro Modification

Resolution/Management Information

Issue Resolvability: 6 (Problem Thought to be Abated)
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: DOW/BWAM **Resolution Potential:** High
TMDL/303d Status: 1->n/a?

Further Details

Overview
Recreational uses (swimming, fishing) and aesthetics of this portion of Cobleskill Creek may be impaired by elevated pathogen levels in the stream. In previous assessments failing and/or inadequate on-site septic systems serving homes in Central Bridge have been documented and raw sewage discharges have been observed. However this assessment was based on sampling results and evaluation prior to the completion of a municipal wastewater treatment facility in Central Bridge that appears to have addressed previously identified sources. Follow-up monitoring to verify current conditions in the stream is recommended. Beyond the municipal wastewater issues, minor impacts related to the agricultural nature of the watershed have also been documented.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Cobleskill Creek in Central bridge (at Route 30A) 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 appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to natural communities. These results are consistent with results of sampling conducted at this site in

2000. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network (mini-study) monitoring of Cobleskill Creek in Central Bridge (at Route 30A) was conducted in 2001. The focus of this limited mini-study was on bacterial contamination in the stream from on-site septic systems. Consequently, sampling was limited to coliform and toxicity samples. as well as macroinvertebrate community analysis. Based on 5 samples, neither total nor fecal coliform levels exceeded water quality standards. Toxicity testing did not indicate any toxic influences in the water on the three testing dates. Water quality in this reach of Cobleskill Creek is considered good and supportive of designated uses. (DEC/DOW, BWAR/RIBS, April 2003).

A biological survey of multiple sites along this reach was also conducted in 1996. Water quality ranged from non to slightly impacted. In spite of minor impacts attributed to nutrient additions no serious water quality problems were noted. This assessment represented substantial improvements since a previous 1972 survey which found significant point and nonpoint source impacts. (Cobleskill Creek Biological Assessment, Bode et al., DEC/DOW, BWAR/SBU, October 1997)

Previous Assessment

Concerns were noted by DEC Regional staff and local agencies during previous assessment efforts in 2002 regarding onsite septic impacts from residences in the Village of Central Bridge. The Schoharie County DOH and the NYS DEC have conducted sanitary sewage surveys along the stream and have found indications of numerous failing and inadequate on-site septic systems. The most recent survey of failing on-site septic was conducted by NYS DEC in 2001. This survey involved visual inspection of properties for problems and found nearly 40 failing and/or poorly operating wastewater disposal systems. These conditions raise public health concerns and diminish aesthetics of the stream. NYS DEC Regional staff also conducted a stream survey in May 2001. Samples taken below Central Bridge found elevated levels of total and fecal coliform. Though the results did not exceed applicable water quality standards, they were indicative of bacteriological contamination, likely the result of failing systems in Central Bridge. However this assessment was conducted prior to the completion of a municipal wastewater treatment plant in the Fall of 2009 and follow-up monitoring to verify current conditions in the stream is recommended. (DEC/DOW, BWAR/SBU, April 2010)

There are many active farming operations in the watershed and nonpoint nutrient and silt/sediment loads to the stream are also a concern. Increasing development pressures have also contributed to these impacts and have resulted in some hydrologic and habitat modification along this reach. (Schoharie County SWCD/WQCC, April 2002)

Section 303d Listing

This portion of Cobleskill Creek is included on the NYS 2010 Section 303(d) List of Impaired Waters. The stream 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 pathogens. This waterbody was first listed on the 2004 Section 303(d) List. However, as noted above, the presumed source of the impairment has been addressed and follow-up monitoring to verify conditions in the stream and consideration of delisting the segment is recommended. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the stream and most tribs from the mouth to Panther Creek (-10) in Cobleskill. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also/primarily Class C, C(T). Panther Kill and smaller Class A water supply tribs are listed separately.

Cobleskill Creek, Upper, and minor tribs (1202-0030) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 82- 63
Hydro Unit Code: 02020005/100 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 78.4 Miles
Seg Description: stream and selected tribs, above Cobleskill

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: COBLESKILL (K-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Cobleskill Creek below Richmondville 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)

A biological survey of multiple sites along the lower Cobleskill Creek was also conducted in 1996. Water quality ranged from non to slightly impacted. In spite of minor impacts attributed to nutrient additions no serious water quality problems were noted. This assessment represented substantial improvements since a previous 1972 survey which found significant point and nonpoint source impacts. (Cobleskill Creek Biological Assessment, Bode et al., DEC/DOW, BWAR/SBU, October 1997)

Potential Source Assessment
There are many active farming operations in the watershed and nonpoint nutrient and silt/sediment loads to the stream are also a concern. Increasing development pressures have also contributed to these impacts and have resulted in some hydrologic and habitat modification along this reach. (Schoharie County SWCD/WQCC, April 2002)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs above Panther Creek (-10) in Cobleskill). The waters

of this portion of the stream are Class C, C(T), C(TS). Tribs to this reach/segment, including Beards Hollow (-16), Bear Gulch Creek (-19) and Brooker Hollow Creek (-20), are primarily Class C; one trib (-21) is Class A. Panther Creek (-10), West Creek (-13) and the Richmond Water Supply and tribs are listed separately.

Central Bridge Reservoirs (1202-0016) Need Verific

Waterbody Location Information

Revised: 02/08/2010

Water Index No: H-240- 82- 63- 1-P579/P579a
Hydro Unit Code: 02020005/100 **Str Class:** A
Waterbody Type: Lake(R) (Unknown Trophic)
Waterbody Size: 25.6 Acres
Seg Description: total area of both reservoirs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: SCHOHARIE (K-23-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: OTHER POLLUTANTS

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: OTHER SOURCE

Resolution/Management Information

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

Further Details

Overview
Water supply use of Central Bridge Reservoirs is thought to experience threats from various pollutants due to runoff from agricultural lands in the watershed.

Source (Drinking) Water Assessment
A source water assessment of Central Bridge Reservoirs found a high level of susceptibility to contaminants due to the amount of agricultural pastureland in the watershed. 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 Central Bridge. (NYSDOH, Source Water Assessment Program, 2005)

However local agencies have indicted that most agricultural activity in the watershed has been discontinued. In early 1990s NRCS installed a diversion dam to divert runoff. On-site septic system impacts may be a concern, but there is no current documentation of any problems. (Schoharie County SWCD/WQCC, April 2002)

Cobleskill Reservoirs (1202-0015) Need Verific

Waterbody Location Information

Revised: 02/08/2010

Water Index No: H-240- 82- 63- 9-P583
Hydro Unit Code: 02020005/100 **Str Class:** A
Waterbody Type: Lake(R) (Unknown Trophic)
Waterbody Size: 71.1 Acres
Seg Description: total area of all three reservoirs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: COBLESKILL (K-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: OTHER POLLUTANTS

Source(s) of Pollutant(s)
Known: - - -
Suspected: AGRICULTURE
Possible: On-Site/Septic Syst

Resolution/Management Information

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

Further Details

Overview
Water supply use of Cobleskill Reservoirs is thought to experience threats from various pollutants due to runoff from agricultural lands in the watershed.

Source (Drinking) Water Assessment
A source water assessment of Cobleskill Reservoirs found a high level of susceptibility to contaminants due to the amount of agricultural pastureland in the watershed. 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 the Village of Cobleskill. (NYSDOH, Source Water Assessment Program, 2005)

The Cobleskill Reservoirs include two raw water reservoirs: Dow and Smith Reservoirs. The Smith Reservoir watershed is largely forested and water quality is very good. The Dow Reservoir watershed is a mix of woodland and agricultural lands. Water quality is considered lower in this reservoir. Both reservoirs feed a third holding pond reservoir through connection piping. Chemical testing of reservoir water (for inorganic compounds and synthetic organics) have revealed no water quality

problems. All test results fall below federal and state maximum contaminant levels. (Cobleskill Water Department, April 2002)

The three reservoirs have been sampled periodically as part of the Lake Classification and Inventory Survey (LCI), beginning in 1997. Results of this study indicate that water clarity levels in Smith Reservoir fell below the criteria associated with stressed conditions, due to high algae levels, and phosphorus levels in Dow Reservoir exceeded the criteria associated with impacted conditions, although this did not result in water clarity readings associated with any use impairments. Water quality conditions in the Holding Reservoir appear to adequate to support uses. There was insufficient data collected to evaluate the impact of these problems on potability or aesthetic uses of the lake. (DEC/DOW, BWM/Lake Services, August 2000)

Source Assessment

The Village of Cobleskill Water Department has concerns regarding impacts from on-site septic systems and agricultural activity adjacent to and immediately upgradient of the reservoirs. Homes in the immediate area have been reported to be discharging grey-water separate from on-site septic systems. (Cobleskill Water Department, April 2002)

Panther Creek and tribs (1202-0033) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240- 82- 63-10
Hydro Unit Code: 02020005/100 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 13.0 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: COBLESKILL (K-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Panther Creek in Cobleskill (at North Grand Street) 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 low enrichment in the stream and fauna that is most similar to natural communities. 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 entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

West Creek, Lower, and tribs (1202-0018) MinorImpacts

Waterbody Location Information

Revised: 02/05/2010

Water Index No:	H-240- 82- 63-13	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/100 **Str Class:** C		Schoharie Creek
Waterbody Type:	River (Low Flow)	**Reg/County:**	4/Schoharie Co. (48)
Waterbody Size:	68.5 Miles	**Quad Map:**	RICHMONDVILLE (K-22-2)
Seg Description:	stream and tribs, from mouth to Seward		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS (phosphorus), Silt/Sediment
Possible: Pathogens

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Overview
Aquatic life support in West Creek is thought to experience minor impacts due to nutrient enrichment. Nonpoint agricultural activities are the primary source of nutrient inputs. On-site septic systems are also a concern.

Water Quality Sampling
A biological (macroinvertebrate) assessment of West Creek near the mouth in Warnerville was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. Impact Source Determination denoted nonpoint nutrient enrichment as the likely source of impact. This site was assessed as non-impacted in 1996, although abundant filamentous algae was also noted then indicating enriched conditions were present. (DEC/DOW, BWAR/SBU, July 2002)

A biological (macroinvertebrate) assessment of West Creek in Seward (at West Creek Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results also 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 low enrichment in the stream and fauna that is similar to natural communities, but with some influences from impoundment and nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

Source Assessment

There is significant agricultural activity in the watershed. The county WQCC has done some monitoring of the creek and found high levels of phosphates. A community septic tank/sand filter has been installed in Seward to address on-site septic impacts. Existing on-site septic systems in Janesville and Hyndsville remain a concern. (Schoharie County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to unnamed lake (P587) near Seward. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C.

West Creek, Upper, and tribs (1202-0035) NoKnownImpct

Waterbody Location Information

Revised: 02/05/2010

Water Index No: H-240- 82- 63-13
Hydro Unit Code: 02020005/100 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 45.6 Miles
Seg Description: stream and tribs, above Seward

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: RICHMONDVILLE (K-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of West Creek in Seward (at West Creek Road) 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 low enrichment in the stream and fauna that is similar to natural communities, but with some influences from impoundment and nonpoint sources. 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 stream and all tribs above unnamed lake (P587) near Seward. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C.

Engleville Pond (1202-0009) Impaired Seg

Waterbody Location Information

Revised: 03/21/2003

Water Index No:	H-240- 82- 63-19-9-P589	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/100 **Str Class:** A		Schoharie Creek
Waterbody Type:	Lake (Unknown Trophic)	**Reg/County:**	4/Schoharie Co. (48)
Waterbody Size:	29.5 Acres	**Quad Map:**	SPROUT BROOK (J-22-4)
Seg Description:	entire lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected
RECREATION	Impaired	Known
Aesthetics	Stressed	Possible

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/WQCC **Resolution Potential:** Medium
TMDL/303d Status: 1,4c (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Drinking water supply and recreational (fishing, boating) uses and aesthetics in the Engleville Ponds are affected by excessive algal growth and elevated nutrient levels. Agricultural activity in the watershed is the likely source of the nutrient loads.

Water Quality Sampling
The two Engleville Ponds/Reservoirs that comprise the Sharon Springs water supply have been sampled periodically as part of the Lake Classification and Inventory Survey (LCI), beginning in 1997. Results of this study indicate that water clarity levels fall below the criteria and phosphorus levels exceeded the criteria associated with impacted recreational uses/conditions. Elevated algae levels are reported. However, there was insufficient data collected to evaluate the impact of these problems on potability or aesthetic uses of these lakes. The main pond also suffers from extensive growth of curly-leafed pondweed (Potamogeton crispus). (DEC/DOW, BWM/Lake Services, August 2000)

Source (Drinking) Water Assessment
A source water assessment of Engleville Ponds/Reservoirs found a high level of susceptibility to contaminants due to the amount of agricultural pastureland in the watershed. 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 Sharon Springs. (NYSDOH, Source Water Assessment Program, 2005)

The reservoirs serve as the water supply for Sharon Springs. The Village is looking into wells as an alternate supply.

Minor Tribs to Schoharie Creek (1202-0040) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 82- 64 thru 109
Drain Basin: Mohawk River
Hydro Unit Code: 02020005/110 **Str Class:** C
Schoharie Creek
Waterbody Type: River (Low Flow)
Reg/County: 4/Schoharie Co. (48)
Waterbody Size: 189.4 Miles
Quad Map: SCHOHARIE (K-23-2)
Seg Description: total length of sel. tribs, Cobleskill to B-Gilboa Res.

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Keyser Kill near the mouth in Breakabeen was conducted in 2000. Sampling results indicated non-impacted water quality conditions. Mayflies, stoneflies, and caddisflies were numerous, and the fauna was well-balanced. This site is considered representative of the other small tribs included within the segment. However, the level of assessment for this segment is considered to be "evaluated" rather than "monitored." (DEC/DOW, BWAR/SBU, July 2002)

Segment Description
This segment includes the total length of selected/smaller tribs to Schoharie Creek between Cobleskill Creek (-63) in Cobleskill and the Blenheim-Gilboa Reservoir. Tribs within this segment, including Stony Brook (-74), Limekiln Creek (-78), The Gorge (-85), Stony Creek (-86), Pleasant Valley Creek (-92), Keyser Kill (-97), Cole Hollow Brook (-99), are primarily Class C, C(T), C(TS). Line Creek (-87), Little Schoharie Creek (-89), Panther Creek (-95), West/Mill Creek (-104), Mine Kill (-106) and Platter Kill (-108) are listed separately.

Fox Creek, Lower, and tribs (1202-0008) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 82- 67
Hydro Unit Code: 02020005/090 **Str Class:** A
Waterbody Type: River (Low Flow)
Waterbody Size: 43.7 Miles
Seg Description: stream and tribs, from mouth to Gallupville

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: SCHOHARIE (K-23-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Fox Creek in Schoharie (at State Route 30) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Biological sampling results indicated non- to slightly impacted conditions, and overall good water quality. The only parameter of concern in the water column found in 10 sampling events in 2001 was iron, which was measured in concentrations above the assessment criterion in 20% of the samples. Sediment and macroinvertebrate tissue analysis showed no compounds present at concentrations above levels of concern. No acute or chronic toxicity was indicated in the water column on three dates of testing. (DEC/DOW, BWAR/RIBS, April 2003)

Biological (macroinvertebrate) assessments of Fox Creek near the mouth in Vroman Corners/Schoharie and above this reach in West Berne were conducted in 2000 as part of the RIBS effort. The downstream Schoharie site was assessed as slightly impacted and the West Berne site was assessed as non-impacted. No source for the downstream impact was indicated, as the impact was judged to be very minor. The Schoharie site was also assessed as slightly impacted in 2001 sampling, with nutrient enrichment as the likely cause. In spite of these minor impacts, aquatic life is considered to be fully supported in the stream, and there are no other apparent water quality impacts. (DEC/DOW, BWAR/SBU, April 2003)

Watershed Management

The Fox Creek watershed is primarily agricultural but farming activity has declined in recent years. Best management practices have been and are being implemented at many farms through USDA EQIP. The are areas of significant streambank erosion along the creek. (Schoharie County SWCD/WQCC, April 2002)

The Village of Schoharie uses a reservoir on the creek as a backup water supply (infiltration gallery).

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to the Gallupville Bridge. The waters of this portion of the stream are Class B from the mouth to trib -b and Class A for the remainder of the reach. Tribs to this reach/segment, including King Creek (-10), are primarily Class C, C(TS); some smaller tribs are designated Class A.

Fox Creek, Middle, and minor tribs (1202-0041) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240- 82- 67
Hydro Unit Code: 02020005/090 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 61.0 Miles
Seg Description: stream and selected tribs, from Gallupville to Berne

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: GALLUPVILLE (K-24-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Fox Creek in West Berne (at Route 443) 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 sampling conducted at the site in 2000. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2010)

These results are also consistent with conditions reported in a 1992 biological survey of Fox Creek. This survey found good to excellent water quality along the reach from West Berne to East Berne, and in Switz Kill. (Fox Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, May 1993)

Watershed Management
The Fox Creek watershed is primarily agricultural but farming activity has declined in recent years. Best management practices have been and are being implemented at many farms through USDA EQIP. The are areas of significant streambank erosion along the creek. (Schoharie County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the Gallupville Bridge to Beaverdam Creek (-26) in Berne. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Switz Kill (-24) and Beaverdam Creek (-26) are listed separately.

Fox Creek, Upper, and tribs (1202-0004) NoKnownImpct

Waterbody Location Information

Revised: 02/10/2010

Water Index No: H-240- 82- 67
Hydro Unit Code: 02020005/090 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 42.1 Miles
Seg Description: stream and tribs, above Berne

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Albany Co. (1)
Quad Map: WESTERLO (K-24-3)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Fox Creek in West Berne (at Route 443) 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 sampling conducted at the site in 2000. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2010)

These results are also consistent with conditions reported in a 1992 biological survey of Fox Creek. This survey found good to excellent water quality along the reach from West Berne to East Berne, and in Switz Kill. (Fox Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, May 1993)

Watershed Management
The Fox Creek watershed is primarily agricultural but farming activity has declined in recent years. Best management practices have been and are being implemented at many farms through USDA EQIP. There are areas of significant streambank erosion along the creek. (Schoharie County SWCD/WQCC, April 2002)

The Village of Berne is under order to construct a wastewater treatment plant to serve homes that currently have on-site septic systems. Construction is scheduled to be complete by July 2011. (DEC/DOW, Region 4, April 2010)

Previous Assessment

Concerns were previously raised regarding threats to natural resources (fishery) habitat in this trout stream due to thermal stresses attributed to agricultural activities and in the watershed. Agricultural activity contributes to the loss of riparian vegetation necessary to cool the stream. However more recent sampling suggests these threats are not atypical of many other streams in the state. Trout Unlimited has undertaken a long-term project with area farmers to improve the trout fishery. Trout have been documented in the headwaters of the stream.

Segment Description

This segment includes the portion of the stream and all tribs above Beaverdam Creek (-26) in Berne. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment are Class C, C(T). Beaverdam Creek (-26) is listed separately.

Switz Kill and tribs (1202-0007) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No: H-240- 82- 67-24
Hydro Unit Code: 02020005/090 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 65.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Albany Co. (1)
Quad Map: RENNSELAERVILLE (K-24-4)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Switz Kill in Berne (at Ravine 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. These results are consistent with sampling conducted at this site in 2000. (DEC/DOW, BWAM/SBU, January 2010)

These results are also consistent with conditions reported in a 1992 biological survey of Fox Creek. This survey found good to excellent water quality along the reach from West Berne to East Berne, and in Switz Kill. (Fox Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, May 1993)

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

Onderdonk Lake (1202-0005) MinorImpacts

Waterbody Location Information

Revised: 07/02/2010

Water Index No: H-240- 82- 67-24-P608
Hydro Unit Code: 02020005/090 **Str Class:** B
Waterbody Type: Lake (Eutrophic)
Waterbody Size: 65.5 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Albany Co. (1)
Quad Map: WESTERLO (K-24-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus)
Suspected: Algal/Weed Growth
Possible: Pesticides

Source(s) of Pollutant(s)

Known: - - -
Suspected: ON-SITE/SEPTIC SYST
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Recreational (fishing, boating) uses and aesthetics in Onderdonk Lake are known to experience minor impacts due to nutrient loads and reduced water clarity. On-site septic systems and lawn runoff from homes along the lake are considered the most likely source. Some weed growth is reported, but neither aquatic weed nor algal growth appears to reach the threshold of impairing uses.

Water Quality Sampling
Onderdonk Lake was sampled as part of the NYSDEC Lake Classification and Inventory (LCI) sampling effort, a component of the Rotating Intensive Basin Studies (RIBS) Program, in 2006. Nutrient, chlorophyl and clarity measurements taken at that time revealed the lake was best characterized as mesotrophic, or moderately productive. Results of this study confirm elevated phosphorus levels and reduced water clarity, but algae levels do not appear to be high enough to render the lake susceptible to frequent blooms or the production of toxins or taste and odor compounds (although these were not specifically analyzed in these samples). The plant community was dominated by native plants growing just below the lake surface, although this may have been the result of active management (with aquatic herbicides) rather than "natural" subsurface plant growth. Curly leafed pondweed (Potamogeton crispus), an exotic plant species, was found in the lake, but this early season plant did not appear to be growing sufficiently to impact recreational uses of the lake. (DEC/DOW, BWAM/RIBS, June 2010)

These results are consistent with a 2001 Lake Classification and Inventory study effort. Results of this study also indicated elevated phosphorus levels and reduced water clarity in the lake. Significant rooted aquatic plant growth was not observed. (DEC/DOW, BWM/Lake Services, August 2000)

Water Quality Management

Active weed management through herbicide application (diquat and copper sulfate) to reduce algal and weed growth has been undertaken. (Albany County WQCC, 2004)

Beaverdam Creek and tribs (1202-0043) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240- 82- 67-26
Hydro Unit Code: 02020005/090 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 23.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Albany Co. (1)
Quad Map: GALLUPVILLE (K-24-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Beaverdam Creek in Berne (at Route 156) 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 some elevated enrichment in the stream, however the fauna is most similar to natural communities with some impoundment and nonpoint source influences. 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. 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 entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Warners Lake (1202-0044) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240- 82- 67-33-1-P609
Hydro Unit Code: 02020005/090 **Str Class:** B(T)
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 116.6 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Albany Co. (1)
Quad Map: WESTERLO (K-24-3)

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

Water Quality Sampling
Warners Lake was included in the 2001 Lake Classification and Inventory study effort. Results of this study found no evidence of water quality impairment. (DEC/DOW, BWM/Lake Services, August 2002)

Little Schoharie Creek, Lower, and tribs (1202-0046) NoKnownImpct

Waterbody Location Information

Revised: 02/11/2010

Water Index No: H-240- 82- 89
Drain Basin: Mohawk River
Hydro Unit Code: 02020005/080 **Str Class:** C
Schoharie Creek
Waterbody Type: River (Low Flow)
Reg/County: 4/Schoharie Co. (48)
Waterbody Size: 14.6 Miles
Quad Map: MIDDLEBURG (K-23-3)
Seg Description: stream and tribs, from mouth to Middleburg Water Supply

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Little Schoharie Creek in Middleburgh, Schoharie County, (at Route 36) 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. (DEC/DOW, BWAM/RIBS, January 2010)

Previous Assessment
Concerns were raised during previous assessment efforts regarding impacts on natural resources (fishery) habitat in Little Schoharie Creek due to silt/sediment loads from excessive stream bank erosion along the stream. However more recent sampling appear to indicate that there are no significant impacts to the stream.

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to the Middleburg Public Water Supply dam. The waters of this portion of the stream are Class C, C(TS). Tribs to this reach/segment, including Mill Creek (-1), are Class C(TS).

Little Schoharie Creek, Upper, and tribs (1202-0047) NoKnownImpct

Waterbody Location Information

Revised: 02/11/2010

Water Index No: H-240- 82- 89
Drain Basin: Mohawk River
Hydro Unit Code: 02020005/080 **Str Class:** A(TS)
Schoharie Creek
Waterbody Type: River (Low Flow)
Reg/County: 4/Schoharie Co. (48)
Waterbody Size: 32.6 Miles
Quad Map: MIDDLEBURG (K-23-3)
Seg Description: stream and tribs, above Middleburg Water Supply

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Little Schoharie Creek in Middleburgh, Schoharie County, (at Route 36) 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. (DEC/DOW, BWAM/RIBS, January 2010)

Previous Assessment
Concerns were raised during previous assessment efforts regarding impacts on natural resources (fishery) habitat in Little Schoharie Creek due to silt/sediment loads from excessive stream bank erosion along the stream. However more recent sampling appear to indicate that there are no significant impacts to the stream.

At one time, the stream served as a backup water supply for the Village of Middleburgh. However it is uncertain whether this is still the case, since the system is old and in disrepair. (Schoharie County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and all tribs above the Middleburg Public Water Supply Dam. The waters of this portion of the stream are Class A(TS). Tribs to this reach/segment, including Brookie Hollow (-3) and Laughton Hollow (-4), are Class C.

Panther Creek and tribs (1202-0048) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No: H-240- 82- 95
Hydro Unit Code: 02020005/060 **Str Class:** C(TS)
Waterbody Type: River (Low Flow)
Waterbody Size: 49.0 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: BREAKABEEN (K-23-4)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Panther Creek in Breakabeen (at Route 30) 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. These results are consistent with sampling conducted at this site in 2000. (DEC/DOW, BWAM/SBU, January 2010)

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

West Kill/Mill Creek and tribs (1202-0050) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240- 82-104
Hydro Unit Code: 02020005/050 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 77.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: GILBOA (L-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of West Kill in North Blenheim (at Route 30) 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 low enrichment in the stream and fauna that is most similar to natural communities, with some nonpoint source 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)

A biological assessment of Mill Creek in North Blenheim (at Route 2) 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)

Segment Description

This segment includes the entire length of West Kill and Mill Creek (-1) and all tribs. The waters of the stream are Class C, C(T), C(TS). Tribs to this reach/segment, including Doney Hollow (-3) and Betty Brook (-4), are also Class C, C(T),C(TS).

Summit Lake (1202-0014) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240- 82-104-P629
Hydro Unit Code: 02020005/050 **Str Class:** B
Waterbody Type: Lake (Eutrophic)
Waterbody Size: 43.1 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: SUMMIT (K-22-3)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Public Bathing	Stressed	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)
Known: ALGAL/WEED GROWTH, NUTRIENTS (phosphorus)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: ON-SITE/SEPTIC SYST
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Public Bathing, Recreational (fishing, boating) uses and aesthetics in Summit Lake are restricted by elevated nutrient levels, excessive weed and algae growth and reduced water clarity. On-site septic systems and lawn runoff from homes along the lake are considered the most likely source.

Water Quality Sampling
Summit Lake has been sampled as part of the Citizens Statewide Lake Assessment Program (CSLAP) since 1997. Data collected through this program indicate that water clarity levels fell below the criteria and phosphorus levels exceeded the criteria associated with impaired conditions. High algae levels are also reported. Perception data indicate that the lake is substantially impaired for recreational uses as a result of this reduced water clarity and excessive algae growth. In recent years, rooted aquatic plants have grown extensively at the lake surface, resulting in additional recreational impairments. (DEC/DOW, BWM/Lake Services, August 2000)

Source Assessment
Inadequate and/or failing on-site septic systems serving homes and runoff from lawns along the lake shore are thought to be the

primary source of nutrients to the lake. Conversion of summer cottages to year-round residences coupled with poor site conditions and poor design of systems appear to be the major problems. (Schoharie County WQCC, April 2002)

Section 303(d) Listing

Summit Lake is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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. However a TMDL to address phosphorus in Summit Lake has been completed and was approved in 2009. Consequently, this waterbody is expected to be delisted in the 2010 List. (DEC/DOW, BWAM/WQAS, January 2010)

Mine Kill and tribs (1202-0052) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 82-106
Hydro Unit Code: 02020005/040 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 31.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: GILBOA (L-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Mine Kill near the mouth near Mine Kill State Park 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)

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

Platter Kill and tribs (1202-0053) NoKnownImpct

Waterbody Location Information

Revised: 02/05/2010

Water Index No: H-240- 82-108
Hydro Unit Code: 02020005/040 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 22.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: GILBOA (L-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Platterkill in Gilboa (at Route 17) 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. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

A biological assessment of the Platterkill at this site was also conducted in 2000. At that time sampling results indicated slightly impacted water quality conditions. Although mayflies, stoneflies, and caddisflies were present, the number of individuals was very low, insufficient to obtain a 100-organism subsample. The stream water at this site was very turbid, and this may have been responsible for the very low macroinvertebrate biomass. (DEC/DOW, BWAR/SBU, July 2002)

Water Quality Management
Thought the more recent sampling indicates good water quality, silt/sediment loads and high turbidity should continue to be monitored. Hydrologic modification (releases of the water from the Upper Blenheim-Gilboa Reservoir) may have periodic impacts on the stream.
This stream is within the New York City Water Supply Watershed which is managed by NYCDEP.

Segment Description

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

Upper Blenheim-Gilboa Reservoir (1202-0071) Need Verific

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240- 82-108-2-P630b
Hydro Unit Code: 02020005/010 **Str Class:** B
Waterbody Type: Lake(R) (Unknown Trophic)
Waterbody Size: 369.4 Acres
Seg Description: entire reservoir

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Schoharie Co. (48)
Quad Map: GILBOA (L-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Threatened	Suspected

Type of Pollutant(s)

Known: - - -
Suspected: ALGAL/WEED GROWTH, SILT/SEDIMENT, Nutrients
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: STREAMBANK EROSION
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Recreational (fishing, boating) uses and aesthetics in Upper Gilboa Reservoir are thought to be threatened by excessive algal growth and silt and sediment loads. Streambank erosion is the most likely source.

Water Quality Sampling
Upper Gilboa Reservoir was included in a 2001 Lake Classification and Inventory study effort. Results of this study indicate clarity fell below the criteria associated with Threatened uses, due to high algae and nutrient levels. There was insufficient data collected to evaluate the impact of these problems on recreational uses of the lake. (DEC/DOW, BWM/Lake Services, August 2002)

Minor Tribs to Schoharie Reservoir (1202-0054) Need Verific

Waterbody Location Information

Revised: 11/01/2002

Water Index No:	H-240- 82-110 thru 115	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/010 **Str Class:** C*		Schoharie Creek
Waterbody Type:	River (Low Flow)	**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	56.6 Miles	**Quad Map:**	GILBOA (L-23-1)
Seg Description:	total length of selected tribs to the reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS (phosphorus), PATHOGENS
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and recreation in some of these tributaries to the Schoharie Reservoir (a New York City Water Supply reservoir) may be affected by nonpoint agricultural runoff. One particular trib that has been previously identified with water quality concerns is Johnson Hollow Brook. Sampling at another trib (Bear Kill) has indicated no water quality impacts.

Water Quality Assessment
Past (1997-2000) routine water quality monitoring of Johnson Hollow Brook by NYCDEP revealed elevated phosphorus concentrations and high "spike" values for coliform. The most likely source of these pollutants is livestock farms adjacent to the stream. To address watershed protection issues throughout the NYC Water Supply System the NYCDEP has entered into a Watershed Agreement with local communities. This agreement outlines the watershed protection goals and funds various watershed protection programs to meet these goals. One such program is the NYC Watershed Agricultural Program. All four farms in the Johnson Hollow Brook watershed have developed Whole Farms Plans that have been approved by this program and BMPs in these plans are currently being implemented. Water quality impacts in the creek need to be verified in light of these efforts. (NYCDEP, October 2002)

Water Quality Sampling

A biological (macroinvertebrate) assessment of Bear Kill below Grand Gorge (at Cottone 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 field sampling conducted at the site in 2000 which found a sample that meet field screening criteria for a non-impacted stream. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description

This segment includes the total length of selected/smaller tribs to the Schoharie Reservoir. Tribs within this segment, including Bear Kill (-113) and Johnson Hollow Brook (-115), are primarily Class C, C(T), C(TS) with some portions designated as Class A, A(T). Manor Kill (-112) is listed separately.

Manor Kill and tribs (1202-0017) NoKnownImpct

Waterbody Location Information

Revised: 11/01/2002

Water Index No:	H-240- 82-112			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/030	**Str Class:**	C(T)*		Schoharie Creek
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	62.2 Miles			**Quad Map:**	GILBOA (L-23-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Manorkill near the mouth in West Conesville 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 also indicates good water quality with no identified impairments to the stream. The Manor Kill, like may streams in the area, is prone to turbidity problems but is not considered by NYCDEP to be a major source of sediment/turbidity to the Schoharie Reservoir. Though streambank erosion is of some concern, NYCDEP is not involved with the development of a stream management plan for the Manor Kill because the stream clears quickly after storm events and it is not considered a high priority. (NYCDEP, October 2002)

The most recent fishery survey information (1996) indicates that the stream supports a wild trout population. (DEC/DFWMR, Region 4, April 2002)

Water Qaulity Management
Agricultural nonpoint source concerns are being addressed by the New York City Watershed Agricultural Program. Most farms are developing whole farm plans and receiving funding for implementation. (Schoharie County SWCD/WQCC, April 2002)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class A(T) from the mouth to County Route 39 and Class C(T), C(TS) for the remainder of the reach. Tribs to this reach/segment, including Bear Kill (-5), are primarily Class C, C(T), C(TS); with some tribs designated Class A.

Huntersfield Creek, Upper, and tribs (1202-0056) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No: H-240- 82-116
Drain Basin: Mohawk River
Hydro Unit Code: 02020005/010 **Str Class:** A
Schoharie Creek
Waterbody Type: River (Low Flow)
Reg/County: 4/Greene Co. (20)
Waterbody Size: 9.8 Miles
Quad Map: PRATTSVILLE (L-23-4)
Seg Description: stream and tribs, above Prattsville Water Supply

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Hunterfield Creek in Prattsville (at Route 10) 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the portion of the stream and all tribs above the Prattsville Public Water Supply intake. The waters of this portion of the stream are Class A. Tribs to this reach/segment are Class A(T).

Minor Tribs to Schoharie Creek (1202-0057) MinorImpacts

Waterbody Location Information

Revised: 08/14/2002

Water Index No:	H-240- 82-116 thru 140	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/010 **Str Class:** C		Schoharie Creek
Waterbody Type:	River (Low Flow)	**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	58.2 Miles	**Quad Map:**	PRATTSVILLE (L-23-4)
Seg Description:	total length of select tribs fr Schoharie Res to Hunter		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: AESTHETICS (turbidity), SILT/SEDIMENT
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION
Suspected: Habitat Modification
Possible: Hydro Modification

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in these smaller tribs to Schoharie Creek is thought to be affected by silt/sediment loads from excessive stream bank erosion along the stream. The Little West Kill has been specifically cited. Impacts of the sediment loadings to the Schoharie Reservoir and the New York City Water Supply System are of particular concern.

Source Assessment
Streambank failures/collapses are fairly common in the watershed. These streams have been the focus of significant streambank assessment and restoration activity by both the NYCDEP and the Greene County SWCD. Extensive water quality and erosion rate data is available from the county. (Greene County SWCD/WQCC, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) assessment of Little West Kill in Mosquito Point (at Route 2) 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. Aquatic life community is fully supported. Though Little West Kill is just one 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. (DEC/DOW, BWAM/SBU, January 2010)

A biological assessment of Hunterfield Creek in Prattsville (at Route 10) 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description

This segment includes the total length of selected/smaller tribs to Schoharie Creek between Schoharie Reservoir and unnamed trib (-140) in Hunter. Tribs within this segment, including Lower Huntersfield Creek (-116), Little West Kill (-123), are Class C, C(T), C(TS). Upper Huntersfield Creek (-116), Batavia Kill (-117), West Kill (-128) and East Kill (-133) are listed separately.

Batavia Kill, Lower, and tribs (1202-0001) MinorImpacts

Waterbody Location Information

Revised: 10/31/2002

Water Index No:	H-240- 82-117			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/020	**Str Class:**	C(T)		Schoharie Creek
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	48.2 Miles			**Quad Map:**	ASHLAND (L-23-3)
Seg Description:	stream and tribs, from mouth to Windham				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: SILT/SEDIMENT, Problem Species (Japanese knotweed)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, Habitat Modification
Suspected: - - -
Possible: Construction, On-Site/Septic Syst

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in the Batavia Kill is affected by silt/sediment loads from excessive stream bank erosion along the stream. 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. Habitat/biodiversity issues have also been raised.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Batavia Kill below Windham (at Route 12) 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 and 2001. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Batavia Kill in Prattsville (at State Route 23A) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. While aluminum and lead were elevated in a portion of the water column samples, no metals or organics were detected in the bottom sediments, no organic compounds were found to be elevated over background

levels in invertebrate tissues, and no significant mortality or reproductive impairment was found in the three toxicity tests conducted. (DEC/DOW, BWAR/RIBS, April 2003)

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

Water Quality Management

The Batavia Kill has been identified by NYCDEP as the principal contributor of sediment and turbidity to the Schoharie Reservoir, on of the NYC Water Supply reservoirs. As such, the stream was selected by DEP to pilot both an extensive experiments treatment with natural channel design BMPs and the development of a stream management plan. DEP has been working with the Greene County SWCD to implement these projects. (NYCDEP and Greene County SWCD, October 2002)

Extensive populations of Japanese knotweed also contributes to the streambank erosion problem. This species out competes more beneficial plants, but the shallow root structure provides little or not bank protection. (Greene County SWCD/WQCC, April 2002)

Potential impacts from on-site septic systems in small hamlets along the stream either have been or are being addressed by New York City Watershed protection initiatives. A new wastewater treatment plant and collection systems to serve the Hamlet of Prattsville went on line in 2008. A WWTP and collection system for the Hamlet of Ashland is currently under construction with an anticipated completion date of 2001. (DEC/DOW, NYCW, April 2010)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to/including unnamed trib (-11a) near Windham. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Brandow Brook (-2), Lewis Creek (-3) and West Hollow Brook (-6), are Class C, C(T), C(TS).

Batavia Kill, Middle, and tribs (1202-0058) MinorImpacts

Waterbody Location Information

Revised: 10/31/2002

Water Index No:	H-240- 82-117			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/020	**Str Class:**	A(T)		Schoharie Creek
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	48.1 Miles			**Quad Map:**	ASHLAND (L-23-3)
Seg Description:	stream and tribs, from Windham to near Maplecrest				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: SILT/SEDIMENT, Problem Species (Japanese knotweed)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION, Habitat Modification
Suspected: - - -
Possible: Construction, On-Site/Septic Syst, Roadbank Erosion

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in the Batavia Kill is affected by silt/sediment loads from excessive stream bank erosion along the stream. 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. Habitat/biodiversity issues have also been raised.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Batavia Kill in Windham (at Route 12) 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 on the stream in 2000 and 2001. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Batavia Kill in Prattsville (at State Route 23A) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. While aluminum and lead were elevated in a portion of the water column samples, no metals or organics were detected in the bottom sediments, no organic compounds were found to be elevated over background

levels in invertebrate tissues, and no significant mortality or reproductive impairment was found in the three toxicity tests conducted. (DEC/DOW, BWAR/RIBS, April 2003)

A biological survey was also conducted on the Batavia Kill from Hensonville to Windham in June, 1989. The survey included five sampling sites on the main stem, and four on tributaries (Silver Lake Outlet, Lake Heloise Outlet, Mitchell Hollow, and North Settlement tributary). All sites sampled were assessed as non-impacted and water quality was considered to be excellent. (Batavia Kill Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, March 1990)

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

Water Quality Management

The Batavia Kill has been identified by NYCDEP as the principal contributor of sediment and turbidity to the Schoharie Reservoir, on of the NYC Water Supply reservoirs. As such, the stream was selected by DEP to pilot both an extensive experiments treatment with natural channel design BMPs and the development of a stream management plan. DEP has been working with the Greene County SWCD to implement these projects. (NYCDEP and Greene County SWCD, October 2002)

Extensive populations of Japanese knotweed also contributes to the streambank erosion problem. This species out competes more beneficial plants, but the shallow root structure provides little or not bank protection. (Greene County SWCD/WQCC, April 2002)

Potential impacts from on-site septic systems in small hamlets along the stream either have been or are being addressed by New York City Watershed protection initiatives. A new wastewater treatment plant and collection systems to serve the Hamlet of Prattsville went on line in 2008. A WWTP and collection system for the Hamlet of Ashland is currently under construction with an anticipated completion date of 2001. (DEC/DOW, NYCW, April 2010)

Segment Description

This segment includes the portion of the stream and all tribs from unnamed trib (-11a) near Windham to/including unnamed trib (-22a) above Maplecrest. The waters of this portion of the stream are Class A(T), A(TS). Tribs to this reach/segment, including Mad Brook (-13), are Class C, C(T), C(TS).

Batavia Kill, Upper, and tribs (1202-0059) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240- 82-117
Hydro Unit Code: 02020005/020 **Str Class:** C(TS)
Waterbody Type: River (Low Flow)
Waterbody Size: 9.6 Miles
Seg Description: stream and tribs, abv Maplecrest

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Greene Co. (20)
Quad Map: HENSONVILLE (L-24-4)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Batavia Kill below Windham (at Route 12) 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. Though these sampling points are below the described segment, they are considered representative of water quality in the upper reach. Aquatic life community is fully supported. These results are consistent with sampling conducted at this site in 2000 and 2001. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the portion of the stream and all tribs above unnamed trib (-22a) above Maplecrest. The waters of this portion of the stream are Class C(TS). Tribs to this reach/segment are Class C, C(T), C(TS).

West Kill and tribs (1202-0062) MinorImpacts

Waterbody Location Information

Revised: 11/01/2002

Water Index No:	H-240- 82-128			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020005/010	**Str Class:**	C(TS)		Schoharie Creek
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Greene Co. (20)
Waterbody Size:	46.6 Miles			**Quad Map:**	WEST KILL (M-23-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: AESTHETICS (turbidity), SILT/SEDIMENT
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: STREAMBANK EROSION
Suspected: Habitat Modification
Possible: Construction, Hydro Modification

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: ext/NYCW **Resolution Potential:** Medium
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)

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) NoKnownImpct

Waterbody Location Information

Revised: 07/02/2010

Water Index No: H-240- 82-133
Hydro Unit Code: 02020005/010 **Str Class:** C(TS)
Waterbody Type: River (Low Flow)
Waterbody Size: 52.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Schoharie Creek
Reg/County: 4/Greene Co. (20)
Quad Map: LEXINGTON (M-23-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
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)

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) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 82-142 thru 147b
Drain Basin: Mohawk River
Hydro Unit Code: 02020005/010 **Str Class:** C
Schoharie Creek
Waterbody Type: River (Low Flow)
Reg/County: 4/Greene Co. (20)
Waterbody Size: 2.3 Miles
Quad Map: HUNTER (M-24-1)
Seg Description: total length of select tribs fr Hunter to Tannersville

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of 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)

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.

Waterbody Inventory
for the
Middle/Upper Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
Middle/Upper Mohawk River, Main Stem		
H-240 (portion 8)	Mohawk River/NYS Barge Canal, Main Stem (1201-0089)	**MinorImpacts**
H-240 (portion 9)	Mohawk River/NYS Barge Canal, Main Stem (1201-0090)	**MinorImpacts**
H-240 (portion 10)	Mohawk River/NYS Barge Canal, Main Stem (1201-0091)	**Impaired Seg**
H-240 (portion 11)	Mohawk River/NYS Barge Canal, Main Stem (1201-0092)	**Impaired Seg**
H-240 (portion 12)	Mohawk River, Main Stem (1201-0093)	**Impaired Seg**
H-240 (portion 12a)	NYS Barge Canal (portion 7) (1201-0064)	**MinorImpacts**
H-240 (portion 12b)	Utica Harbor (1201-0228)	**Impaired Seg**
H-240 (portion 13)	Mohawk River, Main Stem (1201-0010)	**Impaired Seg**
H-240 (portion 14)	Mohawk River, Main Stem (1201-0094)	**Impaired Seg**
H-240 (portion 15)	Mohawk River, Upper, Main Stem (1201-0070)	**NoKnownImpct**
H-240 (portion 16)/P1059	Delta Reservoir (1201-0019)	**Impaired Seg**
Tribs to Middle Mohawk River, Fort Hunter to Fort Plain		
H-240- 84	Auries Creek and tribs (1201-0116)	**NoKnownImpct**
H-240- 89	Cayadutta Creek, Lower, and minor tribs (1201-0001)	**MinorImpacts**
H-240- 89	Cayadutta Creek, Upper, and minor tribs (1201-0044)	**MinorImpacts**
H-240- 89- 8	Kecks Center Creek, Upper, and tribs (1201-0117)	**NoKnownImpct**
H-240- 89-10	Hall/Matthew Creeks and tribs (1201-0225)	**MinorImpacts**
H-240- 89-11	Hale Creek and tribs (1201-0118)	**MinorImpacts**
H-240- 89-P664	Cork Center Reservoir (1201-0120)	**NoKnownImpct**
H-240- 90 thru 126 (selected)	Minor Tribs to Mohawk River (1201-0121)	**MinorImpacts**
H-240- 93	Van Wie Creek and tribs (1201-0122)	**Need Verific**
H-240- 94-P678a	Fonda Reservoir (1201-0123)	**NoKnownImpct**
H-240- 94-P678a-	Tribs to Fonda Reservoir (1201-0124)	**NoKnownImpct**
H-240- 96	Yatesville Creek and tribs (1201-0125)	**NoKnownImpct**
H-240- 98	Knauderack Creek and tribs (1201-0126)	**NoKnownImpct**
H-240-102	Flat Creek and tribs (1201-0026)	**MinorImpacts**
H-240-112	Canajoharie Creek, Lower, and tribs (1201-0027)	**MinorImpacts**
H-240-112	Canajoharie Creek, Upper, and tribs (1201-0127)	**NoKnownImpct**
H-240-112-14	Brimstone Creek and tribs (1201-0128)	**Need Verific**
H-240-119	Otsquago Creek, Lower, and minor tribs (1201-0028)	**MinorImpacts**
H-240-119	Otsquago Creek, Upper, and tribs (1201-0078)	**NoKnownImpct**
H-240-119- 4	Otsquene Creek and tribs (1201-0129)	**NoKnownImpct**
H-240-119- 5	Otstungo Creek and tribs (1201-0130)	UnAssessed
Caroga Creek Watershed		
H-240-127	Caroga Creek, Lower, and tribs (1201-0076)	**MinorImpacts**
H-240-127	Caroga Creek, Upper, and minor tribs (1201-0131)	**NoKnownImpct**
H-240-127- P683a	Ephratah Reservoir (1201-0132)	UnAssessed
H-240-127- P685a	Rockwood Lake (1201-0133)	**NoKnownImpct**

…Middle/Upper Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
Caroga Creek Watershed (con't)		
H-240-127-13	North Creek, Upper, and tribs (1201-0047)	**NoKnownImpct**
H-240-127-15	Sprite Creek, Lower, and tribs (1201-0134)	**MinorImpacts**
H-240-127-15	Sprite Creek, Upper, and tribs (1201-0135)	UnAssessed
H-240-127-23-P685	Mud Lake (1201-0136)	UnAssessed
H-240-127-25	Peck Creek and tribs (1201-0137)	**NoKnownImpct**
H-240-127-25-P686	Peck Lake (1201-0016)	**NoKnownImpct**
H-240-127-25-P686-	Tribs to Peck Lake (1201-0138)	UnAssessed
H-240-127-25-P686-4-P689	Vandenburg Pond (1201-0139)	UnAssessed
H-240-127-25-P686-4-P689-2-P690	Woodworth Lake (1201-0140)	UnAssessed
H-240-127-25-P686-4-P689-3-P690a	Hinds Pond (1201-0141)	UnAssessed
H-240-127-25-P686-4-P689-4-P691	Mountain Lake (1201-0142)	**NoKnownImpct**
H-240-127-P697	East Caroga Lake (1201-0046)	**NoKnownImpct**
H-240-127-P697/P698-	Tribs to East/West Caroga Lakes (1201-0143)	UnAssessed
H-240-127-P698	West Caroga Lake (1201-0144)	**NoKnownImpct**
Tribs to Middle Mohawk River, Fort Plain to St. Johnsville		
H-240-128 thru 143 (selected)	Minor Tribs to Mohawk River (1201-0145)	**Need Verific**
H-240-139	Zimmerman Creek, Lower, and tribs (1201-0029)	**NoKnownImpct**
H-240-139	Zimmerman Creek, Upper, and tribs (1201-0146)	**NoKnownImpct**
H-240-139-P698b	St. Johnsville Reservoir (1201-0147)	UnAssessed
H-240-141	Timmerman Creek and tribs (1201-0148)	**NoKnownImpct**
H-240-143	Crum Creek and tribs (1201-0149)	**NoKnownImpct**
East Canada Creek Watershed		
H-240-144 (portion 1)	East Canada Cr, Lower, and minor tribs (1201-0081)	**MinorImpacts**
H-240-144 (portion 1a)/P703a	East Canada Lake (1201-0150)	**NoKnownImpct**
H-240-144 (portion 2)/P704a	Kyser Lake (1201-0151)	UnAssessed
H-240-144 (portion 3)	East Canada Cr, Lower, and minor tribs (1201-0152)	**NoKnownImpct**
H-240-144 (portion 4)	East Canada Cr, Middle, and minor tribs (1201-0153)	**MinorImpacts**
H-240-144 (portion 5)	East Canada Cr, Upper, and minor tribs (1201-0154)	**NoKnownImpct**
H-240-144- 5	Ransom/Gillette Creek and tribs (1201-0155)	**NoKnownImpct**
H-240-144- 9	Spruce Creek, Lower, and tribs (1201-0156)	**NoKnownImpct**
H-240-144- 9	Spruce Creek, Middle, and tribs (1201-0157)	UnAssessed
H-240-144- 9	Spruce Creek, Upper, and tribs (1201-0158)	UnAssessed
H-240-144- 9- 5	Beaver Creek, Upper, and tribs (1201-0159)	**Need Verific**
H-240-144- 9-15-P708	Klondike Reservoir (1201-0160)	UnAssessed
H-240-144- 9/P706a	Spruce Lake (1201-0161)	**NoKnownImpct**
H-240-144-10	Cold Brook, Upper, and tribs (1201-0162)	**NoKnownImpct**
H-240-144-11	Middle Sprite Creek and tribs (1201-0163)	**NoKnownImpct**
H-240-144-11-P713	Hillabrandt Vly (1201-0164)	UnAssessed
H-240-144-13	Sprite Creek and tribs (1201-0165)	**NoKnownImpct**
H-240-144-13-P715 thru P718	Lily, Canada, Stewarts Land, West Lakes (1201-0050)	**Impaired Seg**
H-240-144-13-P717/P718-	Tribs to Canada/West Lakes (1201-0166)	UnAssessed
H-240-144-13..P719	Nine Corners Lake (1201-0167)	UnAssessed
H-240-144-13..P720	Broomstick (Goose Egg) Lake (1201-0168)	UnAssessed

…Middle/Upper Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
East Canada Creek Watershed	**(con't)**	
H-240-144-13..P721,P722,P723	Stoner Lakes (1201-0169)	**Impaired Seg**
H-240-144-13..P724	Pine Lake (1201-0170)	**Impaired Seg**
H-240-144-13..P725	Indian Lake (1201-0171)	UnAssessed
H-240-144-13..P726	Mud Lake (1201-0172)	UnAssessed
H-240-144-13..P727,P729,P730	Green, Otter and Stewart Lakes (1201-0009)	**Impaired Seg**
H-240-144-13..P732	Irving Pond (1201-0230)	**Impaired Seg**
H-240-144-13..P732..P733 thru P736	Lake Tribs to Fire Flow (1201-0173)	UnAssessed
H-240-144-21	Ayers Creek and tribs (1201-0174)	**NoKnownImpct**
H-240-144-21- 7-P745	Pleasant Lake (1201-0175)	**NoKnownImpct**
H-240-144-21-P746	Ayers Lake (1201-0176)	UnAssessed
H-240-144-22	Trammel Creek and tribs (1201-0177)	**NoKnownImpct**
H-240-144-25-P749	Stony Brook Lake (1201-0178)	UnAssessed
H-240-144-28	North Creek and tribs (1201-0179)	**NoKnownImpct**
H-240-144-28- 1-P756,P757,P758	Conglin Lakes (1201-0180)	UnAssessed
H-240-144-28- 1-P759,P760,P761	Dexter, Spectacle and Dry Lakes (1201-0181)	UnAssessed
H-240-144-28-P750	Knapp Reservoir (1201-0182)	UnAssessed
H-240-144-28-P750-1-P752	Hart Vly Lake (1201-0183)	UnAssessed
H-240-144-28-P750..P753.P755	Knapps Long Lake, Long Pond (1201-0007)	**Impaired Seg**
H-240-144-28-P762,P763	Waters Millpond, Long Lake (1201-0184)	UnAssessed
H-240-144-28-P764,P765,P766	Third, Fourth, Broomstick (Goose Egg) Lk (1201-0185)	UnAssessed
H-240-144-29-P768	Little Metcalf Lake (1201-0227)	**Impaired Seg**
H-240-144-33-P770	House Pond (1201-0186)	UnAssessed
H-240-144-34-P771	Redlouse Lake (1201-0008)	**Impaired Seg**
H-240-144-37-P773,P774,P775,P776	West Cr, Black Cr, Deer Lakes, Bills Pd (1201-0187)	UnAssessed
H-240-144-38-P777	Ferris Lake (1201-0003)	**Impaired Seg**
H-240-144-38-P779,P780	Iron Lake, Black Cat Lake (1201-0188)	UnAssessed
H-240-144-43-P784	Christian Lake (1201-0189)	UnAssessed
H-240-144-43-P786	Morehouse Lake (1201-0080)	**Impaired Seg**
H-240-144-43-P786..P787,P788	Barto Lake, Mud Pond (1201-0190)	UnAssessed
H-240-144-44-P790,P790a	Big Alderbed, Blind Mans Vly (1201-0002)	**Impaired Seg**
H-240-144-44-P793	Trout Lake (1201-0191)	UnAssessed
Tribs to Middle Mohawk River, St. Johnsville to Herkimer		
H-240-145 thru 184	Minor Tribs to Mohawk River (1201-0192)	**NoKnownImpct**
H-240-148	Nowadaga Creek, Lower, and tribs (1201-0193)	**MinorImpacts**
H-240-148	Nowadaga Creek, Upper, and tribs (1201-0194)	**MinorImpacts**
H-240-149	Crum Creek and tribs (1201-0195)	**NoKnownImpct**
West Canada Creek Watershed		
H-240-180 (portion 1)	West Canada Creek, Lower, Main Stem (1203-0023)	**Impaired Seg**
H-240-180 (portion 2)	West Canada Creek, Lower, Main Stem (1203-0011)	**Impaired Seg**
H-240-180 (portion 3)	West Canada Creek, Middle, Main Stem (1203-0024)	**Impaired Seg**
H-240-180 (portion 4)/P799	Hinckley Reservoir (1203-0022)	**MinorImpacts**
H-240-180 (portion 5)	West Canada Creek, Upp, and minor trib (1203-0008)	**Impaired Seg**
H-240-180 (portion 6)	West Canada Creek, Upp, and minor tribs (1203-0025)	**Impaired Seg**

…Middle/Upper Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
West Canada Creek Watershed (con't)		
H-240-180- 1 thru 35 (selected)	Minor Tribs to Lower West Canada Creek (1203-0082)	**NoKnownImpct**
H-240-180- 11	North Creek and tribs (1203-0026)	**MinorImpacts**
H-240-180- 20	Stony Creek and tribs (1203-0027)	UnAssessed
H-240-180- 26	Maltanner Creek and tribs (1203-0016)	**NoKnownImpct**
H-240-180- 27	Middleville Water Supply and tribs (1203-0028)	**NoKnownImpct**
H-240-180- 30	Wolf Hollow Creek and tribs (1203-0029)	**NoKnownImpct**
H-240-180- 31	White Creek and minor tribs (1203-0015)	**NoKnownImpct**
H-240-180- 31-5	Factory/Big Bill Brooks and tribs (1203-0030)	**NoKnownImpct**
H-240-180- 32	Shed Brook and tribs (1203-0031)	**NoKnownImpct**
H-240-180- 36 thru 63	Minor Tribs to Lower West Canada Creek (1203-0083)	**NoKnownImpct**
H-240-180- 37	Newport Water Supply and tribs (1203-0032)	UnAssessed
H-240-180- 42	Cold Brook and tribs (1203-0033)	**MinorImpacts**
H-240-180- 55	Mill Creek, Upper, and tribs (1203-0034)	**NoKnownImpct**
H-240-180- 59	Cincinnati Creek, Lower, and tribs (1203-0010)	**MinorImpacts**
H-240-180- 59	Steuben Creek and tribs (1203-0013)	**MinorImpacts**
H-240-180- 59- 2	Cincinnati Creek, Upper, and minor tribs (1203-0035)	**MinorImpacts**
H-240-180- 59- 2-2	Cady Brook and tribs (1203-0036)	UnAssessed
H-240-180- P799- 1 thru 21	Minor Tribs to Hinckley Reservoir (1203-0037)	**NoKnownImpct**
H-240-180- P799- 5-P803a	Lake Gay (1203-0038)	UnAssessed
H-240-180- P799-11-808a	Finches Pond (1203-0039)	UnAssessed
H-240-180- P799-14-P807 to P810	Lake Tamarack, Tom Kettle and Curtis Lks (1203-0040)	UnAssessed
H-240-180- P799-19	Black Creek, Lower, and minor tribs (1203-0041)	**NoKnownImpct**
H-240-180- P799-19	Black Creek, Upper, and tribs (1203-0072)	UnAssessed
H-240-180- P799-19- 4	Ash Creek and tribs (1203-0042)	UnAssessed
H-240-180- P799-19-10	Mounts Creek and tribs (1203-0043)	**NoKnownImpct**
H-240-180- P799-19-10-P814	Mounts Creek Lake (1203-0044)	UnAssessed
H-240-180- P799-19-11	Mill Creek and tribs (1203-0045)	**NoKnownImpct**
H-240-180- P799-19-11-P815	Cranberry Lake (1203-0046)	UnAssessed
H-240-180- P799-19-11-P816	Mud Lake (1203-0047)	UnAssessed
H-240-180- P799-19-11..P817	Jerseyfield Lake (1203-0048)	UnAssessed
H-240-180- P799..P818 to P822	Lakes tributary to Jerseyfield Lake (1203-0002)	**Impaired Seg**
H-240-180- P799-19-11..P823	Long Lake (1203-0049)	UnAssessed
H-240-180- P799-19-11..P824,P825	Deer, North Branch Lakes (1203-0050)	UnAssessed
H-240-180- P799-19-29-P829	Boyer Lake (1203-0051)	UnAssessed
H-240-180- P799-19-P827	Black Creek (Gray) Reservoir (1203-0052)	UnAssessed
H-240-180- P799-19-P827-	Minor Tribs to Black Creek Reservoir (1203-0053)	UnAssessed
H-240-180-68-P834,P836,P842	Spectacle, Butler, Atwood Lakes (1203-0054)	UnAssessed
H-240-180-69-P839	Swan Lake (1203-0055)	UnAssessed
H-240-180-70	Fourmile Brook and tribs (1203-0056)	**NoKnownImpct**
H-240-180-70..P844,P846	Bochen, Debraine Lakes (1203-0057)	UnAssessed
H-240-180-73-P849	Mill Creek Lake (1203-0058)	UnAssessed
H-240-180-74	South Branch West Canada Creek and tribs (1203-0059)	**NoKnownImpct**
H-240-180-74-10-P853,P853a,P853b	Alder Brook, Indigo, Jones Lakes (1203-0060)	UnAssessed
H-240-180-74-15-P854,P855	Pine, Little Pine Lakes (1203-0061)	UnAssessed

…Middle/Upper Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
West Canada Creek Watershed (con't)		
H-240-180-74-16-1-P856	Twin Lake, South (1203-0005)	**Impaired Seg**
H-240-180-74-16-P859	G Lake (1203-0062)	UnAssessed
H-240-180-74-21-P862	T Lake (1203-0004)	**Impaired Seg**
H-240-180-74-P850	Wilmurt Lake (1203-0063)	UnAssessed
H-240-180-74-P850a	The Floe (1203-0064)	**NoKnownImpct**
H-240-180-74..P864,P865,P866,P867	Buck Ponds, White Birch Lake (1203-0001)	**Impaired Seg**
H-240-180-78-4-P870,P871	Sucker Pond, Three Mile Vly (1203-0065)	UnAssessed
H-240-180-84-4-P875	Jones Lake (1203-0066)	UnAssessed
H-240-180-84-P877,P876,P877b	Honnedaga, Baby Lakes, Stearns Mudhole (1203-0067)	UnAssessed
H-240-180-85	Metcalf Brook and tribs (1203-0068)	UnAssessed
H-240-180-85-11-P883	Big Rock Lake (1203-0069)	UnAssessed
H-240-180-85-P897 to P900	Metcalf Lake, Metcalf Chain of Lakes (1203-0070)	UnAssessed
H-240-180-85..P880 thru P896a	Minor Lakes Trib to Metcalf Brook (1203-0071)	UnAssessed
H-240-180-87-P908,P909	Spruce, Balsam Lakes (1203-0007)	**Impaired Seg**
H-240-180-87..P901,P907,P907b	Split Rock, Amos Lakes, Belden Vly (1203-0084)	UnAssessed
H-240-180-91-P915,P919	Beaver Pond, Poor Lake (1203-0003)	**Need Verific**
H-240-180-99-P921	Mica Lake (1203-0073)	UnAssessed
H-240-180..P910a,P911,P912,P913	Caswell, Deer, Otter, Goose Lakes (1203-0074)	UnAssessed
H-240-180..P925,P926,P927	Sampson Bog, Sampson Lake, Bullhead Pond (1203-0075)	UnAssessed
H-240-180..P929	Mud Lake (1203-0076)	UnAssessed
H-240-180..P929..P930	South Lake (1203-0077)	UnAssessed
H-240-180..P929..P931	West Lake (1203-0078)	UnAssessed
H-240-180..P929..P932	Cat Lake (1203-0079)	UnAssessed
H-240-180..P929..P936,P937	Whitney Lake, Puddle Hole Pond (1203-0080)	UnAssessed
H-240-180..P929..P938	Pillsbury Lake (1203-0081)	UnAssessed
Tribs to Upper Mohawk River, Herkimer to Oriskany		
H-240-181-P939	Mirror Lake (1201-0196)	UnAssessed
H-240-185	Fulmer Creek and tribs (1201-0012)	**MinorImpacts**
H-240-186 thru 196	Minor Tribs to Mohawk River (1201-0056)	**NoKnownImpct**
H-240-187	Steele Creek, Lower, and tribs (1201-0011)	**Threatened**
H-240-187-	Steele Creek tribs (1201-0197)	**Impaired Seg**
H-240-187- 1-P940a	Ilion Reservoir No.3 (1201-0198)	**Threatened**
H-240-190	Moyer Creek, Lower, and tribs (1201-0057)	**NoKnownImpct**
H-240-190	Moyer Creek, Upper, and tribs (1201-0199)	**NoKnownImpct**
H-240-190-2	unnamed trib to Moyer Creek (1201-0200)	UnAssessed
H-240-197	Sterling Creek and tribs (1201-0013)	**MinorImpacts**
H-240-198 thru 206	Minor Tribs to Mohawk River (1201-0025)	**Need Verific**
H-240-207	Starch Factory Creek and tribs (1201-0067)	**MinorImpacts**
H-240-207-7-P952	Graffenburg Reservoir (1201-0202)	UnAssessed
H-240-211,214	Ballou, Nail Creeks and tribs (1201-0203)	**Impaired Seg**
H-240-211-P953,P954,P955	South (Utica) Reservoirs (1201-0204)	UnAssessed
H-240-212,213,215,216	Minor Tribs to Mohawk River (1201-0205)	**Need Verific**
H-240-212-P955a	North Utica Reservoir (1201-0206)	UnAssessed

…Middle/Upper Mohawk River Watershed

Water Index Number	Waterbody Segment	Category
Tribs to Upper Mohawk River, Herkimer to Oriskany (con't)		
H-240-219	Sauquoit Creek, Lower, and minor tribs (1201-0069)	**Impaired Seg**
H-240-219	Sauquoit Creek, Middle, and tribs (1201-0207)	**Impaired Seg**
H-240-219	Sauquoit Creek, Upper, and tribs (1201-0208)	**NoKnownImpct**
H-240-219- 4	Mud Creek and tribs (1201-0062)	**MinorImpacts**
H-240-219-24	Trib of Sauquoit Creek, Upper (1201-0209)	UnAssessed
H-240-220 thru 239	Minor Tribs to Mohawk River (1201-0224)	**NoKnownImpct**
H-240-222-P955e	Marcy Reservoir (1201-0210)	UnAssessed
Oriskany Creek Watershed		
H-240-223	Oriskany Creek, Lower, and minor tribs (1204-0008)	**MinorImpacts**
H-240-223	Oriskany Creek, Middle, and minor tribs (1204-0010)	**NoKnownImpct**
H-240-223	Oriskany Creek, Upper, and tribs (1204-0011)	**NoKnownImpct**
H-240-223-10	Deans Creek and tribs (1204-0001)	**MinorImpacts**
H-240-223-24	White Creek, Upper, and tribs (1204-0012)	**NoKnownImpct**
H-240-223-34	Big Creek and tribs (1204-0005)	**NoKnownImpct**
H-240-223-45	Barker/Eli Creek and tribs (1204-0013)	UnAssessed
H-240-223-P1044	Lyons Pond (1204-0014)	UnAssessed
H-240-223-P1051	Madison Lake (1204-0006)	**NoKnownImpct**
H-240-223-P1052/P1053	Leland Pond (1204-0007)	**Threatened**
Tribs to Upper Mohawk River, Oriskany to Rome		
H-240-227	Ninemile Creek, Lower, and tribs (1201-0014)	**MinorImpacts**
H-240-227	Ninemile Creek, Upper, and tribs (1201-0211)	UnAssessed
H-240-227-21- 1	Beaver Brook and tribs (1201-0229)	**NoKnownImpct**
H-240-231	Sixmile Creek and tribs (1201-0212)	**Need Verific**
H-240-234	Threemile Creek and tribs (1201-0223)	**Impaired Seg**
H-240-240	Wheelers Creek and tribs (1201-0213)	**Need Verific**
H-240-241 thru 244	Minor Tribs to Mohawk River (1201-0214)	**Need Verific**
Tribs to Upper Mohawk River, above Rome		
H-240-P1059-245 thru 261	Tribs to Delta Reservoir (1201-0215)	**NoKnownImpct**
H-240-P1059-248-P1060	Rome Reservoir (1201-0216)	UnAssessed
H-240-P1059.. Up Mohawk	Mohawk River, Upper, and minor tribs (1201-0068)	**NoKnownImpct**
H-240-P1059.. Up Mohawk, West Br	Mohawk River, Upper, and tribs (1201-0217)	**NoKnownImpct**
H-240-P1059..263	Big Brook and tribs (1201-0218)	**NoKnownImpct**
H-240-P1059..267	Stringer Brook and tribs (1201-0219)	**NoKnownImpct**
H-240-P1059..271	Lansing Kill and tribs (1201-0220)	**Need Verific**
H-240-P1059..271-P1062a	Echo Lake/North Pond (1201-0221)	UnAssessed
H-240-P1059..288	East Branch Mohawk River and tribs (1201-0222)	**NoKnownImpct**

Mohawk River/NYS Barge Canal, Main Stem (1201-0089) MinorImpacts

Waterbody Location Information

Revised: 04/01/2010

Water Index No:	H-240 (portion 8)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/290 **Str Class:** C		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	3.7 Miles	**Quad Map:**	TRIBES HILL (J-23-2)
Seg Description:	from Auriesville to Fonda/Fultonville		

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: NUTRIENTS, Silt/Sediment
Possible: Pesticides, Pathogens

Source(s) of Pollutant(s)

Known: AGRICULTURE
Suspected: Municipal, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and recreational uses (fishing, boating) in this reach are thought to experience minor impacts from agricultural runoff and other nonpoint sources. Municipal point sources (Herkimer, Little Falls) may contribute to water quality impacts as well.

Water Quality Sampling
A biological (macroinvertebrate) assessment of the Mohawk River in Fonda (at Route 30A) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggest conditions that cause some stress to aquatic life. The results from the site show some variation from results collected in previous years. Samples collected at this site in 1990 and 1995 were moderately impacted. Then in 2000, results reflected non-impacted water quality; an improvement that was attributed to improved water quality in Cayadutta Creek. Additional sampling is necesary to determine if the 2000 or 2005 sampling is most reflective of long-term conditions. (DEC/DOW, BWAM/SBU, January 2010)

Source Assessment

Agricultural management practices in small watersheds tributary to this reach of the Mohawk contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to streams, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Historically, poor water quality from the Cayadutta Creek has had some impact on the Mohawk River in this reach. However improvements in the Cayadutta have negated these impacts.

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river/canal from Auries Creek (-84) near Auriesville to Cayadutta Creek (-89) near Fonda/Fultonville.

Mohawk River/NYS Barge Canal, Main Stem (1201-0090) MinorImpacts

Waterbody Location Information

Revised: 02/11/2010

Water Index No:	H-240 (portion 9)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/ **Str Class:** B		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	30.9 Miles	**Quad Map:**	RANDALL (J-23-1)
Seg Description:	from Fonda/Fultonville to below Little Falls		

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: NUTRIENTS, Silt/Sediment
Possible: Pesticides

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and recreational uses (fishing, boating) in this reach are thought to experience minor impacts from agricultural runoff and other nonpoint sources. Municipal point sources (Herkimer, Little Falls) may contribute to water quality impacts as well.

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of the Mohawk River in Fort Plain, Montgomery County, (at route 80) 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 was not conducted at this site, but was conducted at a long-term site in Fonda. This sampling revealed slightly impacted water quality conditions. (see below). Water column chemistry indicates only iron to be present in concentrations that constitute parameters of concern. However, 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. Sediments were not collected at this site. (DEC/DOW, BWAM/RIBS, January 2010) Biological (macroinvertebrate) assessments of the Mohawk River in Little Falls (at Lock 17) and in Fonda (at Route 30A) were conducted as part of the RIBS biological screening effort in 2005. Though these sites are just above and just below the actual

reach, they are considered to be representative of water quality conditions in this segment. Sampling results indicated slightly impacted conditions at both sites. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggest conditions that cause some stress to aquatic life. The results from the site at Fonda show some variation from results collected in previous years. Samples collected at this site in 1990 and 1995 were moderately impacted. Then in 2000, results reflected non-impacted water quality; an improvement that was attributed to improved water quality in Cayadutta Creek. Additional sampling is necesary to determine if the 2000 or 2005 sampling is most reflective of long-term conditions. (DEC/DOW, BWAM/SBU, January 2010)

Based on the consensus of these established assessment methods, overall water quality at this site shows that in spite of some concerns regarding nutrient loading in this large watershed, aquatic life and recreational uses are considered to be fully supported in the stream. (DEC/DOW, BWAM/RIBS, January 2010)

Source Assessment

Agricultural management practices in small watersheds tributary to this reach of the Mohawk contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to streams, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river/canal from Cayadutta Creek (-89) near Fonda/Fultonville to Crum Creek (-149) below Little Falls (near Indian Castle).

Mohawk River/NYS Barge Canal, Main Stem (1201-0091) Impaired Seg

Waterbody Location Information

Revised: 01/26/2010

Water Index No:	H-240 (portion 10)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/170 **Str Class:** C		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	6.6 Miles	**Quad Map:**	LITTLE FALLS (I-21-3)
Seg Description:	from below Little Falls to above Little Falls		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Suspected

Type of Pollutant(s)

Known:	PRIORITY ORGANICS (PCBs)
Suspected:	Aesthetics (floatables), D.O./Oxygen Demand, Nutrients, Silt/Sediment
Possible:	Pathogens

Source(s) of Pollutant(s)

Known:	TOX/CONTAM. SEDIMENT
Suspected:	Agriculture, Comb. Sewer Overflow, Urban/Storm Runoff
Possible:	Industrial, Municipal

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a->2b

Further Details

Overview
Fish consumption in this reach of the Mohawk River is known to be impaired as a result of a fish consumption advisory due to PCB levels. Aquatic life support and recreational uses (fishing, boating) in this reach are thought to experience minor impacts from urban/storm runoff and combined sewer overflows as well as agricultural nonpoint runoff from the larger upstream watershed. Municipal point sources (Herkimer, Little Falls) may contribute to water quality impacts as well.

Fish Consumption
Fish consumption in the Mohawk River from Fivemile Dam below Little Falls to West Canada Creek is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of carp because of elevated PCB levels. The sources of PCBs are attributed to contaminated sediments. Industrial hazardous waste sites and landfills along the river corridor may be contributing some additional loading. This advisory was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010).

Water Quality Sampling
A biological (macroinvertebrate) assessment of the Mohawk River in Little Falls (at Lock 17) was conducted as part of the RIBS

biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggest conditions that cause some stress to aquatic life. These result are fairly consistent with results from this site from samples collected in 1990, 1995 and 2000. Water quality at this site has historically and routinely shown recovery from upstream urban (Utica) impacts. Improved water quality is likely due in part to the influence of West Canada Creek inflow. (DEC/DOW, BWAM/SBU, January 2010)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Section 303(d) List

This reach of the Mohawk River is not currently included on the NYS 2008 Section 303(d) List of Impaired Waters. However this updated assessment suggests it is appropriate to include this waterbody on the 2008 List due to the health advisory for PCBs. It is recommended that the current listing on Part 2b (Fish Consumption Waters) for the reach just upstream (portion 11) be extended to include this reach since the same advisory applies to both segments. This listing does not actually represent a new impairment, but an impairment that was overlooked in previous Lists. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the river/canal from Crum Creek (-149) below Little Falls (near Indian Castle) to trib -163 above Little Falls (near Jacksonburg).

Mohawk River/NYS Barge Canal, Main Stem (1201-0092) Impaired Seg

Waterbody Location Information

Revised: 01/26/2010

Water Index No:	H-240 (portion 11)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/ **Str Class:** B		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	19.1 Miles	**Quad Map:**	HERKIMER (I-21-4)
Seg Description:	from above Little Falls to East Schuyler		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Suspected

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: Aesthetics (floatables), D.O./Oxygen Demand, Nutrients, Pathogens
Possible: Silt/Sediment

Source(s) of Pollutant(s)

Known: LANDFILL/LAND DISP. (Utica/Leland Ave Landfill), TOX/CONTAM. SEDIMENT, Urban/Storm Runoff
Suspected: Comb. Sewer Overflow
Possible: Agriculture, Industrial, Municipal

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Overview
Fish consumption in this reach of the Mohawk River is known to be impaired as a result of a fish consumption advisory due to PCB levels. Aquatic life support and recreational uses (fishing, boating) in this reach are thought to experience minor impacts from urban/storm runoff and combined sewer overflows as well as agricultural nonpoint runoff from the larger upstream watershed. Municipal point sources (Herkimer) may contribute to water quality impacts as well.

Fish Consumption
Fish consumption in the Mohawk River is impaired due to a NYSDOH health advisory along this entire reach. For the portion of the river from Fivemile Dam below Little Falls to West Canada Creek the advisory recommends eating no more than one meal per month of carp. The advisory for the remaining portion of this segment from West Canada Creek to Oriskany recommends eating no carp and no more than one meal per month of largemouth bass and tiger muskellunge. These advisories are the result of elevated PCB levels. The sources of PCBs are attributed to contaminated sediments. Industrial hazardous waste sites and landfills along the river corridor may be contributing some additional loading. This advisory was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010).

Water Quality Sampling

A biological (macroinvertebrate) assessment of the Mohawk River in Little Falls (at Lock 17) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggest conditions that cause some stress to aquatic life. These result are fairly consistent with results from this site from samples collected in 1990, 1995 and 2000. Water quality at this site has historically and routinely shown recovery from upstream urban (Utica) impacts. Improved water quality in the downstream portion of this reach is likely due in part to the influence of West Canada Creek inflow. (DEC/DOW, BWAM/SBU, January 2010)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Section 303(d) List

This reach of the Mohawk River is included on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 2b (Fish Consumption Waters) due to the health advisory for PCBs. This waterbody was first listed on the 1998 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the river and canal from trib -163 above Little Falls (near Jacksonville) to the confluence of Bonny Brook (-195) with the Mohawk and to the confluence of Pratt Creek (-196) with the NYS Barge Canal near East Schuyler.

Mohawk River, Main Stem (1201-0093) Impaired Seg

Waterbody Location Information

Revised: 01/26/2010

Water Index No:	H-240 (portion 12)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/ **Str Class:** C		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Herkimer Co. (22) ...
Waterbody Size:	13.6 Miles	**Quad Map:**	ILION (I-20-3)
Seg Description:	from East Schuyler to Whitesboro		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: AESTHETICS (odors, floatables), PRIORITY ORGANICS (PCBs), PATHOGENS, Metals (copper, other)
Suspected: D.O./OXYGEN DEMAND, Nutrients, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW, LANDFILL/LAND DISP. (Utica/Leland Ave Landfill), TOX/CONTAM. SEDIMENT
Suspected: INDUSTRIAL, URBAN/STORM RUNOFF, Other Sanitary Disch
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: 1,2b (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Fish consumption, aquatic life support, recreational uses (fishing, boating) and aesthetics in this reach of the Mohawk River are considered impaired by contaminated sediments, sanitary and combined sewer overflows (SSOs and CSOs), various former industrial point sources and continuing urban nonpoint runoff.

Fish Consumption
Fish consumption in the Mohawk River from Oriskany to West Canada Creeks is impaired due to a NYS DOH health advisory that recommends eating no carp and no more than one meal per month of largemouth bass and tiger muskellunge because of elevated PCB levels. The sources of PCBs are attributed to contaminated sediments. Industrial hazardous waste sites and landfills along the river corridor may be contributing some additional loading. This advisory was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, October 2002).
Water Quality Sampling

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in West Schuyler, Oneida County, is conducted annually at Dyke Road. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. This Intensive Network sampling typically includes macroinvertebrate community analysis, sediment assessment, macroinvertebrate tissue analysis and toxicity testing, in addition to water chemistry. The most recent Intensive Network monitoring was conducted during 2005 (multiplates) and 2006. Biological (macroinvertebrate) sampling revealed moderately impacted water quality, with municipal and industrial discharge identified as the primary source of the impacts. Water column chemistry sampling indicates pathogens (total and fecal coliform), chloroform, phenols and iron to be present at levels that constitute parameters of concern, although the median values for these substances are below the applicable assessment criteria. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated some slightly elevated sediment toxicity but not at a level where impacts are expected. Bottom sediments collected from this site in previous years revealed somewhat elevated levels of PAHs and some metals. PAHs and PCBs were also noted in macroinvertebrate tissue collected at this site. Based on the consensus of these established assessment methods, overall water quality at this site reflects impaired conditions. (DEC/DOW, BWAM/RIBS, January 2010)

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of the Mohawk River was also conducted in Utica, Oneida County, (at Barnes Avenue) in 2005 and 2006. Water column chemistry also indicated pathogens (total and fecal coliform) to be a parameter 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 some 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. (DEC/DOW, BWAM/RIBS, January 2010)

Biological community assessments along this reach of the Mohawk River have consistently shown aquatic life to be moderately impacted over recent years. Impact Source Determination, an analytical tool that uses invertebrate community composition to identify types of stressors, indicated the communities are most similar to those influenced by municipal and/or industrial discharges; results that are consistent with the known SSO and CSO issues. Though still impaired, these results show some indication of steady water quality improvement over previous years. Historically (1970s thru mid 80s), water quality in this reach of the river was severely impacted by raw sewage, and samples were dominated by pollution tolerant worms and midges indicating gross degradation. Improvements were first noted in 1986 and 1989 and were attributed to construction and upgrade of the Oneida County WWTP. (Twenty Year Trends in Water Quality, Bode et.al., DEC/DOW, BWAR/SBU, 1993).

Previous NYSDEC sampling using PISCES samplers along much of this reach of the Mohawk River/Barge Canal found a number of PCB sources in current and former industrial areas. (DEC/DFWMR, Habitat, April 2002)

Source Assessment

The Oneida County WWTP which was constructed in 1972 and upgraded in 1987 replaced 13 primary sewage treatment plants that served area communities and significantly reduced raw sewage discharge from the Utica area. However sanitary and combined sewer overflows (SSOs and CSOs) remain a source of water quality problems. Work by the City of Utica and Oneida County to eliminate some overflow points and reduce overflows continues. However limited capacity at the WWTP and carrying capacity bottlenecks in the sewer collection system results in significant wet-weather discharges, particularly from the Sauquoit Creek Pump Station sanitary sewer overflow and the railroad and Grace Creek interceptors. These overflows are responsible for high levels of pathogens and floatables discharges which impair recreational uses. The SSO and CSOs also contribute other pollutants that result in reduced dissolved oxygen and other impacts that affect aquatic life in the Mohawk River. (DEC/DOW, Region 6, January 2010)

Environmental remediation sites may also impact water quality in the river. There are a number of class 2 sites (i.e., sites where hazardous wastes have been confirmed and which pose a threat to the environment) in the area including NiMo Harbor Point (6-33-021), the Utica City Dump (6-33-015), Monarch Chemical (6-33-030), and others. These sites are in varying stages of remediation. (DEC/DER, Environmental Remediation Database, January 2010)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Section 303(d) Listing

This reach of the Mohawk River is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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 pathogens, dissolved oxygen and floatables. The segment is also included on Part 2b as a Fish Consumption Water. This waterbody was first listed on the 2004 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the river from Bonny Brook (-195) near East Schuyler to Sauquoit Creek (-219) in Whitesboro. The NYS Barge Canal and Utica Harbor are listed separately.

NYS Barge Canal (portion 7) (1201-0064) MinorImpacts

Waterbody Location Information

Revised: 04/16/2010

Water Index No:	H-240 (portion 12a)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/ **Str Class:** C		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Oneida Co. (33) ...
Waterbody Size:	21.3 Miles	**Quad Map:**	ILION (I-20-3)
Seg Description:	from East Schuyler to Rome		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Suspected
AQUATIC LIFE	Impaired	Suspected
RECREATION	Impaired	Suspected
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: D.O./OXYGEN DEMAND, PATHOGENS
Suspected: Water Level/Flow, Nutrients, Priority Organics (PCBs), Silt/Sediment
Possible: Oil and Grease

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW
Suspected: LANDFILL/LAND DISP., OTHER SANITARY DISCH, URBAN/STORM RUNOFF, Agriculture, Hydro Modification, Streambank Erosion, Tox/Contam. Sediment
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 1 (Waterbody Nominated, Problem Not Verified)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life, recreational uses (fishing, boating) and aesthetics in this reach of the Mohawk River/Barge Canal are known to experience some impacts due to sanitary and combined sewer overflows (SSOs and CSOs), various former industrial point sources and continuing urban nonpoint runoff. Fish consumption is also considered to experience minor impacts. These sources are known to impair uses in the parallel reach of the Mohawk River, however it is not clear that the impacts in this portion of the canal reach the level of impairment.

Water Quality Sampling
NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in West Schuyler, Oneida County, is conducted annually at Dyke Road. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. This Intensive Network sampling typically includes macroinvertebrate community analysis, sediment assessment, macroinvertebrate tissue analysis and toxicity testing, in addition to water chemistry. The most recent Intensive Network

monitoring was conducted during 2005 (multiplates) and 2006. Biological (macroinvertebrate) sampling revealed moderately impacted water quality, with municipal and industrial discharge identified as the primary source of the impacts. Water column chemistry sampling indicates pathogens (total and fecal coliform), chloroform, phenols and iron to be present at levels 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 some slightly elevated sediment toxicity but not at a level where impacts are expected. Bottom sediments collected from this site in previous years revealed somewhat elevated levels of PAHs and some metals. PAHs and PCBs were also noted in macroinvertebrate tissue collected at this site. Based on the consensus of these established assessment methods, overall water quality at this site reflects impaired conditions. Although this site lies outside the bounds of this segment on the adjoining Mohawk River, it is considered to be somewhat representative of water quality conditions in the canal. (DEC/DOW, BWAM/RIBS, January 2010)

Biological community assessments along this reach of the Mohawk River/Barge Canal have consistently shown aquatic life to be moderately impacted over recent years. Impact Source Determination, an analytical tool that uses invertebrate community composition to identify types of stressors, indicated the communities are most similar to those influenced by municipal and/or industrial discharges; results that are consistent with the known SSO and CSO issues. Though still impaired, these results show some indication of steady water quality improvement over previous years. Historically (1970s thru mid 80s), water quality in this reach of the river was severely impacted by raw sewage, and samples were dominated by pollution tolerant worms and midges indicating gross degradation. Improvements were first noted in 1986 and 1989 and were attributed to construction and upgrade of the Oneida County WWTP. (Twenty Year Trends in Water Quality, Bode et.al., DEC/DOW, BWAR/SBU, 1993).

Source Assessment

The Oneida County WWTP which was constructed in 1972 and upgraded in 1987 replaced 13 primary sewage treatment plants that served area communities and significantly reduced raw sewage discharge from the Utica area. However sanitary and combined sewer overflows (SSOs and CSOs) remain a source of water quality problems. Work by the City of Utica and Oneida County to eliminate some overflow points and reduce overflows continues. However limited capacity at the WWTP and carrying capacity bottlenecks in the sewer collection system results in significant wet-weather discharges, particularly from the Sauquoit Creek Pump Station sanitary sewer overflow and the railroad and Grace Creek interceptors. These overflows are responsible for high levels of pathogens and floatables discharges which impair recreational uses. The SSO and CSOs also contribute other pollutants that result in reduced dissolved oxygen and other impacts that affect aquatic life in the Mohawk River. (DEC/DOW, Region 6, January 2010)

Water quality in the harbor is also affected by the Niagara Mohawk Harbor Point hazardous waste site (6-33-021). The site is a former coal gas production facility, which operated between 1845 and the 1950s. The site is located on a peninsula between the NYS Barge Canal and the neck of the harbor and harbor itself. Dredge spoils areas consisting of sediments dredged from the harbor and canal border the harbor and harbor neck. The primary contaminants in the spoils and harbor sediments are polycyclic aromatic hydrocarbons (PAHs), benzene, xylene and other organics. A Remedial Investigation and Feasibility Study was completed and a Record of Decision was issued for the site in 2002. The ongoing cleanup is being conducted in phases over several years. (DEC/DER, January 2010)

Fish Consumption

Fish consumption in the Mohawk River along and connected to this reach is impaired due to a NYS DOH health advisory that recommends eating no carp and no more than one meal per month of largemouth bass and tiger muskellunge because of elevated PCB levels. The sources of PCBs are attributed to contaminated sediments. Industrial hazardous waste sites and landfills along the river corridor may be contributing some additional loading. The advisory is based on sampling conducted in the river rather than the canal, but the contamination is thought to result in some impacts on the canal segment as well. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, October 2002).

Previous NYSDEC sampling using PISCES samplers along much of this reach of the Mohawk River/Barge Canal found a number of PCB sources in current and former industrial areas. (DEC/DFWMR, Habitat, April 2002)

Section 303(d) Listing

This portion of the Barge Canal is not currently included on the NYS 2010 Section 303(d) List of Impaired Waters. Although

monitoring in the adjoining Mohawk River suggests impacts and possible impairment, monitoring within this segment is necessary to determine if a future listing is appropriate. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the canal from Pratt Creek (-196) confluence with the NYS Barge Canal near East Schuyler to the edge of the drainage basin at the confluence of the Upper Mohawk River in Rome. The Mohawk River is listed separately.

Utica Harbor (1201-0228) Impaired Seg

Waterbody Location Information

Revised: 01/26/2010

Water Index No: H-240 (portion 12b)
Drain Basin: Mohawk River
Hydro Unit Code:
Str Class: C
Waterbody Type: Bay
Reg/County: 6/Oneida Co. (33)
Waterbody Size: 21.7 Acres
Quad Map: UTICA EAST (I-20-4)
Seg Description: entire harbor

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: AESTHETICS (odors, floatables), PRIORITY ORGANICS (PCBs,PAHs,etc), PATHOGENS
Suspected: D.O./OXYGEN DEMAND, Metals, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW, LANDFILL/LAND DISP. (NiMo/Harbor Point), TOX/CONTAM. SEDIMENT
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DEC/DER
Resolution Potential: Medium
TMDL/303d Status: 1,2b (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Fish consumption, aquatic life support, recreational uses (fishing, boating) and aesthetics in this reach of the Mohawk River are considered impaired by contaminated sediments, sanitary and combined sewer overflows (SSOs and CSOs), various former industrial point sources and continuing urban nonpoint runoff.

Fish Consumption
Fish consumption in the Mohawk River from Oriskany to West Canada Creeks is impaired due to a NYS DOH health advisory that recommends eating no carp and no more than one meal per month of largemouth bass and tiger muskellunge because of elevated PCB levels. The sources of PCBs are attributed to contaminated sediments. Industrial hazardous waste sites and landfills along the river corridor may be contributing some additional loading. This advisory was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, October 2002).

Water Quality Sampling

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in West Schuyler, Oneida County, is conducted annually at Dyke Road. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. This Intensive Network sampling typically includes macroinvertebrate community analysis, sediment assessment, macroinvertebrate tissue analysis and toxicity testing, in addition to water chemistry. The most recent Intensive Network monitoring was conducted during 2005 (multiplates) and 2006. Biological (macroinvertebrate) sampling revealed moderately impacted water quality, with municipal and industrial discharge identified as the primary source of the impacts. Water column chemistry sampling indicates pathogens (total and fecal coliform), chloroform, phenols and iron to be present at levels 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 some slightly elevated sediment toxicity but not at a level where impacts are expected. Bottom sediments collected from this site in previous years revealed somewhat elevated levels of PAHs and some metals. PAHs and PCBs were also noted in macroinvertebrate tissue collected at this site. Based on the consensus of these established assessment methods, overall water quality at this site reflects impaired conditions. Although this site is downstream of this reach of the river, it is considered to be representative of water quality conditions in the upper reach. (DEC/DOW, BWAM/RIBS, January 2010)

Biological community assessments along this reach of the Mohawk River have consistently shown aquatic life to be moderately impacted over recent years. Impact Source Determination, an analytical tool that uses invertebrate community composition to identify types of stressors, indicated the communities are most similar to those influenced by municipal and/or industrial discharges; results that are consistent with the known SSO and CSO issues. Though still impaired, these results show some indication of steady water quality improvement over previous years. Historically (1970s thru mid 80s), water quality in this reach of the river was severely impacted by raw sewage, and samples were dominated by pollution tolerant worms and midges indicating gross degradation. Improvements were first noted in 1986 and 1989 and were attributed to construction and upgrade of the Oneida County WWTP. (Twenty Year Trends in Water Quality, Bode et.al., DEC/DOW, BWAR/SBU, 1993).

Previous NYSDEC sampling using PISCES samplers along much of this reach of the Mohawk River/Barge Canal found a number of PCB sources in current and former industrial areas. (DEC/DFWMR, Habitat, April 2002)

Source Assessment

The Oneida County WWTP which was constructed in 1972 and upgraded in 1987 replaced 13 primary sewage treatment plants that served area communities and significantly reduced raw sewage discharge from the Utica area. However sanitary and combined sewer overflows (SSOs and CSOs) remain a source of water quality problems. Work by the City of Utica and Oneida County to eliminate some overflow points and reduce overflows continues. However limited capacity at the WWTP and carrying capacity bottlenecks in the sewer collection system results in significant wet-weather discharges, particularly from the Sauquoit Creek Pump Station sanitary sewer overflow and the railroad and Grace Creek interceptors. These overflows are responsible for high levels of pathogens and floatables discharges which impair recreational uses. The SSO and CSOs also contribute other pollutants that result in reduced dissolved oxygen and other impacts that affect aquatic life in the Mohawk River. (DEC/DOW, Region 6, January 2010)

Water quality in the harbor is also affected by the Niagara Mohawk Harbor Point hazardous waste site (6-33-021). The site is a former coal gas production facility, which operated between 1845 and the 1950s. The site is located on a peninsula between the NYS Barge Canal and the neck of the harbor and harbor itself. Dredge spoils areas consisting of sediments dredged from the harbor and canal border the harbor and harbor neck. The primary contaminants in the spoils and harbor sediments are polycyclic aromatic hydrocarbons (PAHs), benzene, xylene and other organics. A Remedial Investigation and Feasibility Study was completed and a Record of Decision was issued for the site in 2002. The ongoing cleanup is being conducted in phases over several years. (DEC/DER, January 2010)

Section 303(d) Listing

The Utica Harbor section of the Mohawk River is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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 pathogens, Dissolved Oxygen and floatables. The segment is also included on Part 2b as a Fish

Consumption Water. This waterbody was first listed on the 2004 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description
This segment includes the entire harbor and harbor neck. The NYS Barge Canal and Mohawk River are listed separately.

Mohawk River, Main Stem (1201-0010) Impaired Seg

Waterbody Location Information

Revised: 01/26/2010

Water Index No:	H-240 (portion 13)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060 **Str Class:** B		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	7.6 Miles	**Quad Map:**	ORISKANY (I-19-2)
Seg Description:	from Whitesboro to Oriskany		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
AQUATIC LIFE	Impaired	Known
RECREATION	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: AESTHETICS (odors, floatables), PRIORITY ORGANICS (PCBs), Metals (copper)
Suspected: D.O./OXYGEN DEMAND, PATHOGENS, Nutrients, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: COMB. SEWER OVERFLOW, URBAN/STORM RUNOFF, Agriculture
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: 1,2b (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Fish consumption, aquatic life support, recreational uses (fishing, boating) and aesthetics in this reach of the Mohawk River are considered impaired by contaminated sediments, sanitary and combined sewer overflows (SSOs and CSOs), various former industrial point sources and continuing urban nonpoint runoff.

Fish Consumption
Fish consumption in the Mohawk River from Oriskany to West Canada Creeks is impaired due to a NYS DOH health advisory that recommends eating no carp and no more than one meal per month of largemouth bass and tiger muskellunge because of elevated PCB levels. The sources of PCBs are attributed to contaminated sediments. Industrial hazardous waste sites and landfills along the river corridor may be contributing some additional loading. This advisory was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, October 2002).

Water Quality Sampling
NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in

West Schuyler, Oneida County, is conducted annually at Dyke Road. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality. This Intensive Network sampling typically includes macroinvertebrate community analysis, sediment assessment, macroinvertebrate tissue analysis and toxicity testing, in addition to water chemistry. The most recent Intensive Network monitoring was conducted during 2005 (multiplates) and 2006. Biological (macroinvertebrate) sampling revealed moderately impacted water quality, with municipal and industrial discharge identified as the primary source of the impacts. Water column chemistry sampling indicates pathogens (total and fecal coliform), chloroform, phenols and iron to be present at levels 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 some slightly elevated sediment toxicity but not at a level where impacts are expected. Bottom sediments collected from this site in previous years revealed somewhat elevated levels of PAHs and some metals. PAHs and PCBs were also noted in macroinvertebrate tissue collected at this site. Based on the consensus of these established assessment methods, overall water quality at this site reflects impaired conditions. Although this site is downstream of this reach of the river, it is considered to be representative of water quality conditions in the upper reach. (DEC/DOW, BWAM/RIBS, January 2010)

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of the Mohawk River was also conducted just below this segment in Utica, Oneida County, (at Barnes Avenue) in 2005 and 2006. Water column chemistry also indicated pathogens (total and fecal coliform) to be a parameter 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 some 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. (DEC/DOW, BWAM/RIBS, January 2010)

Biological community assessments along this reach of the Mohawk River have consistently shown aquatic life to be moderately impacted over recent years. Impact Source Determination, an analytical tool that uses invertebrate community composition to identify types of stressors, indicated the communities are most similar to those influenced by municipal and/or industrial discharges; results that are consistent with the known SSO and CSO issues. Though still impaired, these results show some indication of steady water quality improvement over previous years. Historically (1970s thru mid 80s), water quality in this reach of the river was severely impacted by raw sewage, and samples were dominated by pollution tolerant worms and midges indicating gross degradation. Improvements were first noted in 1986 and 1989 and were attributed to construction and upgrade of the Oneida County WWTP. (Twenty Year Trends in Water Quality, Bode et.al., DEC/DOW, BWAR/SBU, 1993).

Previous NYSDEC sampling using PISCES samplers along much of this reach of the Mohawk River/Barge Canal found a number of PCB sources in current and former industrial areas. (DEC/DFWMR, Habitat, April 2002)

Source Assessment

The Oneida County WWTP which was constructed in 1972 and upgraded in 1987 replaced 13 primary sewage treatment plants that served area communities and significantly reduced raw sewage discharge from the Utica area. However sanitary and combined sewer overflows (SSOs and CSOs) remain a source of water quality problems. Work by the City of Utica and Oneida County to eliminate some overflow points and reduce overflows continues. However limited capacity at the WWTP and carrying capacity bottlenecks in the sewer collection system results in significant wet-weather discharges, particularly from the Sauquoit Creek Pump Station sanitary sewer overflow and the railroad and Grace Creek interceptors. These overflows are responsible for high levels of pathogens and floatables discharges which impair recreational uses. The SSO and CSOs also contribute other pollutants that result in reduced dissolved oxygen and other impacts that affect aquatic life in the Mohawk River. (DEC/DOW, Region 6, January 2010)

Environmental remediation sites may also impact water quality in the river. There are a number of class 2 sites (i.e., sites where hazardous wastes have been confirmed and which pose a threat to the environment) in the area including NiMo Harbor Point (6-33-021), the Utica City Dump (6-33-015), Monarch Chemical (6-33-030), and others. These sites are in varying stages of remediation. (DEC/DER, Environmental Remediation Database, January 2010)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk

River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Section 303(d) Listing

This reach of the Mohawk River is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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 pathogens, dissolved oxygen/oxygen demand and floatables. The segment is also included on Part 2b as a Fish Consumption Water. This waterbody was first listed on the 2004 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the river from Sauquoit Creek (-219) in Whitesboro to the Floyd-Marcy Town line near Oriskany. The NYS Barge Canal is listed separately.

Mohawk River, Main Stem (1201-0094) Impaired Seg

Waterbody Location Information

Revised: 01/27/2010

Water Index No:	H-240 (portion 14)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060 **Str Class:** C		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	7.2 Miles	**Quad Map:**	ORISKANY (I-19-2)
Seg Description:	from Oriskany to Rome		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Suspected
AQUATIC LIFE	Impaired	Suspected
RECREATION	Impaired	Suspected
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known:	AESTHETICS (odors, floatables), METALS (copper)
Suspected:	D.O./OXYGEN DEMAND, PATHOGENS, Nutrients, Silt/Sediment
Possible:	Priority Organics

Source(s) of Pollutant(s)

Known:	TOX/CONTAM. SEDIMENT
Suspected:	URBAN/STORM RUNOFF, Agriculture, Industrial, Municipal
Possible:	- - -

Resolution/Management Information

Issue Resolvability:	1 (Needs Verification/Study (see STATUS))		
Verification Status:	4 (Source Identified, Strategy Needed)		
Lead Agency/Office:	DOW/Reg6	**Resolution Potential:**	Medium
TMDL/303d Status:	3b (Waterbody Requiring Verification of Cause/Pollutant)		

Further Details

Overview

Aquatic life support, recreational uses (fishing, boating) and aesthetics in this reach of the Mohawk River are though to be impaired by heavy metals (copper) in sediments (the result of past discharges to the river) and continuing urban and some agricultural nonpoint source runoff. More recent sampling suggests water quality improvement, but these suggested trends need to be verified.

Water Quality Sampling

A biological (macroinvertebrate) assessment of the Mohawk River below Rome was also conducted at Chaminade Road, just downstream of this reach, in 2000. Multiplate sampling results at that time indicated moderately impacted water quality conditions. These results represented substantially improved water quality from previous sampling (1972, 78, 86). Improvements at the site were attributed to the upgrading of industrial (met al finishing) WWTPs and the upgrade from primary to secondary of the Rome WWTP in 1974 and facility expansion in 1997. A review of discharge monitoring data indicates that all permitted facilities (both municipal and industrial) are in substantial compliance with conditions and requirements of their SPDES effluent permit. Macroinvertebrate tissue was found to have very high levels of copper. This is largely attributed to

legacy discharges from met al finishing industries in the area. (DEC/DOW, BWAR/SBU, July 2002)

More recent NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of the Mohawk River was also conducted a little farther downstream of this segment in Utica, Oneida County, (at Barnes Avenue) in 2005 and 2006. Water column chemistry also indicated pathogens (total and fecal coliform) to be a parameter 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 some 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. (DEC/DOW, BWAM/RIBS, January 2010)

Previous Sampling

During a 1995 field survey (PISCES sampling) NYSDEC fisheries staff reported significant visible oily sheen and obvious petroleum odors (diesel or fuel oil) in the river. The problem was judged to be severe although the exact source of the impact remains unknown. (DEC/DFWMR, Region 6, April 2002)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Section 303(d) Listing

This portion of the Mohawk River is included on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 3b of the List as an Impaired Water for which TMDL Development May be Deferred due to the need to verify the specific cause/pollutant. The need for verification is due to the available sampling results being either older or from sampling sites that are located downstream but outside this actual segment. This waterbody was first listed on the 2004 Section 303(d) List.

Segment Description

This segment includes the portion of the river south of the NYS Barge Canal from the Floyd-Marcy Town line near Oriskany to Rome. The waters of this portion of the stream are Class C. The NYS Barge Canal is listed separately.

Mohawk River, Upper, Main Stem (1201-0070) NoKnownImpct

Waterbody Location Information

Revised: 08/20/2002

Water Index No: H-240 (portion 15)
Hydro Unit Code: 02020004/060 **Str Class:** C(T)
Waterbody Type: River (Med. Flow)
Waterbody Size: 6.5 Miles
Seg Description: from Rome to Delta Lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Oneida Co. (33)
Quad Map: ROME (I-19-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of the Mohawk River in Rome (at Floyd Avenue) was conducted as part of the RIBS biological screening effort in 2005. Multiplate samplers were deployed and collected four times during the sampling season. 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 appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects. These sampling results are consistent with results from sampling at this site in 2000 and with kick sampling results at a nearby site (East Bloomfield Street). 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, November 2009)

Source Assessment
There are additional minor concerns regarding the effects of sediment loads to the stream from stream bank erosion, hydrologic modification at the Delta Dam and urbanization in the Rome area on the cold water fishery. These conditions do not currently result in any use restrictions. (DEC/DFWMR, Region 6, April 2002)

Water Quality Management

The NYSDEC has recently initiated a focused effort to conserve, preserve, and restore the environmental quality of the Mohawk River and its watershed, while helping to manage the resources of the region for a sustainable future. The establishment of a Mohawk River Basin Program to act as coordinator of basin-wide activities to achieve these goals is a key component of this effort. However the success of the program will require the involvement of stakeholders and the creation of partnerships with established programs and organizations throughout the basin. To this end, the Mohawk River Basin Program will follow the successful model of the Hudson River Estuary Program. Adopting a similar model will help accomplish the goal of developing a "whole Hudson" ecosystem-based management approach to managing the Hudson River Estuary. At the same time, a separate Mohawk River Basin Program promotes needed focus on the Mohawk Valley and its own unique culture, history, resources and concerns and a regional approach would help to address the unique challenges of the Basin. The first steps in fulfilling this mission are outlined in the Mohawk River Basin Program Action Agenda 2009-2014. (DEC/DOW, BWAM, January 2009).

Segment Description

This segment includes the portion of the river from (north of) the NYS Barge Canal in Rome to Delta Lake. The waters of this portion of the stream are Class C from the NYS Barge Canal to the Floyd Avenue bridge, and Class C(T) for the remainder of the reach.

Delta Reservoir (1201-0019) Impaired Seg

Waterbody Location Information

Revised: 11/01/2002

Water Index No:	H-240 (portion 16)/P1059	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/010 **Str Class:** A(T)		Mohawk River
Waterbody Type:	Lake(R) (Unknown Trophic)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	2375.7 Acres	**Quad Map:**	WESTERNVILLE (H-19-4)
Seg Description:	entire reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Known
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW
Suspected: THERMAL CHANGES, Nutrients, Restricted Passage, Silt/Sediment
Possible: D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION
Suspected: Agriculture, Streambank Erosion
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 4c (Impaired by Pollution, Not Pollutant(s), Not Listed)

Further Details

Overview
Natural resources (fishery) habitat and recreational (fishing, boating) uses are significantly affected by hydrologic modifications and slightly elevated nutrient levels. Agricultural activity in the watershed are considered the likely source of nutrient loadings to the lake, which contribute to the weed/algal growth. Though classified to support drinking water supply use, the reservoir is not used as a water supply.

Source Assessment
Annual fluctuations in the lake water level due to flood control and augmentation of water in the NYS Barge Canal impact the fishery resource. Low lake levels trap fish in shallow pools and make them more vulnerable to predators. Low levels also restrict boating and fishing opportunities. The state park beach on the lake has reportedly been closed at times due to low water levels. A high occurence of tumors on bullheads had been documented in the past however a causative agent was never identified and the frequency of tumors has decreased significantly. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
Delta Lake was included in the NYSDEC Citizens Statewide Lake Assessment Program (CSLAP) volunteer monitoring effort from 1991 through 1993. Results of this study indicate that phosphorus levels rarely exceeded the criteria associated with minor

impacts. (DEC/DOW, BWM/Lake Services, August 2002)

Auries Creek and tribs (1201-0116) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 84
Hydro Unit Code: 02020004/290 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 45.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: TRIBES HILL (J-23-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Auries Creek at the mouth in Auriesville 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)

Water Quality Management
Although water quality in the stream currently supports uses, local/county agencies see management practices at several dairy and other farms near the streams as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Cayadutta Creek, Lower, and minor tribs (1201-0001) MinorImpacts

Waterbody Location Information

Revised: 04/09/2010

Water Index No:	H-240- 89			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/280	**Str Class:**	C*		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	50.2 Miles			**Quad Map:**	RANDALL (J-23-1)
Seg Description:	stream and tribs, from mouth to Johnstown				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known:	NUTRIENTS (phosphorus)
Suspected:	D.O./Oxygen Demand
Possible:	Pathogens

Source(s) of Pollutant(s)

Known:	- - -
Suspected:	MUNICIPAL, URBAN/STORM RUNOFF, Agriculture
Possible:	- - -

Resolution/Management Information

Issue Resolvability:	1 (Needs Verification/Study (see STATUS))		
Verification Status:	4 (Source Identified, Strategy Needed)		
Lead Agency/Office:	DOW/Reg4	**Resolution Potential:**	Medium
TMDL/303d Status:	n/a		

Further Details

Overview

Aquatic life and recreational uses in this portion of Cayadutta Creek is known to experience minor impacts due to nutrient loadings and other pollutants from municipal discharges, urban runoff and agricultural and other nonpoint sources in the larger watershed.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Cayadutta Creek in Sammonsville (at Route 334) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by urban sources, stormwater runoff and organic loads and low dissolved oxygen from municipal or animal wastes. (DEC/DOW, BWAM/SBU, January 2010)

A biological assessment of Cayadutta Creek in Sammonsville was also conducted in 2000. Sampling results indicated similar slightly impacted water quality conditions. The slight impacts were likely from the wastewater treatment plant discharge upstream. The macroinvertebrate community was well-balanced, dominated by mayflies, with stoneflies and caddisflies also present. In spite of these minor impacts, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, July 2002)

The NYS DEC Stream Biomonitoring Unit has conducted biological surveys on the Cayadutta in 1986, 1992 and 1996. The results of these surveys illustrate dramatic improvements in the water quality of the creek and restoration of uses over the years. The most significant improvements coincided with the construction of a new Johnstown-Gloversville WWTP in 1991. In the most recent (1996) survey, water quality at three sites below the WWTP was determined to be no more than slightly impacted and the impact of the WWTP on the creek was found to be minimal. Similar result were documented in the 1992 survey, conducted after the plant went on line. Prior to the plant going on line, the 1986 survey documented severe water quality impacts along this same reach. (Cayadutta Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, November 1996)

The Cayadutta in Johnstown was also the subject of a five-year water quality study by researchers at the College of Saint Rose in Albany. The last of these annual reports also indicates that water quality below the Johnstown-Gloversville WWTP in not significantly different from above the plant. (Physical and Biological Sciences, College of Saint Rose, Albany, May 2002)

Elevated levels of heavy metals (lead, chromium) in sediments in some areas of the creek remain a possibility. These would have accumulated from years of direct discharge by tanneries and municipal WWTPs that failed to meet SPDES permit restrictions. Such contamination, if present, have an impact on aquatic life in stretches of the creek. (DEC/DFWMR, Habitat, August 2002)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Hale Creek (-11) in Johnstown. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including lower Kecks Center Creek (-8) and Crum Creek (-8a), are also primarily Class C,C(T). Upper Kecks Center Creek, Hall Creek (-10), Matthew Creek (-10-1) and Hale Creek are listed separately.

Cayadutta Creek, Upper, and minor tribs (1201-0044) MinorImpacts

Waterbody Location Information

Revised: 08/19/2002

Water Index No:	H-240- 89			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/280	**Str Class:**	C*		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	28.0 Miles			**Quad Map:**	GLOVERSVILLE (I-23-3)
Seg Description:	stream and tribs, above Johnstown				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, UNKNOWN TOXICITY, Silt/Sediment
Possible: Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF
Possible: Agriculture, Industrial, Landfill/Land Disp., Streambank Erosion

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and recreational (fishing) uses of this portion of Cayadutta Creek are affected by nutrient inputs, silt/sediment loads, and a variety of other pollutants related to urban nonpoint and stormwater runoff.

Water Quality Sampling
The most recent NYS DEC Stream Biomonitoring Unit biological survey of this reach of the Cayadutta was conducted in 1996. The results of this survey found overall good water quality, ranging from non to slightly impacted. Above Gloversville, conditions were assessed as non-impacted, with fauna dominated by organisms intolerant of pollution. However within the cities of Gloversville and Johnstown water quality declined, although remaining in the slightly impacted range. The fauna at these sites were characteristic of those influenced by nutrient enrichment and toxic inputs. The most likely sources of pollutants to these reaches were urban nonpoint runoff. An inactive hazardous waste site near Briggs Street is noted as a possible source. Below both cities the stream recovered noticeably. (Cayadutta Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, November 1996)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs above Hale Creek (-11) in Johnstown. The

waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Maylender Creek (-12), are also primarily Class C,C(T); some waters of tribs -16a and -16b are Class AA,AA(T). Hale Creek is listed separately.

Kecks Center Creek, Upper, and tribs (1201-0117) NoKnownImpct

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240- 89- 8	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/280 **Str Class:** AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	4.5 Miles	**Quad Map:**	PECK LAKE (I-23-4)
Seg Description:	stream and tribs, above Kecks Center		

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

Source (Drinking) Water Assessment
A source water assessment of Cork Center Reservoirs, downstream of the Kecks Center Creek watershed, found no noteworthy risks to water quality. 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 the City of Johnstown. (NYSDOH, Source Water Assessment Program, 2005)

Water Quality Management
Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Fulton County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and all tribs above unnamed pond (P662) north of Kecks Center. The waters of this portion of the stream are Class AA(T). Tribs to this reach/segment are also Class AA(T). Cork Center Reservoir (P664) is listed separately.

Hall/Matthew Creeks and tribs (1201-0225) MinorImpacts

Waterbody Location Information

Revised: 04/05/2010

Water Index No:	H-240- 89-10			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/280	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	14.3 Miles			**Quad Map:**	PECK LAKE (I-23-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS (phosphorus)
Possible: Unknown Toxicity

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life and recreational uses are thought to experience minor impacts due to nutrient loadings and other pollutants from urban runoff and agricultural nonpoint sources.

Water Quality Sampling
Biological (macroinvertebrate) assessments of both Hall Creek (at Pleasant Avenue) and Matthew Creek (at O'Neil Road) in Johnstown were conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions at both sites. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

Biological (macroinvertebrate) assessments of Hall and Matthew Creeks in Johnstown were also conducted in 2000. Field sampling results indicated non-impacted water quality conditions. The samples satisfied field screening criteria and were returned to the stream. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description

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

Hale Creek and tribs (1201-0118) MinorImpacts

Waterbody Location Information

Revised: 11/17/2009

Water Index No:	H-240- 89-11			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/280	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	17.2 Miles			**Quad Map:**	GLOVERSVILLE (I-23-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), SILT/SEDIMENT, Water Level/Flow
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: AGRICULTURE, Habitat Modification (beaver dams)
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life in Hale Creek are known to experience minor impacts/threats due to elevated nutrient loads and silt/sedimentation from agricultural and other nonpoint sources in the watershed. Habitat and hydrologic effects contribute to that the impacts in portions of the stream.

Water Quality Sampling
A biological (macroinvertebrate) survey of Hale Creek from its mouth in Johnstown to its headwaters was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated primarily slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggests conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to natural communities or in the case of the upstream site communities influenced by nonpoint source nutrients and siltation. The most upstream of the 5 sites sampled revealed moderate impacts and the highest levels of nutrient enrichment. These impacts are most obvious downstream of a specific dairy operation where Regional DEC staff report that substantial degradation has been occurring over the past few years. (Hale Creek Biological Assessment Report, DEC/DOW,

BWAM/SBU, February 2006)

A biological (macroinvertebrate) assessment of Hale Creek in Johnstown was conducted in 2000. Field sampling results at that time indicated non-impacted water quality conditions. But this assessment was based on field screening criteria and the sample was not kept for analysis. (DEC/DOW, BWAR/SBU, November 2009)

Fishery Assessment

Hale Creek is classified as a trout water and the stream is stocked with brown trout yearly. Native brook trout are known to spawn in portions of the stream, however other portions do not support trout spawning due to degradation from agricultural practices and hydrologic modification that is the result of beaver dams. (DEC/DFWMR, Region 5, February 2006)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Cross Stream (-2), are also Class C,C(T).

Cork Center Reservoir (1201-0120) NoKnownImpct

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240- 89-P664			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/280	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	Lake(R)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	38.6 Acres			**Quad Map:**	PECK LAKE (I-23-4)
Seg Description:	entire reservoir				

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

Source (Drinking) Water Assessment
A source water assessment of Cork Center Reservoirs found no noteworthy risks to water quality. 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 the City of Johnstown. (NYSDOH, Source Water Assessment Program, 2005)

Minor Tribs to Mohawk River (1201-0121) MinorImpacts

Waterbody Location Information

Revised: 03/21/2003

Water Index No:	H-240- 90 thru 126 (selected)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/270 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	97.4 Miles	**Quad Map:**	RANDALL (J-23-1)
Seg Description:	total length of sel tribs, fr Fonda/Fville to Ft Plain		

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:	NUTRIENTS (phosphorus)
Suspected:	PATHOGENS, SILT/SEDIMENT
Possible:	Pesticides

Source(s) of Pollutant(s)

Known:	AGRICULTURE
Suspected:	Streambank Erosion
Possible:	- - -

Resolution/Management Information

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

Further Details

Overview

Aquatic life support and recreational uses (swimming, fishing) are affected by various (and extensive) agricultural activities in these smaller tribs to the Mohawk River. There is currently very little specific monitoring data on these waters, but in some instances the impacts are obvious. The severity of impact on water uses needs to be verified.

Source Assessment

Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. Briggs Run (-94), Lasher Creek (-97), Happy Hollow Creek (-117) and unnamed tribs (-123, -125) have been specifically identified by the county. (Montgomery County SWCD/WQCC, April 2002)

Lasher Creek has also been noted by DEC staff as being plagued with severe nutrient enrichment and multiple complaints regarding illegal discharges, manure lagoon overflows and over-application of manure to lands. These problems have been attributed largely to a large dairy operation (Cerces Farm/Milk Train). A change in the ownership/operation of this farm is currently underway; future operation of the farm and impacts on Lasher Creek deserve a close look. (DEC/DFWMR, Habitat, August 2002)

Segment Description

This segment includes the total length of selected/smaller tribs to the Mohawk River between Cayadutta Creek (-89) in Fonda/Fultonville and Caroga Creek (-127) near/above Fort Plain. Tribs within this segment, including Briggs Run (-94), Lasher Creek (-97), Flat Creek (-116) and Happy Hollow Creek (-117), are Class C,C(T). Van Wie Creek (-93), Yatesville Creek (-96), Knauderack Creek (-98), Flat Creek (-102), Canajoharie Creek (-112) and Otsquago Creek (-119) are listed separately.

Van Wie Creek and tribs (1201-0122) Need Verific

Waterbody Location Information

Revised: 08/14/2002

Water Index No:	H-240- 93			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/270	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	20.9 Miles			**Quad Map:**	RANDALL (J-23-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, PATHOGENS, SILT/SEDIMENT
Possible: Pesticides

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Streambank Erosion
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Various agricultural activity in the Van Wie Creek watershed might be affecting water quality. There is no specific monitoring data on these waters, and the impact on water uses needs to be verified.

Water Quality Sampling
Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including Allston Creek (-2), are also Class C,C(T).

Fonda Reservoir (1201-0123) NoKnownImpct

Waterbody Location Information

Revised: 02/08/2010

Water Index No: H-240- 94-P678a
Hydro Unit Code: 02020004/270 **Str Class:** AA(T)
Waterbody Type: Lake(R) (Unknown Trophic)
Waterbody Size: 7.8 Acres
Seg Description: entire reservoir

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: RANDALL (J-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	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: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: ext/
TMDL/303d Status: n/a
Resolution Potential: Medium

Further Details

Source (Drinking) Water Assessment
A source water assessment of Fonda (Briggs Run) Reservoir found only moderate susceptibility to contamination. 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 the Village of Fonda. (NYSDOH, Source Water Assessment Program, 2005)

Fonda Reservoir has been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality.

Source Assessment

Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Tribs to Fonda Reservoir (1201-0124) NoKnownImpct

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240- 94-P678a-			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/270	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	1.8 Miles			**Quad Map:**	RANDALL (J-23-1)
Seg Description:	total length of all tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	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: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: ext/ **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Source (Drinking) Water Assessment
A source water assessment of Fonda (Briggs Run) Reservoir found only moderate susceptibility to contamination. 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 the Village of Fonda. (NYSDOH, Source Water Assessment Program, 2005)

The Tribs to the Fonda Reservoir have been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality.

Source Assessment

Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Segment Description

This segment includes the total length of all tribs to the Fonda (Briggs Run) Water Supply Reservoir. Tribs within this segment are Class AA(T).

Yatesville Creek and tribs (1201-0125) NoKnownImpct

Waterbody Location Information

Revised: 08/14/2002

Water Index No: H-240- 96
Hydro Unit Code: 02020004/260 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 22.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: CANAJOHARIE (J-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Yatesville Creek near the mouth near Randall 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)

Water Quality Management
Although water quality in the stream currently supports uses, local/county agencies see management practices at several dairy and other farms near the streams as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Knauderack Creek and tribs (1201-0126) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No: H-240- 98
Hydro Unit Code: 02020004/270 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 18.0 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: CANAJOHARIE (J-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Knauderack Creek in Palantine Bridge (near the mouth) 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. (DEC/DOW, BWAM/SBU, January 2010)

Previous Assessment
Concerns were raised during previous assessment efforts in 2002 regarding the impact of various agricultural activity in the Knauderack Creek watershed. However sampling results indicate water quality is not impacted. Nonetheless, best management practices need to continue at several dairy and other farms to protect water quality. (DEC/DOW, BWAM/WQAS, January 2010)

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

Flat Creek and tribs (1201-0026) MinorImpacts

Waterbody Location Information

Revised: 01/03/2003

Water Index No:	H-240-102			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/250	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	87.5 Miles			**Quad Map:**	CANAJOHARIE (J-22-2)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, Aesthetics
Possible: D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life support and recreational uses are thought to be limited in the upper reaches of Flat Creek by various agricultural activities.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Flat Creek near the mouth in Sprakers was conducted in 2000. Field sampling results indicated non-impacted water quality conditions in this reach. The sample satisfied field screening criteria and was returned to the stream. Additional monitoring of the stream farther upstream is recommended. (DEC/DOW, BWAR/SBU, July 2002)

Watershed Management
Local/county agencies have been working with several smaller dairy and other farms to implement best management practices to address nonpoint sources. Some barnyard boundaries had permitted unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields was also the focus of these efforts. However implementation of similar efforts at the one large CAFO in the watershed has not yet begun. (DEC/DOW, Region 4 and Montgomery County SWCD/WQCC, April 2010)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Canajoharie Creek, Lower, and tribs (1201-0027) MinorImpacts

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-112			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/240	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	43.5 Miles			**Quad Map:**	CANAJOHARIE (J-22-2)
Seg Description:	stream and tribs, from mouth to near Ames				

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: SILT/SEDIMENT, Pathogens
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: AGRICULTURE
Suspected: Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Recreational uses (fishing, swimming) in Canajohaire Creek are stressed by silt/sediment and slightly elevated pathogens attributed primarily to extensive agricultural activity in the watershed.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Canajoharie Creek in Canajoharie (at Montgomery Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions, but near the range of non-impacted. 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. 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. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Canajoharie Creek in Canajoharie (at Montgomery Street) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was

conducted, as well as macroinvertebrate community analysis. Water column sampling results showed that high total dissolved solids occurred and fecal coliform values were elevated. These findings likely reflect the high level of agriculture in the watershed, and perhaps some inputs from the Village of Canajoharie other than the wastewater treatment facility, which discharges directly to the Mohawk River, In addition, no organic compounds were found in the sediments above levels of concern, and no acute or chronic toxicity was seen in two laboratory bioassays. (DEC/DOW, BWAR/RIBS, April 2003)

The US Geological Survey has conducted extensive pesticide monitoring in the watershed as part of its 1994-96 NAWQA effort. The study was part of an effort to characterize pesticide levels associated with various land use conditions. Pesticides were detected in the watershed, but at concentrations well below levels of human health concern. (USGS, New York District, January 2002)

Water Quality Management

Local agencies have done considerable work with area farms to prevent nutrient loadings and other nonpoint source impacts. (Montgomery County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and tribs from the mouth to Brimstone Creek (-14) near Ames. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Brimstone Creek (-14) is listed separately.

Canajoharie Creek, Upper, and tribs (1201-0127) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240-112
Hydro Unit Code: 02020004/240 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 58.3 Miles
Seg Description: stream and tribs, above Ames

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: SPROUT BROOK (J-22-4)

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: n/a

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Canajoharie Creek in Canajoharie (at Montgomery Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions, but near the range of non-impacted. 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. These results are consistent with results of a field assessment conducted at this site and in a trib to this reach (Sprout Creek) in 2000 which found a fauna that satisfied field screening criteria indicating non-impacted water quality. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Though this sampling point is below the described segment, it is considered representative of water quality in the upper reach. This segment is listed as being evaluated rather than monitored. (DEC/DOW, BWAM/SBU, January 2010)

The US Geological Survey has conducted extensive pesticide monitoring in the watershed as part of its 1994-96 NAWQA effort. The study was part of an effort to characterize pesticide levels associated with various land use conditions. Pesticides were detected in the watershed, but at concentrations well below levels of human health concern. (USGS, New York District, January 2002)

Water Quality Management

Local agencies have done considerable work with area farms to prevent nutrient loadings and other nonpoint source impacts. (Montgomery County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and tribs above Brimstone Creek (-14) near Ames. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Sprout Brook (-17), Bowmans Creek (-19) and Takaharawa Brook (-20), are also Class C. Brimstone Creek (-14) is listed separately.

Brimstone Creek and tribs (1201-0128) Need Verific

Waterbody Location Information

Revised: 04/06/2010

Water Index No: H-240-112-14
Hydro Unit Code: 02020004/240 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 19.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: FORT PLAIN (J-22-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: PATHOGENS, Nutrients

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: MUNICIPAL (Sharon Springs WWTP)

Resolution/Management Information

Issue Resolvability: 6 (Problem Thought to be Abated)
Verification Status: (Not Applicable for Selected RESOLVABILITY)
Lead Agency/Office: DOW/BWAM **Resolution Potential:** High
TMDL/303d Status: n/a

Further Details

Overview
Recreational uses (swimming, fishing) and aquatic life support in Brimstone Creek may experience minor impacts from pathogens and other pollutants from inadequate treatment and discharge of municipal wastewater to the creek. However this assessment was based on sampling results and evaluation prior to municipal wastewater system work that appears to have addressed previously identified sources. Follow-up monitoring to verify current conditions in the stream is recommended.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Brimstone Creek near the mouth at Ames was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. The impact was minor nutrient enrichment; mayflies, stoneflies, and caddisflies were represented. This sampling was conducted prior to municipal sewer system rehabilitation efforts in 2008 and follow-up monitoring to verify current conditions in the stream is recommended. (DEC/DOW, BWAR/SBU, April 2010)

These results are consistent with sampling conditions found during a 1996 biological survey of the stream. This survey found slight impacts that were attributed to the Sharon Springs discharge and agricultural activities in the watershed.

(Brimstone Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, September 1997)

Previous Assessment

Concerns were noted during the previous assessment effort in 2002 regarding the impact of the Sharon Springs WWTP discharge which had difficultly meeting effluent discharge limits. Discharge monitoring reports showed frequent violations of fecal coliform and other parameters. As a result, recreational uses in Wintergreen Park (just downstream of the discharge) and other parts of the stream are diminished. Excessive infiltration into to collection system had been documented. However Sharon Springs completed a sewer system infiltration and inflow remediation project in Fall of 2008 which appears to have address the previous sporadic violations at the WWTP. The plant has been in compliance since, and there have been no reported impacts the Wintergreen Park beach. (DEC/DOW, Region 4, April 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Otsquago Creek, Lower, and minor tribs (1201-0028) MinorImpacts

Waterbody Location Information

Revised: 01/06/2003

Water Index No:	H-240-119			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/210	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	11.0 Miles			**Quad Map:**	FORT PLAIN (J-22-1)
Seg Description:	stream and tribs, from mouth to Hallsville				

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: SILT/SEDIMENT, Pathogens
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: AGRICULTURE
Suspected: Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Recreational uses in Otsquago Creek are thought to experience minor impacts due to elevated silt/sediment loadings and pathogens attributed primarily to agricultural activity in the watershed. Urban runoff in the Village of Fort Plain may also be a contributing source.

Water Quality Sampling
NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Otsquago Creek in Fort Plain (at State Route 5S) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Biological (macroinvertebrate) assessments of Otsquago Creek near the mouth in Fort Plain were conducted in 2000 and 2001 as part of the RIBS effort. Sampling results indicated non-impacted water quality conditions for both years. The 2000 assessment was based on a field assessment. The 2001 assessment was based on a laboratory-processed sample. Water column sampling identified high total dissolved solids and slightly elevated fecal coliform values. These findings reflect the high level agricultural activity in the watershed and, perhaps some inputs from the Village of Fort Plain. One of three toxicity tests indicated chronic toxicity. Sediment analysis did not identify elevated levels of any organic compounds, but cadmium was found in concentrations that are above the level of concern. Invertebrate tissues do not contain organic compounds or metals in concentrations above the guidance values set by NYSDEC. (DEC/DOW, BWAR/RIBS, April 2003)

Other Issues

Local/county agencies have identified management practices at several dairy and other farms near the streams as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in lack of riparian vegetation and contributing to elevated temperatures. (Montgomery County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Otstungo Creek (-5) near Hallsville. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Otsquene Creek (-4) and Otstungo Creek (-5) are listed separately.

Otsquago Creek, Upper, and tribs (1201-0078) NoKnownImpct

Waterbody Location Information

Revised: 04/02/2010

Water Index No:	H-240-119			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/210	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	58.9 Miles			**Quad Map:**	FORT PLAIN (J-22-1)
Seg Description:	stream and tribs, above Hallsville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Otsquago Creek near Starkville, Herkimer County, (at Moyer 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 indicated non- to the upper range of slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively minor and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to communities influenced by nonpoint nutrients and agricultural sources. Water column chemistry indicates occasionally high total dissolved solids, however siltation effects are not reflected in the biological sampling. There are no other contaminants present at levels that constitute parameters of concern. Toxicity testing using water from this location detected no significant mortality however reproductive effects were noted in one of the three tests. Sediment screening for acute toxicity indicated on sediment toxicity and no porewater toxicity was indicated. Based on the consensus of these established assessment indicators, 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)

Previous Assessments

Suspected impacts to uses due to a NYSDEC fish hatchery, onsite wastewater treatment (septic) systems and agricultural nonpoint sources were reported as needing to be verified in a previous (2003) assessment effort. It was also noted at that time that many of suspected sources were or had been addressed. An upgrade of the hatchery WWTP was completed in 1989. Onsite septic systems serving homes in Van Hornesville were found to be operating satisfactorily. Previously reported impacts (fishkills) attributed to runoff from a chicken farm had also been addressed. The results of the more recent monitoring effort suggest that there are no significant impacts to uses. (DEC/DOW, BWAM/WQAS, April 2010)

Segment Description

This segment includes the portion of the stream and all tribs above Otstungo Creek (-5) near Hallsville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment are Class C. Otstungo Creek (-5) is listed separately.

Otsquene Creek and tribs (1201-0129) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No: H-240-119- 4
Hydro Unit Code: 02020004/210 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 24.0 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: FORT PLAIN (J-22-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Otsquene Creek near the mouth near Valley Brook 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Caroga Creek, Lower, and tribs (1201-0076) MinorImpacts

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-127			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/230	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	41.8 Miles			**Quad Map:**	CANAJOHARIE (J-22-2)
Seg Description:	stream and minor tribs, from mouth to Ephratah				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW
Suspected: Thermal Changes
Possible: - - -

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION (NiMo Ephratah Hydropower)
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Natural resources (fishery) habitat in this portion of Caroga Creek experiences minor impacts due to fluctuating water levels caused by a hydropower generating facility upstream.

Fishery Assessment
Operation of the Niagara Mohawk Ephratah Power Plant and Dam causes daily fluctuations in water/flow levels in the lower reach of the stream. Changing the operation of the facility to run-of-river mode would alleviate the impact on the fishery. DEC Fishery staff has indicated resolution of this problem is a priority and is being pursued with the facility operator. DEC Fisheries is interested in the potential for stocking in the stream. (DEC/DFWMR, Region 4 and Bureau of Habitat, April 2010)

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Caroga Creek in Palatine, Montgomery County, (at Route 5) 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 indicated non-impacted conditions. Such samples are dominated by clean-water species and conditions that reflect a natural community with minimal, if any, human

impacts. Aquatic life community is clearly fully supported. Water column chemistry indicates only iron to be present at levels that constitute a parameter of concern. However, iron the median iron 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. Sediment screening for acute toxicity indicated some 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. (DEC/DOW, BWAM/RIBS, January 2010)

A biological (macroinvertebrate) assessment of Caroga Creek in Ephratah (above Sprite Creek confluence) 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. 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. (DEC/DOW, BWAM/SBU, January 2010)

Based on the consensus of these established assessment indicators, 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.

Water Quality Management

Although water quality in the stream currently supports aquatic life, local/county agencies see management practices at several dairy and other farms near the streams as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Fulton County SWCD/WQCC, April 2002

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Sprite Creek (-15) in Ephratah. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Mill Creek (-5) and Lower North Creek (-13), are also Class C,C(T). Upper North Creek and Sprite Creek (-15) are listed separately.

Caroga Creek, Upper, and minor tribs (1201-0131) NoKnownImpct

Waterbody Location Information

Revised: 02/03/2010

Water Index No:	H-240-127			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/230	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	39.3 Miles			**Quad Map:**	LASSELLSVILLE (I-22-3)
Seg Description:	stream and minor tribs, above Ephratah				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Caroga Creek in Ephratah (above Sprite Creek confluence) 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. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs above Sprite Creek (-15) in Ephratah. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Beaverdam Creek (-23) and Durey Creek (-26), are Class C,C(T),C(TS). Sprite Creek (-15) is listed separately.

Rockwood Lake (1201-0133) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-127- P685a
Hydro Unit Code: 02020004/230 **Str Class:** C
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 29.8 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: PECK LAKE (I-23-4)

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

Water Quality Sampling
Rockwood Lake was included in the 2001 Lake Classification and Inventory study effort. Results of this study found no evidence of water quality impairment. (DEC/DOW, BWM/Lake Services, August 2000)

North Creek, Upper, and tribs (1201-0047) NoKnownImpct

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240-127-13			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/230	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	9.1 Miles			**Quad Map:**	LASSELLSVILLE (I-22-3)
Seg Description:	stream and tribs, above/including Fort Plain Reservoir				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of North Creek in Saint Johnsville (at ATV trail off Tillboro Road) 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 low enrichment in the stream and fauna that is most similar to natural communities. 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 2009)

Source (Drinking) Water Assessment
North Creek has been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality.
Segment Description
This segment includes the portion of the stream and all tribs above/including the Fort Plain Reservoir (P681a). The waters

of this portion of the stream are Class AA(T). Tribs to this reach/segment, including Edwards Creek (-4), are Class AA,AA(T). Lower North Creek is listed separately.

Sprite Creek, Lower, and tribs (1201-0134) MinorImpacts

Waterbody Location Information

Revised: 01/14/2010

Water Index No:	H-240-127-15			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/230	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	14.9 Miles			**Quad Map:**	LASSELLSVILLE (I-22-3)
Seg Description:	stream and tribs, from mouth to Canajoharie Reservoir				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS
Possible: Silt/Sediment

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: Hydro Modification

Resolution/Management Information

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

Further Details

Overview
Aquatic life support in this portion of Sprite Creek is thought to experience minor impacts from may be affected by elevated nutrient loadings from nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Sprite Creek in Ephratah (at Route 10) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by impoundment effects, which may be skewing the results of this sampling, and nonpoint sources. Sampling habitat was noted as being less than ideal. An alternate site on this stream at Mud Road was also sampled but found to be highly influenced by upstream impoundment and was not considered to be representative of water quality conditions. (DEC/DOW, BWAM/SBU, January 2010)

Previous Assessment

In the 1980s copper sulfate treatment levels and chlorinated filter backwash from the Canajoharie Sprite Creek Water Works were demonstrated to cause mortality and reproductive effects in laboratory and in-situ bioassays with fish and water fleas (Preddice, et al, 1985). At that time biota in Sprite Creek were found to be affected. More recent (2005) biological monitoring found only slight impact on the in stream biological community. (DEC/DFWMR, Habitat, January 2010)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to the Canajoharie Reservoir (P683c). The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Spenable Creek (-2), are Class C,C(T),C(TS). Upper Sprite Creek is listed separately.

Peck Creek and tribs (1201-0137) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-127-25			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/230	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	6.0 Miles			**Quad Map:**	PECK LAKE (I-23-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Pack Creek near the mouth in North Bush 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)

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

Peck Lake (1201-0016) NoKnownImpct

Waterbody Location Information

Revised: 02/10/2010

Water Index No: H-240-127-25-P686
Hydro Unit Code: 02020004/230 **Str Class:** C
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 1425.8 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: PECK LAKE (I-23-4)

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

Water Quality Sampling
Peck Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1992 through 2001 and again in 2008. An Interpretive Summary report of the findings of this sampling was published in 2009. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately to highly unproductive. Phosphorus levels in the lake consistently fall below state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly to moderately colored, but this is considered to reflect natural conditions and does not limit water transparency. (DEC/DOW, BWAM/CSLAP, January 2009)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be very favorable. The recreational suitability of the lake is described most frequently as "could not be nicer" or "excellent." The lake itself is most often described as "crystal clear." Assessments have noted that aquatic plants occasionally grow to the lake surface, but have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, January 2009)

Lake Uses

This lake waterbody is designated class C, suitable for use as a general recreation water and aquatic life support, but not for water supply use or public bathing. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Fishery Assessment

A fishery survey of Peck Lake was conducted in 2000 by the SUNY Oneonta Biological Field Station. The survey found balanced and self-sustaining bass (warmwater) population. Summer temperature and dissolved oxygen measurements indicate the lake may not be suitable for cold water species. However the lake in not classified as a trout water and is considered to fully support appropriate aquatic life. (Fishery Survey of Peck Lake, SUNY, Oneonta Biological Field Station, June 2002)

Segment Description

This segment includes the total area of the entire lake.

Mountain Lake (1201-0142) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-127-25-P686-4-P689-4-P691
Hydro Unit Code: 02020004/230 **Str Class:** C
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 41.2 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: GLOVERSVILLE (I-23-3)

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

Water Quality Sampling
Mountain Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1998 and continuing through 2001. An Interpretive Summary report of the findings of this sampling was published in 2002. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately to highly unproductive. Phosphorus levels in the lake consistently fall below state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is moderately colored, but this is considered to reflect natural conditions and does not limit water transparency. (DEC/DOW, BWAM/CSLAP, November 2002)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be very favorable. The recreational suitability of the lake is described most frequently as "could not be nicer" or "excellent." The lake itself is most often described as "crystal clear" or "not quite crystal clear." Assessments have noted that aquatic plants occasionally grow to the lake surface, but have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, November 2002)

Lake Uses

This lake waterbody is designated class C, suitable for use as a general recreation water and aquatic life support, but not for water supply use or public bathing. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Segment Description

This segment includes the total area of the entire lake.

East Caroga Lake (1201-0046) NoKnownImpct

Waterbody Location Information

Revised: 02/10/2010

Water Index No: H-240-127-P697
Hydro Unit Code: 02020004/230 **Str Class:** B
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 234.0 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CAROGA LAKE (I-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
East Caroga Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1992 through 1994 and again from 2004 through the present. An Interpretive Summary report of the findings of this sampling was published in 2008. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately to highly unproductive. Phosphorus levels in the lake consistently fall below state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly colored and does not limit water transparency. (DEC/DOW, BWAM/CSLAP, January 2008)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be favorable. The recreational suitability of the lake is described most frequently as or "excellent." The lake itself is most often described as "not quite crystal clear." Assessments have noted that aquatic plants regularly grow to the lake surface, but not densely and have only occasionally been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, January 2008)

Lake Uses

This lake waterbody is designated class B, suitable for use as a public bathing and general recreation water and aquatic life support, but not for water supply use. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

West Caroga Lake (1201-0144) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240-127-P698
Hydro Unit Code: 02020004/230 **Str Class:** B(T)
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 318.4 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CAROGA LAKE (I-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
West Caroga Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1997 through 2001. An Interpretive Summary report of the findings of this sampling was published in 2001. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately to highly unproductive. Phosphorus levels in the lake consistently fall below state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. (DEC/DOW, BWAM/CSLAP, September 2001)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be very favorable. The recreational suitability of the lake is described most frequently as "could not be nicer" or "excellent." The lake itself is most often described as "not quite crystal clear." Assessments have noted that aquatic plants occasionally grow to the lake surface, but have not been cited as impacting recreational uses. The West Caroga Lake Association practices weed (Eurasian milfoil) control with general success. (DEC/DOW, BWAM/CSLAP, September 2001)

Lake Uses

This lake waterbody is designated class B, suitable for use as for public bathing, general recreation water and aquatic life support, but not for water supply. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Minor Tribs to Mohawk River (1201-0145) Need Verific

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-128 thru 143 (selected)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/220 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	22.9 Miles	**Quad Map:**	FORT PLAIN (J-22-1)
Seg Description:	total length of select tribs, Ft Plain to Indian Castle		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, PATHOGENS, SILT/SEDIMENT
Possible: Pesticides

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Streambank Erosion
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Various agricultural activity in these smaller tribs to the Mohawk River might be affecting water quality. There is very little specific monitoring data on these waters, and the impact on water uses needs to be verified.

Source Assessment
Management practices at several dairy and other farms near the streams contribute to livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. Mother Creek (-129) and unnamed tribs (-131, -136, -141) have been specifically singled out by the county. (Montgomery County SWCD/WQCC, April 2002)

Segment Description
This segment includes the total length of selected/smaller tribs to the Mohawk River between Caroga Creek (-127) near/above Fort Plain and East Canada Creek (-144) near Indian Castle. Tribs within this segment, including Mother Creek (-129), are Class C. Caroga Creek (-127), Zimmerman Creek (-139), Timmerman Creek (-141) Crum Creek (-143) and

East Canada Creek (-144) are listed separately.

Zimmerman Creek, Lower, and tribs (1201-0029) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No: H-240-139 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/220 **Str Class:** C(TS) Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 4/Montgomery Co. (29)
Waterbody Size: 17.9 Miles **Quad Map:** OPPENHEIM (I-22-4)
Seg Description: stream and tribs, from mouth to Lassellsville

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Zimmerman Creek near the mouth in St. Johnsville 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)

Water Quality Management
Although water quality in the stream currently supports aquatic life, local/county agencies see management practices at several dairy and other farms near the streams as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Fulton County SWCD/WQCC, April 2002

Segment Description
This segment includes the portion of the stream and all tribs from the mouth to the Lower St. Johnsville Reservoir (P698a) near Lassellsville. The waters of this portion of the stream are Class C(TS). Tribs to this reach/segment are Class

C,C(T),C(TS). Upper Zimmerman Creek is listed separately.

Zimmerman Creek, Upper, and tribs (1201-0146) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-139			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/220	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	5.0 Miles			**Quad Map:**	LASSELLSVILLE (I-22-3)
Seg Description:	stream and tribs, above Lassellsville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Qaulity Sampling
A biological (macroinvertebrate) assessment of Zimmerman Creek near the mouth in St. Johnsville 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. Though this sampling point is below the described segment, it is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, July 2002)

Source (Drinking) Water Assessment
Zimmerman Creek has been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality.

Segment Description
This segment includes the portion of the stream and all tribs above/including the Lower St. Johnsville Reservoir (P698a) near Lassellsville. The waters of this portion of the stream are Class AA(T). Tribs to this reach/segment are Class AA,AA(T). Lower Zimmerman Creek and the Upper St. Johnsville Reservoir are listed separately.

Timmerman Creek and tribs (1201-0148) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-141			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/220	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	4/Montgomery Co. (29)
Waterbody Size:	24.6 Miles			**Quad Map:**	OPPENHEIM (I-22-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Timmerman Creek near the mouth in St. Johnsville was conducted in 2000. Sampling results indicated non-impacted water quality conditions. A diverse fauna was present, with many mayflies, stoneflies, and caddisflies. (DEC/DOW, BWAR/SBU, July 2002)

Water Quality Management
Although water quality in the stream currently supports aquatic life, local/county agencies see management practices at several dairy and other farms near the streams as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Montgomery County SWCD/WQCC, April 2002

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C(T),C(TS). Tribs to this reach/segment, including Klock Creek (-9), are Class C,C(T).

Crum Creek and tribs (1201-0149) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240-143
Hydro Unit Code: 02020004/220 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 20.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 4/Montgomery Co. (29)
Quad Map: OPPENHEIM (I-22-4)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Crum Creek in Manheim Center (at Route 5) was conducted as part of the RIBS biological screening effort in 2000. Sampling results indicated non-impacted conditions. Such samples are dominated by clean-water species and are most similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Previous Assessment
Concerns were raised by local agencies and stakeholders during previous assessment efforts regarding impacts from various agricultural activity in the Crum Creek watershed that might be affecting water quality. Management practices at several dairy and other farms near the streams may contribute livestock waste loadings to the river. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. The most recent sampling reveals no significant impacts to the stream, so these activities are considered to be potential threats that nonetheless require some attention. (Montgomery

County SWCD/WQCC, April 2002)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T),C(TS). Tribs to this reach/segment are Class C,C(T),C(TS). There are two tribs to the Mohawk in this area named Crum Creek. This stream enters the Mohawk to the east of East Canada Creek.

East Canada Cr, Lower, and minor tribs (1201-0081) MinorImpacts

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-144 (portion 1)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/200 **Str Class:** C(T)		Mohawk River
Waterbody Type:	River (Med. Flow)	**Reg/County:**	6/Herkimer Co. (22) ...
Waterbody Size:	21.1 Miles	**Quad Map:**	LITTLE FALLS (I-21-3)
Seg Description:	stream and selected tribs, from mouth to Ingham Mills		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Natural resources (fishery) habitat in Lower East Canada Creek is stressed by fluctuating water levels caused by a hydropower generating facilities upstream. Changing the operation of the facilities to run-of-river mode would alleviate the impact on the fishery. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) assessment of East Canada Creek in East Creek (at Route 5) 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. Aquatic life community is fully supported. These results are consistent with previous sampling at this site. (DEC/DOW, BWAM/SBU, January 2010)

A biological (macroinvertebrate) assessment of East Canada Creek in Dolgeville 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. Though this sampling point is above the described segment, it is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, July 2002)

A biological survey of East Canada Creek (from East Creek to Oregon) was also conducted in 1996. The results of this study found water quality conditions that ranged from non to slightly impacted. No significant water quality problems were detected and aquatic life was fully supported. (East Canada Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, October 1997)

Water Quality Management

Although water quality in the stream currently supports aquatic life, local/county agencies see management practices at several dairy and other farms near the creek and its tribs as potential problems. Some barnyard boundaries permit unrestricted access to the river, resulting in nutrient and pathogen loads and also contributing to streambank destabilization. Improper manure application on these fields is also a concern. Most of area farms have no silage leachate, manure or milkhouse wastewater treatment facilities. Some of the streams flow through intensively cultivated row croplands. Nutrient (fertilizer) and pesticides applied to these field in the absence of approved nutrient/pesticide management plans may have an impact on water quality. (Fulton County SWCD/WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to dam at Kyser Lake (P704a) in Ingham Mills. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Bacon Brook (-4), are Class C,C(T),C(TS).

East Canada Lake (1201-0150) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-144 (portion 1a)/P703a
Hydro Unit Code: 02020004/200 **Str Class:** C(T)
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 173.3 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22) ...
Quad Map: OPPENHEIM (I-22-4)

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

Water Quality Sampling
East Canada Lake was included in the 2001 Lake Classification and Inventory study effort. Results of this study found no evidence of water quality problems or use impairment. (DEC/DOW, BWM/Lake Services, August 2002)

East Canada Cr, Lower, and minor tribs (1201-0152) NoKnownImpct

Waterbody Location Information

Revised: 10/30/2002

Water Index No:	H-240-144 (portion 3)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/200 **Str Class:** B(T)		Mohawk River
Waterbody Type:	River (Med. Flow)	**Reg/County:**	6/Herkimer Co. (22) ...
Waterbody Size:	1.3 Miles	**Quad Map:**	LITTLE FALLS (I-21-3)
Seg Description:	stream and select tribs, fr Ingham Mills to Dolgeville		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of East Canada Creek in Dolgeville 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. Though this sampling point is just above the described segment, it is considered representative of water quality in the lower reach. (DEC/DOW, BWAR/SBU, July 2002)

A biological survey of East Canada Creek (from East Creek to Oregon) was also conducted in 1996. The results of this study found water quality conditions that ranged from non to slightly impacted. No significant water quality problems were detected and aquatic life was fully supported. (East Canada Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, October 1997)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs from the dam at Keyser Lake (P704a) in Ingham Mills to the dam at the Niagara Mohawk Power impoundment (P704b) in Dolgeville. The waters of this portion of the stream are Class B(T). Tribs to this reach/segment Class C. Ransom Creek (-5) is listed separately.

East Canada Cr, Middle, and minor tribs (1201-0153) Minor Impacts

Waterbody Location Information

Revised: 09/15/2014

Water Index No:	H-240-144 (portion 4)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/200 **Class:** C(T)		Mohawk River
Waterbody Type:	River 65.6 Miles	**Reg/County:**	6/Herkimer Co. (22) ...
Seg Description:	stream and selected tribs, from Dolgeville to Stratford		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Evaluated	Severity	Problem Documentation
Water Supply/Shellfishing	N/A	-
Public Bathing	N/A	-
Recreation	Stressed	Known
Aquatic Life	Fully Supported	Suspected
Fish Consumption	Unassessed	-
Conditions Evaluated		
Habitat/Hydrology	Unknown	
Aesthetics	Poor	

Type of Pollutant(s) (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Known: AESTHETICS (color, dyes)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: INDUSTRIAL (Gehring Tricot Corp.), MUNICIPAL (Dolgeville WWTP), Other/Sanitary Disch.
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: Strategy Implementation Scheduled or Underway
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
IR/305(b) Code: Water Attaining Some Standards (IR Category 2)

Further Details

Overview
Recreational uses and aesthetics in this portion of East Canada Creek are thought to experience minor impacts due to impacts from a municipal plant. Excessive I/I and industrial contributions that cause color and visible contrast of the discharge have been cited.

Source Assessment
Recreational uses (fishing, swimming) and aesthetics of this portion of East Canada Creek are affected by municipal point source discharges from a plant in need of an upgrade to address excessive infiltration/inflow during wet-weather. During extreme wet-weather, sanitary sewer overflows can impact the creek. A consent order requiring the removal of the I/I is currently in place. The discharge of dyes from an area industry (Gehring Tricot) that is hooked up to the Dolgeville WWTP is also a concern. On numerous occasions dyes from the industry pass through the WWTP and cause discoloration in the creek. These events diminish the aesthetics of the stream and discourage recreational

activities. This situation was first reported in the 2002 assessment effort and has been verified be regional staff. (DEC/DOW, Region 6, September 2014)

Water Quality Sampling

A biological (macroinvertebrate) assessment of East Canada Creek in Dolgeville 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)

A biological survey of East Canada Creek (from East Creek to Oregon) was also conducted in 1996. The results of this study found water quality conditions that ranged from non to slightly impacted. No significant water quality problems impacting the biota were detected and aquatic life is considered to be fully supported. (East Canada Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, October 1997)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the dam at the Niagara Mohawk Power impoundment (P704b) in Dolgeville to Ayers Creek (-21) in Stratford. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Beaver Brook (-7), Lower Cold Brook (-10), Phipps Brook (-12), Fly Brook (-16), Carr Creek (-17), Moose Creek (-18), Little Moose Creek (-19) and Jeffers Brook (-20), are primarily Class C,C(T),C(TS); with portions in the forest preserve. Spruce Creek (-9), Middle Sprite Creek (-11), Sprite Creek (-13), Ayers Creek (-21) and Class AA tribs of Upper Cold Brook (-10), are is listed separately.

East Canada Cr, Upper, and minor tribs (1201-0154) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240-144 (portion 5) **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/180 **Str Class:** C(T) Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 5/Fulton Co. (18)
Waterbody Size: 105.6 Miles **Quad Map:** STRATFORD (I-22-1)
Seg Description: stream and selected tribs, above Stratford

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of West Branch of East Canada Creek in Arietta (at Powley Road) 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 appear to be (relatively) insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to natural communities. 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 2009)

A biological survey of East Canada Creek (from East Creek to Oregon) was conducted in 1996. The results of this study found water quality conditions that ranged from non to slightly impacted. Samples collected at the Stratford and Oregon sites indicated slightly and non-impacted conditions respectively. These impacts were attributed largely to headwater affects. No water quality problems were detected and aquatic life is considered to be fully supported. (East Canada Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, October 1997)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs above Ayers Creek (-21) in Stratford. The waters of this portion of the stream are Class C(T); with the upper reaches located in the forest preserve. Tribs to this reach/segment, including Stony Brook (-25), Windfall Creek (-29), Brandy Brook (-33), Limestone Creek (-35), Brayhouse Brook (-37), Black Cat Outlet (-38), Goldmine Stream (-43) and West Branch (-44), are Class C,C(T), with portions in the forest preserve. Ayers Creek (-21), Trammel Creek (-22) and North Creek (-28) are listed separately.

Ransom/Gillette Creek and tribs (1201-0155) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No:	H-240-144- 5			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/200	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	25.9 Miles			**Quad Map:**	LITTLE FALLS (I-21-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Ransom/Gillette Creek near Dolgeville (at Route 167) 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 communities influenced by some siltation. 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 entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are also/primarily Class C,C(T).

Spruce Creek, Lower, and tribs (1201-0156) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No: H-240-144- 9 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/190 **Str Class:** C(TS) Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 20.6 Miles **Quad Map:** SALISBURY (I-21-2)
Seg Description: stream and tribs, from mouth to Spruce Lake

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Spruce Creek in Salisbury Center, Herkimer County, (at Kingsley 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 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 indicates aluminum to be present at levels that constitute a parameter of concern. However, aluminum may be naturally occurring and does not appear to be a source of water quality impacts. 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 likely sediment toxicity. 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 assessment of Spruce Creek near the mouth in Shedd Corners was also 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)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to the dam at Spruce Lake (P706a). The waters of this portion of the stream are Class C(TS). Tribs to this reach/segment, including Lower Beaver Creek (-5), are Class C,C(T). Upper Beaver Creek (-5) and Spruce Lake (P706a) are listed separately.

Beaver Creek, Upper, and tribs (1201-0159) Need Verific

Waterbody Location Information

Revised: 02/08/2010

Water Index No: H-240-144- 9- 5 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/190 **Str Class:** AA(T) Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 10.5 Miles **Quad Map:** SALISBURY (I-21-2)
Seg Description: stream and tribs, above Little Falls Reservoir (P706)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: OTHER POLLUTANTS

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: OTHER SOURCE

Resolution/Management Information

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

Further Details

Overview
Water supply use is suspected of being threatened by possible contaminants from runoff from agricultural pasturelands.

Source (Drinking) Water Assessment
A source water assessment of Beaver Creek found a high susceptibility to contamination for protozoa due to the amount of pastureland in the watershed. 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 Little Falls. (NYSDOH, Source Water Assessment Program, 2005)

Water Quality Sampling
A biological (macroinvertebrate) assessment of upper Beaver Creek in Fairfield (at Beaver 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. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

This segment includes the portion of the stream and all tribs above/including the Little Falls water supply reservoir (P706). The waters of this portion of the stream are Class AA(T). Tribs to this reach/segment are primarily Class AA,AA(T); with a few portions designated Class C. Lower Beaver Creek is with East Canada Creek and tribs.

Spruce Lake (1201-0161) NoKnownImpct

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240-144- 9/P706a			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/190	**Str Class:**	AA		Mohawk River
Waterbody Type:	Lake			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	0.7 Acres			**Quad Map:**	SALISBURY (I-21-2)
Seg Description:	entire lake				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	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: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: ext/ **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Source (Drinking) Water Assessment
A source water assessment of Spruce Lake found only moderate susceptibility to contamination. 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 the City of Little Falls. (NYSDOH, Source Water Assessment Program, 2005)

Spruce Lake has been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality.

Cold Brook, Upper, and tribs (1201-0162) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-144-10			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/200	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	2.4 Miles			**Quad Map:**	SALISBURY (I-21-2)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Cold Brook near the mouth in Dolgeville was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. The assessment was borderline non-impacted, and no major impacts were indicated. (DEC/DOW, BWAR/SBU, July 2002)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000)

Source (Drinking) Water Assessment
A source water assessment of Cold Brook found no noteworthy risks to water quality. 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 the Village of Dolgeville. (NYSDOH, Source Water Assessment Program, 2005)
Cold Brook has been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation

means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality.

Segment Description

This segment includes the portion of the stream and all tribs above/including the Dolgeville Reservoir (P709). The waters of this portion of the stream are Class AA(T). Tribs to this reach/segment, including Upper Mang Brook (-5) above the Dolgeville Reservoir (P708a), are Class AA,AA(T),AA(TS). Lower Cold Brook is listed separately with East Canada Creek and tribs.

Middle Sprite Creek and tribs (1201-0163) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No: H-240-144-11
Hydro Unit Code: 02020004/200 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 35.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: OPPENHEIM (I-22-4)

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

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Middle Sprite Creek in Oppenheim, Herkimer County, (at Lottville 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 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 indicates aluminum to be present at levels that constitute a parameter of concern. However, aluminum may be naturally occurring and does not appear to be a source of water quality impacts. 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.

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 assessment of Middle Sprite Creek at this site was also 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)

A biological assessment of Little Sprite Creek in Oppenheim (at Belden Corners Road) was also conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition suggests conditions are sufficient to cause some stress to aquatic life. However impact source determination found the fauna to be most similar to communities influenced by impoundment effects. These effects/conditions are known to skew biological sampling results and are not a true reflection of water quality. Further investigation and/or other indicators are required to determine the extent of water quality impacts, if any, in this trib. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T); with other part in the forest preserve. Tribs to this reach/segment, including Little Sprite Creek (-1) and Rasho Perry Stream (-2), are Class C,C(T),C(TS).

Sprite Creek and tribs (1201-0165) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240-144-13
Hydro Unit Code: 02020004/200 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 12.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: STRATFORD (I-22-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Sprite Creek in Oppenheim (at Voorhees 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. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are also/primarily Class C,C(T); with portions in the forest preserve. Tribs to West/Canada Lakes in the upper watershed are listed separately.

Lily, Canada, Stewarts Land, West Lakes (1201-0050) Impaired Seg

Waterbody Location Information

Revised: 04/13/2010

Water Index No:	H-240-144-13-P715 thru P718	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/180 **Str Class:** B(T)		Mohawk River
Waterbody Type:	Lake (Unknown Trophic)	**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	847.7 Acres	**Quad Map:**	CANADA LAKE (I-22-2)
Seg Description:	total area of all four lakes		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: METALS (mercury), Water Level/Flow
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: Habitat Modification, Hydro Modification
Suspected: ATMOSPH. DEPOSITION
Possible: - - -

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Fish consumption in this lake segment is know to be impaired due to mercury levels that are a results of atmospheric deposition.

Fish Consumption
Fish consumption in Canada Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger smallmouth bass (over 15 inches) or chain pickerel because of elevated mercury levels. The source of mercury is considered to be atmospheric deposition, as there are not other apparent sources in the lake watershed. The advisory for this lake was first issued in 2005-06. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2009).

Water Quality Sampling
Canada Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 2001 and continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2009. These data indicate that the lake continues to be best characterized as oligotrophic, or highly unproductive. Phosphorus levels in the lake consistently fall below state guidance values indicating impacted/stressed recreational uses.

Corresponding transparency measurements typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly to moderately colored, which may at time affect water transparency. (DEC/DOW, BWAM/CSLAP, February 2009)

Recreational Assessment

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be very favorable. The recreational suitability of the lake is described most frequently as "could not be nicer." The lake itself is most often described as "crystal clear." Assessments have noted that aquatic plants occasionally grow to the lake surface, but not densely and have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, February 2009)

Lake Uses

This lake waterbody is designated class B, suitable for use as a public bathing and general recreation water and aquatic life support, but not for water supply use. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Water Quality Management/TMDL

In 2007, The New England Interstate Water Pollution Control Commission (NEIWPCC), on behalf of its member states including New York, submitted and USEPA approved a TMDL to address mercury deposition in lakes throughout the Northeastern United States, including Canada Lake. The Northeast Regional Mercury TMDL notes that between 1998 and 2002 the Northeast states reduced in-region deposition of mercury by more than 70 percent. In addition these state have enforceable controls in place to meet the remaining reduction goals. Despite these reductions water quality impairment due to mercury still exists and elevated mercury levels in certain fish species remain great concern. The TMDL shows the demonstrates that the need for significant reductions in the mercury reaching waters of the Northeast from sources outside the region by way of atmospheric deposition is essential to restoring these waters. (Northeast Regional Mercury TMDL, NEIWPCC, 2007)

Habitat/Hydrology Assessment

There are concerns regarding impacts to natural resources (fishery) habitat in the Canada, West, Lily, and Stewarts Landing Lake system due to reduced vegetative habitat for spawning and cover. Operation of Stewarts Landing Dam results in water level fluctuations of about 8 feet each year that have a significant impact on the littoral zone and alter the habitat. NYSDEC owns and operates the dam but balancing that the support of completing priorities of fishery habitat, recreational users and property owners has been difficult. (DEC/DFWMR, Region 5, April 2010)

Section 303(d) Listing The Lily, Canada, Stewarts Landing, West Lakes segment was included on previous Section 303(d) List of Impaired Waters due to impairments resulting from fish consumption advisories. However the lake was delisting with regard to this impairment in 2008 due to the Northeast Regional Mercury TMDL.

Segment Description

This segment includes the total area of Stewarts Landing Lake (P715, Lily Lake (P716), Canada Lake (P717) and West Lake (P718).

Stoner Lakes (1201-0169) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No:	H-240-144-13..P721,P722,P723			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/200	**Str Class:**	N		Mohawk River
Waterbody Type:	Lake			**Reg/County:**	5/Fulton Co. (18)
Waterbody Size:	173.8 Acres			**Quad Map:**	CANADA LAKE (I-22-2)
Seg Description:	entire lake				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known

Type of Pollutant(s)

Known: METALS (mercury)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: ATMOSPH. DEPOSITION
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office:
Resolution Potential: n/a
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Fish consumption in Stoner Lakes is impaired due to mercury levels that are a results of atmospheric deposition.

Fish Consumption
Fish consumption in Stoner Lakes is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger smallmouth bass (over 15 inches) because of elevated mercury levels. The source of mercury is considered to be atmospheric deposition, as there are not other apparent sources in the lake watershed. The advisory for this lake was first issued in 2005-06. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2009).

Water Quality Management/TMDL
In 2007, The New England Interstate Water Pollution Control Commission (NEIWPCC), on behalf of its member states including New York, submitted and USEPA approved a TMDL to address mercury deposition in lakes throughout the Northeastern United States, including Ferris Lake. The Northeast Regional Mercury TMDL notes that between 1998 and 2002 the Northeast states reduced in-region deposition of mercury by more than 70 percent. In addition these state have enforceable controls in place to meet the remaining reduction goals. Despite these reductions water quality impairment due to mercury still exists and elevated mercury levels in certain fish species remain great concern. The TMDL shows the

demonstrates that the need for significant reductions in the mercury reaching waters of the Northeast from sources outside the region by way of atmospheric deposition is essential to restoring these waters. (Northeast Regional Mercury TMDL, NEIWPCC, 2007)

Section 303(d) Listing The lake was included on previous Section 303(d) List of Impaired Waters due to impairments resulting from fish consumption advisories. However the lake was delisting with regard to this impairment in 2008 due to the Northeast Regional Mercury TMDL.

Segment Description
This segment includes the total area of Middle Stoner (P721), East Stoner (P722) and North Stoner (P723) Lakes.

Pine Lake (1201-0170) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240-144-13..P724
Hydro Unit Code: 02020004/200 **Str Class:** B
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 166.4 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CANADA LAKE (I-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known

Type of Pollutant(s)
Known: METALS (mercury)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: ATMOSPH. DEPOSITION
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA
TMDL/303d Status: 2b->4a
Resolution Potential: Medium

Further Details

Overview
Fish consumption in Pine Lake is impaired by health advisories that recommend restricting the consumption of fish from the lake. Mercury contamination from atmospheric deposition is the suspected source of the impairment.

Fish Consumption
Fish consumption in Pine Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of largemouth bass because of elevated mercury levels. The source of mercury is considered to be atmospheric deposition, as there are not other apparent sources in the lake watershed. The advisory for this lake was first issued in 2006-07. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2008).

Water Quality Sampling
Pine Lake was included in the 2001 Lake Classification and Inventory study effort. Results of this study found no evidence of water quality problems or use impairment. (DEC/DOW, BWM/Lake Services, August 2002)

Section 303(d) Listing
Pine Lake is not included on the NYS 2006 Section 303(d) List of Impaired Waters. Due to the recently issued fish consumption advisory the lake was included in the Draft 2008 Section 303(d) List. However the Northeast Regional

Mercury TMDL which was approved in 2007 provides coverage for waters that are subsequently identified as being impaired by mercury from atmospheric deposition. NYSDEC is currently considering delisting this waterbody because of coverage under this TMDL. (DEC/DOW, BWAM, January 2008)

Green, Otter and Stewart Lakes (1201-0009) Impaired Seg

Waterbody Location Information

Revised: 12/29/2010

Water Index No: H-240-144-13..P727,P729,P730
Hydro Unit Code: 02020004/200 **Str Class:** B
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 119.7 Acres
Seg Description: total area of all three lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CANADA LAKE (I-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life support in these lakes is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these lakes indicate that low pH due to atmospheric deposition (acid rain) is limiting the fishery. Monitoring of Stewart Lake by DFW in 1979 revealed a pH <5.0. More recent surveys in 1992 and 1999 found pH to be marginal (about 5.0) but fish netting revealed multiple year classes of stocked brook trout. Similar surveys of Otter Lake were conducted in the same years. The results also found pH of about 5.0. The fish netting found no survival of experimental brook trout stockings, although this was likely due to shallow water winter kill or high summer water temperatures. Green Lake was surveyed by ALSC in 1987 - after liming with 25 tons of agricultural limestone in 1981 - and found pH values to be greater than 6.0. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management
Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing
The waters of this segment are included on the 2008 NYS Section 303(d) List of Impaired/TMDL Waters. This segment is included on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water.

Segment Description
This segment includes the total area of Green Lake (P727), Otter Lake (P729) and Stewart Lake (P730).

Irving Pond (1201-0230) Impaired Seg

Waterbody Location Information

Revised: 12/29/2010

Water Index No: H-240-144-13..P732
Hydro Unit Code: 02020004/200 **Str Class:** B
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 136.4 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CAROGA LAKE (I-23-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life support in Irving Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of Irving Pond indicate that low pH due to atmospheric deposition (acid rain) is limiting the fishery. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management
Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing
Irving Pond is included on the 2008 NYS Section 303(d) List of Impaired/TMDL Waters. This segment is included on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water.

Segment Description
This segment includes the total area of the entire lake.

Ayers Creek and tribs (1201-0174) NoKnownImpct

Waterbody Location Information

Revised: 02/02/2010

Water Index No: H-240-144-21
Hydro Unit Code: 02020004/180 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 19.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: STRATFORD (I-22-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Ayers Creek in Stratford (at Piesco Road) 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 low enrichment in the stream and fauna that is most similar to natural communities. 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 entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are Class C,C(T),C(TS); with portions in the forest preserve.

Pleasant Lake (1201-0175) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-144-21- 7-P745
Hydro Unit Code: 02020004/180 **Str Class:** B
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 242.7 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CANADA LAKE (I-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
Pleasant Lake was included in the NYS DEC Citizens Statewide Lake Assessment Program (CSLAP) volunteer monitoring effort. Results of this study found no evidence of water quality problems or use impairment. (DEC/DOW, BWM/Lake Services, August 2002)

Trammel Creek and tribs (1201-0177) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No:	H-240-144-22			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/180	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	20.1 Miles			**Quad Map:**	STRATFORD (I-22-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Trammel Creek near the mouth in Stratford 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T); with portions in the forest preserve. Tribs to this reach/segment are also Class C,C(T); with portions in the forest preserve.

North Creek and tribs (1201-0179) NoKnownImpct

Waterbody Location Information

Revised: 05/10/2010

Water Index No: H-240-144-28
Hydro Unit Code: 02020004/180 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 29.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: STRATFORD (I-22-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of North Creek in Knappville (at Piesco Road) 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 the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to natural communities influenced by silt and sediment loadings. 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 entire stream and all tribs. The waters of the stream are Class C, with portions in the forest preserve. Tribs to this reach/segment, including Hart Vly Stream (-1) and Long Lake Outlet (-2), are also/primarily Class C, with portions in the forest preserve.

Knapps Long Lake, Long Pond (1201-0007) Impaired Seg

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-144-28-P750..P753.P755
Hydro Unit Code: 02020004/180 **Str Class:** N
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 29.7 Acres
Seg Description: total area of both lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Fulton Co. (18)
Quad Map: CANADA LAKE (I-22-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in the lakes of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring in Long Pond by DFW (1978) revealed a pH <5.0. More recent surveys of both lakes were conducted in 1997. the pH in Knapps Long Lake was found to be in the 5.5 to 6.0 range, with golden shiners bullhead and pumpkinseed present. Long Pond had pH around 5.5 with bullhead present. The stocking of brook trout in both lakes is currently being conducted on an experimental basis. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Long Pond and Knapps Long Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings

causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

The waters of this segment were included on the NYS 2006 Section 303(d) List of Impaired Waters. This segment was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2008 due to the completion of an Acid Rain TMDL. (DEC/DOW, BWAM, 2008)

Segment Description

This segment includes the total area of both Knapps Long Lake (P753 and Long Pond (P755), and also includes the smaller unnamed pond (P754).

Little Metcalf Lake (1201-0227) Impaired Seg

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-144-29-P768
Hydro Unit Code: 02020004/180 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 8.9 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in Little Metcalf Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1979) revealed a pH <5.0. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Little Metcalf Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006) Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to

accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

The waters of this segment were included on the NYS 2006 Section 303(d) List of Impaired Waters. This segment was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2008 due to the completion of an Acid Rain TMDL. (DEC/DOW, BWAM, 2008)

Segment Description

This segment includes the total area of the lake.

Redlouse Lake (1201-0008) Impaired Seg

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-144-34-P771
Hydro Unit Code: 02020004/180 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 18.5 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in Redlouse Lake is considered to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1980) revealed a pH <5.0. More recent surveys found slightly improved pH of 5.27 at 5 feet and 5.76 at 23 feet in July 1997. But acid neutralizing capacity (ANC) was very low (1.3 ueq/l). Fish species caught included brook trout (8) and brown bullhead (100). (DEC/DFWMR, Region 5, August 2002)

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Redlouse Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

Redlouse Lake was included on the NYS 2006 Section 303(d) List of Impaired Waters. This segment was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2008 due to the completion of an Acid Rain TMDL. (DEC/DOW, BWAM, 2008)

Segment Description

This segment includes the total area of the lake.

Ferris Lake (1201-0003) Impaired Seg

Waterbody Location Information

Revised: 08/19/2002

Water Index No:	H-240-144-38-P777			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/180	**Str Class:**	FP		Mohawk River
Waterbody Type:	Lake (Mesotrophic)			**Reg/County:**	5/Hamilton Co. (21)
Waterbody Size:	120.4 Acres			**Quad Map:**	PISECO LAKE (H-22-0)
Seg Description:	entire lake				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
AQUATIC LIFE	Impaired	Known

Type of Pollutant(s)

Known: METALS (mercury), ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support and fish consumption in Ferris Lake are impaired by impacts from atmospheric deposition. Acid rain lowers pH in the lake and its ability to support aquatic life. Deposition of mercury causes a fish consumption advisory as well.

Fish Consumption
Fish consumption in Ferris Lake is impaired due to a NYS DOH health advisory that recommends eating no larger yellow perch (over 12 inches) and no more than one meal per month of smaller yellow perch because of elevated mercury levels. The source of mercury is considered to be atmospheric deposition, as there are not other apparent sources in the lake watershed. The advisory for this lake was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2009).

Water Quality Sampling
Historical surveys of Ferris Lake indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1978) revealed a pH <5.0. More recent surveys by ALSC in 1987 found slightly improved pH of 5.72. DFW monitoring in 1997 found pH of 5.86 at 5 feet. But acid neutralizing capacity (ANC) was low (7.8 ueq/l). Fish species caught included

golden shiner (3), creek chub (20), brown bullhead (126), pumpkinseed (64) and yellow perch (78). Aquatic life in this segment is considered to be impaired.

Water Quality Management/TMDL

In 2007, The New England Interstate Water Pollution Control Commission (NEIWPCC), on behalf of its member states including New York, submitted and USEPA approved a TMDL to address mercury deposition in lakes throughout the Northeastern United States, including Ferris Lake. The Northeast Regional Mercury TMDL notes that between 1998 and 2002 the Northeast states reduced in-region deposition of mercury by more than 70 percent. In addition these state have enforceable controls in place to meet the remaining reduction goals. Despite these reductions water quality impairment due to mercury still exists and elevated mercury levels in certain fish species remain great concern. The TMDL shows the demonstrates that the need for significant reductions in the mercury reaching waters of the Northeast from sources outside the region by way of atmospheric deposition is essential to restoring these waters. (Northeast Regional Mercury TMDL, NEIWPCC, 2007)

In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Ferris Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Segment Description

Section 303(d) Listing The lake was included on previous Section 303(d) List of Impaired Waters due to impairments resulting from both acid rain and fish consumption advisories. However the lake was delisting with regard to these impairments in 2008 due to the Acid Rain TMDL and the Northeast Regional Mercury TMDL.

Morehouse Lake (1201-0080) Impaired Seg

Waterbody Location Information

Revised: 12/29/2010

Water Index No: H-240-144-43-P786
Hydro Unit Code: 02020004/180 **Str Class:** B(T)
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 105.9 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: ACID/BASE (PH)
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: ATMOSPH. DEPOSITION
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life support in Morehouse Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these lakes indicate that low pH due to atmospheric deposition (acid rain) is limiting the fishery. Lake surveys by Hamilton County WQCC indicate low pH due to atmospheric deposition (acid rain). The average pH of the lake is reported to be about 5.0. However no known fish surveys have been conducted on the lake. (Hamilton County WQCC, 1993)

Water Quality Management
Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing
Morehouse Lake is included on the 2008 NYS Section 303(d) List of Impaired/TMDL Waters. This segment is included

on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water.

Segment Description
This segment includes the total area of the entire Lake.

Big Alderbed, Blind Mans Vly (1201-0002) Impaired Seg

Waterbody Location Information

Revised: 12/29/2010

Water Index No: H-240-144-44-P790,P790a
Hydro Unit Code: 02020004/180 **Str Class:** C(T)
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 49.0 Acres
Seg Description: total area of both lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life support in this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys indicate that low pH due to atmospheric deposition (acid rain) may be limiting the fishery Big Alderbed Pond. Monitoring by DFW in 1967 revealed a pH of 5.5. The survey found brook trout (11) and brown bullhead (32). In 1997 DFW reported the beaver dam forming Blind Mans Vly was out and pond surface area was reduced by two-thirds from historical levels. Water depth were too shallow to be netted. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management
Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing
The waters of this segment are included on the 2008 NYS Section 303(d) List of Impaired/TMDL Waters. This segment is

included on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water.

Segment Description
This segment includes the total area of Big Alderbed Pond (P790) and Blind Mans Vly (P790a).

Minor Tribs to Mohawk River (1201-0192) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No: H-240-145 thru 184 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/170 **Str Class:** C Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 104.5 Miles **Quad Map:** LITTLE FALLS (I-21-3)
Seg Description: total length of select tribs, Inidan Castle to Herkimer

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Beaver Brook in Little Falls (at Route 231) 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 relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some elevated enrichment in the stream and fauna that is most similar to natural communities with some influence from nonpoint sources. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. This site is considered representative of the other small tribs included within the segment. However, the level of assessment for this segment is considered to be "evaluated" rather than "monitored." (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the total length of selected/smaller tribs to the Mohawk River between East Canada Creek (-144) near Indian Castle and Fulmer Creek (-185) in Herkimer. Tribs within this segment, including Beaver Brook (-172) and Spohn Creek (-178), are primarily Class C,C(T); with one trib (-184) designated Class D. Nowadaga Creek (-148), Crum Creek (-149), West Canada Creek (-180) and Fulmer Creek (185) are listed separately.

Nowadaga Creek, Lower, and tribs (1201-0193) MinorImpacts

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-148			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/170	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	39.2 Miles			**Quad Map:**	VAN HORNESVILLE (J-21-2)
Seg Description:	stream and tribs, from mouth to Newville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 2 (Problem Verified, Cause Unknown)
Lead Agency/Office: ext/WQCC **Resolution Potential:** n/a
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life in this portion of Nowadaga Creek is known to experience minor impacts due to elevated nutrient and silt/sediment loads from agricultural activity and other nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Nowadaga Creek in Newville (at Route 136) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to natural communities, but with influences from nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

A biological (macroinvertebrate) assessment of Nowadaga Creek was also conducted near the mouth in Indian Castle (at Route 5S) in 2000. Sampling results indicated slightly impacted water quality conditions. No specific sources were indicated by the fauna, although diatoms and other algae at the site pointed to nutrient enrichment. (DEC/DOW, BWAR/SBU, July 2002)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. Active manure spreading and influences from a road maintenance facility (sand pile) have been noted. (Herkimer County WQCC, 2000)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to Ohisa Creek (-12) near Newville. The waters of this portion of the stream are Class C. Tribs to this reach/segment are also Class C. Upper Nowadaga Creek is listed separately.

Nowadaga Creek, Upper, and tribs (1201-0194) MinorImpacts

Waterbody Location Information

Revised: 02/04/2010

Water Index No:	H-240-148			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/170	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	42.2 Miles			**Quad Map:**	VAN HORNESVILLE (J-21-2)
Seg Description:	stream and tribs, above Newville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Aquatic life in this portion of Nowadaga Creek is known to experience minor impacts due to elevated nutrient and silt/sediment loads from agricultural activity and other nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Nowadaga Creek in Newville (at Route 136) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to natural communities, but with influences from nonpoint sources. (DEC/DOW, BWAM/SBU, January 2010)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. Active manure spreading and influences from a road maintenance facility (sand pile) have been noted. (Herkimer County WQCC, 2000)
Segment Description

This segment includes the portion of the stream and all tribs above/including Ohisa Creek (-12) near Newville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Ohisa Creek (-12), are Class C,C(T). Lower Nowadaga Creek is listed separately.

Crum Creek and tribs (1201-0195) NoKnownImpct

Waterbody Location Information

Revised: 08/16/2002

Water Index No: H-240-149
Hydro Unit Code: 02020004/170 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 27.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: LITTLE FALLS (I-21-3)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Crum Creek in Manheim Center was conducted in 2000. Sampling results indicated non-impacted water quality conditions. All indices were within the range of very good water quality. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment are Class C. There are two tribs to the Mohawk in this area named Crum Creek. This stream enters the Mohawk to the west of East Canada Creek.

West Canada Creek, Lower, Main Stem (1203-0023) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-180 (portion 1)			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (High Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	17.6 Miles			**Quad Map:**	HERKIMER (I-21-4)
Seg Description:	from mouth to Newport				

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
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW, THERMAL CHANGES, Restricted Passage
Suspected: Acid/Base (pH)
Possible: - - -

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION
Suspected: Atmosph. Deposition, Habitat Modification
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 4c (Impaired by Pollution, Not Pollutant(s), Not Listed)

Further Details

Overview
Natural resources habitat and hydrology and aquatic life support in this portion of West Canada Creek are impaired by significant fluctuations in stream flow and other hydrologic modifications resulting from hydropower generation.

Source Assessment
In the reaches above this segment (Trenton Falls to Prospect) the stream is nearly dewatered to support hydropower generation. A major Niagara Mohawk hydropower facility at Trenton Falls operates on storage mode rather than run-of-river. Other hydro facilities are located at Newport and at Herkimer (Cross Bridge). Farther downstream (Trenton Falls to mouth) the daily fluctuations in stream flow produce temperature extremes in the summer and winter. Several fish kills related to low flow, high stream temperatures during the summer have been documented in the past decade. The regional fisheries staff has also received numerous complaints regarding impacts on the fishing resource. The fishery is also affected by several dams on the stream that restrict fish passage. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) survey of West Canada Creek at multiple sites from the mouth in Herkimer to Nobleboro

was conducted as part of the RIBS Intensive Network monitoring in 2006. Sampling results indicated non-impacted conditions at all except the most upstream site in Nobleboro. Within this segment, this survey included sites in Herkimer (at Route 5), Kast Bridge (at West End Road) and in Middleville (at Route 28) which were assessed as having non-impacted water quality. 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 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of West Canada Creek in Kast Bridge (at West End Road) was conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Overall water quality in this reach of the stream is considered good. Biological sampling indicated non-impacted conditions. No toxicity was detected in the water, and no compounds analyzed for invertebrate tissues were found to be present in concentrations above the levels of concern. However, water column sampling identified slightly elevated levels of copper and iron in some samples, and cadmium was found to be elevated in the sediments. (DEC/DOW, BWAR/RIBS, April 2003)

Segment Description

This segment includes the portion of the stream from the mouth to unnamed trib (-35) in Newport. The waters of this portion of the stream are Class C(T).

West Canada Creek, Lower, Main Stem (1203-0011) Impaired Seg

Waterbody Location Information

Revised: 04/06/2010

Water Index No:	H-240-180 (portion 2)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140 **Str Class:** C(T)		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	15.7 Miles	**Quad Map:**	NEWPORT (I-20-2)
Seg Description:	from Newport to Prospect		

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
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW, THERMAL CHANGES, Restricted Passage
Suspected: Acid/Base (pH)
Possible: Pathogens

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION
Suspected: Atmosph. Deposition, Habitat Modification, Streambank Erosion
Possible: Construction, On-Site/Septic Syst

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 4c (Impaired by Pollution, Not Pollutant(s), Not Listed)

Further Details

Overview
Natural resources habitat and hydrology and aquatic life support in this portion of West Canada Creek are impaired by significant fluctuations in stream flow and other hydrologic modifications resulting from hydropower generation.

Source Assessment
In the upper reaches of this segment (Trenton Falls to Prospect) the stream is nearly dewatered to support hydropower generation. A major Niagara Mohawk hydropower facility at Trenton Falls operates on storage mode rather than run-of-river. Other hydro facilities are located at Newport and at Herkimer (Cross Bridge). Farther downstream (Trenton Falls to mouth) the daily fluctuations in stream flow produce temperature extremes in the summer and winter. Several fish kills related to low flow, high stream temperatures during the summer have been documented in the past decade. The regional fisheries staff has also received numerous complaints regarding impacts on the fishing resource. The fishery is also affected by several dams on the stream that restrict fish passage. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) survey of West Canada Creek at multiple sites from the mouth in Herkimer to Nobleboro

was conducted as part of the RIBS Intensive Network monitoring in 2006. Sampling results indicated non-impacted conditions at all except the most upstream site in Nobleboro. Within this segment, this survey included sites in Newport (at Brown Island), Poland (at Route 200) and Trenton Falls (at Trenton Falls Road) which were assessed as having non-impacted water quality. 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 2010)

The 2006 results are consistent with biological assessments of West Canada Creek conducted in Trenton Falls in 2000 and 2001 and in Kast Bridge (just below this segment) in 2001. All sampling results indicated non-impacted water quality conditions. The Trenton Falls samples were field-assessed. Sampling in Kast Bridge in 2001 yielded an assessment of non-impacted, based on a laboratory-processed sample. (DEC/DOW, BWAR/SBU, July 2002)

Previous Assessment

Local government agencies have also expressed concerns about mining activity in the Town of Russia during previous assessment efforts in 2002. DEC/Mineral Resources regional staff has since reviewed the status of all mines within the town and reports that the mines do not currently pose problems in the creek. Previous impacts from two mines (Material Sand and Gravel/Gravesville and Hanson Aggregates/Beineck Pit) have been addressed. (DEC/DMR, April 2010)

Previously cited problems regarding raw sewage discharges from homes and drainage from storm pipes to the river are being addressed. The Village of Newport is requiring correction of failed individual on-site septic systems. This effort is 95% complete. (DEC/DOW, Region 6, April 2002)

Segment Description

This segment includes the portion of the stream from/including an unnamed trib (-35) in Newport to the Niagara Mohawk Dam near Prospect. The waters of this portion of the stream are Class C(T).

West Canada Creek, Middle, Main Stem (1203-0024) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-180 (portion 3)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140 **Str Class:** B(T)		Mohawk River
Waterbody Type:	River (High Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	1.9 Miles	**Quad Map:**	REMSEN (H-20-4)
Seg Description:	from Prospect to Hinckley Reservoir		

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
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW, THERMAL CHANGES, Restricted Passage
Suspected: Acid/Base (pH), Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION
Suspected: Atmosph. Deposition
Possible: Construction

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 4c (Impaired by Pollution, Not Pollutant(s), Not Listed)

Further Details

Overview
Natural resources habitat and hydrology and aquatic life support in this portion of West Canada Creek are impaired by significant fluctuations in stream flow and other hydrologic modifications resulting from hydropower generation.

Source Assessment
In the reach of the stream just below this segment (Trenton Falls to Prospect) the stream is nearly dewatered to support hydropower generation. A major Niagara Mohawk hydropower facility at Trenton Falls operates on storage mode rather than run-of-river. The daily fluctuations in stream flow produce temperature extremes in the summer and winter. Several fish kills related to low flow, high stream temperatures during the summer have been documented in the past decade. The regional fisheries staff has also received numerous complaints regarding impacts on the fishing resource. The fishery is also affected by several dams on the stream that restrict fish passage. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) survey of West Canada Creek at multiple sites from the mouth in Herkimer to Nobleboro was conducted as part of the RIBS Intensive Network monitoring in 2006. Sampling results indicated non-impacted

conditions at all except the most upstream site in Nobleboro. Within this segment, this survey included sites just below the reach in Trenton Falls (at Trenton Falls Road) which was assessed as having non-impacted water quality. 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 2010)

The 2006 results are consistent with biological assessments of West Canada Creek conducted in Trenton Falls in 2000 and 2001. All sampling results indicated non-impacted water quality conditions. The Trenton Falls samples were field-assessed. (DEC/DOW, BWAR/SBU, July 2002)

Previous Assessment

Local concerns regarding mining activities have been investigated by DEC Mineral Resources staff. There were only two mines identified in the segment watershed and these were found to pose no concern or impacts to the creek. (DEC/DMR, Region 6, October 2002)

Segment Description

This segment includes the portion of the stream from the Niagara Mohawk Dam near Prospect to Hinckley Dam at the mouth of the reservoir in Hinckley. The waters of this portion of the stream are Class B(T).

Hinckley Reservoir (1203-0022) MinorImpacts

Waterbody Location Information

Revised: 10/30/2002

Water Index No:	H-240-180 (portion 4)/P799	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/130 **Str Class:** AA(T)		Mohawk River
Waterbody Type:	Lake(R) (Unknown Trophic)	**Reg/County:**	6/Herkimer Co. (22) ...
Waterbody Size:	2683.7 Acres	**Quad Map:**	HINCKLEY (H-20-3)
Seg Description:	entire reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Possible
Recreation	Stressed	Suspected
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: WATER LEVEL/FLOW, Acid/Base (pH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: HYDRO MODIFICATION, Atmosph. Deposition
Suspected: - - -
Possible: On-Site/Septic Syst

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** High
TMDL/303d Status: n/a

Further Details

Overview
Natural resources habitat and hydrology in Hinckley Reservoir are affected by water level fluctuations and other impacts resulting from the multiple uses of the reservoir.

Source Assessment
In addition to recreational use, the Hinckley Reservoir is used as a drinking water supply, for hydropower generation, and to supplement barge canal flow during the summer. The fluctuating water levels and high flushing rates affect the fishery. Fish surveys conducted over the past 25 years verify poor growth rates of fish in the reservoir. Acid rain impacts are also a concern. Low nutrient levels and sandy substrate (though not water quality problems) also limit the fishery resource. (DEC/DFWMR, Region 6, April 2002)

Source (Drinking) Water Assessment
A source water assessment of Hinckley Reservoir found no notable susceptibility to contaminants. 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... (NYSDOH, Source Water Assessment Program, 2005)

Hinckley Reservoir has been designated a Class AA water, suitable for use as a drinking water supply. The Class AA designation means the waters require minimal additional treatment (including disinfection) to remove only naturally occurring impurities in order to be considered safe and satisfactory for drinking water use. As a result of this designation, the stream is considered a highly valued resource and may be subject to special protections from possible threats to water quality. The reservoir is used as drinking water supply for a large population in and around the City of Utica (more than 125,000)

Water Quality Management

The Upper Mohawk Valley Region Water Board (UMVRWB) completed a comprehensive watershed assessment USEPA grant in 2001. This grant included significant watershed activities related to changing biological, chemical and physical conditions monitoring in the reservoir and eight tributaries. Additional work conducted by UMVRWB includes a detailed septic survey to identify failing on-site septic systems and the dissemination of survey results to surrounding municipalities, power generating facilities and the general public. Continued monthly monitoring of various sites within the watershed, coupled with an aggressive stakeholder cooperation/networking initiative has elevated public participation in maintaining the overall health of the reservoir. (Herkimer County WQCC and UMVRWB, March 2002)

Segment Description

This segment includes the entire reservoir from the Hinckley Dam at the mouth of the reservoir in Hinckley to McIntosh/Harvey Bridge. The waters of the reservoir are Class AA(T).

West Canada Creek, Upp, and minor trib (1203-0008) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-180 (portion 5)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/120 **Str Class:** A(T)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	43.8 Miles	**Quad Map:**	OHIO (H-21-0)
Seg Description:	stream and selected tribs, Hinckley Res to Nobleboro		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)

Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life in this portion of West Canada Creek is thought to be impaired due to low pH from atmospheric deposition (acid rain).

Water Quality Sampling
Previous fishery surveys indicate that low pH due to atmospheric deposition (acid rain) is significantly limiting the fishery in portions of Upper West Canada Creek. These waters are subject of episodic acidification: short-term yet significant decreases in acid neutralizing capacity (ANC) that may occur during high streamflow/runoff events (i.e., spring runoff, snowmelt). Although these events are periodic, bioassays and other fishery studies show that the impact on the fishery can be significant and long-lasting. (DEC/DFWMR, Region 6, 2000)

A biological (macroinvertebrate) survey of West Canada Creek at multiple sites from the mouth in Herkimer to Nobleboro was conducted as part of the RIBS Intensive Network monitoring in 2006. Sampling results indicated non-impacted conditions at all except the most upstream site in Nobleboro, where indices slipped into the range of slightly impacted. Within this segment, this survey included sites in McIntosh Bridge (at Harvey Road) and Nobleboro (at Route 8). The downstream site in McIntosh Bridge was assessed as having non-impacted water quality. 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. The Nobleboro site was found to be just into the range of slightly impacted, due to nutrient enrichment. This was attributed to elevated nitrate levels from atmospheric deposition which causes increased algal growth in the stream. (DEC/DOW, BWAM/SBU, January 2010)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Water Quality Management

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303d Listing

This portion of West Canada Creek is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water.

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from McIntosh/Harvey Bridge to the Nobleboro Dam in Nobleboro. The waters of this portion of the stream are Class A(T). Tribs to this reach/segment, including Mad Tom Brook (-66) and Mill Creek (-73), are Class A,A(T). Fourmile Brook (-70) is listed separately.

West Canada Creek, Upp, and minor tribs (1203-0025) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-180 (portion 6)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/100 **Str Class:** C(T)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Herkimer Co. (22) ...
Waterbody Size:	249.1 Miles	**Quad Map:**	OHIO (H-21-0)
Seg Description:	stream and tribs, above Nobleboro		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)

Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life in this portion of West Canada Creek is thought to be impaired due to low pH from atmospheric deposition (acid rain).

Water Quality Sampling
Previous fishery surveys indicate that low pH due to atmospheric deposition (acid rain) is significantly limiting the fishery in portions of Upper West Canada Creek. These waters are subject of episodic acidification: short-term yet significant decreases in acid neutralizing capacity (ANC) that may occur during high streamflow/runoff events (i.e., spring runoff, snowmelt). Although these events are periodic, bioassays and other fishery studies show that the impact on the fishery can be significant and long-lasting. (DEC/DFWMR, Region 6, 2000)

A biological (macroinvertebrate) survey of West Canada Creek at multiple sites from the mouth in Herkimer to Nobleboro was conducted as part of the RIBS Intensive Network monitoring in 2006. Sampling results indicated non-impacted conditions at all except the most upstream site in Nobleboro, where indices slipped into the range of slightly impacted. Within this segment, this survey included the site in Nobleboro (at Route 8). This site was found to be just into the range of slightly impacted, due to nutrient enrichment. This was attributed to elevated nitrate levels from atmospheric deposition which causes increased algal growth in the stream. 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 and aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2010)

A biological assessment of Honnedaga Brook in Morehouseville was also 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 appear to be (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. 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)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Water Quality Management

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303d Listing

This portion of West Canada Creek is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water.

Segment Description

This segment includes the portion of the stream and selected/smaller tribs above the Nobleboro Dam in Nobleboro. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Betty Greene Brook (76), Big Brook (-78), Seabury Brook (-79), Honnedaga Brook (-84) and Indian River (-87) are Class C,C(T), or located in the forest preserve.

Minor Tribs to Lower West Canada Creek (1203-0082) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No:	H-240-180- 1 thru 35 (selected)	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	67.5 Miles	**Quad Map:**	HERKIMER (I-21-4) ...
Seg Description:	total length of selected tribs, from mouth to Newport		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Kenyon Brook at the mouth in Middleville 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. Though Kenyon Brook is just one of several streams that make up this waterbody segment, it is considered representative of water quality in the segment as a whole. For such assessments it is appropriate to list the segment as being evaluated rather than monitored. (DEC/DOW, BWAR/SBU, July 2002)

Kenyon Brook is also included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Previous Assessment
While most smaller tribs along this reach of West Canada Creek are assessed as supporting uses, there is one unnamed trib (-29) where disposal over many years of tremendous amounts of agricultural and household refuse directly impact the stream. The refuse includes a Volkswagen in the stream. Citizens have complained to NYSDEC that periodically discarded material washes downstream onto adjacent property during high flows. The county highway department placed guard rails along the site to discourage dumping but there are indications that local citizens continue to use the site for dumping. (DEC/Environmental Permits, Region 6, April 2002)

Segment Description

This segment includes the total length of selected/smaller tribs to West Canada Creek from its mouth to Newport. Tribs within this segment, including Mill Brook (-2) and Kenyon Brook (-27), are primarily Class C, C(T), C(TS). North Creek (-11), Stony Creek (20), Maltanner Creek (-26), Wolf Hollow Creek (-30), White Creek (-31) and Shed Brook (-32) are listed separately.

North Creek and tribs (1203-0026) MinorImpacts

Waterbody Location Information

Revised: 08/06/2002

Water Index No:	H-240-180- 11			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	39.6 Miles			**Quad Map:**	HERKIMER (I-21-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known:	STREAMBANK EROSION
Suspected:	Agriculture
Possible:	On-Site/Septic Syst

Resolution/Management Information

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

Further Details

Overview

Habitat and hydrology in North Creek is thought to experience minor impacts due to altered flow and hydrology due to excessive streambank erosion.

Source Assessment

The habitat and hydrology in North Creek are affected by streambank erosion significant enough to have caused public and private property damage requiring emergency streambank stabilization efforts on several occasions. Although naturally occurring in many locations, streambank erosion along the stream is exacerbated by unrestricted access to the stream by livestock in concentrated agricultural areas of the watershed. (Herkimer County WQCC, April 2002)

Water Quality Sampling

A biological (macroinvertebrate) assessment of North Creek in Kast Bridge was conducted in 2000. Sampling results indicated non-impacted water quality conditions. The fauna was equally dominated by mayflies, caddisflies, and midges. Minor nutrient enrichment was evident, but indices were within the range of non-impact. (DEC/DOW, BWAR/SBU, January 2000)

Water Quality Management

The Herkimer County WQCC and SWCD have worked with a dairy farmer in the watershed to establish a cattle crossing and riparian buffer as a demonstration project. Rural housing in close proximity to the stream coupled with poor soils suggest impacts from failing and/or inadequate on-site septic systems may be possible. (Herkimer County WQCC, April 2002)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Maltanner Creek and tribs (1203-0016) NoKnownImpct

Waterbody Location Information

Revised: 08/06/2002

Water Index No: H-240-180- 26
Hydro Unit Code: 02020004/150 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 16.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: MIDDLEVILLE (I-21-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Assessment
A biological (macroinvertebrate) assessment of Maltanner Creek at the mouth in Middleville 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)

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

Middleville Water Supply and tribs (1203-0028) NoKnownImpct

Waterbody Location Information

Revised: 10/29/2002

Water Index No:	H-240-180- 27			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150	**Str Class:**	AA		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	2.6 Miles			**Quad Map:**	MIDDLEVILLE (I-21-1)
Seg Description:	stream and tribs, above Middleville water supply dam				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
Although monitoring of the reservoir was not conducted, a biological (macroinvertebrate) assessment of Kenyon Brook at the mouth in Middleville 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)

Water Supply Assessment
Though classified for use as a drinking water supply, the reservoir is no longer used as a water source.

Segment Description
This segment includes the portion of two streams (-27 and-27-4) above the Middleville water supply dam. The waters of these portions of the stream are Class AA.

Wolf Hollow Creek and tribs (1203-0029) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-180- 30
Hydro Unit Code: 02020004/150 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 14.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: MIDDLEVILLE (I-21-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Wolf Hollow Creek in Welch Corners was conducted in 2000. Sampling results indicated slightly impacted water quality conditions. However, this assessment may be upgraded to non-impacted, due to the headwater nature of the stream. The fauna was dominated by intolerant taxa, but diversity was low, as is typical of headwater streams. No water quality problems were indicated for this stream. (DEC/DOW, BWAR/SBU, July 2002)

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

White Creek and minor tribs (1203-0015) NoKnownImpct

Waterbody Location Information

Revised: 08/06/2002

Water Index No:	H-240-180- 31			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	23.7 Miles			**Quad Map:**	MIDDLEVILLE (I-21-1)
Seg Description:	entire stream and selected tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of White Creek at the mouth below Newport 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)

Segment Description
This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C(T),C(TS). Tribs to this reach/segment are Class C,C(T),C(TS). Factory Brook (-5-1) and Big Bill Brook (-5-3) are listed separately.

Factory/Big Bill Brooks and tribs (1203-0030) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No:	H-240-180- 31-5			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	24.2 Miles			**Quad Map:**	MIDDLEVILLE (I-21-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Factory/Big Bills Brook in Norway (at Route 11) 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 conditions that reflect a natural community with minimal, if any, human impacts. Aquatic life community is clearly fully supported. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the entire length of unnamed trib -5 and all tribs, including Factory Brook (-5-1) and Big Bill Brook (-5-3). The waters of the stream and tribs of this reach/segment are Class C,C(T),C(TS).

Shed Brook and tribs (1203-0031) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No:	H-240-180- 32			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/150	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	33.3 Miles			**Quad Map:**	NEWPORT (I-20-2)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Shed Brook near Newport (at Route 34) 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. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

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

Minor Tribs to Lower West Canada Creek (1203-0083) NoKnownImpct

Waterbody Location Information

Revised: 08/08/2002

Water Index No:	H-240-180- 36 thru 63	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33) ...
Waterbody Size:	75.5 Miles	**Quad Map:**	NEWPORT (I-20-2) ...
Seg Description:	total length of selected tribs, Newport to Hinckley Res		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Mill Creek at the mouth in Gravesville 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)

Segment Description
This segment includes the total length of selected/smaller tribs to West Canada Creek (from Newport to Hinckley Reservoir). Tribs within this segment, including Lower Mill Creek (-55), are primarily Class C,C(T),C(TS). The Newport Water Supply (-37), Cold Brook (-42), Upper Mill Creek (-55) and Cincinnati Creek (-59), are listed separately.

Cold Brook and tribs (1203-0033) MinorImpacts

Waterbody Location Information

Revised: 10/31/2002

Water Index No:	H-240-180- 42			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140	**Str Class:**	C(TS)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	16.2 Miles			**Quad Map:**	NEWPORT (I-20-2)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: AESTHETICS, PATHOGENS
Suspected: Nutrients
Possible: - - -

Source(s) of Pollutant(s)

Known: ON-SITE/SEPTIC SYST (Cold Brook)
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Recreational uses (swimming, fishing) and aesthetics in Cold Brook are affected by failing and/or inadequate on-site septic systems.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Cold Brook near the mouth in Poland was conducted in 2000. Field sampling results indicated non-impacted to slight water quality conditions. The sample was not retained for sorting in the laboratory. In spite of some impacts to other uses, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, July 2002)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Source Assessment
Numerous failed on-site septic systems serving residences in the village of Cold Brook have been documented. Currently many of these home discharge raw sewage directly to Cold Brook. Unsuitable soils have been identified as the primary

reason for the problems. There has been some discussion concerning how to address the situation, but any solution is likely to be very costly. This situation was reported during the 2002 assessment effort and has since been verified by regional staff. (DEC/DOW, Region 6, April 2010)

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).

Mill Creek, Upper, and tribs (1203-0034) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No:	H-240-180- 55			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	8.2 Miles			**Quad Map:**	HINCKLEY (H-20-3)
Seg Description:	stream and tribs, above Herkimer water supply dam				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Mill Creek at the mouth in Gravesville 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. Though this sampling point is below the described segment, it is considered representative of water quality in the upper reach. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description
This segment includes the portion of the stream above the Herkimer water supply dam, and the upper reach of Taylor Brook, above a point 0.5 miles above the mouth. The waters of these portions of the stream, and their tribs, are Class AA.

Cincinnati Creek, Lower, and tribs (1203-0010) MinorImpacts

Waterbody Location Information

Revised: 04/02/2010

Water Index No:	H-240-180- 59			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	7.8 Miles			**Quad Map:**	SOUTH TRENTON (I-20-1)
Seg Description:	stream and tribs, from mouth to Barneveld				

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: NUTRIENTS (phosphorus), PATHOGENS
Suspected: Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, ON-SITE/SEPTIC SYST (Barneveld)
Possible: Urban/Storm Runoff

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Recreational uses (fishing, swimming) in Cincinnati Creek are known to experience impacts due to nutrient enrichment and pathogens attributed primarily to nonpoint sources within the watershed. Urban runoff in the small population centers, some agricultural activity and failing/inadequate on-site septic systems (in Barneveld) are suspected sources of pollutants to the stream.

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Cincinnati Creek at the head of this reach in Barneveld, Herkimer County, (at Park Street) was conducted in 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling 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. Water column chemistry indicates pathogens (coliform) to be present at levels 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.
A biological assessment of Cincinnati Creek was also conducted in Mapledale (at Route 28) 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 2010)

Based on the consensus of these established assessment methods, overall water quality at this site is mostly satisfactory, although pathogen levels and sources should continue to be monitored. Aquatic life is fully supported, in spite of some nutrient enrichment in the stream. (DEC/DOW, BWAM/RIBS, January 2010)

RIBS Intensive Network monitoring of Cincinnati Creek in Barneveld (at Park Street) was also conducted in 2001. A biological (macroinvertebrate) survey of Cincinnati Creek at multiple sites from Mapledale to Remsen was conducted in 2000 as part of the RIBS effort. The Prospect site (just above this reach) was assessed as slightly impacted by nonpoint enrichment, and the Mapledale site was assessed as non-impacted, although some enrichment was still evident. Both sites had ample mayflies, stoneflies, and caddisflies. Sampling in 2001 at Barneveld (at the head of this reach) resulted in an assessment of slight impact, also due to nutrient enrichment. The results of water column sampling showed elevated fecal coliform levels, but no other significant parameters of concern in the water column. Sediment analysis revealed no organic compounds or metals to be present at or above levels of concern and no acute or chronic toxicity was indicated based on 3 tests. No organic compounds or metals were found in invertebrate tissues above levels of concern. (DEC/DOW, BWAR/RIBS, April 2003)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to Steuben Creek near Barneveld. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including the portion of the feeder canal east of Route 12 are Class C,C(T).

Steuben Creek and tribs (1203-0013) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240-180- 59			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	44.7 Miles			**Quad Map:**	REMSEN (H-20-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: SILT/SEDIMENT, THERMAL CHANGES, Nutrients
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: AGRICULTURE, STREAMBANK EROSION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 4c (Impaired by Pollution, Not Pollutant(s), Not Listed)

Further Details

Overview
Natural resources habitat and hydrology in Steuben Creek are impaired by siltation, excessive sediment loadings and thermal stresses to the stream. Agricultural activities have resulted in modification of the stream habitat. Aquatic life is also considered to experience minor impacts from nutrient enrichment related to the agricultural sources.

Source Assessment
Poor agricultural (grazing) practices have resulted in the loss of riparian buffers. Open banks with little or no canopy cover cause high temperatures, reducing the potential for cold water fisheries. Fishery surveys over the past decade reveal a poor fish community structure, particularly the absence of salmonids. The natural condition and habitat of this stream would appear to support a cold water fishery if not for high temperatures. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) assessment of Steuben Creek in Barnveld (at McDonald Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the

community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint sources of nutrient enrichment. These results are consistent with sampling conducted at this site in 2000. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description

This segment includes the entire stream (above the Cincinnati Creek confluence) and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Shepards Brook (-6), are Class C,C(T),C(TS).

Cincinnati Creek, Upper, and minor tribs (1203-0035) MinorImpacts

Waterbody Location Information

Revised: 04/02/2010

Water Index No:	H-240-180- 59- 2	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/140 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	44.4 Miles	**Quad Map:**	REMSEN (H-20-4)
Seg Description:	stream and selected tribs, above Barneveld		

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: NUTRIENTS, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, ON-SITE/SEPTIC SYST, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Recreational uses (fishing, swimming) in this portion of Cincinnati Creek are known to experience impacts due to nutrient enrichment and pathogens attributed primarily to nonpoint sources within the watershed. Urban runoff in the small population centers, some agricultural activity and failing/inadequate on-site septic systems (in Barneveld) are suspected sources of pollutants to the stream.

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Cincinnati Creek at the base of this reach in Barneveld, Herkimer County, (at Park Street) was conducted in 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling 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. Water column chemistry indicates pathogens (coliform) to be present at levels 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. Based on the consensus of these established assessment methods, overall water quality at this site is mostly satisfactory, although

pathogen levels and sources should continue to be monitored. Aquatic life is fully supported, in spite of some nutrient enrichment in the stream. (DEC/DOW, BWAM/RIBS, January 2010)

RIBS Intensive Network monitoring of Cincinnati Creek in Barneveld (at Park Street) was also conducted in 2001. A biological (macroinvertebrate) survey of Cincinnati Creek at multiple sites from Mapledale to Remsen was conducted in 2000 as part of the RIBS effort. The Prospect site (just above this reach) was assessed as slightly impacted by nonpoint enrichment, and the Mapledale site was assessed as non-impacted, although some enrichment was still evident. Both sites had ample mayflies, stoneflies, and caddisflies. Sampling in 2001 at Barneveld (at the head of this reach) resulted in an assessment of slight impact, also due to nutrient enrichment. The results of water column sampling showed elevated fecal coliform levels, but no other significant parameters of concern in the water column. Sediment analysis revealed no organic compounds or metals to be present at or above levels of concern and no acute or chronic toxicity was indicated based on 3 tests. No organic compounds or metals were found in invertebrate tissues above levels of concern. (DEC/DOW, BWAR/RIBS, April 2003)

Previous Assessment

Previously cited raw sewage discharges from individual household systems and failed septic systems in Remsen have been addressed by the construction of a new WWTP. (DEC/DOW, Region 6, April 2002).

Segment Description

This segment includes the portion of the stream and selected/smaller tribs above the confluence with Steuben Creek in Barneveld. The waters of the stream are Class C,C(T),C(TS). Tribs to this reach/segment, including Mud Brook (-4), are also Class C,C(T),C(TS). Cady Brook (-2-2) is listed separately.

Minor Tribs to Hinckley Reservoir (1203-0037) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No:	H-240-180- P799- 1 thru 21	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/130 **Str Class:** A,AA		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	19.4 Miles	**Quad Map:**	HINCKLEY (H-20-3)
Seg Description:	total length of selected tribs to reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Kreskern Brook in Northwood (at Pardee Road Spur) 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 low enrichment in the stream and fauna that is most similar to communities influenced by impoundment effects. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Though Kreskern Brook is just one 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. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description
This segment includes the total length of selected/smaller tribs to Hinckley Reservoir. Tribs within this segment, including Meadow Creek (-1), Kreskern Brook (-5), Concklin Brook (-11) and Taynter Brook (-20) are primarily Class A,AA, A(T),AA(T). Upper West Canada Creek and Black Creek (-19) are listed separately.

Black Creek, Lower, and minor tribs (1203-0041) NoKnownImpct

Waterbody Location Information

Revised: 08/06/2002

Water Index No:	H-240-180- P799-19			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/130	**Str Class:**	A,AA		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	38.7 Miles			**Quad Map:**	HINCKLEY (H-20-3)
Seg Description:	stream and minor tribs, from mouth to Black Creek Res.				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Black Creek near the mouth in Pardeeville Corners 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)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs from the mouth at Hinckley Reservoir to Black Creek Reservoir (P827). The waters of this portion of the stream are Class A,AA. Tribs to this reach/segment, including Ash Brook (-1), Wilt Brook (-2a), Fox Brook (-6) and Paul Brook (-7), are Class A,A(T). Ash Brook (-4), Mounts Creek (-10) and Mill Creek (-11) are listed separately.

Mounts Creek and tribs (1203-0043) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No: H-240-180- P799-19-10
Hydro Unit Code: 02020004/130 **Str Class:** A(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 28.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: OHIO (H-21-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Mounts Creek above Gray (at Route 4) 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 low enrichment in the stream and fauna that is most similar to natural communities. 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 entire stream and all tribs. The waters of the stream are Class A,A(T). Tribs to this reach/segment, including Little York Stream (-1), are also Class A,A(T).

Mill Creek and tribs (1203-0045) NoKnownImpct

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240-180- P799-19-11			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/130	**Str Class:**	A(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	64.4 Miles			**Quad Map:**	OHIO (H-21-0)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
Biological (macroinvertebrate) assessments of Mill Creek and North Branch Mill Creek in Gray/Ohio (at Tea Cup Road) were 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 low enrichment in the stream and fauna that is most similar to natural communities. These are headwater sites and the slight impacts noted are likely in part due to headwater conditions that are known to skew biological sampling results. In either case, 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 entire stream and all tribs. The waters of the stream are Class A,A(T),A(TS). Tribs to this reach/segment, including Upper Mill or North Branch and South Branch (-3) are Class A,A(T), with upper reaches designated Class C,C(T).

Lakes tributary to Jerseyfield Lake (1203-0002) Impaired Seg

Waterbody Location Information

Revised: 12/29/2010

Water Index No: H-240-180- P799-19-11..P818 to P822 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/130 **Str Class:** C Mohawk River
Waterbody Type: Lake (Unknown Trophic) **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 83.2 Acres **Quad Map:** OHIO (H-21-0)
Seg Description: total area of all lakes

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Overview
Aquatic life support in these lakes is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these lakes indicate that low pH due to atmospheric deposition (acid rain) is limiting the fishery. Monitoring of Diamond Lake by DFW in 1975 revealed a pH <5.0. More recent surveys in 1987 found pH to be very low (less than 5.0) in Cold Spring Lake (P819) and unnamed trib (P820). (DEC/DFWMR, Region 5, August 2002)

Water Quality Management
Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing
The waters of this segment are included on the 2008 NYS Section 303(d) List of Impaired/TMDL Waters. This segment is included on the NYS 2008 Section 303(d) List of Impaired Waters. The segment is included on Part 2a of the List as an

Atmospheric Deposition (Acid Rain) Water.

Segment Description
This segment includes Potter Pond (P818), Cold Spring Lake (P819), Unnamed (P820), Big Metcalf Lake (P821), Diamond Lake (P822).

Fourmile Brook and tribs (1203-0056) NoKnownImpct

Waterbody Location Information

Revised: 08/08/2002

Water Index No: H-240-180-70
Hydro Unit Code: 02020004/120 **Str Class:** A(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 42.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: OHIO (H-21-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Fourmile Creek near the mouth at Wilmurt Corners (at Attwood Lake Road) 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class A(T). Tribs to this reach/segment, including Jones Creek (-1), Twomile Brook (-2a), Wilder Brook (-6b), Hurrell Brook (-7), Long Vly Brook (-7a) and Hurricane Brook (-11), are Class A,A(T),C(T) and other portions in the forest preserve.

South Branch West Canada Creek and tribs (1203-0059) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-180-74			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/110	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	5/Hamilton Co. (21)
Waterbody Size:	105.7 Miles			**Quad Map:**	OHIO (H-21-0)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of South Branch West Canada Creek in Morehouseville (at Mountain Home 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. Aquatic life community is fully supported. These results are consistent with field sampling results at this site in 2000 which also indicated non-impacted conditions. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C(T). Tribs to this reach/segment, including Vly Brook (-1), Wilmurt Lake Outlet (-6), Adler Brook (-10), Mad Tom Brook (-12, Roaring Brook (-13), Wagoner Brook (-14), G Lake Outlet (-16), Beaudry Brook (-17) and Jones Brook (-19), are primarily Class C,C(T),C(TS). This segment also includes The Floe (P850a).

Twin Lake, South (1203-0005) Impaired Seg

Waterbody Location Information

Revised: 08/20/2002

Water Index No: H-240-180-74-16-1-P856
Hydro Unit Code: 02020004/110 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 16.9 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in Twin Lake South is considered to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1980) revealed a pH <5.0. Netting by DFW in 1975 caught brook trout (20) and golden shiner (4). (DEC/DFWMR, Region 5, August 2002)

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Twin Lake South. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

Twin Lake South was included on the NYS 2006 Section 303(d) List of Impaired Waters. This segment was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2008 due to the completion of an Acid Rain TMDL. (DEC/DOW, BWAM, 2008)

Segment Description

This segment includes the total area of the lake.

T Lake (1203-0004) Impaired Seg

Waterbody Location Information

Revised: 08/20/2002

Water Index No: H-240-180-74-21-P862
Hydro Unit Code: 02020004/110 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 44.7 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in T Lake is considered to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975) revealed a pH <5.0. Fish netting be DFW in 1966 captured only a single brook trout. (DEC/DFWMR, August 2002)

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including T Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

T Lake was included on the NYS 2006 Section 303(d) List of Impaired Waters. This segment was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2008 due to the completion of an Acid Rain TMDL. (DEC/DOW, BWAM, 2008)

Segment Description

This segment includes the total area of the lake.

The Floe (1203-0064) NoKnownImpct

Waterbody Location Information

Revised: 08/19/2002

Water Index No: H-240-180-74-P850a
Hydro Unit Code: 02020004/110 **Str Class:** C(T)
Waterbody Type: Lake (Eutrophic)
Waterbody Size: 100.0 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
The Floe was included in the 2001 Lake Classification and Inventory study effort. Results of this study found no evidence of water quality problems or use impairment. (DEC/DOW, BWM/Lake Services, August 2002)

Buck Ponds, White Birch Lake (1203-0001) Impaired Seg

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240-180-74..P864,P865,P866,P867
Hydro Unit Code: 02020004/110 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 29.4 Acres
Seg Description: total area of all lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: PISECO LAKE (H-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
AQUATIC LIFE	Precluded	Known

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in Buck and White Birch Lakes is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975) revealed a pH <5.0 in White Birch Lake and found no fish. More recent survey of Buck Pond by ALSC in 1987 found pH of 5.89 but found no fish. Acid neutralizing capacity (ANC) was (28.3 ueq/l).

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including unnamed ponds (P439, P440). Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

The Buck Ponds, White Birch Lake segment was included on previous Section 303(d) Lists of Impaired Waters, included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2006 due to the completion of the Acid Rain TMDL. (DEC/DOW, BWAM/WQAS, 2008)

Segment Description

This segment includes the total area of both lakes.

Spruce, Balsam Lakes (1203-0007) Impaired Seg

Waterbody Location Information

Revised: 08/20/2002

Water Index No: H-240-180-87-P908,P909
Hydro Unit Code: 02020004/100 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 219.4 Acres
Seg Description: total area of both lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: WEST CANADA LAKES (G-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life support in the waters of Spruce and Balsam Lakes is considered to be impaired by low pH, a result of atmospheric deposition (acid rain).

Water Quality Sampling
Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring of Balsam Lake by DFW (1975, 69) revealed a pH <5.0 and no fish in the lake. More recent survey by DFW in 1999 found pH to be 5.16 but acid neutralizing capacity (ANC) was very low (0.3 ueq/l). The lake was not netted. Spruce Lake was surveyed by DFW in 1999. A pH of 5.8 and ANC of 8.9 ueq/l were noted. Netting captured brook trout (97) and golden shiner (266). Historical fisheries data indicate lake trout, white sucker, creek chub and blacknose dace were once present in Spruce Lake. The recent proliferation on non-native golden shiner may be negatively impacting brook trout growth. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management/TMDL
In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Balsam Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on

monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

Section 303(d) Listing

The waters of this segment were included on the NYS 2006 Section 303(d) List of Impaired Waters. This segment was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. However the segment was delisted in 2008 due to the completion of an Acid Rain TMDL. (DEC/DOW, BWAM, 2008)

Segment Description

This segment includes the total area of Spruce Lake (p908) and Balsam Lake (P909).

Beaver Pond, Poor Lake (1203-0003) Need Verific

Waterbody Location Information

Revised: 02/02/2010

Water Index No: H-240-180-91-P915,P919
Hydro Unit Code: 02020004/100 **Str Class:** FP
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 25.9 Acres
Seg Description: total area of both lakes

Drain Basin: Mohawk River
Mohawk River
Reg/County: 5/Hamilton Co. (21)
Quad Map: WEST CANADA LAKES (G-22-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: ACID/BASE (PH)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 4a (TMDL Complete, Being Implemented, Not Listed)

Further Details

Overview
Aquatic life in Beaver Pond, Poor Lake is thought to be impaired due to low pH from atmospheric deposition (acid rain). The most recent sampling of these waters was conducted more than 10 years ago and conditions need to be verified.

Water Quality Sampling
Previous lake surveys indicate that low pH due to acid deposition is limiting the fishery in Poor Lake. Monitoring by DFW (1978) revealed a pH <5.0. More recent survey by DFW in 1999 found slightly improved pH of 5.15 and low acid neutralizing capacity (ANC) of 3.2 ueq/l. Fish netting captured brook trout (47) but this population is likely sustained by stocking. Beaver Pond has been sampled only once (1966) and pH was found to be 7.4. The owner of the nearby West Canada Stillwater Camp reports that brook trout are abundant in Beaver Pond. The impacts listed for this combined lake segment apply primarily to Poor Lake. (DEC/DFWMR, Region 5, August 2002)

Water Quality Management
Efforts are underway on a national level to address problems caused by acid rain by reducing pollutant emissions, as required by the Clean Air Act. New York State (and other northeastern states) have taken legal action against USEPA to accelerate implementation of controls. Monitoring of these waters will continue, in order to assess changes in water quality resulting from implementation of the Clean Air Act. However, these changes are expected to occur only slowly over time.

In 2006, NYSDEC established and USEPA approved a TMDL to address acid rain impairment to 143 Adirondack lakes that are located in NYS Forest Preserve lands, including Poor Lake. Recognizing that the available pH data for many of these lakes is 20-30 years old, the TMDL outlines a phased/adaptive management approach, that initially relies heavily on monitoring and assessment to determine current conditions, modeling refinements to estimate future conditions, and the implementation of statewide, regional and national efforts to reduce atmospheric loadings causing the impairment. (Impaired Water Restoration Plan/TMDL for Acid Rain Lakes (NYS Forest Preserve, DEC/DOW, BWAM, August 2006)

Section 303(d) Listing

The Beaver Pond, Poor Lake segment was included on the 2004 NYS Section 303(d) List of Impaired Waters in Part 2b of the List as an acid rain water. The lake was included on Part 2a of the List as an Atmospheric Deposition (acid rain) Water. However, the segment was delisted in the 2006 List due to the completion of the Adirondack Forest Preserve TMDL for Acid Rain in 2006.

Fulmer Creek and tribs (1201-0012) MinorImpacts

Waterbody Location Information

Revised: 10/30/2002

Water Index No:	H-240-185			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/070	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	56.6 Miles			**Quad Map:**	ILION (I-20-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: SILT/SEDIMENT
Suspected: Water Level/Flow
Possible: - - -

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, HYDRO MODIFICATION, Streambank Erosion
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Natural resources habitat and hydrology in Fulmer Creek are known to experience impacts due to channelization of the creek near the mouth (below the Main Street Bridge). The channelization is designed to address flooding episodes with the Village of Mohawk which occur during heavy rain events and ice jams during the spring thaw. A significant streambank erosion area at the creek confluence with the Mohawk River is also a concern. The NYS Canal Corporation is investigating possible streambank restoration and retention projects to address this issue. (Herkimer County WQCC, April 2002)

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Fulmer Creek in Mohawk, Herkimer County, (at Route 5S) 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 indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by municipal/urban runoff. Water column chemistry indicates pathogens (coliform) to be present at levels that constitute a parameter of concern. The

geometric mean of fecal colifom results were strongly influenced by one particularly high value. Total coliform was not found to be high. 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. Bottom sediments collected from this site revealed (somewhat) elevated levels of.... [However based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms.] Macroinvertebrate tissue collected at this site and chemically analyzed for selected metals showed (no contaminants/xxx) to be of concern/elevated levels of metals that should continue to be monitored.

Based on the consensus of these established assessment methods, overall water quality at this site shows that in spite of some concerns regarding pathogens that should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream. (DEC/DOW, BWAM/RIBS, January 2010)

A biological assessment of Fulmer Creek in Mohawk was also conducted in 2000. Sampling results indicated slightly impacted water quality conditions, attributed to nonpoint source nutrient enrichment. The fauna was dominated by midges and mayflies. These results are consistent with more recent sampling. (DEC/DOW, BWAR/SBU, July 2002)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Ford Creek (-4), Flat Creek (-5) and Day Creek (-6) are also Class C,C(T).

Minor Tribs to Mohawk River (1201-0056) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No:	H-240-186 thru 196	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/070 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	63.4 Miles	**Quad Map:**	ILION (I-20-3)
Seg Description:	total length of select tribs, Herkimer to W.Schuyler		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Bonny Brook in Frankfort (at Old Route 5S) 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 appear to be relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to communities influenced by nonpoint sources. In spite of these minor impacts, 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 total length of selected/smaller tribs to the Mohawk River between Fulmer Creek (-185) in Herkimer and Sterling Creek near West Schuyler. Tribs within this segment, including Bridenbecker Creek (-194), Bonny Brook (-195) and Pratt Creek (-196), are Class C. Fulmer Creek (-185), Steele Creek (-187), Moyer Creek (-190) and Sterling Creek (-197) are listed separately.

Steele Creek, Lower, and tribs (1201-0011) Threatened

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-187			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/080	**Str Class:**	C(TS)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	40.6 Miles			**Quad Map:**	ILION (I-20-3)
Seg Description:	stream and tribs, from mouth to near Spinnerville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Threatened	Known
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, STREAMBANK EROSION, Agriculture, Hydro Modification
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Natural resources (fishery) habitat in Steele Creek is considered to be threatened by streambank erosion exacerbated by stream channelization. Agricultural practices in the watershed also threaten the trout fishery in the stream.

Source Assessment
The Village of Ilion dredges the stream according to a revised management plan in order to reduce flooding problems. The village is cooperating with the DEC regional staff in minimizing streambank disturbance. However, hydromodification (channelization) of portions of this reach by heavy equipment continues to increase sediment in the creek and into the Mohawk River. (DEC/DOW, Region 6, April 2002)

Above Cedarville, the stream experiences impacts from agricultural activity. Streambank vegetation has been removed in many locations and livestock have unrestricted access to portions of the stream, resulting in large areas of unstable banks. (DEC/DFWMR, Region 6, April 2002)

In the spring of 2001 a significant landslide into the creek from a former gravel mining operation (Ferdula Gravel Products) occurred. NYS DEC inspections of the site found the site to be very unstable and the to have a potential for future

landslides and erosion. The site has since been stabilized and revegetated and Mineral Resources staff have declared the site reclaimed. It is no longer listed as a regulated mine, nor is the site considered to pose any water quality issues. (DEC/Env.Permits, Region 6, October 2002)

Water Quality Sampling

A biological (macroinvertebrate) assessment of Steele Creek in Ilion (at Clark Street) 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 appear to be (relatively) insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some elevated enrichment in the stream but a fauna that is most similar to natural communities. These results are consistent with biological field sampling results found in 2000. Those results indicated non-impacted water quality conditions. The sample satisfied field screening criteria and was returned to the stream. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2010)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Fishery Management

Steele Creek is one of only a few wild rainbow trout streams in the region and consider to be a very productive and valuable aquatic resource. NYS DEC has obtained over one-half mile of fishing rights on the stream along the gorge. The stream is stocked with rainbow trout by both DEC and the Ilion Fish and Game Club. (DEC/DFWMR, Region 6, April 2002)

Segment Description

This segment includes the portion of the stream and tribs from the mouth to trib -2b near Spinnerville. The waters of this portion of the stream, including Gulf Stream/Steele Creek (-2) are Class C(TS). Tribs to this reach/segment are Class C,C(TS). Upper Steele Creek, an upper reach of unnamed trib (-1), and a portion of Beckus Gulf/Litchfield Creek (-2-5) are listed separately.

Steele Creek tribs (1201-0197) Impaired Seg

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240-187-	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/080 **Str Class:** A(TS)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	4.7 Miles	**Quad Map:**	MILLERS MILLS (J-20-2)
Seg Description:	stream and tribs, above Ilion Water Supply intakes		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
WATER SUPPLY	Impaired	Known

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH (algal growth), NUTRIENTS (phosphorus), SILT/SEDIMENT
Suspected: - - -
Possible: Pathogens

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/WQCC **Resolution Potential:** Medium
TMDL/303d Status: 1,4c (Individual Waterbody Impairment Requiring a TMDL, more)

Further Details

Overview
Water supply use in this portion of Steele Creek (including Spinnerville Pond) is considered to be impaired by nutrient loadings and resulting excessive algal growth and other impacts from agricultural activities and other nonpoint runoff sources.

Source Assessment
Algal blooms in the village reservoirs during the summer months create periodic but significant operation, maintenance and distribution issues for the water treatment plant. The primary source of the algal problem was traced to Intake #3 on Beckus Gulf/Litchfield Creek. After closing this intake the algal problems eventually subsided. However, this approach has reduced the quantity of water available to the 9,000 people served by the system. The Village of Ilion Water Department commissioned the Upper Mohawk Valley Regional Water Board to conduct a watershed assessment and discovery program. Depth-integrated reservoir and spot sampling within the watershed for nutrient, chemical and planktonic analyses were designed to identify point and/or nonpoint sources contributing to the algal problems. Issues of concern identified by the Ilion Watershed and Assessment Study (December 2002) include elevated nutrient and coliform levels. Agricultural activity and erosion and sedimentation were identified as contributing sources. (Ilion Water Commission and Herkimer County WQCC, March 2003)

Water quality monitoring at a downstream site by Herkimer County WQCC identified elevated pathogens (E. coli) and nitrate-nitrogen during large runoff events in 2000 and 2001. (Herkimer County WQCC, April 2002)

Source (Drinking) Water Assessment

A source water assessment of Ilion water supply reservoirs and intakes found high susceptibility for contamination by protozoa due to the amount of agricultural lands in the watershed. 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 the Village of Ilion. (NYSDOH, Source Water Assessment Program, 2005)

Section 303d Listing

The Steele Creek Tribs segment is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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. This waterbody was first listed on the 2004 Section 303(d) List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the waters of the Ilion Water Supply including a the portion of unnamed trib -1 above a point 0.5 miles above the mouth, the portion of Steele/Hawk Creek above trib -2b (which is generally considered to be the Upper Steele Creek) near Spinnerville, and a portion of Beckus Gulf/Litchfield Creek (-2-5). The waters of these portion of the stream are Class A(T),A(TS). Steele Creek is listed separately.

Ilion Reservoir No.3 (1201-0198) Threatened

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240-187- 1-P940a			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/080	**Str Class:**	A(T)		Mohawk River
Waterbody Type:	Lake(R)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	38.0 Acres			**Quad Map:**	MILLERS MILLS (J-20-2)
Seg Description:	entire reservoir				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Threatened	Suspected

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Overview
Water supply use in Ilion Reservoir is thought to be threatened by various pollutants from runoff from agricultural pasturelands.

Source (Drinking) Water Assessment
A source water assessment of Ilion Reservoir #3 found high susceptibility for contamination by protozoa due to the amount of agricultural lands in the watershed. 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 the Village of Ilion. (NYSDOH, Source Water Assessment Program, 2005)

Moyer Creek, Lower, and tribs (1201-0057) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-190			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/070	**Str Class:**	B(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	9.6 Miles			**Quad Map:**	ILION (I-20-3)
Seg Description:	stream and tribs, from mouth to Gulph				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Moyer Creek in Frankfort (at Main Street) 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. Aquatic life community is fully supported. These results are consistent with sampling conducted at this site in 2000. (DEC/DOW, BWAM/SBU, January 2010) This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. (Herkimer County WQCC, 2000).

Segment Description
This segment includes the portion of the stream and all tribs from the mouth to trib -5 near Gulph. The waters of this portion of the stream, are primarily Class B(T); with the lower reach below Route 5S designated Class C(T). Tribs to this reach/segment are primarily Class C,C(T). Upper Moyer Creek and unnamed trib -2 are listed separately.

Moyer Creek, Upper, and tribs (1201-0199) NoKnownImpct

Waterbody Location Information

Revised: 02/01/2010

Water Index No: H-240-190
Hydro Unit Code: 02020004/070 **Str Class:** A(TS)
Waterbody Type: River (Low Flow)
Waterbody Size: 23.9 Miles
Seg Description: stream and tribs, above Gulph

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Herkimer Co. (22)
Quad Map: UTICA EAST (I-20-4)

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: n/a

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Moyer Creek in Frankfort (at Main Street) 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. Aquatic life community is fully supported. These results are consistent with sampling conducted at this site in 2000. Though this sampling site is below the actual reach, results are considered representative of the upstream segment. (DEC/DOW, BWAM/SBU, January 2010)

Previous Assessment
Previously cited algal blooms in Village of Frankfort reservoir that stresses its use for water supply need to be verified. Thought classified as to support use as a drinking water supply, the reservoir is no longer used as a supply. The Village drilled wells as an alternative to the surface water supply. (DEC/DOW, Region 6, April 2002)

Segment Description
This segment includes the portion of the stream and all tribs above/including trib -5 near Gulph. The waters of this portion of the stream, are Class A(TS). Tribs to this reach/segment are also Class A(TS). Lower Moyer Creek is listed separately.

Sterling Creek and tribs (1201-0013) MinorImpacts

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-197			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/070	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	88.6 Miles			**Quad Map:**	ILION (I-20-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Possible
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: SILT/SEDIMENT
Suspected: Water Level/Flow
Possible: - - -

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, STREAMBANK EROSION
Suspected: Hydro Modification
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Overview
Aquatic life support, recreation uses and natural resources habitat in Sterling Creek are known to experience minor impacts due to hydrologic and habitat modifications and resulting silt and sediment loadings to the stream.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Sterling Creek in East Schuyler (at Route 5) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by nonpoint sources and some toxicity. These results are consistent with results from sampling conducted at this site in 2000. That sample was field assessed as having slight impacts as well. (DEC/DOW, BWAM/SBU, January 2010)

This stream is included in a network of water quality sampling sites monitored by the Herkimer County Water Quality Coordinating Committee. Land uses that may impact water quality include agriculture and logging. (Herkimer County WQCC, 2000).

Source Assessment

NYS DOT and the Town of Schuyler have been known to remove sediments and channelize the lower reach of the stream with bulldozers leaving material on the banks and destroying habitats and nursery areas. Water quality studies by the county WQCC at an upstream site (Bush Road) found significant volumetric fluctuations and sediment transport. Turbidity measurements were found to vary significantly, with maximum readings of 300 NTU. (Herkimer County WQCC, April 2002)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Minor Tribs to Mohawk River (1201-0025) Need Verific

Waterbody Location Information

Revised: 01/14/2010

Water Index No:	H-240-198 thru 206	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	85.0 Miles	**Quad Map:**	UTICA EAST (I-20-4)
Seg Description:	total length of selected tribs, fr W.Schuyler to Rome		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: UNKNOWN TOXICITY
Possible: Nutrients, Silt/Sediment

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, URBAN/STORM RUNOFF
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

Overview
Aquatic life in these tribs to the Mohawk River may experience minor impacts. Various sources, including agricultural activity and urban runoff are possible contributors of pollutants. However water quality monitoring to date has been limited and inconclusive. Impacts on water uses need to be verified.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Wood Creek in West Schuyler (at Route 5) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates some enrichment. However sampling was conducted during low flow using alternative sample collection protocols (Robertson Kick). Such conditions are known to skew biological sampling results and are not a true reflection of water quality. Further investigation and/or other indicators are required to determine the extent of water quality impacts, if any. (DEC/DOW, BWAM/SBU, January 2010)

A biological assessment of Ferguson Creek in Frankfort Center (at Welshbush Road) 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 appear to be (relatively) insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate some enrichment in the stream and fauna that is most similar to communities influenced by nonpoint sources. Aquatic life support is considered to be fully supported in the stream. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

This segment includes the total length of selected/smaller tribs to the Mohawk River between Sterling Creek near West Schuyler and Starch Factory Creek in Utica. Tribs within this segment, including Burch Creek (-198), Knapp Brook (-199), Wood Creek (-201), Ferguson Creek (-202) and Budlong Creek (-203) are Class C,C(T),C(TS). Sterling Creek (-197) and Starch Factory Creek (-207) are listed separately.

Starch Factory Creek and tribs (1201-0067) MinorImpacts

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240-207			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060	**Str Class:**	B		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	8.9 Miles			**Quad Map:**	UTICA EAST (I-20-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Aquatic Life	Stressed	Known
Recreation	Stressed	Known
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known:	NUTRIENTS (phosphorus)
Suspected:	Aesthetics, D.O./Oxygen Demand, Pathogens, Silt/Sediment
Possible:	Thermal Changes

Source(s) of Pollutant(s)

Known:	URBAN/STORM RUNOFF
Suspected:	Habitat Modification
Possible:	- - -

Resolution/Management Information

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

Further Details

Overview

Aquatic life support, recreational uses natural resources habitat and aesthetics of Starch Factory Creek are considered to be stressed by urban runoff and various other nonpoint sources. Previously CSOs were also identified as a contributing source; however the CSO to the creek that was of concern has been eliminated.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Starch factory Creek in Utica (at Post Office) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by urban, industrial runoff sources. These results are consistent with results from sampling conducted at this site in 2001. That sampling also resulted in an assessment of slightly impacted due to toxic effects. Macroinvertebrate tissue sample analysis from 2001 also revealed elevated levels of a number of PAHs. (DEC/DOW, BWAM/SBU, January 2010)

A RIBS water quality study was conducted on four Utica area tribs, including Starch Factory Creek, in 2001. The sampling site on this trib was located in Proctor Park (about a one-eighth mile above the former CSO). This monitoring found no notable water quality problems in the water column of the upper reach. (DEC/DOW, BWAR/RIBS, April 2002)

Section 303(d) Listing

Starch Factory Creek was included on the NYS 2004 Section 303(d) List of Impaired Waters due to the impacts from the CSO discharge. However, because the impacts to the creek were limited to the lower half mile of the stream, this impairment was more appropriately included (as a footnote) with a listing for the Mohawk River which was also the result of CSOs in the Utica area in the 2006 List. Based on the elimination of the CSO discharge, removal of the reference to Starch Factory Creek in the Mohawk River segment listing should be considered for the 2010 List. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are primarily Class B; with the upper reach designated Class C. Tribs to this reach/segment are Class C,C(TS).

Ballou, Nail Creeks and tribs (1201-0203) Impaired Seg

Waterbody Location Information

Revised: 02/03/2010

Water Index No:	H-240-211,214			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	5.9 Miles			**Quad Map:**	UTICA EAST (I-20-4)
Seg Description:	total length of both tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Known
AQUATIC LIFE	Precluded	Known
RECREATION	Precluded	Known
HABITAT/HYDROLGY	Impaired	Known
Aesthetics	Stressed	Known

Type of Pollutant(s)

Known: D.O./OXYGEN DEMAND, NUTRIENTS (phosphorus), Aesthetics, Priority Organics (PCBs), Pathogens
Suspected: Ammonia, Unknown Toxicity
Possible: - - -

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW, HABITAT MODIFICATION
Suspected: URBAN/STORM RUNOFF
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: 1 (Individual Waterbody Impairment Requiring a TMDL)

Further Details

Overview
Aquatic life support, recreational uses and aesthetics of Ballou and Nail Creeks are impaired by combined sewer overflows, stormwater drainage, various other urban/industrial nonpoint sources and the overall urbanization of the stream. Both streams travel underground for significant distances and large paved, impervious areas abut the streams. The Utica area CSOs have a significant impact on water quality on these tribs as well as the Mohawk River itself.

Water Quality Sampling
Biological (macroinvertebrate) assessments of Ballou and Nail Creeks in Utica (at the CSO outlet and at Haak Road, respectively) were conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated severely impacted conditions. In such samples the fauna is extremely altered and comprised of tolerant species. Diversity and abundance of organisms is significantly reduced. The nutrient biotic index indicates highly elevated enrichment and impact source determination reveals a fauna that is most similar to communities strongly influenced by municipal and industrial

discharges. Water quality is considered to be very poor and aquatic life is not supported in the stream. This segment is considered to be impaired. These results are consistent with previous sampling at the site in 2000 and 2001. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) monitoring of Nail and Ballou Creek in Utica were conducted in 2001. This sampling was part of a mini-study of four urban streams in the Utica area. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Biological assessments of both Nail and Ballou Creek indicated severely impacted water quality conditions. The fauna consisted almost entirely of pollution-tolerant worms and midges. Impact Source Determination denoted municipal and/or industrial discharges as the likely source of impact. A strong sewage smell was noted at the sites. In Nail Creek parameters of concern in the water column were zinc, ammonia, total dissolved solids, fecal coliform, and total coliform. Sediments contained cadmium, PAHs, and DDE at levels of concern. A strong sewage smell was noted at the site. In Ballou Creek Water column samples identified ammonia, total dissolved solids, low dissolved oxygen, fecal coliform, and total coliform as parameters of concern. Sediments contained cadmium and copper above levels of concern, and 6 PAHs in concentrations above the level at which effects on aquatic organisms are considered likely to occur. Water quality in both these streams are considered to be very poor and not supporting of its designated uses. (DEC/DOW, BWAR/RIBS, April 2003)

NYSDEC conducted a contamination trackdown study of Nail Creek in 1999. The study found the creek to be contaminated with PCBs. Although there may be additional sources, PISCES sampling in 1999-2001 in conjunction with DOW water sampling have traced significant PCB contamination in a Nail Creek trib in Town of New Hartford, to the former Bendix Plant/TRW Corporation site (Site No. 6-33-020). The lower reach of Nail Creek (below the RR tracks) deserves some additional attention due to nearby storm sewers, trash from the old Utica City dump area, and oily sediment which may also be a source of PCBs. This area is below both the Bendix and the remediated Bossert hazardous waste sites. (DEC/DFWMR, Region 6, August 2000)

Source Assessment

The Oneida County WWTP which was constructed in 1972 and upgraded in 1987 replaced 13 primary sewage treatment plants that served area communities and significantly reduced raw sewage discharge from the Utica area. However sanitary and combined sewer overflows (SSOs and CSOs) remain a source of water quality problems. Work by the City of Utica and Oneida County to eliminate some overflow points and reduce overflows continues. However limited capacity at the WWTP and carrying capacity bottlenecks in the sewer collection system results in significant wet-weather discharges, including discharges to Ballou and Nail Creeks. These overflows are responsible for high levels of pathogens and floatables discharges which impair recreational uses. The SSO and CSOs also contribute other pollutants that result in reduced dissolved oxygen and other impacts that affect aquatic life in the Mohawk River. (DEC/DOW, Region 6, January 2010)

Section 303d Listing

The Ballou, Nail Creek segment is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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 D.O./oxygen demanding substances. This waterbody was first listed on the 2004 Section 303(d) List.

Segment Description

This segment includes the total length of both tribs to the Mohawk River in Utica. Ballou Creek (-211) and Nail Creek (-211), and their tribs, are Class C.

Minor Tribs to Mohawk River (1201-0205) Need Verific

Waterbody Location Information

Revised: 12/04/2009

Water Index No:	H-240-212,213,215,216	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	39.0 Miles	**Quad Map:**	UTICA EAST (I-20-4)
Seg Description:	entire stream and tribs		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS (phosphorus)
Possible: D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF, Agriculture
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

Overview
Aquatic life in Reall Creek are known to experience minor impacts/threats due to elevated nutrients and possibly organic inputs. Nonpoint sources, including urban/storm runoff and agricultural activities, are the likely sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Reall Creek in Deerfield (at Firehouse Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates some enrichment. However low flow at the time of the sampling may have been the reason the assessment at this site slipped into the range of moderate impact. Further investigation and/or other indicators are required to determine the extent of water quality impacts. (DEC/DOW, BWAM/SBU, December 2009)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Reall Creek in Utica was conducted in 2001. This sampling was part of a mini-study of four urban streams in the Utica area. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Analysis of water column samples indicated that high pH was a parameter of concern for this stream. A biological (macroinvertebrate)

assessment of Reall Creek in Deerfield was conducted in 2000 as part of the RIBS effort. Sampling results indicated slightly impacted water quality conditions. The fauna was diverse, but dominated by facultative midges, although clean-water mayflies, stoneflies, and caddisflies were collected at this site. Impact Source Determination indicated possible effects of organic wastes, but no sources are known. (DEC/DOW, BWAR/SBU, April 2003)

Segment Description

This segment includes the total length of selected/smaller tribs to and north of the Mohawk River near Utica. Tribs within this segment, including Reall Creek (-212), are Class C.

Sauquoit Creek, Lower, and minor tribs (1201-0069) Impaired Seg

Waterbody Location Information

Revised: 01/17/2003

Water Index No:	H-240-219	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/050 **Str Class:** C(T)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	20.7 Miles	**Quad Map:**	UTICA WEST (I-19-3)
Seg Description:	stream and selected tribs, fr mouth to Washington Mills		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Known
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known:	PRIORITY ORGANICS (PCBs), Metals
Suspected:	Water Level/Flow, Nutrients, Silt/Sediment, Thermal Changes
Possible:	Oil and Grease

Source(s) of Pollutant(s)

Known:	INDUSTRIAL (nonpoint runoff), TOX/CONTAM. SEDIMENT, Streambank Erosion
Suspected:	Landfill/Land Disp., Urban/Storm Runoff
Possible:	Chemical Leak/Spill

Resolution/Management Information

Issue Resolvability:	1 (Needs Verification/Study (see STATUS))		
Verification Status:	4 (Source Identified, Strategy Needed)		
Lead Agency/Office:	DEC/FWMR	**Resolution Potential:**	Medium
TMDL/303d Status:	2b (Multiple Segment/Categorical Water, Fish Consumption)		

Further Details

Overview

Fish consumption use in this portion of Sauquoit Creek is impaired by PCBs from contaminated sediments, the result of past industrial discharges. Recreational uses are also considered stressed due to fish consumption advisories. Aquatic life may experience minor impacts due to various urban point and nonpoint impacts.

Fish Consumption Fish consumption in Sauquoit Creek is impaired due to a NYS DOH health advisory that recommends eating no brown trout because of elevated PCB levels. The advisor extends from the mouth at the Mohawk River to the Old Silk Mill Dam (near the New Hartford/Paris town line). The advisory for this lake was first issued in 1998-99. (2009-10 NYS DOH Health Advisories)

Source Assessment

The NYS DEC Division of Fish Wildlife and Marine Resources has been using passive-in-situ chemical extraction samplers (PISCES) to trackdown bioaccumulative substances (PCBs) in the creek since 1994. The current advisory is based on this work which traced PCB contamination to the old bleachery site in Chadwicks. The site has since been

investigated by DEC Environmental Remediation staff and is expected to be added to the NYS Registry of Inactive Hazardous Waste Disposal Sites. (DEC/DFWMR, Hale Creek Field Station, March 2002)

A study of Sauquoit Creek sediments prior to the implementation of a flood control project was also conducted in 1999. This study found elevated levels of metals (lead, cadmium, chromium), PCBs and PAHs in the sediments that would prevent unrestricted disposal. (DEC/DOW, BWAR/Sediment Assessment, September 1999)

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Sauquoit Creek in Whitesboro, Oneida County, (at Main Street) 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 indicated the upper range of slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively minor and water quality is considered to be good. The nutrient biotic index and impact source determination indicate high enrichment in the 2005 sampling, but low nutrient levels in 2006. The stream and fauna appeared most similar to natural communities, with some nonpoint source influences. Water column chemistry indicates total dissolved solids to have just reached the threshold as a parameter of concern. Toxicity testing using water from this location detected no mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated some slight 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 indicators, overall water quality at this site shows that although nutrient impacts should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream. (DEC/DOW, BWAM/RIBS, January 2010)

Biological (macroinvertebrate) assessments of Sauquoit Creek in Whitesboro and Clayville were also conducted in 2000. Slightly impacted water quality was assessed for both sites. Nonpoint nutrient enrichment is the likely source of impact. (DEC/DOW, BWAR/SBU, July 2002)

The more recent sampling results are fairly consistent with conditions reported in a 1995 biological survey of Sauquoit Creek. This survey found slightly impacted water quality along the entire reach from the mouth to Clayville; non-impacted conditions were found at the most upstream site in Greens Crossing. Various nonpoint sources were indicated. (Sauquoit Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1995)

Previous Assessment

Local agencies have noted concerns regarding increased peak flows (due to increasing urbanization) and the resulting heavy sediment loads, stream scour and bank erosion. The local health department has particular concerns about an area near Brookline Drive where the creek bank is receding and there is inward bank erosion of 3 to 5 feet, tree cutting and high flows. (Oneida County Health Department, March 2002)

Section 303d Listing

Sauquoit Creek is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to/including an unnamed trib (-7) in Washington Mills. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment are Class C,C(T). Mud Creek (-4) is listed separately.

Sauquoit Creek, Middle, and tribs (1201-0207) Impaired Seg

Waterbody Location Information

Revised: 08/08/2002

Water Index No:	H-240-219			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/050	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	55.3 Miles			**Quad Map:**	UTICA WEST (I-19-3)
Seg Description:	stream and tribs, fr Washington Mills to Clayville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Precluded	Known
Aquatic Life	Stressed	Suspected
Recreation	Stressed	Known

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs), Metals
Suspected: Nutrients, Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: LANDFILL/LAND DISP., TOX/CONTAM. SEDIMENT
Suspected: Agriculture, Urban/Storm Runoff
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Overview
Fish consumption use in this portion of Sauquoit Creek is impaired by PCBs from contaminated sediments, the result of past industrial discharges. Recreational uses are also considered stressed due to fish consumption advisories. Aquatic life may experience minor impacts due to various urban point and nonpoint impacts.

Fish Consumption Fish consumption in Sauquoit Creek is impaired due to a NYS DOH health advisory that recommends eating no brown trout because of elevated PCB levels. The advisor extends from the mouth at the Mohawk River to the Old Silk Mill Dam (near the New Hartford/Paris town line). The advisory for this lake was first issued in 1998-99. (2009-10 NYS DOH Health Advisories)

Source Assessment
The NYS DEC Division of Fish Wildlife and Marine Resources has been using passive-in-situ chemical extraction samplers (PISCES) to trackdown bioaccumulative substances (PCBs) in the creek since 1994. The current advisory is based on this work which traced PCB contamination to the old bleachery site in Chadwicks. The site has since been investigated by DEC Environmental Remediation staff and is expected to be added to the NYS Registry of Inactive

Hazardous Waste Disposal Sites. (DEC/DFWMR, Hale Creek Field Station, March 2002)

Water Quality Sampling

NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Sauquoit Creek a few miles downstream of this reach in Whitesboro, Oneida County, (at Main Street) 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 indicated the upper range of slightly impacted conditions. In such samples the community is slightly altered from natural conditions. Some sensitive species are not present and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna appear to be relatively minor and water quality is considered to be good. The nutrient biotic index and impact source determination indicate high enrichment in the 2005 sampling, but low nutrient levels in 2006. The stream and fauna appeared most similar to natural communities, with some nonpoint source influences. Water column chemistry indicates total dissolved solids to have just reached the threshold as a parameter of concern. Toxicity testing using water from this location detected no mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated some slight 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 indicators, overall water quality at this site shows that although nutrient impacts should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream. These conditions at this downstream sites are considered to be mostly representative of conditions in the middle reach of the stream as well. (DEC/DOW, BWAM/RIBS, January 2010)

Biological (macroinvertebrate) assessments of Sauquoit Creek in Whitesboro and Clayville were conducted in 2000. Slightly impacted water quality was assessed for both sites. Nonpoint nutrient enrichment is the likely source of impact. (DEC/DOW, BWAR/SBU, July 2002)

These results are fairly consistent with conditions reported in a 1995 biological survey of Sauquoit Creek. This survey found slightly impacted water quality along the entire reach from the mouth to Clayville; non-impacted conditions were found at the most upstream site in Greens Crossing. Various nonpoint sources were indicated. (Sauquoit Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1995)

Section 303d Listing

Sauquoit Creek is included on the NYS 2008 Section 303(d) List of Impaired Waters. The stream is included on Part 2b of the List as a Fish Consumption Water. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from an unnamed trib (-7) in Washington Mills to the Superfine Paper Company dam in Clayville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including The Glen (-10), are Class C,C(T). The upper reach of an unnamed trib (-24) is listed separately.

Sauquoit Creek, Upper, and tribs (1201-0208) NoKnownImpct

Waterbody Location Information

Revised: 08/07/2002

Water Index No:	H-240-219			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/050	**Str Class:**	C(TS)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	22.8 Miles			**Quad Map:**	CASSVILLE (J-19-2)
Seg Description:	stream and tribs, above Clayville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Sauquoit Creek in Clayville was conducted in 2000. Slightly impacted water quality was assessed for this site. Nonpoint nutrient enrichment is the likely source of impact. In spite of these minor impacts, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, July 2002)

These results are consistent with conditions reported in a 1995 biological survey of Sauquoit Creek. This survey found slightly impacted water quality along the entire reach from the mouth to Clayville; non-impacted conditions were found at the most upstream site in Greens Crossing. Various nonpoint sources were indicated. There have been complaints regarding on-site septic problems in the hamlet of Cassville. (Sauquoit Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1995)

Segment Description
This segment includes the portion of the stream and all tribs above the Superfine Paper Company dam in Clayville. The waters of this portion of the stream are Class C(TS). Tribs to this reach/segment are Class C,C(TS).

Mud Creek and tribs (1201-0062) MinorImpacts

Waterbody Location Information

Revised: 02/04/2010

Water Index No:	H-240-219- 4			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/050	**Str Class:**	C(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	17.5 Miles			**Quad Map:**	UTICA WEST (I-19-3)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS, SILT/SEDIMENT, THERMAL CHANGES
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: HABITAT MODIFICATION, URBAN/STORM RUNOFF
Possible: Construction

Resolution/Management Information

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

Further Details

Overview
Aquatic life and natural resources habitat in Mud Creek are thought to experience impacts due to elevated nutrient and sediment loads from urban nonpoint runoff, commercial and residential development and wetlands encroachment. Urbanization has resulted in more significant hydrologic modifications, increased silt/sediment loadings and thermal stresses.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Mud Creek in Whitesboro (at Henderson Street) was conducted in 2000. Slightly impacted water quality was assessed for this site. Nonpoint nutrient enrichment is the likely source of impact. In spite of these minor impacts, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, July 2002)

These results are consistent with conditions reported in a 1995 biological survey of Sauquoit Creek, which included sampling on Mud Creek. This survey found slightly impacted water quality at sites on Mud Creek. Various nonpoint sources were indicated. (Sauquoit Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1995)

Water Quality Management

A stormwater treatment system to address PCB contamination from Special Met als Corporation was constructed in 1999. A review of available data indicates that the facility is in substantial compliance with the conditions and requirements of its SPDES permit. (DEC/DOW, Region 6, April 2002)

Previous Assessment

Concerns were raised during previous assessment efforts regarding impacts on fish consumption due to a health advisory for downstream waters (Sauquoit Creek). Though this advisory extends into a portion of Mud Creek, a trib of Sauquoit, up to the first impassible barrier, since the impact originates in Sauquoit Creek it is reflected in the Sauquoit Creek assessment and is discussed more fully there. (DEC/DOW, BWAM/WQAS, January 2010)

Segment Description

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

Minor Tribs to Mohawk River (1201-0224) NoKnownImpct

Waterbody Location Information

Revised: 08/08/2002

Water Index No:	H-240-220 thru 239			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	52.1 Miles			**Quad Map:**	ORISKANY (I-19-2) ...
Seg Description:	total length of selected tribs, from Utica to Rome				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Crane Creek in Marcy was conducted in 2000. Sampling results indicated non-impacted water quality conditions. Mayflies, stoneflies and caddisflies were well-represented. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description
This segment includes the total length of selected/smaller tribs to the Mohawk River between Utica and Rome. Tribs within this segment, including Crane Creek (-222), are Class C,C(T),C(TS). Oriskany Creek (-223), Ninemile Creek (-227), Sixmile Creek (-231), Threemile Creek (-234) and Wheelers Creek (-240) are listed separately.

Oriskany Creek, Lower, and minor tribs (1204-0008) MinorImpacts

Waterbody Location Information

Revised: 04/02/2010

Water Index No:	H-240-223	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/040 **Str Class:** B(T)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	39.4 Miles	**Quad Map:**	ORISKANY (I-19-2)
Seg Description:	stream and tribs, from mouth to Clarks Mills		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
PUBLIC BATHING	Impaired	Suspected
AQUATIC LIFE	Impaired	Suspected
RECREATION	Impaired	Suspected
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: PATHOGENS
Suspected: NUTRIENTS (phosphorus), Silt/Sediment, Thermal Changes
Possible: - - -

Source(s) of Pollutant(s)

Known: MUNICIPAL (Clark Mills WWTP), OTHER SANITARY DISCH
Suspected: AGRICULTURE, URBAN/STORM RUNOFF, Habitat Modification
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

Overview
Recreational uses (fishing, swimming), aquatic life support and natural resources (fishery) habitat in Oriskany Creek are known to experience minor impacts due to pathogens, silt and sediment loads, thermal stresses and other pollutants attributed to municipal wastewater discharges, urban encroachment and residential development, and agricultural runoff in the watershed. These impacts may affect the trout fishery that the stream supports.

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Oriskany Creek in Oriskany, Oneida County, (at Utica Street) 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 indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions including high levels of

enrichment that are sufficient to cause stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by various nonpoint sources. Water column chemistry indicates levels of pathogen (total and fecal coliform) to be present at levels 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 some 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. (DEC/DOW, BWAM/RIBS, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Oriskany Creek in Oriskany (at Utica Street) was also conducted in 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis (see below). Water column sampling found elevated coliform values, but no other parameters of concern in the water column. Sediments were found to contain slightly elevated levels of cadmium, but no other metals or organic compounds in concentrations above levels of concern. No toxicity was found to occur in tests conducted on 3 different water samples, and no organic compounds or metals were found above levels of concern in invertebrate tissues. (DEC/DOW, BWAR/RIBS, April 2003)

Biological (macroinvertebrate) assessments of Oriskany Creek at multiple sites were conducted in 2000 and 2001 as part of the RIBS effort. Sampling results indicated slightly impacted water quality conditions at the Oriskany RIBS site in 2001, the result of nonpoint nutrient enrichment. Assessments of Oriskany Creek at upstream locations were also conducted in 2000, as part of the RIBS Screening Network. Sampling results indicated non-impacted water quality conditions at Oriskany Falls, and slightly impacted conditions at Colemans Mills. In spite of some/these minor impacts, aquatic life is considered to be fully supported in the stream. (DEC/DOW, BWAR/SBU, April 2003)

The 2000-2001 biomonitoring results are consistent with conditions reported in a 1990 biological survey of Oriskany Creek. This survey found non to slightly impacted water quality along the reach from the mouth to Oriskany Falls and no significant water quality problems were indicated. (Oriskany Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1990)

Source Assessment

During high flow events (e.g., rain storms, snowmelt) the Clark Mills Sewer District collection system experiences sanitary sewer overflows as well as hydrologic limitations at the treatment plant. The Clark Mills WWTP has a design flow of 0.2 mgd, however during severe wet weather, excessive infiltration and inflow into the system results in flows as high as 1.0 mgd into the plant. These high flows can result in inadequate treatment and/or discharges of raw wastewater to the receiving stream. The Town of Kirkland has developed a Flow Management Plan and Growth Management Plan schedules for the Clark Mills WWTP that were approved by DEC Region 6. (Stearns & Wheeler Engineering Report, November 2008 and DEC/DOW/Region 6, March 2009)

Section 303(d) Listing

Oriskany Creek is not currently included on the Section 303(d) List of Impaired/TMDL Waters. However additional monitoring and assessment is suggested to verify whether the known impacts to the waterbody rise to the level of impairment and if the waterbody should be considered for future listing. Until such a determination is made, the waterbody will be assessed as having minor impacts to uses, but specific uses may be noted as suspected of being impaired. (DEC/DOW, BWAM/WQAS, April 2010)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to unnamed trib -15 near Clarks Mills. The waters of this portion of the stream, are Class B(T). Tribs to this reach/segment are Class C,C(T). Deans Creek (-10) is listed separately.

Oriskany Creek, Middle, and minor tribs (1204-0010) NoKnownImpct

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240-223			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/040	**Str Class:**	B(TS)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	123.0 Miles			**Quad Map:**	CLINTON (I-19-4)
Seg Description:	stream and tribs, from Clarks Mills to Solsville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Oriskany Creek in Kirkland (at Route 5) 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 elevated enrichment in the stream but a fauna that is most similar to natural communities. These results are consistent with results from sampling conducted at multiple sites on Oriskany Creek in 2000 and 2001. 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)

These results are also consistent with conditions reported in a 1990 biological survey of Oriskany Creek. This survey found non to slightly impacted water quality along the reach from the mouth to Oriskany Falls and no significant water quality problems were indicated. (Oriskany Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1990)

Previous Assessment
Concerns were previously raised regarding threats to natural resources (fishery) habitat in this trout stream due to silt and sediment loads, thermal stresses and some nutrient enrichment attributed to agricultural activities and urban encroachment and residential development in the watershed. However more recent sampling suggests these threats are not atypical of many other streams in the state.

A concern was also raised about occasional bypasses of wastewater from the Clinton WWTP into the creek during storm events. However regional staff have indicated that such discharges have occurred only once in the last 20 years and are not considered a likely source of impact. (DEC/DOW, Region 6, January 2003)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs from unnamed trib -15 near Clarks Mills to Solsville Pond (P1050) in Solsville. The waters of this portion of the stream are Class B(TS). Tribs to this reach/segment, including Sherman Brook (-16), Lower White Creek (-24), Kirkland Glen (-25), Turkey Creek (-28), Whitney Brook (29), Keys Brook (-30), Brothertown Brook (-35), Buckley Mill Creek (-42) and Cold Brook (-48) are Class C,C(T),C(TS). Upper Whites Creek (24) and Big Creek (-34) are listed separately.

Oriskany Creek, Upper, and tribs (1204-0011) NoKnownImpct

Waterbody Location Information

Revised: 08/08/2002

Water Index No: H-240-223
Hydro Unit Code: 02020004/040 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 17.8 Miles
Seg Description: stream and tribs, above Solsville

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Oneida Co. (33)
Quad Map: VERONA (I-18-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
Biological (macroinvertebrate) assessments of Oriskany Creek at multiple sites were conducted in 2000 and 2001. Sampling results indicated non-impacted water quality conditions in Oriskany Falls in 2000. (DEC/DOW, BWAR/SBU, July 2002)

These results are consistent with conditions reported in a 1990 biological survey of Oriskany Creek. This survey found non to slightly impacted water quality along the reach from the mouth to Oriskany Falls and no significant water quality problems were indicated. (Oriskany Creek Biological Assessment Report, Bode et al., DEC/DOW, BWAR/SBU, December 1990)

Segment Description
This segment includes the portion of the stream and selected/smaller tribs above Solsville Pond (P1050) in Solsville. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment are Class C,C(T),C(TS). Barker/Eli Creek (-45) is listed separately.

Deans Creek and tribs (1204-0001) MinorImpacts

Waterbody Location Information

Revised: 04/02/2010

Water Index No:	H-240-223-10			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/040	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	57.2 Miles			**Quad Map:**	HUBBARDSVILLE (J-19-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), PATHOGENS
Suspected: Silt/Sediment
Possible: - - -

Source(s) of Pollutant(s)

Known: ON-SITE/SEPTIC SYST (Westmoreland)
Suspected: AGRICULTURE, Urban/Storm Runoff
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

Overview
Aquatic life support and recreational uses in Deans Creek are known to experience minor impacts due to pathogens and other pollutants from failing and/or inadequate on-site septic systems. Agricultural activity in the watershed causes increases in silt/sedimentation in the stream and is likely contributing to nutrient loads.

Source Assessment
A Comprehensive Wastewater Management Study conducted in the 1980s documented failing and/or inadequate on-site septic systems within the hamlet of Westmoreland along Stone Road from Route 233 to beyond Town Barn Road. At the time of the study, 26% of the lots investigated were confirmed to have, or were "strongly suspected" of having wastewater disposal problems. These problems are primarily due to severe lot size limitations and, to a lesser degree, poor soil conditions. Although isolated failures were identified in other areas of the hamlet, such problems were not widespread and lots sizes and soil conditions appeared to be suitable for on-site systems. (DEC/DOW, Region 6, April 2002)

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of Deans Creek in Westmoreland, Oneida County, (at East Main Street) 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 indicated the lower range of slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by organic loads and low dissolved oxygen from sewage or animal wastes. Water column chemistry indicates levels of pathogen (total and fecal coliform) to be present at levels 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 some 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. (DEC/DOW, BWAM/RIBS, January 2010)

A biological (macroinvertebrate) survey/assessment of Deans Creek in Westmoreland (at Route 233) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. Impact source determination found the fauna to be most similar to communities influenced by organic wastes (sewage, animal waste). These results are consistent with results found during sampling at this site in 2000. (DEC/DOW, BWAM/SBU, January 2010)

Section 303(d) Listing

Deans Creek is not currently included on the Section 303(d) List of Impaired/TMDL Waters. However additional monitoring and assessment is suggested to verify whether the known impacts to the waterbody rise to the level of impairment and if the waterbody should be considered for future listing. Until such a determination is made, the waterbody will be assessed as having minor impacts to uses, but specific uses may be noted as suspected of being impaired. (DEC/DOW, BWAM/WQAS, April 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(TS). Tribs to this reach/segment, including Sucker Brook (-6), are also Class C.

White Creek, Upper, and tribs (1204-0012) NoKnownImpct

Waterbody Location Information

Revised: 02/04/2010

Water Index No:	H-240-223-24			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/040	**Str Class:**	AA		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	8.3 Miles			**Quad Map:**	UTICA WEST (I-19-3)
Seg Description:	stream and tribs, above Franklin Springs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of White Creek in Franklin Springs (at Grant Street) 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 low enrichment in the stream and fauna that is most similar to natural communities. 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 stream and selected/smaller tribs above unnamed trib -3 near Franklin Springs. The waters of this portion of the stream are Class AA. Tribs to this reach/segment are also Class AA. Lower Whites Creek (24) is listed with the Middle Oriskany Creek segment.

Big Creek and tribs (1204-0005) NoKnownImpct

Waterbody Location Information

Revised: 02/03/2010

Water Index No: H-240-223-34
Hydro Unit Code: 02020004/040 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 37.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Oneida Co. (33)
Quad Map: HUBBARDSVILLE (J-19-4)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Big Creek in Deansboro (at California Road) 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 some enrichment in the stream with fauna that is most similar to communities influenced by nonpoint sources. These results are consistent with field sampling results at the site in 2000 which satisfied field screening criteria as a non-impacted stream. 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 entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including McAdam Brook (-2), Tower Brook (-6), Fuess Brook (-7) and Waterman Brook (-9), are also Class C,C(T).

Madison Lake (1204-0006) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No: H-240-223-P1051
Hydro Unit Code: 02020004/040 **Str Class:** C
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 34.5 Acres
Seg Description: entire lake

Drain Basin: Mohawk River
Mohawk River
Reg/County: 7/Madison Co. (27)
Quad Map: MUNNSVILLE (J-18-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
Madison Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) in 1992, 1993, 1998 and from 2001 through 2008. An Interpretive Summary report of the findings of this sampling was published in 2009. These data indicate that the lake continues to be best characterized as mesotrophic, or moderately unproductive. Phosphorus levels in the lake consistently fall below state guidance values indicating impacted/stressed recreational uses, though levels have been somewhat higher in recent years. Corresponding transparency measurements typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly to moderately colored, but this is considered to reflect natural conditions and does not limit water transparency. (DEC/DOW, BWAM/CSLAP, February 2009)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be favorable. The recreational suitability of the lake is described most frequently as "excellent." The lake itself is most often described as "not quite crystal clear." Assessments have noted that aquatic plants occasionally grow to the lake surface, and have been cited more frequently as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, February 2009)
Lake Uses

This lake waterbody is designated class C, suitable for use as a general recreation water and aquatic life support, but not for water supply use or public bathing. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life. Samples to evaluate the bacteriological condition and bathing use of the lake or to evaluate contamination from organic compounds, metals or other inorganic pollutants have not been collected as part of the CSLAP monitoring program. Monitoring to assess potable water supply and public bathing use is generally the responsibility of state and/or local health departments.

Segment Description
This segment includes the total area of the entire lake.

Leland Pond (1204-0007) Threatened

Waterbody Location Information

Revised: 10/30/2002

Water Index No:	H-240-223-P1052/P1053	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/040 **Str Class:** C		Mohawk River
Waterbody Type:	Lake (Unknown Trophic)	**Reg/County:**	7/Madison Co. (27)
Waterbody Size:	9.9 Acres	**Quad Map:**	HAMILTON (J-18-3)
Seg Description:	entire pond		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Threatened	Known

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: NUTRIENTS

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: ON-SITE/SEPTIC SYST, Agriculture, Other Source (Waterfowl)

Resolution/Management Information

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

Further Details

Overview
Recreational (swimming, fishing, boating) uses in Leland Pond are threatened by slightly elevated nutrient levels. On-site septic systems serving homes along the shoreline, agricultural activity in the lake watershed and waterfowl are considered possible sources of nutrients.

Water Quality Sampling
Leland Pond were included in the NYSDEC Citizens Statewide Lake Assessment Program (CSLAP) volunteer monitoring effort from 1992 through 1996. Results of this study indicated that phosphorus readings in both ponds approach the criteria associated with threatened waters on a regular (>10% of all sampling sessions, respectively) basis, and the criteria for slightly impacted conditions in the lower segment. These conditions support a listing of threatened for recreational uses for at least the lower segment. (DEC/DOW, BWM/Lake Services, August 2002)

The upper pond has a year round public access from a DEC boat launching site. The lake has a year round brown trout population.

Segment Description
This segment includes the total area of both lower (P1052) and upper (P1053) ponds.

Ninemile Creek, Lower, and tribs (1201-0014) MinorImpacts

Waterbody Location Information

Revised: 04/13/2010

Water Index No:	H-240-227			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/020	**Str Class:**	B(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	96.7 Miles			**Quad Map:**	ORISKANY (I-19-2)
Seg Description:	stream and tribs, from mouth to South Trenton				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Suspected

Type of Pollutant(s)

Known: THERMAL CHANGES
Suspected: SILT/SEDIMENT
Possible: PATHOGENS, Water Level/Flow, Nutrients

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, Hydro Modification
Suspected: Agriculture, Streambank Erosion
Possible: - - -

Resolution/Management Information

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

Further Details

Overview
Natural resources (fishery) habitat in Ninemile Creek due to the loss of riparian vegetation and other habitat modifications. Agricutural activity in the watershed is the source of the problem. Increasing urbanization and development are also concerns. However more recent sampling suggests these threats are not atypical of many other streams in the state.

Source Assessment
Agricultural activity, including unrestricted cattle access to the stream, destabilize banks and eliminated bank vegetation and cover. Due to the loss of streambank vegetation, the stream has become wider and shallower. As a result the shallower, non-shaded waters experience higher temperatures in the summer and provide insufficient cover for fish. The trout fishery is managed as a "put and take" fishery due to the poor habitat and high temperatures. Fishery surveys over the years have documented poor survival of spring stocked trout by mid-summer. Despite the loss, stocking is continued because of good public access. The Region has done work to replace the riparian vegetation. However, increasing urbanization and open agriculture continue to destroy stream bank vegetation. This stream also receives water from West Canada Creek to supplement flow to the barge canal. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) assessment of Ninemile Creek in Marcy (at River 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. Aquatic life community is fully supported. These results represent an improvement from conditions found during sampling at this site in 2000 and 2001. (DEC/DOW, BWAM/SBU, January 2010)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Ninemile Creek in Marcy (at Richie Road) was also conducted in 2000 and 2001. Sampling of the water column, sediments, and invertebrate tissues was conducted, as well as macroinvertebrate community analysis. Biological sampling indicated slightly impacted water quality in 2000, from nonpoint source nutrient enrichment. The 2001 sampling resulted in an assessment of non-impacted, although nutrient enrichment was still indicated to be present. No significant parameters of concern were identified in the water column. Sediments contained cadmium and DDE at levels considered elevated, and of concern, but not above concentrations known to affect aquatic life. No toxicity was found in two tests conducted on different dates, and no metals or organic compounds were found in invertebrates tissues. (DEC/DOW, BWAR/RIBS, April 2003)

Previous Assessment

Concerns were raised during previous assessment efforts in 2002 regarding the impact of numerous failed on-site septic systems in Holland Patent and raw sewage discharges to tribs of Ninemile Creek. However, since then the village has received funding to implement corrective action, and has sewered the community and connected these residences to the Oneida County sewer system in 2005. (DEC/DOW, Region 6, April 2010)

Section 303d Listing

Ninemile Creek is included on the NYS 2008 Section 303(d) List of Impaired Waters. The lake 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 pathogens. However due to the resolution of the failing onsite wastewater (septic) systems in Holland Patent, this waterbody should be considered for delisting. (DEC/DOW, BWAM/WQAS, April 2010)

Segment Description

This segment includes the portion of the stream and all tribs from the mouth to/including the Trenton Falls Feeder Canal (-23a) near South Trenton. The waters of this portion of the stream, are Class B(T). Tribs to this reach/segment, including Dry Creek (-8), Vaughn Brook (-13), Great Gulf Creek (-16) and Willow Creek (-20) are primarily Class C,C(T); the Trenton Falls Feeder Canal (-23a) is designated Class B. Upper Ninemile Creek and Beaver Brook (-21-1) are listed separately.

Beaver Brook and tribs (1201-0229) NoKnownImpct

Waterbody Location Information

Revised: 02/03/2010

Water Index No:	H-240-227-21- 1			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/020	**Str Class:**	AA(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	7.7 Miles			**Quad Map:**	SOUTH TRENTON (I-20-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Beaver Creek in Holland Patent (at Fox Road) 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 relatively insignificant and water quality is considered to be good. The nutrient biotic index and impact source determination indicate low enrichment in the stream and fauna that is most similar to natural communities with some influence from nonpoint sources. 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 entire stream and all tribs. The waters of the stream are Class AA(T). Tribs to this reach/segment are also Class AA(T).

Sixmile Creek and tribs (1201-0212) Need Verific

Waterbody Location Information

Revised: 12/04/2009

Water Index No: H-240-231
Hydro Unit Code: 02020004/060 **Str Class:** C
Waterbody Type: River (Low Flow)
Waterbody Size: 25.8 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Oneida Co. (33)
Quad Map: ROME (I-19-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: UNKNOWN TOXICITY
Possible: Nutrients, Priority Organics (PCBs, other)

Source(s) of Pollutant(s)
Known: - - -
Suspected: LANDFILL/LAND DISP. (former Griffiss AFB), URBAN/STORM RUNOFF, Agriculture
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

Overview
Aquatic life in Sixmile Creek may experience minor impacts/threats due to unknown toxicity from various nonpoint sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Sixmile Creek in Rome (at Rickmyer Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates low/some enrichment. However poor sampling habitat was noted at the site and such effects/conditions are known to skew biological sampling results and are not a true reflection of water quality. Further investigation and/or other indicators are required to determine the extent of water quality impacts, if any. A previous biological assessment of Sixmile Creek at this site was conducted in 2000. Sampling results at that time indicated slightly impacted water quality conditions. Impact Source Determination indicated nonpoint source nutrient enrichment and siltation, although clean-water mayflies, stoneflies, and caddisflies were present, and water quality was borderline non-impacted.(DEC/DOW, BWAM/SBU, December 2009)
A biological assessment of Slate Creek in Floyd (at Rickmeyer Road) was also conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated non-impacted conditions. Such samples are dominated by clean-water

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

Source Assessment

The stream flows through the former Griffiss Air Force Base facility where several former landfills are located. When the Griffiss Air Force Base site (6-33-006) was first listed by the USEPA on the National Priorities List (NPL), the entire Base of approximately 3,550 acres was listed on the NPL. The majority of the Base, 2,900 acres in total, has since been deleted from the NPL. The remaining active sites (approximately 650 acres) remain on the NPL. Early remedial investigations of the site found various organic compounds, pesticides, petroleum products and other substances at the site and the surrounding environment. Solvents and glycols were detected in private water supplies at levels above drinking water standards in a small area southeast of the base. Public water was extended to the impacted area. A groundwater monitoring program found no evidence of a widespread contamination problem. Impacts on both Three and Six Mile Creeks have been documented but have been largely addressed. (DEC/Envir.Remediation, December 2009)

Segment Description

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

Threemile Creek and tribs (1201-0223) Impaired Seg

Waterbody Location Information

Revised: 04/05/2010

Water Index No:	H-240-234			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	2.5 Miles			**Quad Map:**	ROME (I-19-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs)
Suspected: NUTRIENTS (phosphorus), UNKNOWN TOXICITY, D.O./Oxygen Demand
Possible: Pathogens

Source(s) of Pollutant(s)

Known: LANDFILL/LAND DISP. (former Griffiss AFB), TOX/CONTAM. SEDIMENT
Suspected: INDUSTRIAL, URBAN/STORM RUNOFF, Agriculture
Possible: - - -

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DEC/DER **Resolution Potential:** Medium
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Overview
Aquatic life and fish consumption in Threemile Creek is known to be impaired by nutrient loadings and toxic pollutants. Elevated nutrient loadings are thought to be the result of urban runoff, industrial impacts and agricultural activities. Industrial landfills are the likely source of the toxic pollutants.

Water Quality Monitoring
A biological (macroinvertebrate) assessment of Threemile Creek in Rome (at Route 365) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated moderately impacted conditions. In such samples sensitive species are markedly reduced or missing and the distribution of major groups is significantly unbalanced relative to what would be expected. Samples are dominated by more tolerant species. The nutrient biotic index indicates highly elevated enrichment and impact source determination reveals a community that is most similar to waters with impacts from municipal/industrial sources and impoundment effects. These results are consistent with results found during sampling at this sites in 2000. Water quality is considered to be poor and aquatic life is not fully supported in the stream. This segment is considered to be impaired. (DEC/DOW, BWAM/SBU, January 2010)

Fish Consumption

Fish consumption in Threemile Creek is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of white sucker because of elevated levels of PCBs. The source of PCBs is considered to be hazardous waste sites associated with the former Griffiss Air Force Base; other sources are also possible. The advisory for this stream was first issued prior to 1998-99. (2009-10 NYS DOH Health Advisories and DEC/DFWMR, Habitat, January 2010).

Source Assessment

The stream flows through the former Griffiss Air Force Base facility where several former landfills are located. Remedial investigations conducted in 1994 found various organic compounds, pesticides, petroleum products and other substances at the site and the surrounding environment. (DEC/Envir.Remediation, April 2002)

Section 303(d) Listing

Threemile Creek is included on the NYS 2008 Section 303(d) List of Impaired Waters. The stream is included on Part 2b of the List as a Fish Consumption Water. This waterbody was first listed on the 1998 Section 303(d) List. Additional listings due to impairment to aquatic life should also be considered. (DEC/DOW, BWAM/WQAS, April 2010)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream and tribs are Class C.

Wheelers Creek and tribs (1201-0213) Need Verific

Waterbody Location Information

Revised: 02/10/2010

Water Index No:	H-240-240			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060	**Str Class:**	C		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	27.3 Miles			**Quad Map:**	ROME (I-19-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: NUTRIENTS
Possible: D.O./Oxygen Demand

Source(s) of Pollutant(s)

Known: - - -
Suspected: URBAN/STORM RUNOFF, Agriculture
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

Overview
Aquatic life in Wheelers Creek may experience impacts due to nutrient enrichment and other pollutants from urban runoff and other nonpoint sources. Biological sampling conducted to date has been inconclusive and additional monitoring for verification of impacts is recommended.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Wheelers Creek in Rome (at Route 26) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly impacted conditions. In such samples some replacement of sensitive ubiquitous species by more tolerant species occurs, although the sample also includes a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition and nutrient biotic evaluation suggest conditions and levels of enrichment are sufficient to cause some stress to aquatic life. However impact source determination found the fauna to be most similar to communities influenced by impoundment effects. These effects/conditions are known to skew biological sampling results and are not a true reflection of water quality. Further investigation and/or other indicators are required to determine the extent of water quality impacts, if any. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment are also Class C.

Minor Tribs to Mohawk River (1201-0214) Need Verific

Waterbody Location Information

Revised: 11/25/2009

Water Index No:	H-240-241 thru 244	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060 **Str Class:** C		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	11.2 Miles	**Quad Map:**	ROME (I-19-1)
Seg Description:	total length of tribs, fr NYS Barge Canal to Delta Res.		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: AGRICULTURE

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

Overview
Aquatic life in this segment, including Hurlbut Glen Brook, may experience minor impacts. Sampling showed some indication of nonpoint source impacts, but the sampling was conducted during very low flow in this small trib and is considered to be inconclusive. Follow-up monitoring is recommended.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Hurlbut Glen Brook in Holland Patent (at Smith/Wynn Road) was conducted as part of the RIBS biological screening effort in 2005. Sampling results indicated slightly to moderately impacted conditions. However there was very little water in the stream at the time of sampling, (necessitating the use of the Robertson Kick technique). A short duration construction project (retaining wall) was also underway during the sampling. As a result, it is not certain if the sampling results reflect an accurate assessment of water quality in the stream. Follow-up sampling is recommended to verify conditions. (DEC/DOW, BWAM/SBU, November 2009)

Segment Description
This segment includes the total length of selected/smaller tribs to the Mohawk River from the confluence of the Upper Mohawk and NYS Barge Canal in Rome to the Delta Reservoir. Tribs within this segment, including Hurlburt Glen Brook (-244), are Class C,C(T).

Tribs to Delta Reservoir (1201-0215) NoKnownImpct

Waterbody Location Information

Revised: 02/09/2010

Water Index No: H-240-P1059-245 thru 261 **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/010 **Str Class:** A Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 33.6 Miles **Quad Map:** WESTERNVILLE (H-19-4)
Seg Description: total length of selected tribs to the reservoir

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of Potash Creek in Stokes Corners (at Route 53) 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 some elevated enrichment in the stream. However aquatic life support is considered to be fully supported in the stream. Though Potash Creek is just one 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. (DEC/DOW, BWAM/SBU, January 2010)

Segment Description
This segment includes the total length of selected/smaller tribs to Delta Reservoir. Tribs within this segment, including Potash Creek (-248), Spink Brook (-258) and Deans Guld (-260), are Class A,A(T). The Upper Mohawk River is listed separately.

Mohawk River, Upper, and minor tribs (1201-0068) NoKnownImpct

Waterbody Location Information

Revised: 08/20/2002

Water Index No:	H-240-P1059.. Upper Mohawk	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/010 **Str Class:** A(TS)		Mohawk River
Waterbody Type:	River (Low Flow)	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	49.5 Miles	**Quad Map:**	WESTERNVILLE (H-19-4)
Seg Description:	stream and tribs, from Delta Reservoir to West Branch		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
NYSDEC Rotating Integrated Basin Studies (RIBS) Intensive Network monitoring of the Mohawk River in Northwestern, Oneida County, (at River 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 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. Water column chemistry indicated iron to be present in concentrations that constitute a parameter of concern. However, 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. Sediment screening for acute toxicity also indicated no sediment toxicity. Bottom sediments collected from this site revealed no elevated levels of contaminants. Based on the consensus of these established assessment methods, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, 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)

RIBS Intensive Network monitoring of the Upper Mohawk River in Northwestern (at River Road) was also conducted in 200 and 2001. Biological (macroinvertebrate) assessments of the Upper Mohawk River in Northwestern were conducted in 2000 and 2001 as part of the RIBS effort. Sampling results indicated non-impacted water quality conditions based on field-assessment in 2000. The 2001 sample was laboratory-processed, and yielded an assessment of slight impact, likely from nonpoint nutrient enrichment. No significant parameters of concern were found in the water column. Elevated fecal coliform levels were found after heavy rainfall events, but these are not considered representative of typical water quality conditions. No toxicity in the water column was detected in tests conducted on two different dates, although elevated levels of nickel were found in the sediments. (DEC/DOW, BWAR/RIBS, April 2003)

Potential Source Assessment

There are concerns regarding streambank erosion along some portions of this reach and resulting increases in turbidity in the stream and downstream in Delta Reservoir. (Oneida County WQCC, April 2002)

Segment Description

This segment includes the portion of the stream and all tribs from the Delta Reservoir to the East Branch (-288) near West Branch. The waters of this portion of the stream, are Class A(TS). Tribs to this reach/segment, including Tannery Creek (-265) and Blue Brook (-281) are primarily Class A,A(T). Big Brook (-263), Stringer Brook (-267), Lansing Kill (-271) and East Branch (-288) are listed separately.

Mohawk River, Upper, and tribs (1201-0217) NoKnownImpct

Waterbody Location Information

Revised: 08/20/2002

Water Index No: H-240-P1059.. Upper Mohawk, West Br **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/010 **Str Class:** A(TS) Mohawk River
Waterbody Type: River (Low Flow) **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 34.1 Miles **Quad Map:** WESTERNVILLE (H-19-4)
Seg Description: stream and tribs, above West Branch

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
Biological (macroinvertebrate) assessments of the Upper Mohawk in West Branch and Ava Brook in Ava were conducted in 2000. Field sampling results indicated non-impacted water quality conditions at both sites. The sample satisfied field screening criteria and was returned to the stream. (DEC/DOW, BWAR/SBU, July 2002)

Segment Description
This segment includes the portion of the stream and all tribs above East Branch (-288) near West Branch. The waters of this portion of the stream, are Class A(TS). Tribs to this reach/segment, including Ava Brook (-290), Hubbard-Griswold Brook (-295) and Enearl Brook (-296), are Class A,A(T),A(TS). East Branch (-288) is listed separately.

Big Brook and tribs (1201-0218) NoKnownImpct

Waterbody Location Information

Revised: 08/08/2002

Water Index No: H-240-P1059..263
Hydro Unit Code: 02020004/010 **Str Class:** A(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 53.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Oneida Co. (33)
Quad Map: NORTH WESTERN (H-19-3)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Big Brook at the mouth in Frenchville 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class A,A(T). Tribs to this reach/segment, including Gifford Creek (-1), Gulf Creek (-2) and Beaver Meadow Brook (-4), are also Class A,A(T).

Stringer Brook and tribs (1201-0219) NoKnownImpct

Waterbody Location Information

Revised: 02/05/2010

Water Index No: H-240-P1059..267
Hydro Unit Code: 02020004/010 **Str Class:** A(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 24.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Mohawk River
Mohawk River
Reg/County: 6/Oneida Co. (33)
Quad Map: NORTH WESTERN (H-19-3)

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

Water Quality Sampling
A biological (macroinvertebrate) assessment of Stringer Brook in Northwestern (at Route 46) 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; in this stream, some nutrient enrichment was noted. Some additional species, including sensitive non-native species, and additional biomass may be present; the samples reveal no, or only incidental, anomalies. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class A(T). Tribs to this reach/segment, including Cyrus Brook (-2), Dry Brook (-3) and Bunt Brook (-4), are Class A,A(T).

Lansing Kill and tribs (1201-0220) Need Verific

Waterbody Location Information

Revised: 02/08/2010

Water Index No:	H-240-P1059..271			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/010	**Str Class:**	A(TS)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	57.6 Miles			**Quad Map:**	WESTERNVILLE (H-19-4)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

Known: - - -
Suspected: STREAMBANK EROSION
Possible: Agriculture, Silviculture

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

Overview
Natural resources (fishery) habitat in Lansing Kill may experience impacts from silt and sediment loads and from streambank erosion.

Habitat Assessment
Past fish surveys have shown reduced fish populations. High and unstable banks were reported to provide little, if any, cover and streambank erosion was noted. Previous farming practices had been cited as contributing to problems in the past but agricultural activity is very limited now. The system may be beginning to recover. Logging activity and resulting runoff along the stream remain a concern. (DEC/DFWMR, Region 6, April 2002)

Water Quality Sampling
A biological (macroinvertebrate) assessment of Lansing Kill at the mouth in Hillside 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class A(TS). Tribs to this

reach/segment, including Chase Gulf (-4), Dunn Brook (-5) and Clark Brook (-9), are Class A,A(T).

East Branch Mohawk River and tribs (1201-0222) NoKnownImpct

Waterbody Location Information

Revised: 01/29/2010

Water Index No:	H-240-P1059..288			**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/010	**Str Class:**	A(T)		Mohawk River
Waterbody Type:	River (Low Flow)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	33.9 Miles			**Quad Map:**	WEST LEYDEN (H-19-1)
Seg Description:	entire stream and tribs				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: - - -

Resolution/Management Information

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

Further Details

Water Quality Sampling
A biological (macroinvertebrate) assessment of East Branch Mohawk River near Ava (at Route 67) 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 elevated enrichment in the stream and fauna that is most similar to communities influenced by nonpoint sources. 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)

A biological (macroinvertebrate) assessment of East Branch Mohawk River near Ava (at Route 67) 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)

Segment Description
This segment includes the entire stream and all tribs. The waters of the stream are Class A(T). Tribs to this reach/segment, including Wood Creek (-1) are Class A,A(T),A(TS).

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Waterbody Inventory
for
Natural Resources and Wetlands Issues

Background

Water Index Number	Waterbody Segment	Category
Natural Resources/Wetlands		
H-240 (portion w 4) - wetland	Vischer Ferry Nature Preserve - Wetland (1200-0001)	**Impaired Seg**
H-240 (portion w11) - wetland	Mohawk River (Frankfort/Ilion) Wetlands (1200-0004)	**Impaired Seg**
H-240 (portion w12) - wetland	Mohawk River (Utica) Wetlands (1200-0005)	**Impaired Seg**
H-240 (portion w16)/P1059-wetland	Delta Reservoir Wetlands (1200-0002)	**Need Verific**
H-240-219-4 - wetland	Mud Creek Wetlands (1200-0003)	**MinorImpacts**

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Waterbody Inventory/Priority Waterbodies List Changes to Accommodate Natural Resources/Wetlands Issues

One recent enhancement to the WI/PWL assessment effort is its expansion to better accommodate a record of impacts to various natural resources beyond water quality. This expansion included the addition of new Use, Pollutant and Source categories that better reflect typical impacts to natural resources that were not captured in the previous water quality focus of the WI/PWL database and worksheet. The outline presented below provides some further clarification regarding the enhancement of the WI/PWL to document natural resource impairments and concerns.

While impacts to Natural Resources Habitat/Hydrology have been cited for rivers, lakes and other waterbodies in previous WI/PWL Basin Reports, the Mohawk River Basin Report is the first one to include individual waterbody segment data sheets for specific wetlands. Because the incorporation of these wetland segment assessments is still new and not consistently applied throughout the state or even throughout the Mohawk River Basin, these data sheets are presented here as an appendix to the report. To include these data sheets in the body of the report might misleadingly imply that other wetlands areas (for which data sheets were not completed) were of less value. In addition, compiling the wetlands assessment information in a separate appendix raises the visibility of this effort and will (hopefully) promote the assessment of natural resources as a component of the WI/PWL process.

Wetland Waterbodies

Wetland has been added to the list of surface Waterbody Types. Where natural resource impairments occur on riparian/shoreline and upland areas, the most likely impacted (adjacent) waterbody/wetland should be listed.

Waterbody Uses

Natural Resources/Hydrology has been added to the list of Waterbody Uses.

Natural Resources/Hydrology was added as a "generic" category to document those activities that result in degradation of natural resources and/or involve various water quantity and flooding/flood plain issues. Though these activities have an impact on the aquatic environment and resources they are not – strictly speaking – water quality issues. Natural Resource/Hydrology issues include impairments to wetland uses such as flood protection, erosion control, nutrient cycling and food chain support, surface and groundwater recharge, aquatic/terrestrial propagation, survival and habitat, and flow alterations that negatively impact native species habitat. This category should be used if an impairment to a more specific water use cannot be documented and is not apparent. The "generic" nature of the category reflects that in many of these cases, the impairment condition (e.g., dredging, draining, excavation and/or filling of wetlands, stream channels, lake/pond; stream widening; stream downcutting; sediment embeddedness other losses of wetlands; habitat fragmentation; loss of riparian vegetation or upland buffer zones) is more appropriately captured as a cause or source, rather than an impaired use.

Causes of Impairment/Pollutants

Three new categories have been added to capture species issues. These are:

Problem Species which includes invasive, exotic and/or nuisance species that, due to their invasive nature, alter or upset the natural ecology of the waterbody. Examples include Phragmites, purple loosestrife, Eurasian watermilfoil, water chestnut, garlic mustard, zebra mussels, etc.

Species Alteration which includes changes in distribution and abundance of native species; in particular, the loss or reduction of threatened and/or endangered species.

Restricted Passage which includes physical barriers that limit the migration/movement of fish/aquatic species, thus affecting propagation and survival, and entrainment/ impingement of fish within a structure or facility.

Sources of Pollutants

Some changes have been made to the Source(s) of Pollutant(s) list. These are:

Power Generating Facilities which includes power plants that withdraw water and discharge it at higher temperature, or otherwise alter the suitability of the water to sustain fish/other populations. Note: In instances where alteration of flow and/or water levels affect fish/other populations, Hydrologic Modification may be a more appropriate source.

Habitat Modification which has been separated from *Hydrologic Modification*. This category includes loss of riparian vegetation; loss of buffer zones due to encroachment from incompatible land uses; fragmentation of habitat (loss of connectivity); change in distribution, abundance and/or composition of aquatic flora and fauna; debris removal; channel cover; etc.

Hydrologic Modification which has been made a separate category as well. This category includes alterations, water withdrawal, presence of dams and other barriers (e.g., weirs, culverts) that affect stream flow and/or water level, that impede movement and dispersal of aquatic life, or that result in changes to the stream channel (stream widening, stream downcutting, lateral cutting, instream sediment embeddedness).

Other sources of natural resource impairment can be captured in the existing source categories.

Adjacent/Surrounding Land Use Runoff that results in an impairment should be listed according to the specific land use that is of concern. The source list includes agriculture, silviculture, urban runoff, and others.

Stormwater Runoff sources should be listed as either Storm Sewers if the stormwater is discharged from pipes, or Urban Runoff if it enters the waterbody overland.

Waterbody Problem Description

In spite of the efforts outlined here to expand the WI/PWL to incorporate natural resources and wetland impairment information into the water quality database, it is likely that some natural resources/wetlands information will not easily fit into the water quality database structure. Because of this, it is worth stressing that the Waterbody Problem Description section of the worksheet is the best place to capture information that does not fit elsewhere on the form.

Vischer Ferry Nature Preserve - Wetland (1200-0001) Impaired Seg

Waterbody Location Information

Revised: 10/11/2002

Water Index No: H-240 (portion w 4) - wetland **Drain Basin:** Mohawk River
Hydro Unit Code: 02020004/390 **Str Class:** SeeBlw Mohawk River
Waterbody Type: Wetland **Reg/County:** 5/Saratoga Co. (46)
Waterbody Size: 100.0 Acres **Quad Map:** NISKAYUNA (J-25-3)
Seg Description: wetlands north of Mohawk River in Town of Half Moon

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
RECREATION	Impaired	Known
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH, SILT/SEDIMENT, PROBLEM SPECIES
Suspected: Water Level/Flow
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: - - -
Possible: UNKNOWN SOURCE (various NPS)

Resolution/Management Information

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

Further Details

Natural resources and recreational (swimming, boating, fishing) uses of the nature preserve are limited by silt/sedimentation and excessive aquatic weed/plant growth. These conditions restrict boat (canoe) traffic in the preserve. Various nonpoint sources throughout the basin are the possible sources of silt/sediment loads.

Beaver dams restrict the flow of water to portions of the preserve, limiting fish and bird populations. Water chestnut and other weeds restrict or prevent canoeing at the designated town canoe launch. Sediment deposition has reduced access to the barge canal and river and contributes to weed growth. The entrance to Wagars Pond (primary inlet) is impassable. Excessive nutrient loads and eutrophic conditions are suspected. Golf course and residential lawn, septic runoff are possible sources. (Town of Clifton Park and Saratoga County WQCC, May 2002)

Mohawk River (Frankfort/Ilion) Wetlands (1200-0004) Impaired Seg

Waterbody Location Information

Revised: 03/26/2003

Water Index No:	H-240 (portion w11) - wetland	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/070 **Str Class:**		Mohawk River
Waterbody Type:	Wetland	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	220.0 Acres	**Quad Map:**	HERKIMER (I-21-4)
Seg Description:	wetlands adjacent to Mohawk River in Frankfort/Ilion		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: OTHER POLLUTANTS (encroach/fragment/filling)
Suspected: Water Level/Flow
Possible: Oil and Grease, Salts, Silt/Sediment

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION, Hydro Modification
Suspected: Roadbank Erosion, Urban/Storm Runoff
Possible: Agriculture

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Natural resources habitat and hydrology are considered impaired by development along this reach of the Mohawk River. Wetland encroachment and fragmentation have resulted in significant habitat loss and modification. The impact of various urban nonpoint runoff sources, including silt, road salt and oil sheens, are also a concern.

These wetlands are located along a heavily developed strip and roadway in Herkimer County. Between 1988 and 1993 construction of a two lane highway to replace a portion of Route 5S resulted in fragmentation of NYS regulated wetlands (IN-5, IN-7). Future additional modification to the roadway to expand the two lane portion into a four-lane expressway is also under discussion (NY State Route 5S Corridor Study, Draft, February 2002). If approved, this proposal will have significant impacts on the wetlands. (DEC/DFWMR, Region 6/Habitat, April 2002)

Another New York State Regulated Wetland (IN-9) is bounded on the north by the Mohawk River and to the south by Old Route 5S/West Main Street. Residential lots along West Main Street are small and backed up right onto the wetland. Since 1970, considerable filling of the wetlands has been documented. Some of these activities have been approved (at least permits for filling have been issued) due to safety considerations; in some cases filling provides the only available off-street parking for residents. However, there have been several Article 24 violations for filling the wetland or adjacent areas in this time. Filling (both permitted and illegal) can result in displacement of water onto adjacent properties. The issue has been elevated politically at times due to the safety concerns and the fact that in some cases the Village of Frankfort was

providing the fill material. The area is also a Flood Hazard Area, with portions of the wetland in the floodway and floodplain. Illegal filling has also been documented in IN-6 and IN-7. (DEC/DFWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas IN-5, IN-6, IN-7, IN-9.

Mohawk River (Utica) Wetlands (1200-0005) Impaired Seg

Waterbody Location Information

Revised: 03/26/2003

Water Index No:	H-240 (portion w12) - wetland	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/060 **Str Class:**		Mohawk River
Waterbody Type:	Wetland	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	458.0 Acres	**Quad Map:**	UTICA EAST (I-20-4)
Seg Description:	wetlands adjacent to Mohawk River/Barge Canal in Utica		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
HABITAT/HYDROLGY	Impaired	Known

Type of Pollutant(s)

Known: AESTHETICS (trash/debris), OTHER POLLUTANTS (encroachment), Oil and Grease, Problem Species (purple loosestrife)
Suspected: Salts
Possible: Metals, Silt/Sediment

Source(s) of Pollutant(s)

Known: LANDFILL/LAND DISP., Habitat Modification
Suspected: URBAN/STORM RUNOFF, Roadbank Erosion
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Natural resource uses and habitat are considered impaired by urban development pressures and human impacts. Wetland encroachment, loss of upland buffer areas and a variety of urban nonpoint runoff sources contribute to the impacts on the wetland.

These wetlands are located in a highly urbanized area adjacent to major transportation routes (NYS Thruway, State Routes 5/8/12). Known or suspected pollutants include silt/sediment, oil and grease, and road salt. High water events also cause materials and debris (tires, engine oil, household trash) from three auto junkyards to be deposited into the wetlands. In 2001, DEC Division of Spill initiated a clean-up of deposited waste oil in the wetland.

Some of these wetlands (UE-2, UE-3, UE-9) make up a large portion of the Utica Marsh State Wildlife Management Area. This 240 acre urban WMA is dominated by freshwater wetland and adjacent upland within the Mohawk River floodplain. Recreational activities in this high use WMA include hiking/walking, birding and trapping. Many area schools use the marsh for field trips and nature walks. Urban debris diminishes the aesthetics of the resource. (DEC/DFWMR, Region 6/Habitat, April 2002)

Purple loosestrife and common reed have been documented as problem species in these wetlands. Insect control of the

purple loosestrife has been implemented in the WMA. The least bittern, which is threatened in New York State, has been documented in the WMA. (DEC/DFWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas UE-1, UE-2, UE-3, UE-4, UE-5, UE-7, UE-9, UW-2, UW-3.

Delta Reservoir Wetlands (1200-0002) Need Verific

Waterbody Location Information

Revised: 03/26/2003

Water Index No:	H-240 (portion w16)/P1059-wetland	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/010 **Str Class:**		Mohawk River
Waterbody Type:	Wetland	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	578.0 Acres	**Quad Map:**	WESTERNVILLE (H-19-4)
Seg Description:	wetlands are adjacent to Delta Reservoir		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: WATER LEVEL/FLOW
Possible: Nutrients, Restricted Passage, Silt/Sediment

Source(s) of Pollutant(s)

Known: - - -
Suspected: HABITAT MODIFICATION, HYDRO MODIFICATION
Possible: Agriculture, Streambank Erosion

Resolution/Management Information

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

Further Details

Natural resource habitat and hydrology is thought to be stressed by hydrologic and habitat modification. Fluctuating water levels in Delta Lake alter hydrology and wetland habitat. While these conditions are known to occur, more information is necessary to verify the extent of specific impacts on the wetland.

Delta Lake is drawn down by NYS DOT to augment flow in the NYS Barge Canal. These conflicting uses of the reservoir will be difficult to resolve. Other possible and/or potential sources of impacts to the wetlands include agricultural practices in the watershed and future/continuing development pressures in the area north of Rome. (DEC/DFWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas WE-8, WE-9, WE-10, WE-11.

Mud Creek Wetlands (1200-0003) MinorImpacts

Waterbody Location Information

Revised: 10/11/2002

Water Index No:	H-240-219-4 - wetland	**Drain Basin:**	Mohawk River
Hydro Unit Code:	02020004/050 **Str Class:**		Mohawk River
Waterbody Type:	Wetland	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	99.0 Acres	**Quad Map:**	UTICA WEST (I-19-3)
Seg Description:	wetlands adjacent to Mud Creek in New Hartford		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Habitat/Hydrolgy	Stressed	Known

Type of Pollutant(s)

Known: OTHER POLLUTANTS (encroach/fragment/filling)
Suspected: Water Level/Flow, Restricted Passage
Possible: Silt/Sediment

Source(s) of Pollutant(s)

Known: HABITAT MODIFICATION
Suspected: Hydro Modification, Urban/Storm Runoff
Possible: Streambank Erosion

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/FWMR **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Natural resources habitat and hydrology are affected by development along Mud Creek. Wetland encroachment and fragmentation have resulted in significant habitat loss and modification. Impacts to/loss of upland buffer areas are also a concern. The impact of various urban nonpoint runoff sources, including silt, road salt and oil sheens, may also be a concern.

These wetlands are adjacent to a heavily developed strip along Mud Creek. The filling of two large wetland areas were allowed (permitted) in order to accommodate construction of large commercial development projects
Sangertown Square (UW-11) and Consumer Square (UW-9). Wetland mitigation has been done to compensate for these losses, but the level of success these created wetlands have had in replacing the lost habitat has not yet been fully assessed. Minor illegal (unpermitted) filling activities has resulted in additional wetland loss in UW-9. (DEC/DFWMR, Region 6/Habitat, April 2002)

This segment includes designated wetland areas UW-9, UW-11, UW-12.

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Summary Listing of Priority Waters

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Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240 (portion 1)	Mohawk River, Lower, Main Stem (1201-0085) Recreation KNOWN to be STRESSED Aquatic Life SUSPECTED of being STRESSED Habitat/Hydrolgy SUSPECTED of being STRESSED	Albany	4.4 Mile	River	C	MinorImpacts Causes: Ammonia, Nutrients, Pathogens Sources: Urban/Storm Runoff, Agriculture
H-240 (portion 2)	Mohawk River, Lower, Main Stem (1201-0042) Water Supply SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Albany	0.8 Mile	River	A	MinorImpacts Causes: Nutrients, Pathogens Sources: Agriculture, Municipal, Urban/Storm Runoff
H-240 (portion 4)	Mohawk River/Barge Canal, Main Stem (1201-0073) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED Water Supply POSSIBLY THREATENED	Schenectady	19.4 Mile	River	A	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Agriculture, Urban/Storm Runoff
H-240 (portion 5)	Mohawk River/Barge Canal, Main Stem (1201-0006) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED Water Supply POSSIBLY THREATENED	Schenectady	10.2 Mile	River	A	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Agriculture, Urban/Storm Runoff
H-240 (portion 6)	Mohawk River/Barge Canal, Main Stem (1201-0087) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Schenectady	9.2 Mile	River	C	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Agriculture
H-240 (portion 7)	Mohawk River/Barge Canal, Main Stem (1201-0088) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Montgomery	4.7 Mile	River	B	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Agriculture, Streambank Erosion
H-240 (portion 8)	Mohawk River/Barge Canal, Main Stem (1201-0089) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Montgomery	3.7 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240 (portion 9)	Mohawk River/Barge Canal, Main Stem (1201-0090) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Montgomery	30.9 Mile	River	B	MinorImpacts Causes: Nutrients Sources: Agriculture

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240 (portion 10)	Mohawk River/Barge Canal, Main Stem (1201-0091) Fish Consumption KNOWN to be IMPAIRED Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Herkimer	6.6 Mile	River	C	Impaired Seg Causes: Priority Organics Sources: Tox/Contam. Sediment
H-240 (portion 11) **2010 Section 303(d) Listed Water**	Mohawk River/Barge Canal, Main Stem (1201-0092) Fish Consumption KNOWN to be PRECLUDED Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Herkimer	19.1 Mile	River	B	Impaired Seg Causes: Priority Organics Sources: Landfill/Land Disp., Tox/Contam. Sediment
H-240 (portion 12) **2010 Section 303(d) Listed Water**	Mohawk River, Main Stem (1201-0093) Fish Consumption KNOWN to be PRECLUDED Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be STRESSED	Herkimer	13.6 Mile	River	C	Impaired Seg Causes: Aesthetics, Priority Organics, Pathogens, D.O./Oxygen Dem Sources: CSOs, Landfill/Land Disp., Tox/Contam. Sedim...
H-240 (portion 12a)	NYS Barge Canal (portion 7) (1201-0064) Aquatic Life SUSPECTED of being IMPAIRED Recreation SUSPECTED of being IMPAIRED Fish Consumption SUSPECTED of being STRESSED Habitat/Hydrolgy SUSPECTED of being STRESSED	Oneida	21.3 Mile	River	C	MinorImpacts Causes: D.O./Oxygen Demand, Pathogens Sources: Comb. Sewer Overflow, Landfill/Land Disp., Other San Di...
H-240 (portion 12b) **2010 Section 303(d) Listed Water**	Utica Harbor (1201-0228) Fish Consumption KNOWN to be PRECLUDED Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be STRESSED	Oneida	21.7 Acre	Bay	C	Impaired Seg Causes: Aesthetics, Priority Organics, Pathogens, D.O./Oxygen Dem Sources: CSOs, Landfill/Land Disp., Tox/Contam. Sedim...
H-240 (portion 13) **2010 Section 303(d) Listed Water**	Mohawk River, Main Stem (1201-0010) Fish Consumption KNOWN to be PRECLUDED Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be STRESSED	Oneida	7.6 Mile	River	B	Impaired Seg Causes: Aesthetics, Priority Organics, D.O./Oxygen Dem, Pathogens Sources: Tox/Contam. Sediment, CSOs, Urban/Storm Runo...

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240 (portion 14) **2010 Section 303(d) Listed Water**	Mohawk River, Main Stem (1201-0094) Aquatic Life SUSPECTED of being IMPAIRED Recreation SUSPECTED of being IMPAIRED Aesthetics KNOWN to be STRESSED Fish Consumption SUSPECTED of being STRESSED	Oneida	7.2 Mile	River	C	Impaired Seg Causes: Aesthetics, Metals, D.O./Oxygen Demand, Pathogens Sources: Tox/Contam. Sediment, Urban/Storm Runoff
H-240 (portion 16)/P1059	Delta Reservoir (1201-0019) Recreation KNOWN to be IMPAIRED Habitat/Hydrolgy KNOWN to be IMPAIRED	Oneida	2375.7 Acre	Lake(R)	A(T)	Impaired Seg Causes: Water Level/Flow, Thermal Changes Sources: Hydro Modification
H-240 (portion w 4) - wetland	Vischer Ferry Nature Preserve - Wetland (1200-0001) Recreation KNOWN to be IMPAIRED Habitat/Hydrolgy KNOWN to be IMPAIRED	Saratoga	100.0 Acre	Wetland	SeeBlw	Impaired Seg Causes: Algal/Weed Growth, Silt/Sediment, Problem Species Sources: Unknown Source
H-240 (portion w11) - wetland	Mohawk River (Frankfort/Ilion) Wetlands (1200-0004) Habitat/Hydrolgy KNOWN to be IMPAIRED	Oneida	220.0 Acre	Wetland		Impaired Seg Causes: Other Pollutants Sources: Habitat Modification
H-240 (portion w12) - wetland	Mohawk River (Utica) Wetlands (1200-0005) Habitat/Hydrolgy KNOWN to be IMPAIRED	Oneida	458.0 Acre	Wetland		Impaired Seg Causes: Aesthetics, Other Pollutants Sources: Landfill/Land Disp., Urban/Storm Runoff
H-240- 11	Shaker Creek and tribs (1201-0079) Aquatic Life KNOWN to be STRESSED	Albany	15.7 Mile	River	C	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Urban/Storm Runoff
H-240- 11-P496/P498 **2010 Section 303(d) Listed Water**	Ann Lee (Shakers) Pond, Stump Pond (1201-0096) Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be STRESSED	Albany	17.1 Acre	Lake	C	Impaired Seg Causes: Algal/Weed Growth, Nutrients Sources: Unknown Source, Urban/Storm Runoff
H-240- 13	Lisha Kill and tribs (1201-0074) Aquatic Life SUSPECTED of being STRESSED Habitat/Hydrolgy SUSPECTED of being STRESSED	Albany	28.5 Mile	River	B(T)	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Habitat Modific, Streambank Erosion, Urban/Storm Runoff

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240- 20	Alplaus Kill and minor tribs (1201-0099) Aquatic Life KNOWN to be STRESSED Recreation SUSPECTED of being STRESSED	Schenectady	101.7 Mile	River	B	MinorImpacts Causes: Nutrients Sources: Agriculture, Urban/Storm Runoff
H-240- 20- 2	Indian Kill and tribs (1201-0100) Aquatic Life SUSPECTED of being STRESSED Habitat/Hydrolgy SUSPECTED of being STRESSED Public Bathing POSSIBLY STRESSED Recreation POSSIBLY STRESSED	Schenectady	17.5 Mile	River	A	MinorImpacts Causes: Silt/Sediment, Thermal Changes Sources: Urban/Storm Runoff, Hydro Modification
H-240- 21 thru 28 **2010 Section 303(d) Listed Water**	Minor Tribs to Mohawk River (1201-0040) Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED Habitat/Hydrolgy KNOWN to be IMPAIRED Fish Consumption SUSPECTED of being STRESSED	Schenectady	27.2 Mile	River	C	Impaired Seg Causes: Unknown Toxicity Sources: Habitat Modification, Urban/Storm Runoff, Industrial
H-240- 22-P519 **2010 Section 303(d) Listed Water**	Collins Lake (1201-0077) Public Bathing KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be STRESSED	Schenectady	55.9 Acre	Lake	B	Impaired Seg Causes: Algal/Weed Growth, Nutrients Sources: Other Source, Urban/Storm Runoff
H-240- 26	Poentic Kill and tribs (1201-0005) Aquatic Life KNOWN to be STRESSED Recreation SUSPECTED of being STRESSED	Schenectady	14.4 Mile	River	B	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Urban/Storm Runoff
H-240- 29	Plotter Kill and tribs (1201-0102) Aquatic Life SUSPECTED of being STRESSED	Schenectady	11.4 Mile	River	C	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Urban/Storm Runoff
H-240- 69	North Chuctanunda Cr, Lower, and tribs (1201-0031) Aquatic Life KNOWN to be STRESSED Recreation KNOWN to be STRESSED	Montgomery	9.7 Mile	River	C	MinorImpacts Causes: Nutrients, Pathogens Sources: Agriculture, Urban/Storm Runoff

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240- 69	North Chuctanunda Cr, Middle, and tribs (1201-0106) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Fulton	39.7 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240- 69- 1	Bunn Creek, Upper, and tribs (1201-0108) Aquatic Life KNOWN to be STRESSED	Montgomery	9.3 Mile	River	A	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Urban/Storm Runoff
H-240- 70-P570	Mariaville Lake (1201-0113) Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be STRESSED	Schenectady	193.1 Acre	Lake	B	Impaired Seg Causes: Algal/Weed Growth, Nutrients Sources: Agriculture, Urban/Storm Runoff
H-240- 82 (portion 1)	Schoharie Creek, Lower, Main Stem (1202-0003) Habitat/Hydrolgy KNOWN to be STRESSED	Montgomery	31.6 Mile	River	C	MinorImpacts Causes: Water Level/Flow, Silt/Sediment Sources: Hydro Modification, Streambank Erosion
H-240- 82 (portion 2)	Schoharie Creek, Lower, Main Stem (1202-0010) Habitat/Hydrolgy KNOWN to be STRESSED	Schoharie	19.8 Mile	River	C	MinorImpacts Causes: Water Level/Flow, Silt/Sediment Sources: Hydro Modification, Streambank Erosion
H-240- 82 (portion 3)	Schoharie Creek, Lower, Main Stem (1202-0024) Habitat/Hydrolgy KNOWN to be STRESSED	Schoharie	11.8 Mile	River	B	MinorImpacts Causes: Water Level/Flow Sources: Hydro Modification
H-240- 82 (portion 6)/P638a **2010 Section 303(d) Listed Water**	Schoharie Reservoir (1202-0012) Water Supply KNOWN to be IMPAIRED Fish Consumption KNOWN to be IMPAIRED	Greene	1131.5 Acre	Lake(R)	AA(TS)	Impaired Seg Causes: Metals, Silt/Sediment Sources: Streambank Erosion, Atmosph. Deposition
H-240- 82 (portion 7)	Schoharie Creek, Upper, Main Stem (1202-0021) Habitat/Hydrolgy KNOWN to be STRESSED	Greene	18.3 Mile	River	C(T)*	MinorImpacts Causes: Silt/Sediment Sources: Streambank Erosion

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240- 82 (portion 8)	Schoharie Creek, Upper, Main Stem (1202-0023) Habitat/Hydrolgy SUSPECTED of being STRESSED	Greene	5.5 Mile	River	C(T)*	MinorImpacts Causes: Silt/Sediment Sources: Streambank Erosion
H-240- 82- 63-13	West Creek, Lower, and tribs (1202-0018) Aquatic Life SUSPECTED of being STRESSED	Schoharie	68.5 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240- 82- 63-19-9-P589 **2010 Section 303(d) Listed Water**	Engleville Pond (1202-0009) Recreation KNOWN to be IMPAIRED Aesthetics POSSIBLY STRESSED Water Supply SUSPECTED of being THREATENED	Schoharie	29.5 Acre	Lake	A	Impaired Seg Causes: Algal/Weed Growth, Nutrients Sources: Agriculture
H-240- 82- 67-24-P608	Onderdonk Lake (1202-0005) Recreation KNOWN to be STRESSED Aesthetics KNOWN to be STRESSED	Albany	65.5 Acre	Lake	B	MinorImpacts Causes: Nutrients Sources: On-Site/Septic Syst
H-240- 82-104-P629	Summit Lake (1202-0014) Recreation KNOWN to be IMPAIRED Public Bathing KNOWN to be STRESSED Aesthetics KNOWN to be STRESSED	Schoharie	43.1 Acre	Lake	B	Impaired Seg Causes: Algal/Weed Growth, Nutrients Sources: On-Site/Septic Syst
H-240- 82-116 thru 140	Minor Tribs to Schoharie Creek (1202-0057) Habitat/Hydrolgy SUSPECTED of being STRESSED	Greene	58.2 Mile	River	C	MinorImpacts Causes: Aesthetics, Silt/Sediment Sources: Streambank Erosion
H-240- 82-117	Batavia Kill, Lower, and tribs (1202-0001) Habitat/Hydrolgy KNOWN to be STRESSED	Greene	48.2 Mile	River	C(T)	MinorImpacts Causes: Silt/Sediment Sources: Streambank Erosion
H-240- 82-117	Batavia Kill, Middle, and tribs (1202-0058) Habitat/Hydrolgy KNOWN to be STRESSED	Greene	48.1 Mile	River	A(T)	MinorImpacts Causes: Silt/Sediment Sources: Streambank Erosion

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240- 82-128	West Kill and tribs (1202-0062) Habitat/Hydrolgy KNOWN to be STRESSED	Greene	46.6 Mile	River	C(TS)	MinorImpacts Causes: Aesthetics, Silt/Sediment Sources: Streambank Erosion
H-240- 89	Cayadutta Creek, Lower, and minor tribs (1201-0001) Aquatic Life KNOWN to be STRESSED Recreation KNOWN to be STRESSED	Montgomery	50.2 Mile	River	C*	MinorImpacts Causes: Nutrients Sources: Municipal, Urban/Storm Runoff
H-240- 89	Cayadutta Creek, Upper, and minor tribs (1201-0044) Aquatic Life KNOWN to be STRESSED Recreation KNOWN to be STRESSED	Fulton	28.0 Mile	River	C*	MinorImpacts Causes: Nutrients, Unknown Toxicity Sources: Urban/Storm Runoff
H-240- 89-10	Hall/Matthew Creeks and tribs (1201-0225) Aquatic Life SUSPECTED of being STRESSED	Fulton	14.3 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture, Urban/Storm Runoff
H-240- 89-11	Hale Creek and tribs (1201-0118) Aquatic Life KNOWN to be STRESSED Habitat/Hydrolgy KNOWN to be STRESSED	Fulton	17.2 Mile	River	C	MinorImpacts Causes: Nutrients, Silt/Sediment Sources: Agriculture
H-240- 90 thru 126 (selected)	Minor Tribs to Mohawk River (1201-0121) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Montgomery	97.4 Mile	River	C	MinorImpacts Causes: Nutrients, Pathogens, Silt/Sediment Sources: Agriculture
H-240-102	Flat Creek and tribs (1201-0026) Aquatic Life SUSPECTED of being STRESSED Recreation SUSPECTED of being STRESSED	Montgomery	87.5 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240-112	Canajoharie Creek, Lower, and tribs (1201-0027) Recreation KNOWN to be STRESSED	Montgomery	43.5 Mile	River	C	MinorImpacts Causes: Silt/Sediment Sources: Agriculture

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240-119	Otsquago Creek, Lower, and minor tribs (1201-0028) Recreation KNOWN to be STRESSED	Montgomery	11.0 Mile	River	C	MinorImpacts Causes: Silt/Sediment Sources: Agriculture
H-240-127	Caroga Creek, Lower, and tribs (1201-0076) Habitat/Hydrolgy KNOWN to be STRESSED	Montgomery	41.8 Mile	River	C	MinorImpacts Causes: Water Level/Flow Sources: Hydro Modification
H-240-127-15	Sprite Creek, Lower, and tribs (1201-0134) Aquatic Life SUSPECTED of being STRESSED	Fulton	14.9 Mile	River	C(T)	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240-144 (portion 1)	East Canada Cr, Lower, and minor tribs (1201-0081) Habitat/Hydrolgy KNOWN to be STRESSED	Herkimer	21.1 Mile	River	C(T)	MinorImpacts Causes: Water Level/Flow Sources: Hydro Modification
H-240-144 (portion 4)	East Canada Cr, Middle, and minor tribs (1201-0153) Recreation KNOWN to be STRESSED Aesthetics KNOWN to be STRESSED	Herkimer	65.6 Mile	River	C(T)	MinorImpacts Causes: Aesthetics Sources: Industrial, Municipal
H-240-144-13-P715 thru P718	Lily, Canada, Stewarts Land, West Lakes (1201-0050) Fish Consumption KNOWN to be IMPAIRED Habitat/Hydrolgy SUSPECTED of being STRESSED	Fulton	847.7 Acre	Lake	B(T)	Impaired Seg Causes: Metals Sources: Atmosph. Deposition
H-240-144-13..P721,P722,P723	Stoner Lakes (1201-0169) Fish Consumption KNOWN to be IMPAIRED	Fulton	173.8 Acre	Lake	N	Impaired Seg Causes: Metals Sources: Atmosph. Deposition
H-240-144-13..P724	Pine Lake (1201-0170) Fish Consumption KNOWN to be IMPAIRED	Fulton	166.4 Acre	Lake	B	Impaired Seg Causes: Metals Sources: Atmosph. Deposition

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category
		Cause/Source Information				
H-240-144-13..P727,P729,P730 **2010 Section 303(d) Listed Water**	Green, Otter and Stewart Lakes (1201-0009) Aquatic Life KNOWN to be IMPAIRED	Fulton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	119.7 Acre	Lake	B	Impaired Seg
H-240-144-13..P732 **2010 Section 303(d) Listed Water**	Irving Pond (1201-0230) Aquatic Life KNOWN to be PRECLUDED	Fulton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	136.4 Acre	Lake	B	Impaired Seg
H-240-144-28-P750..P753.P755	Knapps Long Lake, Long Pond (1201-0007) Aquatic Life KNOWN to be IMPAIRED	Fulton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	29.7 Acre	Lake	N	Impaired Seg
H-240-144-29-P768	Little Metcalf Lake (1201-0227) Aquatic Life KNOWN to be PRECLUDED	Herkimer Causes: Acid/Base (pH) Sources: Atmosph. Deposition	8.9 Acre	Lake	FP	Impaired Seg
H-240-144-34-P771	Redlouse Lake (1201-0008) Aquatic Life KNOWN to be IMPAIRED	Hamilton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	18.5 Acre	Lake	FP	Impaired Seg
H-240-144-38-P777	Ferris Lake (1201-0003) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED	Hamilton Causes: Metals, Acid/Base (pH) Sources: Atmosph. Deposition	120.4 Acre	Lake	FP	Impaired Seg
H-240-144-43-P786 **2010 Section 303(d) Listed Water**	Morehouse Lake (1201-0080) Aquatic Life SUSPECTED of being IMPAIRED	Hamilton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	105.9 Acre	Lake	B(T)	Impaired Seg
H-240-144-44-P790,P790a **2010 Section 303(d) Listed Water**	Big Alderbed, Blind Mans Vly (1201-0002) Aquatic Life KNOWN to be IMPAIRED	Hamilton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	49.0 Acre	Lake	C(T)	Impaired Seg

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240-148	Nowadaga Creek, Lower, and tribs (1201-0193) Aquatic Life KNOWN to be STRESSED	Herkimer	39.2 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240-148	Nowadaga Creek, Upper, and tribs (1201-0194) Aquatic Life KNOWN to be STRESSED	Herkimer	42.2 Mile	River	C(T)	MinorImpacts Causes: Nutrients Sources: Agriculture
H-240-180 (portion 1)	West Canada Creek, Lower, Main Stem (1203-0023) Aquatic Life KNOWN to be IMPAIRED Habitat/Hydrolgy KNOWN to be IMPAIRED Recreation KNOWN to be STRESSED	Herkimer	17.6 Mile	River	C(T)	Impaired Seg Causes: Water Level/Flow, Thermal Changes Sources: Hydro Modification
H-240-180 (portion 2)	West Canada Creek, Lower, Main Stem (1203-0011) Aquatic Life KNOWN to be IMPAIRED Habitat/Hydrolgy KNOWN to be IMPAIRED Recreation KNOWN to be STRESSED	Herkimer	15.7 Mile	River	C(T)	Impaired Seg Causes: Water Level/Flow, Thermal Changes Sources: Hydro Modification
H-240-180 (portion 3)	West Canada Creek, Middle, Main Stem (1203-0024) Aquatic Life KNOWN to be IMPAIRED Habitat/Hydrolgy KNOWN to be IMPAIRED Recreation KNOWN to be STRESSED	Herkimer	1.9 Mile	River	B(T)	Impaired Seg Causes: Water Level/Flow, Thermal Changes Sources: Hydro Modification
H-240-180 (portion 4)/P799	Hinckley Reservoir (1203-0022) Habitat/Hydrolgy KNOWN to be STRESSED Recreation SUSPECTED of being STRESSED Water Supply POSSIBLY THREATENED	Herkimer	2683.7 Acre	Lake(R)	AA(T)	MinorImpacts Causes: Water Level/Flow Sources: Hydro Modification
H-240-180 (portion 5) **2010 Section 303(d) Listed Water**	West Canada Creek, Upp, and minor trib (1203-0008) Aquatic Life KNOWN to be PRECLUDED	Herkimer	43.8 Mile	River	A(T)	Impaired Seg Causes: Acid/Base (pH) Sources: Atmosph. Deposition

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category
		Cause/Source Information				
H-240-180 (portion 6) **2010 Section 303(d) Listed Water**	West Canada Creek, Upp, and minor tribs (1203-0025) Aquatic Life KNOWN to be PRECLUDED	Herkimer Causes: Acid/Base (pH) Sources: Atmosph. Deposition	249.1 Mile	River	C(T)	Impaired Seg
H-240-180- 11	North Creek and tribs (1203-0026) Habitat/Hydrolgy KNOWN to be STRESSED	Herkimer Causes: Silt/Sediment Sources: Streambank Erosion	39.6 Mile	River	C	MinorImpacts
H-240-180- 42	Cold Brook and tribs (1203-0033) Recreation KNOWN to be STRESSED Aesthetics KNOWN to be STRESSED	Herkimer Causes: Aesthetics, Pathogens Sources: On-Site/Septic Syst	16.2 Mile	River	C(TS)	MinorImpacts
H-240-180- 59	Cincinnati Creek, Lower, and tribs (1203-0010) Recreation KNOWN to be STRESSED	Oneida Causes: Nutrients, Pathogens Sources: Agriculture, On-Site/Septic Syst	7.8 Mile	River	C(T)	MinorImpacts
H-240-180- 59	Steuben Creek and tribs (1203-0013) Habitat/Hydrolgy KNOWN to be IMPAIRED Aquatic Life KNOWN to be STRESSED	Oneida Causes: Silt/Sediment, Thermal Changes Sources: Agriculture, Streambank Erosion	44.7 Mile	River	C	MinorImpacts
H-240-180- 59- 2	Cincinnati Creek, Upper, and minor tribs (1203-0035) Recreation KNOWN to be STRESSED	Oneida Causes: Pathogens, Nutrients Sources: Agriculture, On-Site/Septic Syst	44.4 Mile	River	C	MinorImpacts
H-240-180- P799..P818 to P822 **2010 Section 303(d) Listed Water**	Lakes tributary to Jerseyfield Lake (1203-0002) Aquatic Life KNOWN to be PRECLUDED	Herkimer Causes: Acid/Base (pH) Sources: Atmosph. Deposition	83.2 Acre	Lake	C	Impaired Seg
H-240-180-74-16-1-P856	Twin Lake, South (1203-0005) Aquatic Life KNOWN to be PRECLUDED	Hamilton Causes: Acid/Base (pH) Sources: Atmosph. Deposition	16.9 Acre	Lake	FP	Impaired Seg

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240-180-74-21-P862	T Lake (1203-0004) Aquatic Life KNOWN to be PRECLUDED	Hamilton	44.7 Acre	Lake	FP	Impaired Seg Causes: Acid/Base (pH) Sources: Atmosph. Deposition
H-240-180-74..P864 thru P867	Buck Ponds, White Birch Lake (1203-0001) Aquatic Life KNOWN to be PRECLUDED	Hamilton	29.4 Acre	Lake	FP	Impaired Seg Causes: Acid/Base (pH) Sources: Atmosph. Deposition
H-240-180-87-P908,P909	Spruce, Balsam Lakes (1203-0007) Aquatic Life KNOWN to be IMPAIRED	Hamilton	219.4 Acre	Lake	FP	Impaired Seg Causes: Acid/Base (pH) Sources: Atmosph. Deposition
H-240-185	Fulmer Creek and tribs (1201-0012) Habitat/Hydrolgy KNOWN to be STRESSED	Herkimer	56.6 Mile	River	C	MinorImpacts Causes: Silt/Sediment Sources: Habitat Modification, Hydro Modification
H-240-187	Steele Creek, Lower, and tribs (1201-0011) Habitat/Hydrolgy KNOWN to be STRESSED Aquatic Life KNOWN to be THREATENED	Herkimer	40.6 Mile	River	C(TS)	Threatened Causes: Silt/Sediment Sources: Habitat Modification, Streambank Erosion
H-240-187- **2010 Section 303(d) Listed Water**	Steele Creek tribs (1201-0197) Water Supply KNOWN to be IMPAIRED	Herkimer	4.7 Mile	River	A(TS)	Impaired Seg Causes: Algal/Weed Growth, Nutrients, Silt/Sediment Sources: Agriculture, Streambank Erosion
H-240-187- 1-P940a	Ilion Reservoir No.3 (1201-0198) Water Supply SUSPECTED of being THREATENED	Herkimer	38.0 Acre	Lake(R)	A(T)	Threatened Causes: Other Pollutants Sources: Other Source
H-240-197	Sterling Creek and tribs (1201-0013) Habitat/Hydrolgy KNOWN to be STRESSED Aquatic Life SUSPECTED of being STRESSED Recreation POSSIBLY STRESSED	Herkimer	88.6 Mile	River	C	MinorImpacts Causes: Silt/Sediment Sources: Habitat Modification, Streambank Erosion

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category
		Cause/Source Information				
H-240-207	Starch Factory Creek and tribs (1201-0067) Aquatic Life KNOWN to be STRESSED Recreation KNOWN to be STRESSED Habitat/Hydrolgy KNOWN to be STRESSED	Oneida	8.9 Mile	River	B	MinorImpacts
		Causes: Nutrients Sources: Urban/Storm Runoff				
H-240-211,214 **2010 Section 303(d) Listed Water**	Ballou, Nail Creeks and tribs (1201-0203) Aquatic Life KNOWN to be PRECLUDED Recreation KNOWN to be PRECLUDED Habitat/Hydrolgy KNOWN to be IMPAIRED Fish Consumption KNOWN to be STRESSED Aesthetics KNOWN to be STRESSED	Oneida	5.9 Mile	River	C	Impaired Seg
		Causes: D.O./Oxygen Demand, Nutrients Sources: CSOs, Habitat Modification, Urban/Storm Runo...				
H-240-219 **2010 Section 303(d) Listed Water**	Sauquoit Creek, Lower, and minor tribs (1201-0069) Fish Consumption KNOWN to be PRECLUDED Recreation KNOWN to be STRESSED Habitat/Hydrolgy KNOWN to be STRESSED Aquatic Life SUSPECTED of being STRESSED	Oneida	20.7 Mile	River	C(T)	Impaired Seg
		Causes: Priority Organics Sources: Industrial, Tox/Contam. Sediment				
H-240-219 **2010 Section 303(d) Listed Water**	Sauquoit Creek, Middle, and tribs (1201-0207) Fish Consumption KNOWN to be PRECLUDED Recreation KNOWN to be STRESSED Aquatic Life SUSPECTED of being STRESSED	Oneida	55.3 Mile	River	C(T)	Impaired Seg
		Causes: Priority Organics Sources: Landfill/Land Disp., Tox/Contam. Sediment				
H-240-219- 4	Mud Creek and tribs (1201-0062) Aquatic Life SUSPECTED of being STRESSED Habitat/Hydrolgy POSSIBLY STRESSED	Oneida	17.5 Mile	River	C(T)	MinorImpacts
		Causes: Nutrients, Silt/Sediment, Thermal Changes Sources: Habitat Modification, Urban/Storm Runoff				
H-240-219-4 - wetland	Mud Creek Wetlands (1200-0003) Habitat/Hydrolgy KNOWN to be STRESSED	Oneida	99.0 Acre	Wetland		MinorImpacts
		Causes: Other Pollutants Sources: Habitat Modification				

Mohawk River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type	Class	W.B.Category Cause/Source Information
H-240-223	Oriskany Creek, Lower, and minor tribs (1204-0008) Public Bathing SUSPECTED of being IMPAIRED Aquatic Life SUSPECTED of being IMPAIRED Recreation SUSPECTED of being IMPAIRED Habitat/Hydrolgy SUSPECTED of being STRESSED	Oneida	39.4 Mile	River	B(T)	MinorImpacts Causes: Pathogens, Nutrients Sources: Municipal, Other San Disch, Agriculture, Urban/Storm Ru...
H-240-223-10	Deans Creek and tribs (1204-0001) Aquatic Life SUSPECTED of being IMPAIRED Recreation SUSPECTED of being IMPAIRED	Oneida	57.2 Mile	River	C	MinorImpacts Causes: Nutrients, Pathogens Sources: On-Site/Septic Syst, Agriculture
H-240-223-P1052/P1053	Leland Pond (1204-0007) Recreation KNOWN to be THREATENED	Madison	9.9 Acre	Lake	C	Threatened Causes: Nutrients Sources: On-Site/Septic Syst
H-240-227	Ninemile Creek, Lower, and tribs (1201-0014) Habitat/Hydrolgy SUSPECTED of being STRESSED	Oneida	96.7 Mile	River	B(T)	MinorImpacts Causes: Thermal Changes, Silt/Sediment, Pathogens Sources: Habitat Modification
H-240-234 **2010 Section 303(d) Listed Water**	Threemile Creek and tribs (1201-0223) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be STRESSED	Oneida	2.5 Mile	River	C	Impaired Seg Causes: Priority Organics, Nutrients, Unknown Toxicity Sources: Landfill/Land Disp., Tox/Contam. Sed, Industrial, Urban...

The Waterbody Inventory Priority Waterbodies List Assessment Methodology

Appendix A

Assessment Methodology refers to what monitoring tools are used and how resulting data and information are interpreted to determine the level of support of designated uses and to arrive at an overall assessment of water quality. In some cases a lack of use support is apparent (e.g., beaches closed to public bathing or acid rain lakes devoid of fish). However, in most cases, designated use support is evaluated using established water quality criteria or surrogate indicators of water quality. The assessment methodology presented here outlines various water quality monitoring tools and considers other aspects of the resulting data and information, such as the type of data and information generated (numerical, observational/narrative or anecdotal), the source of the data/information, and the level of confidence in the data/information. The methodology also outlines specific criteria that relates water quality monitoring data and information to the degree of use support. Such criteria are critical to providing a balanced and consistent assessment of the quality of waters throughout New York State.

Types of Assessment Criteria

The methodology outlined here relies on a combination of three categories of assessment criteria:

- Use Restriction Orders,
- Numerical and Narrative Standards and Criteria, and
- Surrogate Water Quality Indicators

Use Restriction Orders are administrative restrictions or closures of waters to specific uses. These orders are issued by regulatory agencies charged with protecting particular aspects of public health and are based on data collected through monitoring activities directed by those agencies. While the restriction orders are based on monitoring data, the raw data itself is not usually re-interpreted by NYSDEC in making the use support decisions; rather the level of restricted use already in place drives the use support determination. Examples of use restriction orders include fish consumption advisories, closed shellfishing areas, seasonal or conditional shellfishing areas, public bathing beach closures, etc.

Numerical (and narrative) Water Quality Standards and Criteria represent parameter-specific thresholds for establishing limits regarding the discharge of substances to the waters of the state such that various water uses are protected. In New York State, such standards are adopted in the state Code of Rules and Regulations while criteria are established through development of formal DEC guidance. For many substances the standard or criterion exists as a numeric value; for other parameters, the standard/criterion is more descriptive (narrative) in nature (e.g., *no increase in turbidity that will cause a substantial visible contrast to natural conditions*). Although the use of standards and criteria (particularly numeric standards/criteria) would seem to be directly applicable to determining use support in ambient waters, an assessment methodology is necessary to address issues such as appropriate sampling methods, location, frequency or sample size, natural or background conditions, mixing zones, and so on.

Surrogate Water Quality Indicators are other measures of water quality conditions that are not established in standards or formal criteria. These are often used when an exact determination of use support is not possible. For example, it is difficult to say exactly when a waterbody moves from supporting to not supporting recreational activities. The use of water quality indicators, such as nutrient levels and Secchi disc measurements, bring added consistency to the evaluation. Biological assessments, sediment toxicity evaluations, Section 319 nonpoint source assessments, source water assessments, dilution calculations and predictive models all reflect levels of water quality condition and use support without reliance on standards. Even where these indicators are more subjective, indicator-specific criteria help to maintain a degree of consistency and allow for the incorporation of additional information/data sets into water quality assessments.

Waterbody Inventory/Priority Waterbodies List

NYSDEC maintains information regarding use support, including impaired waters and lesser water quality impacts, through its *Waterbody Inventory/Priority Waterbodies List (WI/PWL)* database. The *Waterbody Inventory* refers to a listing of all waters, identified as specific individual waterbodies or Assessment Units, within the state. The Waterbody Inventory includes both assessed and currently unassessed waters. The *Priority Waterbodies List* is the subset of waters in the Waterbody Inventory that have documented water quality impairments, minor impacts and/or threats. The WI/PWL assessments provide the foundation for both the compilation of the biennial Section 305(b) Water Quality Report on all waters of the state, and for the development of the state Section 303(d) List, which is comprised of waters that do not meet water quality standards and do not support water uses and require development of a TMDL. More detail regarding the WI/PWL assessment effort can be found at http://www.dec.ny.gov/chemical/23846.html.

As well as providing the basis of the New York State Section 305(b)/303(d) integrated assessment, the water quality assessment information in the WI/PWL is also instrumental in directing other water quality efforts. It is used to prioritize monitoring, permitting and compliance activities, to provide a comprehensive inventory of water quality conditions suitable for establishing funding priorities, to enlist participation of other agencies and local partners, and to track progress toward improving the state's water resources. The methodology outlined here goes beyond Section 305(b)/303(d) Integrated Reporting and reflects the use of the WI/PWL in supporting these additional needs. The methodology specific to developing the Section 303(d) List of Impaired/TMDL waters is discussed in more detail in the Section 303(d) *Listing Methodology*.

As well as providing the basis of the New York State Section 305(b)/303(d) integrated assessment, the water quality assessment information in the WI/PWL is also instrumental in directing other water quality efforts. The methodology outlined here goes beyond Section 305(b)/303(d) integrated reporting and reflects the use of the WI/PWL in supporting these additional needs.

To accommodate a thorough evaluation including public participation, the review and updating of the WI/PWL follows a continuing rotating basin schedule in which two or three of the 17 drainage areas in the state are scheduled for reassessment each year. These basin reassessments typically follow the same basin five year rotation schedule employed by the NYSDEC Rotating Integrated Basin Studies (RIBS) monitoring program (http://www.dec.ny.gov/chemical/30951.html). This continuous rotating basin schedule allows for comprehensive solicitation of available data and information, meaningful public participation and review, and more thoughtful dialogue and consideration of water quality assessments. In addition, it is easier to manage than a biennial review of all waters of the state.

To incorporate recent well-documented information, particularly for waters that have not undergone a WI/WPL update during the two-year Integrated Reporting cycle, **NYSDEC will establish September 30 of the year prior to the issuing of a Section 305(b)/303(d) Integrated Report as the cut-off date to receive data and information to be considered for inclusion in the Section 305(b)/303(d) assessment.** Establishing a September 30 "cut-off" date (6 months before the Integrated Report is due) allows both an opportunity for consideration of additional data as well as sufficient time for consideration and comment by all parties on any proposed revisions to existing water quality assessments, and time for a public review component comparable to the WI/PWL process.

Segmentation of Waterbodies

The delineation of waterbodies (Assessment Units) must strike a balance between being too specific (resulting in more segments than can be assessed with finite resources) and too general (resulting in segments that are too large and diverse and difficult to assess accurately). Determining specific boundaries for individual waterbody segments is based on a number of considerations. These factors, which correspond to those outlined in *EPA Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act* (July 21, 2003), include:

Waterbody Type Different waterbody types are not combined into single waterbody segments. That is, lakes (including reservoirs and ponds) are not combined with river reaches to form one segment. Similarly, estuary waters, ocean coastline and Great Lakes shoreline are distinct waterbody types that must be tracked as separate Assessment Units.

Stream Classification A change in the stream class (A, B, C) of a waterbody usually necessitates the division of the waterbody into separate segments, since the two different classes of waters will be assessed for the support of different designated uses. However, differences regarding trout support (T, TS waters) do not require designation of a separate segment. In the case of trout/trout spawning and non-trout portions of the same segment, the assessment reflects the support of the appropriate corresponding fish community. Similarly, Class AA, AA-Spcl or A-Spcl may be grouped with Class A waters in one segment, and Class I waters may be combined with Class SC waters which support similar uses. Note however that some small reaches of Class A or B waters might be combined with a Class C waterbody (and vice versa), if these small reaches are unlikely to be assessed separately.

Hydrologic Drainage Waterbodies that cross 8-digit Hydrologic Unit Code (HUC) and 11-digit watershed boundaries are usually broken into separate waterbody segments at the boundaries.

Waterbody Length/Size As a practical matter, waterbodies should not be too large or too small. There should also be some consistency with regard to segment size. Length/size of particular types of waterbody segments are outlined below.

Rivers and Streams - River and stream segments may be limited to main stem waters, or may include tributaries. Typically 5th order streams and above – which are significantly larger than their direct tributaries – are listed as main stem segments and tributary waters are listed as separate segments. Larger tributaries (or portions of tributaries) are considered as separate segments but in most cases include smaller tributary waters. Occasionally, smaller tributary waters to a larger main stem or lake are combined into one segment, where land use, hydrologic boundaries and other commonality indicate this is appropriate. Generally, river segments include between 10 and 25 miles of stream.

Lakes and Reservoirs - Lakes/reservoirs must be greater than 6.4 acres (0.01 square mile) to be included in the Waterbody Inventory. This is consistent with the threshold for inclusion in the New York State Lake Gazetteer. Lakes are generally listed as "entire lake." However, some very large lakes (e.g., Lake Champlain) may be segmented into separate portions. Conversely, some lake chains and/or smaller lakes in more remote watersheds may be joined together as a single segment, if land use and other commonality indicate this is appropriate.

Estuary Waters - Estuary segments are defined by physical features and stream classification with less consideration to consistency of size. Homogeneity of the waters within a segment is a key consideration.

Great Lakes/Ocean Coastline - Segments are delineated to reflect classification, hydrologic unit boundaries, and political boundaries, with an attempt to be consistent in regard to size.

Land Use and Character In addition, all waters within a single waterbody segment should drain areas of generally similar land use and character. If land use and other character changes, a separate segment is considered.

Waterbody segments are **not** defined solely upon the length/size of area impacted by a water quality problem. Estimates of the extent of water quality impacts are often inexact and may change regularly. Therefore, using this information to establish segment boundaries would make the Waterbody Inventory/Priority Waterbodies List considerably more difficult to manage and update, while providing little added benefit. Flexibility in the segmenting of waterbodies is allowed in order to provide sufficient protection of all designated uses.

WI/PWL Water Uses

- Drinking Water Supply
- Shellfishing
- Public Bathing
- Recreation
- Fish Consumption
- Aquatic Life
- Habitat/Hydrology
- Aesthetics

Evaluation of Water Use Support

The assessment of New York State water resources is based on the ability of waters to support a range of specific designated uses (see box). The particular uses that a specific waterbody is expected to support are dependent upon the classification of that waterbody. For example, only specifically designated waterbodies are considered to have best uses of *Drinking Water Supply* (Class A, AA), *Shellfishing* (Class SA) and *Public Bathing* (Class A, SA, B, SB). (See Appendix B, *New York State Water Quality Classifications*.)

The determination of use support and degree of water quality impact is drawn from a wide range of available data sources and relies on various criteria. These sources and criteria include use restriction orders (drinking water restrictions, bathing beach closures, fish consumption and shellfishing advisories), comparison of data (from NYSDEC ambient monitoring network as well as other agency, local or public/citizen monitoring program) with parameter-specific criteria that reflect water quality standards, the use of surrogate indicators, and qualitative perception and observational information (stream habitat assessments, recreational use or fishery resource surveys, citizen complaints). Given the growing involvement of local agency and citizen volunteers in water quality monitoring, the WI/PWL updating process has expanded to include a significant public participation and outreach component. This effort relies on a network of local Water Quality Coordinating Committees working in conjunction with the NYSDEC staff to capture additional available water quality information. To help ensure consistency in the assessments, basin update efforts begin with a regional WI/PWL workshop with other agency and local partners to introduce the assessment methodology and solicit water quality information.

After all readily available water quality information is collected, judgments and evaluations are made regarding:

- what specific use(s), if any, is/are affected,
- the severity of the impact on the use(s), and
- the level of documentation that corresponds to the use impact/impairment.

The focus of a water quality assessment is based on whether a specific use is restricted. If this is the case, then the severity of use impact (i.e., the degree to which the use is restricted) is evaluated as either *Precluded*, *Impaired*, *Stressed* or *Threatened* (see box). The water use impact and level of severity are also identified as *Known*, *Suspected* or *Possible* (see box) based upon available documentation. The severity of use impacts and the corresponding levels of documentation are dependent upon a number of factors, including the *magnitude* of the impact, the *frequency* of occurrence or *extent* of affected area, and *confidence* of data.

The *magnitude* of water quality impacts or degrees of use restrictions are reflected in the WI/PWL level of severity; the more significant the impact, the greater the severity. For example, fish consumption advisories may recommend eating no more than one fish per week (*Stressed*), eating no more than one meal per month (*Impaired*), or eating no fish at all (*Precluded*). With regard to water quality monitoring and its evaluation against criteria, in-stream concentrations may be below, near, at, above or well above applicable water quality criteria. Such conditions correspond to varying degrees of impact ranging from *No Known Impact*, *Threatened*, *Stressed*, *Impaired* or *Precluded*.

The *frequency* with which water quality conditions occurs, is also reflected in the WI/PWL level of severity. The more frequently a specific condition occurs, the more significant – or severe – the effect on related water resource uses. Similarly, the spatial *extent* of the water quality condition (i.e., the percent of total waterbody affected) is also reflected in the severity. For example, a bay where shellfishing is restricted in one small cove is less severely impacted than if shellfishing were restricted in the entire bay.

WI/PWL Level of Documentation

Known - Water quality monitoring data and/or *studies have been completed and conclude* that the use of the waterbody is restricted to the degree indicated by the listed severity.

Suspected - Reasonably strong evidence, supported by best professional judgment of DEC staff, *suggests* the use of the waterbody is impacted. However, water quality data/studies that establish an impact *have not been completed* or there is *conflicting information*.

Possible - Anecdotal evidence, public perception and/or specific citizen complaints indicate that the use of the waterbody *may be restricted*. However, there is *currently very little, if any, documentation* of an *actual* water quality problem.

WI/PWL Severity of Use Impact

PRECLUDED
Frequent/persistent water quality, or quantity, conditions and/or associated habitat degradation *prevents all aspects* of a specific waterbody use.

IMPAIRED
Occasional water quality, or quantity, conditions and/or habitat characteristics *periodically prevent* specific uses of the waterbody, or;
Waterbody uses are not precluded, but some aspects of the use are *limited or restricted*, or;
Waterbody uses are not precluded, but *frequent/persistent* water quality, or quantity, conditions and/or associated habitat degradation *discourage* the use of the waterbody, or;
Support of the waterbody use *requires additional/advanced* measures or treatment.

STRESSED
Waterbody uses are not significantly limited or restricted (i.e. uses are *Fully Supported*), but *occasional* water quality, or quantity, conditions and/or associated habitat degradation *periodically discourage* specific uses of the waterbody.

THREATENED
Water quality supports waterbody uses and ecosystem exhibits no obvious signs of stress, however *existing or changing land use patterns* may result in restricted use or ecosystem disruption, or;
Data reveals decreases in water quality or presence of toxics below the level of concern, or;

Frequency of occurrence and spatial extent also influence the WI/PWL level of documentation. For example, if a specific condition occurs less than 10% of the time (or in less than 10% of the waterbody), the overall water quality impacts for the total waterbody are less certain than if the frequency/extent of the condition is greater than 50%. As general guidelines, if frequency/extent of conditions are less than 10%, the level of documentation for impacts to uses corresponding to that condition is considered *Possible*. If the frequency or extent is between 10 and 25%, the level of documentation should be considered *Suspected*. If greater than 25%, the impact should be considered *Known*.

However, the use of the 10% and 25% thresholds outlined above assumes that the frequency/extent of a condition is well-established. For some measures of impact, this is not very difficult (e.g., fish consumption advisories are in effect 100% of the time, for beaches that are closed 14 days out of a 100 day season the frequency is 14%, for estuary segments where shellfishing is restricted in 40 of 200 acres the extent is 20%). However, for other water quality monitoring the determination of frequency/extent depends upon a number of factors, including the level of data confidence.

Data confidence refers to statistical measures that help determine the degree of certainty that a condition exists. Such statistical confidence depends upon a number of factors (monitoring design, number of samples collected, variability of analysis) and is an important factor in determining the WI/PWL level of documentation. Other considerations, such as quality and age of data, also influence the level of documentation.

Though they are related, it is important not to confuse data confidence with the frequency/extent of a condition. For example a single data point might show exceedence of a standard. While this represents high frequency of a condition (100%), the level of data confidence based on just one sample is usually quite low.

WI/PWL Assessment Categories

Based on the degree of use support, severity of impact/impairment and level of documentation, all waterbodies in the WI/PWL are assigned to one of five possible *Water Quality Assessment Categories*. These categories are outlined below and in Table 1.

> <u>*Impaired Waters*</u> are waterbodies with well documented water quality problems that result in *Precluded*, or *Impaired* uses and, in most cases, a level of documentation of *Known* (occasionally *Suspected*). Waters with *Stressed, Threatened* uses are not included in this category.
>
> <u>*Waters with Minor Impacts*</u> are waterbodies where less severe water quality impacts are apparent, but uses are considered fully supported. These waters correspond to waters listed as having *Stressed* uses and a level of documentation of *Known* or *Suspected*.
>
> <u>*Threatened Waters*</u> are waterbodies for which uses are not restricted and no water quality problems currently exist, but where data suggests declining water quality trends or specific land use or other changes in the surrounding watershed are *Known* to be threatening water quality. Also included in this category are waterbodies where the support of a specific and/or distinctive use make the waterbody more susceptible to *Possible* water quality threats.
>
> <u>*Waters with Impacts Needing Verification*</u> are waterbodies that are thought to have water quality problems or impact, but for which there is not sufficient or definitive documentation. These segments include waters with *Stressed* uses and a level of documentation of *Possible* and waters with *Threatened* uses and a *Suspected* level of documentation Such waterbodies require additional monitoring to determine whether uses are restricted or threatened.

Waters Having No Known Impacts are waterbodies where monitoring data and information indicate that there are no use restrictions or other water quality impacts, threats or issues.

UnAssessed Waters are waterbodies where there is no available water quality information to assess the support of designated uses.

Table 1 **Relationships Between WI/PWL Severity/Documentation and Water Quality Assessment Categories**

Severity of Problem	Level of Problem Documentation		
	Known	**Suspected**	**Possible**
Precluded	Impaired Water	N/A*	N/A*
Impaired		Impaired Water	N/A*
Stressed	Minor Impacts but Fully Supporting	Minor Impacts but Fully Supporting	Needs Verification (Considered Minor Impacts But Fully Supporting)
Threatened	Threatened, but Fully Supporting	Needs Verification (Considered Threatened)	Threatened (Poss) (But Fully Supporting)
None	No Known Impairment - Fully Supporting Uses		
Unknown	UnAssessed Water		

* For more severe impacts (*Precluded, Impaired*) a greater level of documentation is needed.

The WI/PWL Water Quality Assessment Categories differ somewhat from the national Use Attainment Categories suggested by USEPA in their Integrated Reporting guidance for reporting on water quality. Whereas the Integrated Reporting Use Attainment Categories are more narrowly tailored to focus on questions concerning the attainment of water quality standards and the appropriateness of TMDLs to address water quality impairments, the WI/PWL categories are crafted to better provide support for a myriad of NYSDEC water quality management programs.

Perhaps the most significant difference between the two frameworks involves the WI/PWL's inclusion of *Waters with Minor Impacts* (*Stressed* waters). This category allows the WI/PWL to track waters that fully support uses but with less than ideal water quality. Conditions in these waters are considered stable, have been well documented and additional protection activities are not necessarily needed to maintain use support into the future.

The tracking of waters with minor impacts – while not readily accommodated in the national Use Attainment Category scheme – supports the NYSDEC water quality management programs and is an integral component of its overall watershed restoration and protection efforts. The emphasis at the federal government level regarding water quality efforts continues to be focused on the restoration of waters that do not support uses (*Precluded*, *Impaired*). However in New York – at both the state and local levels – there is growing interest and support for directing

The tracking of waters with minor impacts – while not readily accommodated in the national Use Attainment Category scheme – supports the NYSDEC water quality management programs and is an integral component of its overall watershed restoration and protection efforts.

resources to protection efforts as well. Maintaining non-impacted waters and improving waters with lesser impacts is often a more effective use of limited resources for the advancing of water quality goals and progress. The more comprehensive framework of WI/PWL assessment categories better supports efforts to benefit these waters.

Although the current national Integrated Reporting Use Attainment Categories differ from the WI/PWL Assessment Categories, the two schemes share significant similarities. As a result waters assigned to WI/PWL Assessment Categories translate easily to corresponding USEPA designations. A more detailed discussion of the linkage between the WI/PWL Assessment Categories and the national Integrated Reporting Categories is presented in the Listing Methodology.

Monitored and *Evaluated* Waters

In compiling water quality information for 305(b) Reporting, states are to distinguish between water quality assessments based on monitoring data, and assessments based on other information. The distinctions between *Monitored* and *Evaluated* Waters in New York State are outlined below.

> **Monitored Waters** are those waterbodies for which the use support assessment is based primarily on current (i.e., less than 5 years old) site-specific ambient monitoring data. Such data includes biological monitoring (macroinvertebrate assessment, toxicity testing) and/or chemical/physical monitoring results. Because fixed-station chemical/physical monitoring represents only a "snapshot" in time, such monitoring should be conducted quarterly or more frequently if it is to accurately portray water quality conditions at the site.
>
> **Evaluated Waters** are those waterbodies for which the use support assessment is based on information other than current site-specific ambient monitoring data. Such assessments may rely on land use data, identification of sources, predictive modeling and/or surveys of water quality and natural resource staff. Also, assessments based on older ambient monitoring data are generally considered to be "evaluated."

Use-Specific Assessment Criteria

Detailed guidelines regarding the relationships between the results of various monitoring and assessment indicators and corresponding levels of support for specific water uses are discussed on the following pages. Assessment criteria tables for specific designated water uses, which are intended to provide guidance to insure consistent evaluation of water quality, are included in these guidelines. The criteria in the tables are intended to define general boundaries between levels of impact (severity) and degrees of confidence (documentation). Individual waterbody assessments are evaluated on a case-by-case basis. These assessments may take into account additional or alternative indicators not captured in the assessment criteria tables and may require the application of best professional judgment. Multiple water quality indicators that may suggest conflicting levels of impacts also require careful consideration (see also *Independent Applicability and Weight of Evidence*).

In establishing assessment criteria to determine what uses are supported in a waterbody, New York State takes into consideration a number of factors. The starting point for the criteria is often based on established NYS water quality standards and/or guidance values. These standards and guidance values are integral to many water quality activities, including – and perhaps most prominently – the derivation of water quality-based effluent limitations for SPDES discharge permits. The NYS water quality standards and accompanying guidance recognize that the application of standards to the derivation of permit limits and the determination of compliance or noncompliance of discharges with the standards require additional interpretation and instruction, as approved by the department. This additional guidance is necessary to address issues such as appropriate sampling methods, sampling location, flow variability, averaging periods, frequency of sampling or sample size, natural or background conditions, mixing zones, and so on.

Similarly, the application of water quality standards and guidance values to determine use support and levels of impact/impairment also requires some interpretation and additional guidance. The most recent USEPA Integrated Reporting Guidance notes specifically the need for states to address issues of data quality, data quantity and data representativeness in making assessment decisions. The guidance speaks at some length on the issue of data representativeness, and recognizes that the "...spatial and temporal representativeness of data and information should be considered by states as they attempt to characterize conditions..." The guidance continues to note that:

> "...state methodologies should describe, in general terms, the decision logic used to determine the temporal and spatial extent a grab sample can be construed to represent. In order to make credible assessment determinations, states should employ approaches that strike a balance between the extremes of: (1) considering every grab sample to be representative of merely the instant in which, and the drop of water from which, each was taken, or (2) assuming that each such sample is representative of conditions over several years, and covering hundreds of stream miles of hundreds of lake acres."

This New York State Assessment Methodology, and the associated Listing Methodology attempts to strike the balance called for in the USEPA guidance through the use of established water quality standards and guidance values, other criteria and indicators and the application of best professional judgment. However, NYDEC recognizes that achieving this balance is a work in progress and is continuing to work together with USEPA to improve the transparency of decision-making based on different types of data collected from numerous monitoring programs.

Drinking Water Supply Use

Only those waters where *Drinking Water Supply* is designated as the best usage (i.e., Class A, AA, A/AA-Special surface and Class GA groundwaters) are evaluated for support of this use. The evaluation of *Drinking Water Supply* use support is driven largely by water quality information and monitoring data generated by the New York State Department of Health (NYSDOH) or local health departments, which are primarily responsible for the protection of public health in the state.

A comprehensive evaluation of *Drinking Water Supply* use must consider the use on a number of levels. The first of these considerations focuses on administrative closures or restrictions on a *Drinking Water Supply* use. However, while this criterion is most directly related to the use, it is not sensitive to impacts.

Consequently, a secondary level of assessment uses the degree of treatment necessary for a water supply to be used for drinking water. The intent of this assessment criterion is to categorize as *Impaired* any water supply that requires "extra-ordinary" treatment measures. Given national filtration rules and other considerations, defining "extra-ordinary" is somewhat difficult. The criteria language – *"additional treatment beyond conventional processes (coagulation, sedimentation, filtration, disinfection) is required to remove any impurities that are not naturally present"* – reflects similar language used in the New York State Water Quality Regulations for classification of waters.

Because of the human health implications, threats to and protection of the *Drinking Water Supply* use take on added significance. Therefore, it is also appropriate to evaluate these waters prior to and without consideration of final treatment. This level of assessment evaluates contaminant concentrations relative to standards for the protection of Health (Water Source). In addition, other information regarding nutrient levels, precursors to Trihalomethane (THM) formation and other contaminants that may affect *Drinking Water Supply* use and quality is reflected in measures of natural sensitivity and susceptibility as determined through the NYSDOH Source Water Assessment Program (SWAP).

Table 2 Drinking Water Supply Use Assessment Criteria

Use Assessment Criteria	WI/PWL Use Impact	
	Severity	**Documentation**
Frequent/Persistent Conditions Prevent Use • NYS/local Health Department water supply closures lasting >30 days.	Precluded	Known
Occasional Conditions Prevent Use • NYS/local Health Department water supply closures lasting up to 30 days.	Impaired	Known
Frequent/Persistent Conditions Discourage Use • Impacts do not require closure or advisories but adversely affect the quality of the finished water and/or treatment costs (e.g., taste/odors, color, turbidity, activated charcoal filtration, etc.), or • Monitoring data show exceedence of *Impaired* criteria* for cryptosporidium, coliform, or • Monitoring data show exceedence of *Impaired* parameter-specific criteria* for other substances more than 10% (*suspected*) or 25% (*known*) of time.	Impaired	Known or Suspected
Occasional Conditions Discourage Use • SWAP determination of *very high susceptibility* [1] • Monitoring data show exceedence of *Stressed* criteria* for cryptosporidium, coliform, or • Monitoring data show exceedence of *Stressed* parameter-specific criteria* for other substances more than 10% (*suspected*) or 25% (*known*) of time.	Stressed	Known or Suspected [1]
Conditions Support Use, but Threats Noted • SWAP determination of *high susceptibility* [1] • Monitoring data show exceedence of *Threatened* parameter-specific criteria* more than 10% (*suspected*) or 25% (*known*) of time.	Threatened	Known or Suspected [1]
No Known Impairment or Imminent Threat • No drinking water restrictions, and • No additional treatment required, and • No significant contaminants/threats present.	No Known Impact	Assessment Level *Monitored or Evaluated*

***Parameter-Specific Criteria**	*Impaired*	*Stressed*	*Threatened*	
Cryptosporidium (average)	7.5	3.0	–	oocysts/100 L
Cryptosporidium (individual)	–	7.5	3.0	oocysts/100 L
Coliform, Total (median)[2]	50/2,400	–	–	per 100 ml
Coliform, Fecal (geometric mean)	200	–	–	per 100 ml
Ammonia/Ammonium	20	10	5	mg/l
Nitrate, as N	10	5	2	mg/l
other substances (source water) [3]	Standard	50% of Std.	20% of Std.	
other substances (finished water) [4]	MCL	50% of MCL	20% of MCL.	

[1] Impacts/impairments based on SWAP susceptibility determinations should be listed as *Suspected*.
[2] Refers to Class AA and A respectively.
[3] Refers to substances for which there are NYS water quality standards for protection of *Health (Water Source)*.
[4] Refers to substances for which there are Maximum Contaminant Levels (MCL) for finished drinking water.

The relationship between drinking water supply advisories, monitoring data, SWAP determinations and other information and the level of *Drinking Water Supply* use support is outlined in Table 2.

Shellfishing Use

Support of *Shellfishing* use is assessed for Class SA marine waters only. These assessments reflect the level of certification of the waters for the taking of shellfish as determined by DEC Division of Fish, Wildlife and Marine Resources and based on NYSDEC regulations (6NYCRR, Part 47, *Certification of Shellfish Lands*) and National Shellfish Sanitation Program requirements. Shellfishing waters that are not certified may be closed year-round, seasonally, or conditionally (after rainfalls events of a specific magnitude). Other restrictions on the use include requirements to transplant the shellfish to certified waters for cleansing prior to harvesting for human consumption. More information regarding the NYSDEC Shellfishing program can be found at http://www.dec.ny.gov/outdoor/345.html.

Table 3 Shellfishing Use Assessment Criteria

Use Assessment Criteria	WI/PWL Use Impact	
	Severity	**Documentation**
Frequent/Persistent Conditions Prevent Use • NYSDEC Division of Fish, Wildlife and Marine Resources (DFWMR) has designated more than 25% of the waterbody area as uncertified year-round for shellfishing based on water quality conditions and contaminants, or • DFWMR has designated more than 10% of the area as uncertified year-round AND shellfishing in remaining area is restricted (i.e., only *seasonally* or *conditionally* certified) based on water quality conditions..	Precluded	Known
Occasional Conditions Prevent Use • DFWMR has designated 10 to 25% of the waterbody area as uncertified year-round based on water quality conditions, or • DFWMR has designated more than 25% of the waterbody area as restricted (i.e., only *seasonally* or *conditionally* certified) based on water quality conditions.	Impaired	Known
Occasional Conditions Discourage Use • DFWMR has designated up to 25% of the waterbody area as restricted (i.e., only *seasonally* or *conditionally* certified) based on water quality conditions, or • DFWMR has designated more than 10% of the waterbody area as uncertified based on administrative guidelines (nearby outfall, marina).	Stressed	Known
Conditions Support Use, but Threats Noted • DFWMR has designated < 10% of the waterbody area as uncertified, or • DFWMR has designated the entire waterbody as certified, but significant trib waters are uncertified due to water quality conditions.	Threatened	Known or Suspected
No Known Impairment or Imminent Threat • DFWMR has designated the entire waterbody as certified for the taking of shellfish and all significant trib waters are also certified.	No Known Impact	Assessment Level: *Monitored*

* For large estuary segments where 10-25% of the waterbody area represents a significant closure or restriction, a greater severity of use impact may be assigned to the waterbody.

Shellfishing restrictions may be driven by either water quality or by administrative requirements. Water quality-based closures are the result of actual bacteriological monitoring and subsequent findings that the waters do not support safe consumption of shellfish. Administrative closures are precautionary; they are not necessarily reflective of water quality conditions but are issued for areas where the *potential* for contamination of shellfish exists. Administrative closures are generally issued for areas in close proximity to WWTP discharges and for waters around marinas. Generally closures based on actual water quality monitoring correspond to *Precluded/Impaired* uses, depending on the type of restriction (year-round, seasonal, conditional) and the percent of waterbody area affected. If the area affected by a water quality-based closure is relatively small, the severity of impact may be listed as *Stressed*. Administrative closures – because they are more precautionary in nature – correspond to *Shellfishing* that is *Stressed* or *Threatened.* The relationship between certification and level of *Shellfishing* use support is reflected in Table 3.

> Generally, closures based on actual water quality monitoring correspond to *Precluded/Impaired* uses. Administrative closures – because they are more precautionary in nature – correspond to a *Shellfishing* use that is *Stressed* or *Threatened*.

Waters that are designated Class SB or SC are not assessed for *Shellfishing* use support, even if they have been evaluated by the National Shellfish Sanitation Program. However, because shellfishing is arguably the most sensitive of the uses assessed, if any Class SB, SC waters are certified for shellfishing they will be assessed as having *No Known Impairment* to other uses (unless additional/other water quality data indicates an impairment). If these waters are uncertified (due to water quality) then *Public Bathing/Recreation* are considered to be *Stressed*. A more severe level of impact to *Public Bathing/Recreation* requires monitoring data corresponding to those uses.

Public Bathing and Recreation Uses

Swimming and other recreational activities are important and popular uses for the waters of the state. The assessment of these activities involves two separate use categories: *Public Bathing* and *Recreation*. While the assessment of both *Public Bathing* and *Recreation* uses rely on similar water quality indicators, these two distinct uses are evaluated separately.

Evaluation of *Public Bathing* use is limited to those waters classified by New York State for primary contact recreation (i.e., Class B, SB, A, AA, A/AA-Special and SA). This classification applies to waters specifically designated as suitable for public beaches and bathing areas, which see an increased level of swimming use and are more regularly monitored by public health agencies. State and local/county health departments conduct regular bacteriological sampling programs and perform sanitary surveys at designated public bathing areas. Based on the findings of these surveys, bathing use may be restricted either permanently or periodically. Localized closings may also occur due to contamination by spills, waterfowl, or runoff from wet-weather events. It should be noted although Class C, D and SC waters also include primary contact recreation as a specified designated use, because of their natural physical characteristics, these waters are generally not suitable as public beaches and bathing areas.

> As a practical matter, not all waters of the state are regularly monitored to assess swimming use support to the degree that designated public bathing areas are. Therefore, general precautions should be taken regarding recreation in these other waters.

Evaluation of the *Public Bathing* use focuses primarily on public health concerns, particularly bacteriological contamination and water clarity. Consequently the Public Bathing Use Assessment Criteria are linked primarily to these parameters as well as beach closures.

The relationship between bathing restrictions, water quality monitoring and other indicators (including the closely-related *Recreation* use assessment) and the level of *Public Bathing* use support is reflected in 4.

Table 4 Public Bathing Use Assessment Criteria

Use Assessment Criteria	WI/PWL Use Impact	
	Severity	**Documentation**
Frequent/Persistent Conditions Prevent Use • NYS/local Health Department has closed the waterbody to swimming for the entire season, based on water quality (bacteriological) monitoring data.	Precluded	Known
Periodic/Occasional Conditions Prevent Use • NYS/local Health Department has issued temporary closures of the waterbody to swimming, based on water quality (bacteriological) monitoring data, or • Sufficient stream flow/water level necessary to support swimming uses are artificially restricted.	Impaired	Known
Frequent/Persistent Conditions Discourage Use • Swimming use requires additional measures (e.g., aquatic weed harvesting/control). • Monitoring data show exceedence of *Impaired* criteria* (bacteriological, clarity) more than 10% (*suspected*) or 25% (*known*) of time.	Impaired	Known or Suspected
Occasional (Other) Conditions Discourage Use • *Recreation* uses are assessed as *Impaired/Precluded*[1], or • Monitoring data show exceedence of *Stressed* criteria* (clarity) more than 10% (*suspected*) or 25% (*known*) of time.	Stressed	Known or Suspected[1]
Conditions Support Use, but Threats Noted • Monitoring data show exceedence of *Threatened* criteria* (clarity, phosphorus) more than 10% (*suspected*) or 25% (*known*) of time.	Threatened	Known or Suspected
No Known Impairment or Imminent Threat • NYS/local Health Department has not restricted swimming, and • Swimming use does not require any additional measures, and • Monitoring data does not exceed criteria* (>10% of time), and • *Recreation* uses are not *Impaired/Precluded*.	No Known Impact	Assessment Level: *Monitored*

* **Monitoring Data Criteria**	*Impaired*	*Stressed*	*Threatened*	
Coliform, Total (geometric mean)	2,400	–	–	per 100 ml
Coliform, Fecal (geometric mean)	200	–	–	per 100 ml
Entericocci (geometric mean)	See below [2]			
Clarity (Secchi Disc)	1.2	1.5	2.0	meters
Total Phosphorus [3,4]	–	–	20	µg/l

[1] *Public Bathing* assessments based on *Recreation* use support should be listed as *suspected*.
[2] For marine waters (excluding tributaries), the enterococci criteria is 35/100 ml. For Great Lakes waters (excluding tributaries), the enterococci criteria is 126/100 ml.
[3] Application of the Total Phosphorus criteria is limited to lakes and ponded waters.
[4] Based on current New York State criteria indicative of elevated nuisance conditions and slight impacts to recreation; other state/national nutrient criteria currently being developed will be incorporated into the Assessment Methodology once adopted.

Table 5 Recreation Use Assessment Criteria

Use Assessment Criteria	WI/PWL Use Impact	
	Severity	**Documentation**
Frequent/Persistent Conditions Prevent Use • NYS/local Health Department has closed the waterbody to swimming, boating or other recreational use for the entire season, due to water quality concerns.	Precluded	Known
Periodic/Occasional Conditions Prevent Use • NYS/local Health Department has issued temporary closures of the waterbody or portions of the waterbody to swimming, boating or other recreational use due to water quality concerns, or • Sufficient stream flow/water level necessary to support recreational uses are artificially restricted.	Impaired	Known
Frequent/Persistent Conditions Discourage Use • Recreational uses of water require additional measures (e.g., weed harvesting/control), or • *Public Bathing* uses are assessed as *Impaired/Precluded*, or • Monitoring data show exceedence of *Impaired* criteria* more than 10% (*suspected*) or 25% (*known*) of time, or • Observational criteria* indicating restricted recreational uses are noted more than 50% of the time.	Impaired	Known or Suspected [4]
Occasional (Other) Conditions Discourage Use • *Public Bathing* uses are assessed as *Stressed*, or • Monitoring data shows exceedence of *Stressed* criteria* more than 10% (*suspected*) or 25% (*known*) of time, or • Observational criteria** indicating restricted recreational uses are noted more than 25% of the time.	Stressed	Known or Suspected [4]
Conditions Support Use, but Threats Noted • Monitoring data shows exceedence of *Threatened* criteria* more than 10% (*suspected*) or 25% (*known*) of time. • Observational criteria** indicating restricted recreational uses are noted more than 10% of the time.	Threatened	Known or Suspected [4]
No Known Impairment or Imminent Threat • *Public Bathing* uses are not *Stressed, Impaired, Precluded*, and • Recreation uses not restricted, nor require additional measures, and • Monitoring data does not exceed criteria* (>10% of time), and • Observational criteria** for restricted use not noted (>10% of time).	No Known Impact	Assessment Level: *Monitored*

*** Monitoring Data Criteria**	*Impaired*	*Stressed*	*Threatened*		
Total Phosphorus [1, 2]	–	20	–	µg/l	
Chlorophyl a [1]	15	12	8	µg/l	
Clarity (Secchi Disc) [1]	1.2	1.5		2.0	meters

**** Observational Data Criteria** [3, 4]

Swimming/recreation slightly (or more) restricted by specifically identified causes (algae, clarity, etc).

[1] Application of the Total Phosphorus criteria is limited to lakes and ponded waters.

[2] State/national nutrient criteria to be developed and incorporated into the Assessment Methodology.

[3] *Observational Criteria* refers to responses on ***CSLAP Field Observation Forms***. Specifically, *Condition of Lake* notes presence of algae, *Suitability for Recreation* notes some impacts/impairment, and *Opinion of Recreational Use* notes weeds and/or clarity problems.

[4] Impacts/impairments based on observational criteria should be listed as *suspected*.

The category of *Recreation* tracks impacts and impairments to a more expansive list of recreational activities, such as fishing, boating, water skiing, rafting, wading and other primary/secondary contact activities, including swimming. The requirement of all waters to support *Recreation* uses addresses the federal Clean Water Act goal that all waters be *swimmable*.[6] However, while all waters of the state are to be swimmable, as a practical matter not all waters of the state are regularly monitored to assess swimming use support to the same degree that designated public bathing areas are. As a result of differing criteria and the varying levels of monitoring, *Public Bathing* (Class B, SB, A, AA, A/AA-Special and SA) waters are evaluated more rigorously than other *Recreation* use waters.

Whereas the *Public Bathing* use assessment has a greater focus on public health concerns, *Recreation* uses are assessed more broadly. The evaluation of *Recreation* use support places emphasis on excessive weed growth, silty/muddy lake bottoms, color, odors and other conditions that discourage recreational activity. In those cases where certain Class C, D, and SC waters have been assessed for bacteria, these results will be incorporated into the overall assessment of the *Recreation* use for these waters.

Excessive nutrient levels – which may increase turbidity, lower dissolved oxygen, and promote aquatic plant and algal growth – may also discourage the use of lakes, ponds and reservoirs for recreation activities. Recognizing this, NYSDEC derived a total phosphorus criterion of 20 µg/l for the protection of recreational uses in lakes. However the criterion is based on lake user surveys and was developed to be indicative of *elevated nuisance conditions and slight impacts to recreation*. Such impacts are more closely aligned with Stressed/Threatened uses than with Impaired uses. Because of its basis, the criterion is more appropriate in assessing more general *Recreation* use support than *Public Bathing* use. However, since conditions resulting from elevated nutrients and weed/algal growth also may threaten swimming, this indicator is included in the *Public Bathing* use assessment as indicating *Threatened* uses.

The relationship between water quality monitoring and other indicators and the severity and documentation of an impact to *Recreation* use is reflected in Table 5. For various nutrient parameters, Table 5 refers to *"state/national criteria to be developed and incorporated into the Assessment Methodology."* This flexibility of language reflects a need to accommodate the ongoing efforts by NYSDEC (and USEPA) to develop and implement nutrient criteria, including the use of different ecoregion-specific criteria for various regions of the state. Once these criteria are established, the Assessment Methodology will be revised to reflect them. Until then the surrogate indicators outlined in Table 5 will be used to assess recreational use support.

Fish Consumption Use

The assessment of *Fish Consumption* use is based on NYSDOH advisories regarding the catching and eating of sportfish, and contaminant monitoring in fish tissue, other biological tissue and surficial bottom sediments. The advisories reflect federal government standards for chemicals in food that is sold commercially, including fish. The NYSDEC Division of Fish Wildlife and Marine Resources routinely monitors contaminant levels in fish and game. Based on this monitoring data, NYSDOH issues advisories for specific waterbodies and species when contaminant levels in sportfish exceed the federal standards.

These advisories are updated and published annually. In addition to the waterbody-specific advisories, a general advisory recommends eating no more than one meal (one-half pound) per week of fish taken from New York

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[6] In order to meet the federal Clean Water Act goal that all waters be "swimmable," water quality of New York State waters Class C, SC (and above) "shall be suitable for primary and secondary contact recreation." However, other factors (such as flow/depth, access, conflicting use) may limit this use. (See NYS Classifications for Surface Waters, Part 701.1 thru 701.14.)

State freshwaters and some marine water at the mouth of the Hudson River. These general advisories are to protect against eating large amounts of fish that have not been tested or that may contain unidentified contaminants. Because the general statewide and marine waters advisories are precautionary and not based on any actual contaminant monitoring data, it does not represent any documented impairment of *Fish Consumption* use. Consequently, the general statewide advisories are not reflected in the assessment of *Fish Consumption* use. Current statewide advisories regarding snapping turtles and wild waterfowl are not reflected in the methodology for similar reasons.

Other general advisories recommend limiting the consumption of striped bass, bluefish and eels taken from marine waters due to specific habits or characteristics that make these species more likely to accumulate contaminants (particularly PCBs). Because these marine water advisories (outside of New York Harbor and Western Long Island Sound) are also more precautionary in nature and no more significant than the statewide advisory for freshwaters, they correspond to *Stressed* rather than *Impaired* use.

The relationship between the waterbody-specific fish consumption advisories and the severity and documentation of an impact/impairment to *Fish Consumption* use is reflected in Table 6.

Table 6 Fish Consumption Use Assessment Criteria

Use Assessment Criteria	WI/PWL Use Impact	
	Severity	**Documentation**
Frequent/Persistent Conditions Prevent Use • NYSDOH advisory recommends eating no fish (or none of sub-species) from a specific waterbody.	Precluded	Known
Periodic/Occasional Conditions Prevent Use • NYSDOH advisory recommends limiting consumption of fish (no more than one meal per month) from a specific waterbody.	Impaired	Known
Occasional (Other) Conditions Discourage Use • Monitoring of fish tissue shows contaminant levels that exceed levels of concern, but NYSDOH advisory has not been issued. • NYSDOH general advisory recommends limiting consumption of fish (no more than one meal per week) from certain marine waters. • Monitoring of macroinvertebrate tissue or surficial bottom sediment shows contaminant levels that exceed levels of concern.	Stressed	Known or Suspected
Conditions Support Use, Threats Noted • Monitoring of fish (known) or macroinvertebrate tissue/bottom sediment (suspected) shows contaminant levels present but not exceeding levels of concern.	Threatened	Known or Suspected
No Known Impairment or Imminent Threat • No fish consumption advisory beyond the NYSDOH *General Advisory for Eating Gamefish*, and • Monitoring data revealing no contaminants in fish, macroinvertebrate tissue or surficial bottom sediment above background levels.	No Known Impact	Assessment Level: *Monitored*

Aquatic Life Use Support

A primary focus of the Statewide Waters Monitoring Program (SWMP) involves determining the degree to which waters support aquatic life. There are a number of reasons for this emphasis:

- *Aquatic Life* use support must be maintained in all waters, regardless of classification, and
- *Aquatic Life* use support is one of the most sensitive of national use support categories, and
- *Aquatic Life* use support can be assessed easily and economically using biological sampling techniques.

The evaluation of *Aquatic Life* use support represents a recent change to the WI/PWL. Prior to 1999, the WI/PWL tracked waterbody support of *Fish Propagation* and *Fish Survival* rather than *Aquatic Life* use support. This was a reflection of the designated uses outlined in New York State standards. However, the change to the broader category of *Aquatic Life* use support better represents the results of the macroinvertebrate sampling used to assess water quality. The change from *Fish Propagation/Survival* to *Aquatic Life* use support also provides greater flexibility in reporting water quality and allows tracking of aquatic impacts that are not sufficiently severe as to be apparent in the fishery. The revised category also corresponds more closely to the USEPA national use support category.

Different types of monitoring data may be used to determine *Aquatic Life* use support use. The SWMP relies on biological sampling. The assemblage most frequently used is macroinvertebrates, however the program has recently incorporated some periphyton and, to a lesser degree, fish community assessments. The relationship between biological (macroinvertebrate) assessment, as described in the *Quality Assurance Work Plan for Biological Stream Monitoring in New York State* (*Bode, et.al., 2002*) and the impact/impairment to *Aquatic Life* use support is shown in Table 7.

Table 7 Aquatic Life Use Support Assessment Criteria

Biological (Macroinvertebrate) Assessment		WI/PWL Use Impact	
		Severity	**Documentation**
Severely Impacted (Very Poor)		Precluded	Known
Moderately Impacted (Poor)		Impaired	Known
*Slightly Impacted** (Good)	Other indications of impact present	Stressed	Suspected or Known
	No other indications of impact	No Known Impact	Assessment Level: *Evaluated*
Non-Impacted (Very Good)		No Known Impact	Assessment Level: *Monitored*

* *Slightly Impacted* represents a broad category ranging from generally good water quality to conditions causing minor impacts, but still providing adequate support of aquatic life.

Independent Applicability and Weight of Evidence

A comprehensive evaluation of *Aquatic Life* use support must consider all available biological, physical/chemical and toxicity monitoring data. Biological assessment of the macroinvertebrate community is a good integrator of these monitoring components. Consequently, when biological macroinvertebrate community assessment data is available and considered definitive, *Aquatic Life* use support is generally determined as outlined in Table 7. For instances in which assessment of the macroinvertebrate community is inconclusive and/or other indicators suggest different levels of use support, aquatic life use support determination is made by further consideration of all available monitoring data and comparison of monitoring data results against the applicable water quality standards and criteria for the protection of aquatic life.

To address the possibility of conflicting results, USEPA developed a policy of *Independent Applicability*. This policy states that where there are conflicting and equally valid data sets no one type of assessment (biological, physical/chemical, toxicity) can be used to override a finding of water quality impact/impairment that is based on another type of assessment. However, while no one assessment type routinely takes precedence over others, the evaluation of conflicting assessments must take into account levels of documentation, quality and overall confidence in the data, other artifacts of monitoring data (e.g., analytic methods, sampling techniques, etc.), how representative the sampling is of conditions in the larger waterbody segment and the relationship of the indicator to the actual use being assessed. These considerations (or *weight of evidence*) may, in fact, lead to favoring one assessment over others in arriving at an assessment for a specific waterbody. Because biological sampling is a good integrator of water quality conditions and it is a direct measurement of aquatic life use support, it is often the deciding factor in assessment decisions for this use.

Assessment of Naturally Occurring Low Dissolved Oxygen Waters

NYS water quality standards for dissolved oxygen for the protection of aquatic life specify that dissolved oxygen in waters should not be less than the standard "at any time." In some instances this "never less than" condition is qualified to except waters where low dissolved oxygen is the result of natural conditions (Class AA-Special, AA, A, B and C trout spawning waters); for other waters, the natural conditions exception is not explicit. However, whether explicitly stated or not, assessments of use support based on dissolved oxygen should recognize that low dissolved oxygen at lower depths of non-flowing waters (i.e., lakes and impoundments) or in areas of poor aeration, circulation or natural organic loadings are likely to occur.

A review of the assessment methodologies of other northeastern states finds that most recognize and allow for natural conditions of low dissolved oxygen that do not result in designation of the water as not supporting uses.[7] These states allow for the application of "best professional judgment" in determining whether low dissolved oxygen values are naturally occurring, whether they are representative of the waterbody as a whole, and how they should be considered in light of biological sampling results and other available information. In fact, USEPA in earlier *Guidelines for the Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates* (USEPA, 1997) includes low dissolved oxygen (and low pH) caused by poor aeration or natural organic materials among its examples of what might be considered naturally occurring conditions.

Water quality assessment for the determination of *Aquatic Life* use support applies an approach to the evaluation of dissolved oxygen results that recognizes that morphology and other natural conditions may contribute to the occurrence of low dissolved oxygen in some waters. Specifically, data will be evaluated on a case-by-case basis to determine whether impacts result in impairments to aquatic life and/or other uses, and the degree to which natural conditions contribute to the impacts. This evaluation will be made using best professional judgement, with attention to other available physical/chemical indicators and particular emphasis on biological assessments which are a more direct measurement of aquatic life use support. As the triennial water quality standards rule-making effort moves forward, NYSDEC will evaluate the current dissolved oxygen standards for freshwater in light of available research and adopt a criterion that might better reflect the natural occurrence of low dissolved oxygen in deeper waters and its impact on use support. (See also *Impacts Due to Natural Conditions/Conflicting Uses* in the Listing Methodology.) A general relationship between dissolved oxygen data, water chemistry and aquatic biology and assessed impacts to aquatic life use support is shown in Table 8.

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[7] Both Vermont and Pennsylvania allow for seasonal and periodic variations in hypolimnetic dissolved oxygen (perhaps as low as 0 mg/l) if biological sampling reveals a healthy aquatic (marcoinvertebrate, fish) community. Rhode Island also recognizes that D.O. measurements should not exceed the criteria "except as naturally occurs." And New Hampshire states that "exceedances of most water quality criteria due to naturally occurring conditions are not considered violations of water quality standards."

Impacts from Low/High pH on *Aquatic life Use Support*

One important chemical indicator for evaluating *Aquatic Life* use support is pH. Specific criteria regarding the use of pH data to determine *Aquatic Life* use support is applied to waterbodies, particularly lakes and ponds, that are subject to atmospheric deposition/acid rain. Because of the extent and significance of this issue, extensive chemical sampling efforts to monitor the pH of streams, lakes and ponds in the state have long been in place. The *Aquatic Life* use support/pH criteria takes advantage of the considerable amount of study and available chemical (pH) data. These efforts provide strong evidence that pH levels that fall somewhat outside the 6.5 to 8.5 range specified in NYS water quality standards are still supportive of aquatic life. As is the case with low dissolved oxygen (cited above), other states as well as USEPA have recognized the occurrence of natural conditions that may result in low pH levels.

Table 8 Aquatic Life Use Support/D.O. Assessment Criteria

Lake/River Conditions (Dissolved Oxygen, Water Chemistry, Aquatic Biology)	WI/PWL Use Impact	
	Severity	Documentation
Dissolved Oxygen not meeting standards is consistent over depth, season and/or area.	Impaired	Known
Dissolved Oxygen not meeting standards periodically and/or not consistent over depth, season and/or area, and other indicators (water chemistry, aquatic biology) suggest impairment.	Impaired	Known
Dissolved Oxygen not meeting standards periodically and/or not consistent over depth, season and/or area, and no other indicators or use support/impairment are available.	Stressed *	Possible *
Dissolved Oxygen not meeting standards periodically and/or not consistent over depth, season and/or area, and other indicators more representative of conditions suggest no impairment. Possible natural condition	Stressed or No Known Impact	Known Suspected, or Possible
Dissolved Oxygen typically meets standards (> 90%), and other indicators (chemistry, aquatic biology) suggest no impairment.	No Known Impact	Known, or Suspected
Dissolved Oxygen not meeting standards, but limited data (single sampling event or single point not representing whole waterbody)	Stressed *	Possible *
Dissolved Oxygen standards are consistently met.	No Known Impact	Assessment: *Monitored*

* Waters assessed as Stressed/Possible are listed as *Waters Needing Verification of Impact* and reported as *Integrated Reporting Category 3 - Waters with Insufficient Data*.

Water quality assessment for the determination of *Aquatic Life* use support with regard to pH results also relies on best professional judgment. As with dissolved oxygen data, pH data will be evaluated in light of all other available data (including biological assessments) on a case-by-case basis using best professional judgment. (See also *Natural Conditions* in the Listing Methodology.)

The general relationship between pH monitoring data and the assessed impacts to aquatic life is shown in Table 9. Note that waters having pH between 6.0 and the minimum pH water quality standard of 6.5, but where biological sampling suggests that aquatic life is supported, may be listed as *Waters Needing Verification of Impact*. This is consistent with the *weight of evidence* approach (outlined above) and recognizes that because biological samples represent an integrator of all water quality conditions and are also a direct measurement of aquatic life, biological assessments are often given more weight in evaluating *Aquatic Life* use support.

Table 9 Aquatic Life Use Support/pH Assessment Criteria		
Lake pH/Fishery Assessment	**WI/PWL Use Impact**	
	Severity	**Documentation**
pH values less than 5.0 or greater than 10.0	Precluded	Known
pH values between 5.0 and 6.0 or between 9.0 and 10.0	Impaired	Known
pH values between 6.0 and 6.5 or between 8.5 and 9.0, and fish/biological surveys indicate a fishery/aquatic life impact.	Impaired	Known or Suspected
pH values between 6.0 and 6.5 or between 8.5 and 9.0, but fish/biological surveys indicate no fishery/aquatic life impact	Stressed	Known Suspected, or Possible *
pH values greater than 6.5 and less than 8.5	No Known Impact	Assessment: *Evaluated*

* Waters that have pH above 6.0 and below 6.5 and where biological sampling suggests that aquatic life is supported may be listed as *Waters Needing Verification of Impact*.

Note about *Episodic Acidification*

Episodic Acidification refers to short-term decreases in acid neutralizing capacity (ANC) that may occur during high streamflow events (i.e., spring runoff, snowmelt). Although these events are periodic, bioassays and other fish studies show that the impact on the fishery can be significant and longer lasting. The severity of the impact may result in precluded–rather than merely *impaired*–aquatic life, even though episodic acidification occurs over a short time period. This situation represents an exception to the strict application of the Priority Waterbodies List (PWL) definitions for a precluded use (frequent/persistent water quality condition) and an impaired use (occasional water quality conditions).

Site Specific Factors

The USEPA policy also recognizes the difficulty and time involved in resolving conflicting results that might be due to site-specific environmental factors. In these cases, site-specific criteria, use attainability analysis or re-evaluation of a standard may be needed to determine use support. Because these efforts may require additional monitoring, USEPA suggests use of an assessment category of *Monitoring Insufficient to Determine Impairment*. This category corresponds to the WI/PWL category of *Segments Needing Verification of Impact/Impairment*, and allows for the deferring of a use support decision until appropriate evaluation is complete.

Natural Resources Habitat/Hydrologic Uses

In an effort to better incorporate wetlands and other natural resources concerns into the water quality assessments, the water use category of *Natural Resources Habitat/Hydrology* uses was recently added to the list of uses to be assessed. This category recognizes that, in some waterbodies, water quality may be appropriate to support uses, but various other conditions, such as habitat, streamflow, invasive species, and so on, result in degradation of natural resources (i.e., fish and wildlife populations). Additionally, hydrologic conditions can have a negative impact on wetland uses such as flood protection, erosion control, nutrient recycling and surface and groundwater recharge. This category may also be used to capture impacts to various water quantity and flooding/flood plain issues including excessively low flows, increased peak flows, alterations to the frequency, duration and timing of floods and loss of flood storage.

For many impacts to *Natural Resources Habitat/Hydrology* use support, the situation is more clearly defined by the cause or source of the problem, than by the use affected. Such causes/sources include dredging, draining, excavation and/or filling of wetlands, stream channels, lakes/ponds; stream widening; stream downcutting; sediment embedded-ness; other losses of wetlands; habitat fragmentation; loss of riparian vegetation or upland buffer zones. Generally, *Natural Resources Habitat/Hydrology* use impacts and impairments are more likely attributed to *"pollution"* (i.e., a condition related to the waterbody) rather than a *"pollutant"* (i.e., a substance/contaminant in the waterbody).

While waterbody assessments include impacts to *Natural Resources Habitat/Hydrology*, specific criteria for *Natural Resources Habitat/Hydrology* use support have not yet been developed.

Aesthetics

An evaluation of waterbody support of *Aesthetics* is much more subjective than those for the other assessed uses. Because of this subjectivity and the difficulty in assigning a level of severity of impacts to aesthetics, available choices for the assessment of aesthetics are limited to *No Known Impact* and *Stressed*. Due to the subjectivity and the limitations on the level of severity, there is no specific assessment criteria to determine support of aesthetics. Instead, the assessment of *Aesthetics* use support should reflect available objective information (CSLAP Lake Perception Surveys, preponderance of citizen complaints, etc).

Presumed Assessments

While the great majority of waters in New York State are thought to support a variety of uses, because of limited monitoring resources and the emphasis on monitoring in priority/problem waters documentation of good quality waters has been generally lacking. This shortcoming was addressed in previous 305(b) assessments by assuming that waterbodies were fully supporting uses, unless there was information to the contrary. However, USEPA has determined such "presumed" assessments to be unacceptable. NYSDEC also recognizes the need to increase efforts to document water quality in the great number of waterbodies that do support uses in order to provide a more balanced picture of water quality in the state.

Recent modifications to the NYSDEC Division of Water Statewide Waters Monitoring Program (SWMP) include an expanded biological screening component. This effort uses a fairly simple but effective set of on-site assessment criteria based on the presence/absence of key macroinvertebrate indicator species. Where the assessment criteria are met, the waterbody is assessed as having *No Known Impacts*. Where the criteria are not met, possible water quality problems are evaluated using more intensive sampling methods to collect more complete data.

A similar effort is being developed and implemented to evaluate all currently unassessed lakes in the state. This effort relies on basic water chemistry sampling in conjunction with visual assessments of aesthetics and recreational use support.

These screening efforts, which greatly increase the number of sites assessed in a basin study area, reflect the incorporation of a "census" approach into the SWMP and are key components in the state's goal of providing a comprehensive assessment of its waters.

Pollutants (Causes) and Sources of Water Quality Impacts

In addition to providing assessments of designated use support, the WI/PWL assessments also includes information regarding the likely pollutants/causes and sources that are responsible for water use impacts. These pollutant and source identifications are derived from a number of information sources including Impact Source Determinations conducted during biological sampling, water chemistry data collected during Intensive Network Monitoring, or other available monitoring data. In many cases, monitoring focused on the specific pollutants and sources is not available. In the absence of any such data, best professional judgment based on surrounding land use may be used to identify possible causes and sources.

The listing of specific pollutants and sources includes an indication of the degree to which they are thought to contribute to water quality problems. The impact of all listed pollutants and sources are characterized as being *Known*, *Suspected*, or *Possible*. Since it is common for multiple pollutants and sources to be indicated as contributing to a water quality impact, each identified pollutant and source is also listed as either a *major* or *minor* contributor to the impact, based on best professional judgment. Note that the designation *major* is assigned to pollutants and sources that significantly contribute to the most severe water quality impacts/impairments affecting the segment; pollutants and sources contributing to lesser impacts are listed as *minor*.

National (USEPA) reporting guidance suggests that state databases specify which uses are affected by which pollutants, and which sources contribute each pollutant. However the New York Statewide Water Monitoring Program does not routinely focus on pollutant identification and source trackdown to a degree that this level of precision is known for most waters. Pollution identification and source trackdown is typically a more resource-intensive effort reserved for special situations. In its national reporting to USEPA, New York State provides data that links sources to pollutants and pollutants to use impacts. But these linkages are usually broadly interpreted and typically reflect that most sources contribute varying degrees of each pollutant and each pollutant has some influence on all impacted uses.

Resolution/Management Information

The WI/PWL database also allows for the tracking of information relating to management and status regarding the resolution of water quality impacts for each waterbody. This information includes:

- Resolvability indicates where a waterbody needs additional study, the development of a strategy, implementation of a strategy, or verification of the effectiveness of an implemented strategy. In some cases a water quality impact may be deemed *Not Resolvable* at this time due to technical and/or economic limitations or if the impact is the result of natural conditions or conflicting uses.
- Status of Verification refers to the specific aspect of the waterbody that needs further study. The verification effort may need to focus on the existence of an impact, the pollutant/cause of a known impact, the source of a known pollutant, or the development of a management strategy to address the problem.
- Lead Agency/Office indicates the specific government agency, office or other group that has primary responsibility for managing/addressing the impact to the waterbody.
- Resolution Potential is used to reflect the degree to which the expenditure of available NYSDEC resources on the waterbody or water quality issue is appropriate. Resolution Potential reflects the level of public interest, the expectation that measurable improvements can be reasonably achieved, and the appropriate role for NYSDEC.
- TMDL Note indicates the status of planned and/or ongoing Total Maximum Daily Load activities, if any.

Such information allows NYSDEC to better prioritize monitoring, restoration and protection activities, target the expenditure of limited resources to those waters where there is greatest public interest and/or the expectation that measurable improvements can be achieved, and track progress toward water quality improvement and problem resolution.

Waterbody Inventory Data Sheet
Background Information

Waterbody Location Information

Water Index Number (WIN): The stream identification number used in the Stream Classification Regulations (Title 6 - Conservation, Vols. B-F of the Official Compilation of Codes, Rules and Regulations for the State of New York).

Hydrologic (Watershed) Unit Code: Eleven digit code found on USDA-SCS (NRCS) *Hydrologic Watershed Unit Map - 1980 State of New York.*

Waterbody Type: River, Canal, Lake, Lake(Reservoir), Bay, Great Lake Shoreline, Estuary, or Ocean Coastline. NOTE: Bays refer to freshwater bays, saltwater bays and tidal waters should be designated as *Estuary*.

Affected Length/Area: The estimated length of segment with the noted impairment in miles (rivers, canals), Shore/coastal miles (great lakes, ocean) or acres (lakes, bays, reservoirs, estuaries).

Describe Waterbody Segment: Narrative description locating the beginning and endpoint (from downstream to upstream) of the segment.

Waterbody Classification: Current classification of the waterbody as specified in the Stream Classification Regulations (Title 6 - Conservation, Vols. B-F of the Official Compilation of Codes, Rules and Regulations for the State of New York).

Flow Category: Minimum Average Seven Consecutive Day Flow-10 year recurrence (MA7CD/10) flow range, from table.

Category	MA7CD/10 Range
H (for high)	Streams/Rivers over 150 cfs
M (for medium)	Stream/Rivers between 20-150 cfs
L (for Low)	Streams/Rivers under 20 cfs
0	Not Applicable (lake, estuary, shore/coastline, etc.)

Drainage Basin and Sub-Basin: One of 17 major hydrologic basins in New York and the associated sub-basin.

Region: NYSDEC Region in which the waterbody is located.

County: Primary county (and county ID number) of waterbody location. NOTE: Waterbody segments which form the border between or cross two or more counties are listed only once. This is done to avoid double counting the number of segments and/or the length/affected area of the segment. PWL segments that are located in more than one county are indicated by "..." after the *primary* county name. (Listings of PWL segments within each county are included as Appendix C.)

Quad Map: The name of the primary topographic quadrangle map on which the segment appears. NOTE: PWL segments that are located in more than one quadrangle are indicated by "..." after the *primary* quad map name.

Water Quality Problem Information

Use Impacts/Impairments:
All specific uses that are restricted by water quality impacts/impairments are listed.

Problem Severity: For each waterbody use impairment, the degree of severity of water quality problem/diminished use (i.e., use precluded, impaired, stressed, or threatened) is listed. The severity is determined using the following criteria.

PRECLUDED (P):
Frequent/persistent water quality, or quantity, conditions and/or associated habitat degradation prevents all aspects of the waterbody use (e.g., the Health Department does not allow swimming at the Onondaga Lake Outlet public park beach - *bathing precluded*; consumption advisory recommends eating no fish from Upper Hudson due to PCB contamination - *fish consumption precluded*; Sacandaga River below the dam is periodically dry and devoid of benthic organisms due to flow extremes from power dam releases - *fish propagation precluded*)

IMPAIRED (I):
Occasional water quality, or quantity, conditions and/or habitat characteristics periodically prevent the use of the waterbody (e.g., beaches in marine waters are closed after storm events due to high coliform levels from CSOs's and stormwater runoff - *bathing impaired*) or;

Waterbody uses are not precluded, but some aspects of the use are limited or restricted (e.g., a fish consumption advisory for lake trout from Canandaigua Lake recommends eating no more than one meal per month - *fish consumption impaired*) or;

Waterbody uses are not precluded, but frequent/persistent water quality, or quantity, conditions and/or associated habitat degradation discourage the use of the waterbody (algal blooms and heavy rooted aquatic vegetation deter swimming in Oneida Lake - *bathing/swimming impaired*) or;

Support of the waterbody use requires additional/advanced measures or treatment (e.g., the City of Rochester is to build a filtration plant due to high turbidity in the Hemlock Lake water supply - *water supply impaired*, aquatic vegetation control--mechanical harvesting, herbicides--are required in Upper Cassadaga Lake to allow swimming and boating - *bathing/ swimming* and *boating impaired*).

STRESSED (S):
Waterbody uses are not significantly limited or restricted, but occasional water quality, or quantity, conditions and/or associated habitat degradation periodically discourage the use of the waterbody (e.g., high tubidity that occurs after rains reduce clarity and deter swimmers in Babcock Lake - *bathing/ swimming stressed*, ambient water column analyses indicate occasional aquatic standard violations but impaired use not evident - *fish survival/ propagation stressed*; localized areas of debris along the shore - *aesthetic stressed)*

THREATENED (T):
Water quality currently supports waterbody uses and the ecosystem exhibits no obvious signs of stress, however existing or changing land use patterns may result in restricted use or ecosystem disruption (e.g., numerous proposals for residential development in the Schoharie Creek headwaters create a concern - *fish propagation, aesthetics threatened*) or,

Water quality currently supports waterbody uses and the ecosystem exhibits no obvious signs of stress, however monitoring data reveals a declining trend in water quality which, if it continues, would result in a use impairment, or

Waterbody uses are not restricted and no water quality problems exists, but the support of a specific and distinctive use or uses make the waterbody more susceptible to water quality threats. Note: Such situations are the only instances where a threatened use can have a documentation level of *possible*, other threatened waterbodies (i.e., those related to changing land use activities) must correspond to *known* or *suspected* (planned) land use changes.

Problem Documentation: Each diminished/impacted use is listed according to the level of documentation for the problem/impairment. The level of problem documentation is determined using the following criteria.

Known (K): Water quality monitoring data and/or studies (biologic macro-invertebrate surveys, fishery studies, water column chemistry, beach closures, fish consumption advisories, shellfishing restrictions) have been completed and conclude that the use of the waterbody is restricted to the degree indicated by the listed *severity*.

Suspected (S): Anecdotal evidence, public perception and/or specific citizen complaints indicate that the use of the waterbody may be restricted. However, water quality data/studies that establish an impairment have not been completed or there is conflicting information.

Possible (P): Land use or other activities in the watershed are such that the use of the waterbody could be affected. However, there is currently very little, if any, documentation of an actual water quality problem.

Type of Pollutant: Each pollutant contributing to the water quality problem is listed according to the level of documentation for the pollutant. The criteria for *known*, *suspected*, or *possible* pollutants the same as outlined above. Those pollutants that contribute to the most significant impact/impairment are "major" pollutants and are is listed in CAPITAL LETTERS.

Source(s) of Pollutant: Each source of pollution contributing to the water quality problem is listed according to the level of documentation for the source. The criteria for *known*, *suspected*, or *possible* pollutants the same as outlined above. Those sources that contribute to the most significant impact/impairment are "major" sources and are is listed in CAPITAL LETTERS.

Waterbody Problem Description/Documentation/History/Notes: This narrative description contains more detailed information about the waterbody segment and its water quality problem/impairment. This section may include:

1)a detailed description of the waterbody and surrounding area,
2) specific examples/instances of water use impairments, e.g., what water supply is affected? how often are beaches closed? what species of fish are restricted for consumption?
3) details regarding the specific pollutant and source of the impairment, and
4) references for specific reports, studies, monitoring data and/or other documentation that supports the impairment, pollutant and source information.

For some segments, an expected date of completion for a sampling effort, report, facility or other activity that will affect the segment or provide additional segment information may be noted in the **Next Update** field. The **Next Update** information will help ensure the segment information is kept up-to-date.

Resolution/Management Information (to be completed by NYSDEC staff)

18. Resolvability: Note with an "X" the one most appropriate *resolvability* class for the segment from the list below.

    1. Needs Verification/Study (see *Status*): The confirmation of a use impairment, the evaluation of possible solutions and/or the development of management action (tailored specifically to the segment) need to be completed. See also *Status of Problem Verification/Study*.)

    2. Strategy Exists, Funding/Resources Needed: Study of the problem is complete, but funding or other resources are needed to implement the management strategy.

    3. Strategy Being Implemented: The recommended strategy for the remediation of the segment is currently underway.

    4. Problem Not Resolvable (technical/economic limitations): Technical, legal, social, political concerns preclude resolution of the impairment for the foreseeable future (e.g., low pH in lakes due to acid rain).

    5. Problem Not Resolvable (natural condition): Limitations to use of a waterbody is attributed to naturally occurring characteristics of the water/watershed (e.g., high sediment load in the Genesee River).

    6. Problem Thought to be Abated, Needs Verification: The prime cause of the use impairment to the waterbody has been brought under control but the expected improvement to the waterbody needs to be confirmed.

    7. Problem Abated, Waterbody Deleted: The waterbody use has been restored and the segment has been marked as *deleted.* Although deleted and not included in the list, the segment and information will remain in the Waterbody Inventory.

19. Status of Problem Verification/Study: Note with an "X" the one most appropriate *status* class for the segment from the list below.

    1. Waterbody Nominated, but Problem Not Verified: It has been suggested that a waterbody use impairment exists for the segment, however there is insufficient (or no) available information to confirm that the use is being affected to the degree indicated.

    2. Problem Verified/Documented, Cause Unknown: The waterbody use impairment (and severity) is sufficiently documented, however identification of the cause (pollutant) requires more study.

    3. Cause of Problem Identified, Source Unknown: The specific pollutant(s) causing the use impairment have been sufficiently documented, however the source of the pollutant requires more study.

    4. Source of Problem Identified, Management Strategy Needed: Most details about the problem (use impairment, cause, source) are known/sufficiently documented. A management strategy to address the situation and restore the designated use of the waterbody needs to be developed.

    5. Management Strategy has been Developed: Necessary study of the situation is complete.

20. Lead Agency/Office: Indicate the primary party, either within DEC (division and bureau or office) or outside/external to DEC, responsible for the next steps in the study/strategy implementation concerning the segment. (e.g., DOW/BWAR, DOW/Reg6, DEC/F&W, DOH/PWS, ext/WQCC, ext/SWCD, etc)

21. Resolution Potential: Indicate as *High, Medium,* or *Low,* using the following criteria.

High: The waterbody or water quality issue has been deemed to be worthy of the expenditure of available resources (time and dollar) because of the level of public interest and the expectation that the commitment of these resources will result in either a measurable improvement in the situation or additional information necessary for the management of the water resource.

Medium: The resources necessary to address the problem are beyond what are *currently* available. With additional resources, these segments could become High *resolution potential* segments.

Low: Segments with water quality problems so persistent/intractable that improvements are expected to require an unrealistically high commitment of resources, not likely to become available (e.g., acid rain lakes).

NOTE: This field may be left blank if further verification/study of the impairment, pollutant and/or source is necessary to determine the *Resolution Potential* of the segment.

22. Total Maximum Daily Load (TMDL)/303d Status: Note with an "X" the most appropriate *TMDL* note (or notes) for the segment from the list below.

Impaired Water, TMDL Development Needed
- Part 1 - High Priority for TMDL
- Part 2 - Multiple Segment/Categorical TMDL Waters
  - o Acid Rain Waters
  - o Fish Consumption Waters
  - o Restricted Shellfishing Waters
- Part 3 - Water Requiring Re-Evaluation

Impaired Water, TMDL Development NOT Needed
- Part 4a - TMDL Complete, being Implemented
- Part 4b - *Pollution* Impairment, Not *Pollutants*
- Part 4c - Other Controls More Suitable.

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Appendix C

Waterbody Inventory Data Sheets
By County, Segment Name

Waterbody/Segment (ID)	Water Index Number	Category
Albany County		
Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	H-240- 11-P496/P498	Impaired Seg
Beaverdam Creek and tribs (1202-0043)	H-240- 82- 67-26	NoKnownImpct
Echo Pond (1202-0042)	H-240- 82- 67-10-P605	UnAssessed
Fox Creek, Upper, and tribs (1202-0004)	H-240- 82- 67	NoKnownImpct
Lisha Kill and tribs (1201-0074)	H-240- 13	MinorImpacts
Minor Tribs to Mohawk River (1201-0095)	H-240- 1 thru 12 (selected)	UnAssessed
Mohawk River, Lower, Main Stem (1201-0085)	H-240 (portion 1)	MinorImpacts
Mohawk River, Lower, Main Stem (1201-0042)	H-240 (portion 2)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0073)	H-240 (portion 4)	MinorImpacts
Onderdonk Lake (1202-0005)	H-240- 82- 67-24-P608	MinorImpacts
Shaker Creek and tribs (1201-0079)	H-240- 11	MinorImpacts
Switz Kill and tribs (1202-0007)	H-240- 82- 67-24	NoKnownImpct
Warners Lake (1202-0044)	H-240- 82- 67-33-1-P609	NoKnownImpct
White Birch Pond, Fawn Lake (1202-0006)	H-240- 82- 67-24-10-P605a,P605b	UnAssessed
Delaware County		
Schoharie Reservoir (1202-0012)	H-240- 82 (portion 6)/P638a	Impaired Seg
Fulton County		
Ayers Creek and tribs (1201-0174)	H-240-144-21	NoKnownImpct
Ayers Lake (1201-0176)	H-240-144-21-P746	UnAssessed
Broomstick (Goose Egg) Lake (1201-0168)	H-240-144-13..P720	UnAssessed
Caroga Creek, Upper, and minor tribs (1201-0131)	H-240-127	NoKnownImpct
Cayadutta Creek, Upper, and minor tribs (1201-0044)	H-240- 89	MinorImpacts
Conglin Lakes (1201-0180)	H-240-144-28- 1-P756,P757,P758	UnAssessed
Cork Center Reservoir (1201-0120)	H-240- 89-P664	NoKnownImpct
Dexter, Spectacle and Dry Lakes (1201-0181)	H-240-144-28- 1-P759,P760,P761	UnAssessed
East Canada Cr, Lower, and minor tribs (1201-0152)	H-240-144 (portion 3)	NoKnownImpct
East Canada Cr, Middle, and minor tribs (1201-0153)	H-240-144 (portion 4)	MinorImpacts
East Canada Cr, Upper, and minor tribs (1201-0154)	H-240-144 (portion 5)	NoKnownImpct
East Caroga Lake (1201-0046)	H-240-127-P697	NoKnownImpct
Ephratah Reservoir (1201-0132)	H-240-127- P683a	UnAssessed
Green, Otter and Stewart Lakes (1201-0009)	H-240-144-13..P727,P729,P730	Impaired Seg
Hale Creek and tribs (1201-0118)	H-240- 89-11	MinorImpacts
Hall/Matthew Creeks and tribs (1201-0225)	H-240- 89-10	MinorImpacts
Harrower Pond (1201-0109)	H-240- 69-P556	UnAssessed
Hillabrandt Vly (1201-0164)	H-240-144-11-P713	UnAssessed
Hinds Pond (1201-0141)	H-240-127-25-P686-4-P689-3-P690a	UnAssessed
House Pond (1201-0186)	H-240-144-33-P770	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Fulton County (con't)		
Indian Lake (1201-0171)	H-240-144-13..P725	UnAssessed
Irving Pond (1201-0230)	H-240-144-13..P732	Impaired Seg
Kecks Center Creek, Upper, and tribs (1201-0117)	H-240- 89- 8	NoKnownImpct
Knapp Reservoir (1201-0182)	H-240-144-28-P750	UnAssessed
Knapps Long Lake, Long Pond (1201-0007)	H-240-144-28-P750..P753.P755	Impaired Seg
Kyser Lake (1201-0151)	H-240-144 (portion 2)/P704a	UnAssessed
Lake Butterfield (1201-0111)	H-240- 69-P564	UnAssessed
Lake Tribs to Fire Flow (1201-0173)	H-240-144-13..P732..P733 thru P736	UnAssessed
Lily, Canada, Stewarts Land, West Lakes (1201-0050)	H-240-144-13-P715 thru P718	Impaired Seg
Middle Sprite Creek and tribs (1201-0163)	H-240-144-11	NoKnownImpct
Mountain Lake (1201-0142)	H-240-127-25-P686-4-P689-4-P691	NoKnownImpct
Mud Lake (1201-0136)	H-240-127-23-P685	UnAssessed
Mud Lake (1201-0172)	H-240-144-13..P726	UnAssessed
Nine Corners Lake (1201-0167)	H-240-144-13..P719	UnAssessed
North Chuctanunda Cr, Middle, and tribs (1201-0106)	H-240- 69	MinorImpacts
North Chuctanunda Cr, Upper, and tribs (1201-0107)	H-240- 69	Need Verific
North Creek and tribs (1201-0179)	H-240-144-28	NoKnownImpct
North Creek, Upper, and tribs (1201-0047)	H-240-127-13	NoKnownImpct
Peck Creek and tribs (1201-0137)	H-240-127-25	NoKnownImpct
Peck Lake (1201-0016)	H-240-127-25-P686	NoKnownImpct
Pine Lake (1201-0170)	H-240-144-13..P724	Impaired Seg
Pleasant Lake (1201-0175)	H-240-144-21- 7-P745	NoKnownImpct
Rockwood Lake (1201-0133)	H-240-127- P685a	NoKnownImpct
Sprite Creek and tribs (1201-0165)	H-240-144-13	NoKnownImpct
Sprite Creek, Lower, and tribs (1201-0134)	H-240-127-15	MinorImpacts
Sprite Creek, Upper, and tribs (1201-0135)	H-240-127-15	UnAssessed
St. Johnsville Reservoir (1201-0147)	H-240-139-P698b	UnAssessed
Stoner Lakes (1201-0169)	H-240-144-13..P721,P722,P723	Impaired Seg
Third, Fourth, Broomstick (Goose Egg) Lk (1201-0185)	H-240-144-28-P764,P765,P766	UnAssessed
Tribs to Canada/West Lakes (1201-0166)	H-240-144-13-P717/P718-	UnAssessed
Tribs to East/West Caroga Lakes (1201-0143)	H-240-127-P697/P698-	UnAssessed
Tribs to Peck Lake (1201-0138)	H-240-127-25-P686-	UnAssessed
Vandenburg Pond (1201-0139)	H-240-127-25-P686-4-P689	UnAssessed
Waters Millpond, Long Lake (1201-0184)	H-240-144-28-P762,P763	UnAssessed
West Caroga Lake (1201-0144)	H-240-127-P698	NoKnownImpct
Woodworth Lake (1201-0140)	H-240-127-25-P686-4-P689-2-P690	UnAssessed
Zimmerman Creek, Upper, and tribs (1201-0146)	H-240-139	NoKnownImpct
Greene County		
Batavia Kill, Lower, and tribs (1202-0001)	H-240- 82-117	MinorImpacts
Batavia Kill, Middle, and tribs (1202-0058)	H-240- 82-117	MinorImpacts
Batavia Kill, Upper, and tribs (1202-0059)	H-240- 82-117	NoKnownImpct
Colgate Lake (1202-0064)	H-240- 82-133-P649	UnAssessed
East Kill and tribs (1202-0063)	H-240- 82-133	NoKnownImpct
Huntersfield Creek, Upper, and tribs (1202-0056)	H-240- 82-116	NoKnownImpct
Lake Heloise (1202-0060)	H-240- 82-117-14-P647a	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Greene County (con't)		
Lake Rip Van Winkle (1202-0070)	H-240- 82-147b-P656a	UnAssessed
Manor Kill and tribs (1202-0017)	H-240- 82-112	NoKnownImpct
Mayham Pond (1202-0055)	H-240- 82-113-P643	UnAssessed
Minor Trib to Schoharie Creek (1202-0065)	H-240- 82-141	UnAssessed
Minor Tribs to Schoharie Creek (1202-0066)	H-240- 82-142 thru 147b	NoKnownImpct
Minor Tribs to Schoharie Creek (1202-0057)	H-240- 82-116 thru 140	MinorImpacts
Minor Tribs to Schoharie Reservoir (1202-0054)	H-240- 82-110 thru 115	Need Verific
Onteora Pond/Tannersville Reservoirs (1202-0069)	H-240- 82-147b-1..P655c,P655a,P655b	UnAssessed
Schoharie Creek, Upper, Main Stem (1202-0023)	H-240- 82 (portion 8)	MinorImpacts
Schoharie Creek, Upper, Main Stem (1202-0021)	H-240- 82 (portion 7)	MinorImpacts
Schoharie Creek, Upper, and tribs (1202-0026)	H-240- 82 (portion 9)	NoKnownImpct
Schoharie Reservoir (1202-0012)	H-240- 82 (portion 6)/P638a	Impaired Seg
Schoharie Reservoir (1202-0012)	H-240- 82 (portion 6)/P638a	Impaired Seg
Silver Lake (1202-0061)	H-240- 82-117-P647b	UnAssessed
Stony Grove Creek, Upper, and tribs (1202-0067)	H-240- 82-145	UnAssessed
Tribs to Allen Brook (1202-0068)	H-240- 82-147b-1	UnAssessed
West Kill and tribs (1202-0062)	H-240- 82-128	MinorImpacts
Hamilton County		
Alder Brook, Indigo, Jones Lakes (1203-0060)	H-240-180-74-10-P853,P853a,P853b	UnAssessed
Barto Lake, Mud Pond (1201-0190)	H-240-144-43-P786..P787,P788	UnAssessed
Beaver Pond, Poor Lake (1203-0003)	H-240-180-91-P915,P919	Need Verific
Big Alderbed, Blind Mans Vly (1201-0002)	H-240-144-44-P790,P790a	Impaired Seg
Big Rock Lake (1203-0069)	H-240-180-85-11-P883	UnAssessed
Black Creek, Upper, and tribs (1203-0072)	H-240-180- P799-19	UnAssessed
Bochen, Debraine Lakes (1203-0057)	H-240-180-70..P844,P846	UnAssessed
Buck Ponds, White Birch Lake (1203-0001)	H-240-180-74..P864,P865,P866,P867	Impaired Seg
Caswell, Deer, Otter, Goose Lakes (1203-0074)	H-240-180..P910a,P911,P912,P913	UnAssessed
Cat Lake (1203-0079)	H-240-180..P929..P932	UnAssessed
Christian Lake (1201-0189)	H-240-144-43-P784	UnAssessed
Ferris Lake (1201-0003)	H-240-144-38-P777	Impaired Seg
G Lake (1203-0062)	H-240-180-74-16-P859	UnAssessed
Hart Vly Lake (1201-0183)	H-240-144-28-P750-1-P752	UnAssessed
Iron Lake, Black Cat Lake (1201-0188)	H-240-144-38-P779,P780	UnAssessed
Metcalf Brook and tribs (1203-0068)	H-240-180-85	UnAssessed
Metcalf Lake, Metcalf Chain of Lakes (1203-0070)	H-240-180-85-P897 to P900	UnAssessed
Mica Lake (1203-0073)	H-240-180-99-P921	UnAssessed
Mill Creek Lake (1203-0058)	H-240-180-73-P849	UnAssessed
Minor Lakes Trib to Metcalf Brook (1203-0071)	H-240-180-85..P880,P881,P882,P896a	UnAssessed
Morehouse Lake (1201-0080)	H-240-144-43-P786	Impaired Seg
Mud Lake (1203-0076)	H-240-180..P929	UnAssessed
Pillsbury Lake (1203-0081)	H-240-180..P929..P938	UnAssessed
Pine, Little Pine Lakes (1203-0061)	H-240-180-74-15-P854,P855	UnAssessed
Redlouse Lake (1201-0008)	H-240-144-34-P771	Impaired Seg
Sampson Bog, Sampson Lk, Bullhead Pd (1203-0075)	H-240-180..P925,P926,P927	UnAssessed
South Branch West Canada Cr and tribs (1203-0059)	H-240-180-74	NoKnownImpct

Waterbody/Segment (ID)	Water Index Number	Category
Hamilton County (con't)		
South Lake (1203-0077)	H-240-180..P929..P930	UnAssessed
Split Rock, Amos Lakes, Belden Vly (1203-0084)	H-240-180-87..P901,P907,P907b	UnAssessed
Spruce, Balsam Lakes (1203-0007)	H-240-180-87-P908,P909	Impaired Seg
Sucker Pond, Three Mile Vly (1203-0065)	H-240-180-78-4-P870,P871	UnAssessed
T Lake (1203-0004)	H-240-180-74-21-P862	Impaired Seg
The Floe (1203-0064)	H-240-180-74-P850a	NoKnownImpct
Trout Lake (1201-0191)	H-240-144-44-P793	UnAssessed
Twin Lake, South (1203-0005)	H-240-180-74-16-1-P856	Impaired Seg
West Canada Creek, Upp, and minor tribs (1203-0025)	H-240-180 (portion 6)	Impaired Seg
West Cr, Black Cr, Deer Lakes, Bills Pd (1201-0187)	H-240-144-37-P773,P774,P775,P776	UnAssessed
West Lake (1203-0078)	H-240-180..P929..P931	UnAssessed
Whitney Lake, Puddle Hole Pond (1203-0080)	H-240-180..P929..P936,P937	UnAssessed
Wilmurt Lake (1203-0063)	H-240-180-74-P850	UnAssessed
Herkimer County		
Ash Creek and tribs (1203-0042)	H-240-180- P799-19- 4	UnAssessed
Beaver Creek, Upper, and tribs (1201-0159)	H-240-144- 9- 5	Need Verific
Black Creek (Gray) Reservoir (1203-0052)	H-240-180- P799-19-P827	UnAssessed
Black Creek, Lower, and minor tribs (1203-0041)	H-240-180- P799-19	NoKnownImpct
Black Creek, Upper, and tribs (1203-0072)	H-240-180- P799-19	UnAssessed
Boyer Lake (1203-0051)	H-240-180- P799-19-29-P829	UnAssessed
Cold Brook and tribs (1203-0033)	H-240-180- 42	MinorImpacts
Cold Brook, Upper, and tribs (1201-0162)	H-240-144-10	NoKnownImpct
Cranberry Lake (1203-0046)	H-240-180- P799-19-11-P815	UnAssessed
Crum Creek and tribs (1201-0195)	H-240-149	NoKnownImpct
Deer, North Branch Lakes (1203-0050)	H-240-180- P799-19-11..P824,P825	UnAssessed
East Canada Cr, Lower, and minor tribs (1201-0081)	H-240-144 (portion 1)	MinorImpacts
East Canada Cr, Lower, and minor tribs (1201-0152)	H-240-144 (portion 3)	NoKnownImpct
East Canada Cr, Middle, and minor tribs (1201-0153)	H-240-144 (portion 4)	MinorImpacts
East Canada Lake (1201-0150)	H-240-144 (portion 1a)/P703a	NoKnownImpct
Factory/Big Bill Brooks and tribs (1203-0030)	H-240-180- 31-5	NoKnownImpct
Finches Pond (1203-0039)	H-240-180- P799-11-808a	UnAssessed
Fourmile Brook and tribs (1203-0056)	H-240-180-70	NoKnownImpct
Fulmer Creek and tribs (1201-0012)	H-240-185	MinorImpacts
Hinckley Reservoir (1203-0022)	H-240-180 (portion 4)/P799	MinorImpacts
Honnedaga, Baby Lakes, Stearns Mudhole (1203-0067)	H-240-180-84-P877,P876,P877b	UnAssessed
Ilion Reservoir No.3 (1201-0198)	H-240-187- 1-P940a	Threatened
Jerseyfield Lake (1203-0048)	H-240-180- P799-19-11..P817	UnAssessed
Jones Lake (1203-0066)	H-240-180-84-4-P875	UnAssessed
Klondike Reservoir (1201-0160)	H-240-144- 9-15-P708	UnAssessed
Lake Gay (1203-0038)	H-240-180- P799- 5-P803a	UnAssessed
Lake Tamarack, Tom Kettle, Curtis Lks (1203-0040)	H-240-180- P799-14-P807a,P809,P810	UnAssessed
Lakes tributary to Jerseyfield Lake (1203-0002)	H-240-180- P799-19-11..P818 to P822	Impaired Seg
Little Metcalf Lake (1201-0227)	H-240-144-29-P768	Impaired Seg
Long Lake (1203-0049)	H-240-180- P799-19-11..P823	UnAssessed
Maltanner Creek and tribs (1203-0016)	H-240-180- 26	NoKnownImpct

Waterbody/Segment (ID)	Water Index Number	Category
Herkimer County (con't)		
Middleville Water Supply and tribs (1203-0028)	H-240-180- 27	NoKnownImpct
Mill Creek and tribs (1203-0045)	H-240-180- P799-19-11	NoKnownImpct
Mill Creek, Upper, and tribs (1203-0034)	H-240-180- 55	NoKnownImpct
Minor Tribs to Black Creek Reservoir (1203-0053)	H-240-180- P799-19-P827-	UnAssessed
Minor Tribs to Hinckley Reservoir (1203-0037)	H-240-180- P799- 1 thru 21	NoKnownImpct
Minor Tribs to Lower West Canada Creek (1203-0083)	H-240-180- 36 thru 63	NoKnownImpct
Minor Tribs to Lower West Canada Creek (1203-0082)	H-240-180- 1 thru 35 (selected)	NoKnownImpct
Minor Tribs to Mohawk River (1201-0056)	H-240-186 thru 196	NoKnownImpct
Minor Tribs to Mohawk River (1201-0192)	H-240-145 thru 184	NoKnownImpct
Mirror Lake (1201-0196)	H-240-181-P939	UnAssessed
Mohawk River, Main Stem (1201-0093)	H-240 (portion 12)	Impaired Seg
Mohawk River/Barge Canal, Main Stem (1201-0091)	H-240 (portion 10)	Impaired Seg
Mohawk River/Barge Canal, Main Stem (1201-0092)	H-240 (portion 11)	Impaired Seg
Mounts Creek Lake (1203-0044)	H-240-180- P799-19-10-P814	UnAssessed
Mounts Creek and tribs (1203-0043)	H-240-180- P799-19-10	NoKnownImpct
Moyer Creek, Lower, and tribs (1201-0057)	H-240-190	NoKnownImpct
Moyer Creek, Upper, and tribs (1201-0199)	H-240-190	NoKnownImpct
Mud Lake (1203-0047)	H-240-180- P799-19-11-P816	UnAssessed
NYS Barge Canal (portion 7) (1201-0064)	H-240 (portion 12a)	MinorImpacts
Newport Water Supply and tribs (1203-0032)	H-240-180- 37	UnAssessed
North Creek and tribs (1203-0026)	H-240-180- 11	MinorImpacts
Nowadaga Creek, Lower, and tribs (1201-0193)	H-240-148	MinorImpacts
Nowadaga Creek, Upper, and tribs (1201-0194)	H-240-148	MinorImpacts
Ransom/Gillette Creek and tribs (1201-0155)	H-240-144- 5	NoKnownImpct
Shed Brook and tribs (1203-0031)	H-240-180- 32	NoKnownImpct
Spectacle, Butler, Atwood Lakes (1203-0054)	H-240-180-68-P834,P836,P842	UnAssessed
Spruce Creek, Lower, and tribs (1201-0156)	H-240-144- 9	NoKnownImpct
Spruce Creek, Middle, and tribs (1201-0157)	H-240-144- 9	UnAssessed
Spruce Creek, Upper, and tribs (1201-0158)	H-240-144- 9	UnAssessed
Spruce Lake (1201-0161)	H-240-144- 9/P706a	NoKnownImpct
Steele Creek tribs (1201-0197)	H-240-187-	Impaired Seg
Steele Creek, Lower, and tribs (1201-0011)	H-240-187	Threatened
Sterling Creek and tribs (1201-0013)	H-240-197	MinorImpacts
Stony Brook Lake (1201-0178)	H-240-144-25-P749	UnAssessed
Stony Creek and tribs (1203-0027)	H-240-180- 20	UnAssessed
Swan Lake (1203-0055)	H-240-180-69-P839	UnAssessed
Trammel Creek and tribs (1201-0177)	H-240-144-22	NoKnownImpct
West Canada Creek, Lower, Main Stem (1203-0023)	H-240-180 (portion 1)	Impaired Seg
West Canada Creek, Lower, Main Stem (1203-0011)	H-240-180 (portion 2)	Impaired Seg
West Canada Creek, Middle, Main Stem (1203-0024)	H-240-180 (portion 3)	Impaired Seg
West Canada Creek, Upp, and minor trib (1203-0008)	H-240-180 (portion 5)	Impaired Seg
West Canada Creek, Upp, and minor tribs (1203-0025)	H-240-180 (portion 6)	Impaired Seg
White Creek and minor tribs (1203-0015)	H-240-180- 31	NoKnownImpct
Wolf Hollow Creek and tribs (1203-0029)	H-240-180- 30	NoKnownImpct
unnamed trib to Moyer Creek (1201-0200)	H-240-190-2	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Montgomery County		
Auries Creek and tribs (1201-0116)	H-240- 84	NoKnownImpct
Brimstone Creek and tribs (1201-0128)	H-240-112-14	Need Verific
Bunn Creek, Upper, and tribs (1201-0108)	H-240- 69- 1	MinorImpacts
Canajoharie Creek, Lower, and tribs (1201-0027)	H-240-112	MinorImpacts
Canajoharie Creek, Upper, and tribs (1201-0127)	H-240-112	NoKnownImpct
Caroga Creek, Lower, and tribs (1201-0076)	H-240-127	MinorImpacts
Cayadutta Creek, Lower, and minor tribs (1201-0001)	H-240- 89	MinorImpacts
Cranes Hollow Creek and tribs (1201-0105)	H-240- 61	NoKnownImpct
Crum Creek and tribs (1201-0149)	H-240-143	NoKnownImpct
East Canada Cr, Lower, and minor tribs (1201-0081)	H-240-144 (portion 1)	MinorImpacts
East Canada Lake (1201-0150)	H-240-144 (portion 1a)/P703a	NoKnownImpct
Flat Creek and tribs (1201-0026)	H-240-102	MinorImpacts
Fonda Reservoir (1201-0123)	H-240- 94-P678a	NoKnownImpct
Kayaderosseras/McQueen Creeks and tribs (1201-0115)	H-240- 76	NoKnownImpct
Knauderack Creek and tribs (1201-0126)	H-240- 98	NoKnownImpct
Minor Tribs to Mohawk River (1201-0030)	H-240- 71 thru 88 (selected)	Need Verific
Minor Tribs to Mohawk River (1201-0145)	H-240-128 thru 143 (selected)	Need Verific
Minor Tribs to Mohawk River (1201-0121)	H-240- 90 thru 126 (selected)	MinorImpacts
Minor Tribs to Schoharie Creek (1202-0027)	H-240- 82- 1 thru 62	NoKnownImpct
Mohawk River/Barge Canal, Main Stem (1201-0088)	H-240 (portion 7)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0090)	H-240 (portion 9)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0089)	H-240 (portion 8)	MinorImpacts
North Chuctanunda Cr, Lower, and tribs (1201-0031)	H-240- 69	MinorImpacts
Otsquago Creek, Lower, and minor tribs (1201-0028)	H-240-119	MinorImpacts
Otsquago Creek, Upper, and tribs (1201-0078)	H-240-119	NoKnownImpct
Otsquene Creek and tribs (1201-0129)	H-240-119- 4	NoKnownImpct
Otstungo Creek and tribs (1201-0130)	H-240-119- 5	UnAssessed
Schoharie Creek, Lower, Main Stem (1202-0003)	H-240- 82 (portion 1)	MinorImpacts
South Chuctanunda Cr, Lower, and tribs (1201-0082)	H-240- 70	NoKnownImpct
South Chuctanunda Cr, Upper, and tribs (1201-0112)	H-240- 70	Need Verific
Timmerman Creek and tribs (1201-0148)	H-240-141	NoKnownImpct
Tribs to Fonda Reservoir (1201-0124)	H-240- 94-P678a-	NoKnownImpct
Van Wie Creek and tribs (1201-0122)	H-240- 93	Need Verific
Yatesville Creek and tribs (1201-0125)	H-240- 96	NoKnownImpct
Zimmerman Creek, Lower, and tribs (1201-0029)	H-240-139	NoKnownImpct
Oneida County		
Ballou, Nail Creeks and tribs (1201-0203)	H-240-211,214	Impaired Seg
Barker/Eli Creek and tribs (1204-0013)	H-240-223-45	UnAssessed
Beaver Brook and tribs (1201-0229)	H-240-227-21- 1	NoKnownImpct
Big Brook and tribs (1201-0218)	H-240-P1059..263	NoKnownImpct
Big Creek and tribs (1204-0005)	H-240-223-34	NoKnownImpct
Cady Brook and tribs (1203-0036)	H-240-180- 59- 2-2	UnAssessed
Cincinnati Creek, Lower, and tribs (1203-0010)	H-240-180- 59	MinorImpacts
Cincinnati Creek, Upper, and minor tribs (1203-0035)	H-240-180- 59- 2	MinorImpacts
Deans Creek and tribs (1204-0001)	H-240-223-10	MinorImpacts
Delta Reservoir (1201-0019)	H-240 (portion 16)/P1059	Impaired Seg

Waterbody/Segment (ID)	Water Index Number	Category
Oneida County (con't)		
Delta Reservoir Wetlands (1200-0002)	H-240 (portion w16)/P1059-wetland	Need Verific
East Branch Mohawk River and tribs (1201-0222)	H-240-P1059..288	NoKnownImpct
Echo Lake/North Pond (1201-0221)	H-240-P1059..271-P1062a	UnAssessed
Graffenburg Reservoir (1201-0202)	H-240-207-7-P952	UnAssessed
Hinckley Reservoir (1203-0022)	H-240-180 (portion 4)/P799	MinorImpacts
Lansing Kill and tribs (1201-0220)	H-240-P1059..271	Need Verific
Leland Pond (1204-0007)	H-240-223-P1052/P1053	Threatened
Lyons Pond (1204-0014)	H-240-223-P1044	UnAssessed
Madison Lake (1204-0006)	H-240-223-P1051	NoKnownImpct
Marcy Reservoir (1201-0210)	H-240-222-P955e	UnAssessed
Minor Tribs to Lower West Canada Creek (1203-0083)	H-240-180- 36 thru 63	NoKnownImpct
Minor Tribs to Mohawk River (1201-0224)	H-240-220 thru 239	NoKnownImpct
Minor Tribs to Mohawk River (1201-0214)	H-240-241 thru 244	Need Verific
Minor Tribs to Mohawk River (1201-0205)	H-240-212,213,215,216	Need Verific
Minor Tribs to Mohawk River (1201-0025)	H-240-198 thru 206	Need Verific
Mohawk River (Frankfort/Ilion) Wetlands (1200-0004)	H-240 (portion w11) - wetland	Impaired Seg
Mohawk River (Utica) Wetlands (1200-0005)	H-240 (portion w12) - wetland	Impaired Seg
Mohawk River, Main Stem (1201-0093)	H-240 (portion 12)	Impaired Seg
Mohawk River, Main Stem (1201-0010)	H-240 (portion 13)	Impaired Seg
Mohawk River, Main Stem (1201-0094)	H-240 (portion 14)	Impaired Seg
Mohawk River, Upper, Main Stem (1201-0070)	H-240 (portion 15)	NoKnownImpct
Mohawk River, Upper, and minor tribs (1201-0068)	H-240-P1059.. Upper Mohawk	NoKnownImpct
Mohawk River, Upper, and tribs (1201-0217)	H-240-P1059.. Upper Mohawk, West Br	NoKnownImpct
Mud Creek Wetlands (1200-0003)	H-240-219-4 - wetland	MinorImpacts
Mud Creek and tribs (1201-0062)	H-240-219- 4	MinorImpacts
NYS Barge Canal (portion 7) (1201-0064)	H-240 (portion 12a)	MinorImpacts
Ninemile Creek, Lower, and tribs (1201-0014)	H-240-227	MinorImpacts
Ninemile Creek, Upper, and tribs (1201-0211)	H-240-227	UnAssessed
North Utica Reservoir (1201-0206)	H-240-212-P955a	UnAssessed
Oriskany Creek, Lower, and minor tribs (1204-0008)	H-240-223	MinorImpacts
Oriskany Creek, Middle, and minor tribs (1204-0010)	H-240-223	NoKnownImpct
Oriskany Creek, Upper, and tribs (1204-0011)	H-240-223	NoKnownImpct
Rome Reservoir (1201-0216)	H-240-P1059-248-P1060	UnAssessed
Sauquoit Creek, Lower, and minor tribs (1201-0069)	H-240-219	Impaired Seg
Sauquoit Creek, Middle, and tribs (1201-0207)	H-240-219	Impaired Seg
Sauquoit Creek, Upper, and tribs (1201-0208)	H-240-219	NoKnownImpct
Sixmile Creek and tribs (1201-0212)	H-240-231	Need Verific
South (Utica) Reservoirs (1201-0204)	H-240-211-P953,P954,P955	UnAssessed
Starch Factory Creek and tribs (1201-0067)	H-240-207	MinorImpacts
Steuben Creek and tribs (1203-0013)	H-240-180- 59	MinorImpacts
Stringer Brook and tribs (1201-0219)	H-240-P1059..267	NoKnownImpct
Threemile Creek and tribs (1201-0223)	H-240-234	Impaired Seg
Trib of Sauquoit Creek, Upper (1201-0209)	H-240-219-24	UnAssessed
Tribs to Delta Reservoir (1201-0215)	H-240-P1059-245 thru 261	NoKnownImpct
Utica Harbor (1201-0228)	H-240 (portion 12b)	Impaired Seg
Wheelers Creek and tribs (1201-0213)	H-240-240	Need Verific
White Creek, Upper, and tribs (1204-0012)	H-240-223-24	NoKnownImpct

Waterbody/Segment (ID)	Water Index Number	Category
Saratoga County (con't)		
Galway Lake (Amsterdam Reservoir) (1201-0110)	H-240- 69-P563	NoKnownImpct
Mohawk River, Lower, Main Stem (1201-0085)	H-240 (portion 1)	MinorImpacts
Mohawk River, Lower, Main Stem (1201-0042)	H-240 (portion 2)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0073)	H-240 (portion 4)	MinorImpacts
NYS Barge Canal (portion 8) (1201-0086)	H-240 (portion 3)	UnAssessed
Stony Creek (Colonie) Reservoir (1201-0098)	H-240- 14-P503a	Need Verific
Stony Creek, Lower, and tribs (1201-0097)	H-240- 14	NoKnownImpct
Stony Creek, Upper, and tribs (1201-0051)	H-240- 14	Need Verific
Vischer Ferry Nature Preserve - Wetland (1200-0001)	H-240 (portion w 4) - wetland	Impaired Seg
Schenectady County		
Alplaus Kill and minor tribs (1201-0099)	H-240- 20	MinorImpacts
Collins Lake (1201-0077)	H-240- 22-P519	Impaired Seg
Featherstonhaugh Lake (1201-0114)	H-240- 70-P570- 4-P571	UnAssessed
Indian Kill and tribs (1201-0100)	H-240- 20- 2	MinorImpacts
Iroquios Lake (1201-0101)	H-240- 24-P525	UnAssessed
Mariaville Lake (1201-0113)	H-240- 70-P570	Impaired Seg
Minor Tribs to Mohawk River (1201-0022)	H-240- 15 thru 19	UnAssessed
Minor Tribs to Mohawk River (1201-0040)	H-240- 21 thru 28	Impaired Seg
Minor Tribs to Mohawk River (1201-0104)	H-240- 51 thru 68	Need Verific
Minor tribs to Mohawk River (1201-0226)	H-240- 30 thru 50	UnAssessed
Mohawk River/Barge Canal, Main Stem (1201-0073)	H-240 (portion 4)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0006)	H-240 (portion 5)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0087)	H-240 (portion 6)	MinorImpacts
Plotter Kill and tribs (1201-0102)	H-240- 29	MinorImpacts
Poentic Kill and tribs (1201-0005)	H-240- 26	MinorImpacts
Sandsea Kill and tribs (1201-0103)	H-240- 45	NoKnownImpct
Schoharie Creek, Lower, Main Stem (1202-0010)	H-240- 82 (portion 2)	MinorImpacts
Schoharie County		
Bear Gulch Pond (1202-0037)	H-240- 82- 63-19-P596	UnAssessed
Brozie/Baldwin Pond (1202-0051)	H-240- 82-104-11-P627	UnAssessed
Central Bridge Reservoirs (1202-0016)	H-240- 82- 63- 1-P579/P579a	Need Verific
Clausen, Bowmaker Ponds (1202-0036)	H-240- 82- 63-13-14-P589a/P589b	UnAssessed
Cobleskill Creek Trib (1202-0031)	H-240- 82- 63- 1	UnAssessed
Cobleskill Creek Trib (1202-0032)	H-240- 82- 63- 9	UnAssessed
Cobleskill Creek, Lower, and tribs (1202-0019)	H-240- 82- 63	Need Verific
Cobleskill Creek, Upper, and minor tribs (1202-0030)	H-240- 82- 63	NoKnownImpct
Cobleskill Reservoirs (1202-0015)	H-240- 82- 63- 9-P583	Need Verific
Cripplebush Creek and tribs (1202-0029)	H-240- 82- 58	UnAssessed
Engleville Pond (1202-0009)	H-240- 82- 63-19-9-P589	Impaired Seg
Fly Creek and tribs (1202-0028)	H-240- 82- 57	NoKnownImpct
Fox Creek, Lower, and tribs (1202-0008)	H-240- 82- 67	NoKnownImpct
Fox Creek, Middle, and minor tribs (1202-0041)	H-240- 82- 67	NoKnownImpct
Line Creek and tribs (1202-0045)	H-240- 82- 87	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Schoharie County (con't)		
Little Schoharie Creek, Lower, and tribs (1202-0046)	H-240- 82- 89	NoKnownImpct
Little Schoharie Creek, Upper, and tribs (1202-0047)	H-240- 82- 89	NoKnownImpct
Lower Blenheim-Gilboa Reservoir (1202-0011)	H-240- 82 (portion 4)/P630a	Need Verific
Mine Kill and tribs (1202-0052)	H-240- 82-106	NoKnownImpct
Minor Tribs to Schoharie Creek (1202-0040)	H-240- 82- 64 thru 109	NoKnownImpct
Panther Creek and tribs (1202-0048)	H-240- 82- 95	NoKnownImpct
Panther Creek and tribs (1202-0033)	H-240- 82- 63-10	NoKnownImpct
Platter Kill and tribs (1202-0053)	H-240- 82-108	NoKnownImpct
Richmondville Reservoir (1202-0038)	H-240- 82- 63-P599	UnAssessed
Rossman Fly (1202-0049)	H-240- 82- 95-P616	UnAssessed
Russell Lake (1202-0034)	H-240- 82- 63-10-2-P584	UnAssessed
Schoharie Creek, Lower, Main Stem (1202-0010)	H-240- 82 (portion 2)	MinorImpacts
Schoharie Creek, Lower, Main Stem (1202-0024)	H-240- 82 (portion 3)	MinorImpacts
Schoharie Creek, Middle, Main Stem (1202-0025)	H-240- 82 (portion 5)	Need Verific
Summit Lake (1202-0014)	H-240- 82-104-P629	Impaired Seg
Tribs to Richmondville Water Supply (1202-0039)	H-240- 82- 63-P599-	UnAssessed
Upper Blenheim-Gilboa Reservoir (1202-0071)	H-240- 82-108-2-P630b	Need Verific
West Creek, Lower, and tribs (1202-0018)	H-240- 82- 63-13	MinorImpacts
West Creek, Upper, and tribs (1202-0035)	H-240- 82- 63-13	NoKnownImpct
West Kill/Mill Creek and tribs (1202-0050)	H-240- 82-104	NoKnownImpct

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Appendix D

Waterbody Inventory Data Sheets
By Segment Name

Waterbody/Segment (ID)	Water Index Number	Category
Alder Brook, Indigo, Jones Lakes (1203-0060)	H-240-180-74-10-P853,P853a,P853b	UnAssessed
Alplaus Kill and minor tribs (1201-0099)	H-240- 20	MinorImpacts
Ann Lee (Shakers) Pond, Stump Pond (1201-0096)	H-240- 11-P496/P498	Impaired Seg
Ash Creek and tribs (1203-0042)	H-240-180- P799-19- 4	UnAssessed
Auries Creek and tribs (1201-0116)	H-240- 84	NoKnownImpct
Ayers Creek and tribs (1201-0174)	H-240-144-21	NoKnownImpct
Ayers Lake (1201-0176)	H-240-144-21-P746	UnAssessed
Ballou, Nail Creeks and tribs (1201-0203)	H-240-211,214	Impaired Seg
Barker/Eli Creek and tribs (1204-0013)	H-240-223-45	UnAssessed
Barto Lake, Mud Pond (1201-0190)	H-240-144-43-P786..P787,P788	UnAssessed
Batavia Kill, Lower, and tribs (1202-0001)	H-240- 82-117	MinorImpacts
Batavia Kill, Middle, and tribs (1202-0058)	H-240- 82-117	MinorImpacts
Batavia Kill, Upper, and tribs (1202-0059)	H-240- 82-117	NoKnownImpct
Bear Gulch Pond (1202-0037)	H-240- 82- 63-19-P596	UnAssessed
Beaver Brook and tribs (1201-0229)	H-240-227-21- 1	NoKnownImpct
Beaver Creek, Upper, and tribs (1201-0159)	H-240-144- 9- 5	Need Verific
Beaver Pond, Poor Lake (1203-0003)	H-240-180-91-P915,P919	Need Verific
Beaverdam Creek and tribs (1202-0043)	H-240- 82- 67-26	NoKnownImpct
Big Alderbed, Blind Mans Vly (1201-0002)	H-240-144-44-P790,P790a	Impaired Seg
Big Brook and tribs (1201-0218)	H-240-P1059..263	NoKnownImpct
Big Creek and tribs (1204-0005)	H-240-223-34	NoKnownImpct
Big Rock Lake (1203-0069)	H-240-180-85-11-P883	UnAssessed
Black Creek (Gray) Reservoir (1203-0052)	H-240-180- P799-19-P827	UnAssessed
Black Creek, Lower, and minor tribs (1203-0041)	H-240-180- P799-19	NoKnownImpct
Black Creek, Upper, and tribs (1203-0072)	H-240-180- P799-19	UnAssessed
Bochen, Debraine Lakes (1203-0057)	H-240-180-70..P844,P846	UnAssessed
Boyer Lake (1203-0051)	H-240-180- P799-19-29-P829	UnAssessed
Brimstone Creek and tribs (1201-0128)	H-240-112-14	Need Verific
Broomstick (Goose Egg) Lake (1201-0168)	H-240-144-13..P720	UnAssessed
Brozie/Baldwin Pond (1202-0051)	H-240- 82-104-11-P627	UnAssessed
Buck Ponds, White Birch Lake (1203-0001)	H-240-180-74..P864,P865,P866,P867	Impaired Seg
Bunn Creek, Upper, and tribs (1201-0108)	H-240- 69- 1	MinorImpacts
Cady Brook and tribs (1203-0036)	H-240-180- 59- 2-2	UnAssessed
Canajoharie Creek, Lower, and tribs (1201-0027)	H-240-112	MinorImpacts
Canajoharie Creek, Upper, and tribs (1201-0127)	H-240-112	NoKnownImpct
Caroga Creek, Lower, and tribs (1201-0076)	H-240-127	MinorImpacts
Caroga Creek, Upper, and minor tribs (1201-0131)	H-240-127	NoKnownImpct
Caswell, Deer, Otter, Goose Lakes (1203-0074)	H-240-180..P910a,P911,P912,P913	UnAssessed
Cat Lake (1203-0079)	H-240-180..P929..P932	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Cayadutta Creek, Lower, and minor tribs (1201-0001)	H-240- 89	MinorImpacts
Cayadutta Creek, Upper, and minor tribs (1201-0044)	H-240- 89	MinorImpacts
Central Bridge Reservoirs (1202-0016)	H-240- 82- 63- 1-P579/P579a	Need Verific
Christian Lake (1201-0189)	H-240-144-43-P784	UnAssessed
Cincinnati Creek, Lower, and tribs (1203-0010)	H-240-180- 59	MinorImpacts
Cincinnati Creek, Upper, and minor tribs (1203-0035)	H-240-180- 59- 2	MinorImpacts
Clausen, Bowmaker Ponds (1202-0036)	H-240- 82- 63-13-14-P589a/P589b	UnAssessed
Cobleskill Creek Trib (1202-0031)	H-240- 82- 63- 1	UnAssessed
Cobleskill Creek Trib (1202-0032)	H-240- 82- 63- 9	UnAssessed
Cobleskill Creek, Lower, and tribs (1202-0019)	H-240- 82- 63	Need Verific
Cobleskill Creek, Upper, and minor tribs (1202-0030)	H-240- 82- 63	NoKnownImpct
Cobleskill Reservoirs (1202-0015)	H-240- 82- 63- 9-P583	Need Verific
Cold Brook and tribs (1203-0033)	H-240-180- 42	MinorImpacts
Cold Brook, Upper, and tribs (1201-0162)	H-240-144-10	NoKnownImpct
Colgate Lake (1202-0064)	H-240- 82-133-P649	UnAssessed
Collins Lake (1201-0077)	H-240- 22-P519	Impaired Seg
Conglin Lakes (1201-0180)	H-240-144-28- 1-P756,P757,P758	UnAssessed
Cork Center Reservoir (1201-0120)	H-240- 89-P664	NoKnownImpct
Cranberry Lake (1203-0046)	H-240-180- P799-19-11-P815	UnAssessed
Cranes Hollow Creek and tribs (1201-0105)	H-240- 61	NoKnownImpct
Cripplebush Creek and tribs (1202-0029)	H-240- 82- 58	UnAssessed
Crum Creek and tribs (1201-0149)	H-240-143	NoKnownImpct
Crum Creek and tribs (1201-0195)	H-240-149	NoKnownImpct
Deans Creek and tribs (1204-0001)	H-240-223-10	MinorImpacts
Deer, North Branch Lakes (1203-0050)	H-240-180- P799-19-11..P824,P825	UnAssessed
Delta Reservoir (1201-0019)	H-240 (portion 16)/P1059	Impaired Seg
Delta Reservoir Wetlands (1200-0002)	H-240 (portion w16)/P1059-wetland	Need Verific
Dexter, Spectacle and Dry Lakes (1201-0181)	H-240-144-28- 1-P759,P760,P761	UnAssessed
East Branch Mohawk River and tribs (1201-0222)	H-240-P1059..288	NoKnownImpct
East Canada Cr, Lower, and minor tribs (1201-0081)	H-240-144 (portion 1)	MinorImpacts
East Canada Cr, Lower, and minor tribs (1201-0152)	H-240-144 (portion 3)	NoKnownImpct
East Canada Cr, Middle, and minor tribs (1201-0153)	H-240-144 (portion 4)	MinorImpacts
East Canada Cr, Upper, and minor tribs (1201-0154)	H-240-144 (portion 5)	NoKnownImpct
East Canada Lake (1201-0150)	H-240-144 (portion 1a)/P703a	NoKnownImpct
East Caroga Lake (1201-0046)	H-240-127-P697	NoKnownImpct
East Kill and tribs (1202-0063)	H-240- 82-133	NoKnownImpct
Echo Lake/North Pond (1201-0221)	H-240-P1059..271-P1062a	UnAssessed
Echo Pond (1202-0042)	H-240- 82- 67-10-P605	UnAssessed
Engleville Pond (1202-0009)	H-240- 82- 63-19-9-P589	Impaired Seg
Ephratah Reservoir (1201-0132)	H-240-127- P683a	UnAssessed
Factory/Big Bill Brooks and tribs (1203-0030)	H-240-180- 31-5	NoKnownImpct
Featherstonhaugh Lake (1201-0114)	H-240- 70-P570- 4-P571	UnAssessed
Ferris Lake (1201-0003)	H-240-144-38-P777	Impaired Seg
Finches Pond (1203-0039)	H-240-180- P799-11-808a	UnAssessed
Flat Creek and tribs (1201-0026)	H-240-102	MinorImpacts
Fly Creek and tribs (1202-0028)	H-240- 82- 57	NoKnownImpct
Fonda Reservoir (1201-0123)	H-240- 94-P678a	NoKnownImpct
Fourmile Brook and tribs (1203-0056)	H-240-180-70	NoKnownImpct

Waterbody/Segment (ID)	Water Index Number	Category
Fox Creek, Lower, and tribs (1202-0008)	H-240- 82- 67	NoKnownImpct
Fox Creek, Middle, and minor tribs (1202-0041)	H-240- 82- 67	NoKnownImpct
Fox Creek, Upper, and tribs (1202-0004)	H-240- 82- 67	NoKnownImpct
Fulmer Creek and tribs (1201-0012)	H-240-185	MinorImpacts
G Lake (1203-0062)	H-240-180-74-16-P859	UnAssessed
Galway Lake (Amsterdam Reservoir) (1201-0110)	H-240- 69-P563	NoKnownImpct
Graffenburg Reservoir (1201-0202)	H-240-207-7-P952	UnAssessed
Green, Otter and Stewart Lakes (1201-0009)	H-240-144-13..P727,P729,P730	Impaired Seg
Hale Creek and tribs (1201-0118)	H-240- 89-11	MinorImpacts
Hall/Matthew Creeks and tribs (1201-0225)	H-240- 89-10	MinorImpacts
Harrower Pond (1201-0109)	H-240- 69-P556	UnAssessed
Hart Vly Lake (1201-0183)	H-240-144-28-P750-1-P752	UnAssessed
Hillabrandt Vly (1201-0164)	H-240-144-11-P713	UnAssessed
Hinckley Reservoir (1203-0022)	H-240-180 (portion 4)/P799	MinorImpacts
Hinds Pond (1201-0141)	H-240-127-25-P686-4-P689-3-P690a	UnAssessed
Honnedaga, Baby Lakes, Stearns Mudhole (1203-0067)	H-240-180-84-P877,P876,P877b	UnAssessed
House Pond (1201-0186)	H-240-144-33-P770	UnAssessed
Huntersfield Creek, Upper, and tribs (1202-0056)	H-240- 82-116	NoKnownImpct
Ilion Reservoir No.3 (1201-0198)	H-240-187- 1-P940a	Threatened
Indian Kill and tribs (1201-0100)	H-240- 20- 2	MinorImpacts
Indian Lake (1201-0171)	H-240-144-13..P725	UnAssessed
Iron Lake, Black Cat Lake (1201-0188)	H-240-144-38-P779,P780	UnAssessed
Iroquios Lake (1201-0101)	H-240- 24-P525	UnAssessed
Irving Pond (1201-0230)	H-240-144-13..P732	Impaired Seg
Jerseyfield Lake (1203-0048)	H-240-180- P799-19-11..P817	UnAssessed
Jones Lake (1203-0066)	H-240-180-84-4-P875	UnAssessed
Kayaderosseras/McQueen Creeks and tribs (1201-0115)	H-240- 76	NoKnownImpct
Kecks Center Creek, Upper, and tribs (1201-0117)	H-240- 89- 8	NoKnownImpct
Klondike Reservoir (1201-0160)	H-240-144- 9-15-P708	UnAssessed
Knapp Reservoir (1201-0182)	H-240-144-28-P750	UnAssessed
Knapps Long Lake, Long Pond (1201-0007)	H-240-144-28-P750..P753.P755	Impaired Seg
Knauderack Creek and tribs (1201-0126)	H-240- 98	NoKnownImpct
Kyser Lake (1201-0151)	H-240-144 (portion 2)/P704a	UnAssessed
Lake Butterfield (1201-0111)	H-240- 69-P564	UnAssessed
Lake Gay (1203-0038)	H-240-180- P799- 5-P803a	UnAssessed
Lake Heloise (1202-0060)	H-240- 82-117-14-P647a	UnAssessed
Lake Rip Van Winkle (1202-0070)	H-240- 82-147b-P656a	UnAssessed
Lake Tamarack, Tom Kettle, Curtis Lks (1203-0040)	H-240-180- P799-14-P807a,P809,P810	UnAssessed
Lake Tribs to Fire Flow (1201-0173)	H-240-144-13..P732..P733 thru P736	UnAssessed
Lakes tributary to Jerseyfield Lake (1203-0002)	H-240-180- P799-19-11..P818 to P822	Impaired Seg
Lansing Kill and tribs (1201-0220)	H-240-P1059..271	Need Verific
Leland Pond (1204-0007)	H-240-223-P1052/P1053	Threatened
Lily, Canada, Stewarts Land, West Lakes (1201-0050)	H-240-144-13-P715 thru P718	Impaired Seg
Line Creek and tribs (1202-0045)	H-240- 82- 87	UnAssessed
Lisha Kill and tribs (1201-0074)	H-240- 13	MinorImpacts
Little Metcalf Lake (1201-0227)	H-240-144-29-P768	Impaired Seg

Waterbody/Segment (ID)	Water Index Number	Category
Little Schoharie Creek, Lower, and tribs (1202-0046)	H-240- 82- 89	NoKnownImpct
Little Schoharie Creek, Upper, and tribs (1202-0047)	H-240- 82- 89	NoKnownImpct
Long Lake (1203-0049)	H-240-180- P799-19-11..P823	UnAssessed
Lower Blenheim-Gilboa Reservoir (1202-0011)	H-240- 82 (portion 4)/P630a	Need Verific
Lyons Pond (1204-0014)	H-240-223-P1044	UnAssessed
Madison Lake (1204-0006)	H-240-223-P1051	NoKnownImpct
Maltanner Creek and tribs (1203-0016)	H-240-180- 26	NoKnownImpct
Manor Kill and tribs (1202-0017)	H-240- 82-112	NoKnownImpct
Marcy Reservoir (1201-0210)	H-240-222-P955e	UnAssessed
Mariaville Lake (1201-0113)	H-240- 70-P570	Impaired Seg
Mayham Pond (1202-0055)	H-240- 82-113-P643	UnAssessed
Metcalf Brook and tribs (1203-0068)	H-240-180-85	UnAssessed
Metcalf Lake, Metcalf Chain of Lakes (1203-0070)	H-240-180-85-P897 to P900	UnAssessed
Mica Lake (1203-0073)	H-240-180-99-P921	UnAssessed
Middle Sprite Creek and tribs (1201-0163)	H-240-144-11	NoKnownImpct
Middleville Water Supply and tribs (1203-0028)	H-240-180- 27	NoKnownImpct
Mill Creek Lake (1203-0058)	H-240-180-73-P849	UnAssessed
Mill Creek and tribs (1203-0045)	H-240-180- P799-19-11	NoKnownImpct
Mill Creek, Upper, and tribs (1203-0034)	H-240-180- 55	NoKnownImpct
Mine Kill and tribs (1202-0052)	H-240- 82-106	NoKnownImpct
Minor Lakes Trib to Metcalf Brook (1203-0071)	H-240-180-85..P880,P881,P882,P896a	UnAssessed
Minor Trib to Schoharie Creek (1202-0065)	H-240- 82-141	UnAssessed
Minor Tribs to Black Creek Reservoir (1203-0053)	H-240-180- P799-19-P827-	UnAssessed
Minor Tribs to Hinckley Reservoir (1203-0037)	H-240-180- P799- 1 thru 21	NoKnownImpct
Minor Tribs to Lower West Canada Creek (1203-0082)	H-240-180- 1 thru 35 (selected)	NoKnownImpct
Minor Tribs to Lower West Canada Creek (1203-0083)	H-240-180- 36 thru 63	NoKnownImpct
Minor Tribs to Mohawk River (1201-0095)	H-240- 1 thru 12 (selected)	UnAssessed
Minor Tribs to Mohawk River (1201-0022)	H-240- 15 thru 19	UnAssessed
Minor Tribs to Mohawk River (1201-0040)	H-240- 21 thru 28	Impaired Seg
Minor Tribs to Mohawk River (1201-0104)	H-240- 51 thru 68	Need Verific
Minor Tribs to Mohawk River (1201-0030)	H-240- 71 thru 88 (selected)	Need Verific
Minor Tribs to Mohawk River (1201-0121)	H-240- 90 thru 126 (selected)	MinorImpacts
Minor Tribs to Mohawk River (1201-0145)	H-240-128 thru 143 (selected)	Need Verific
Minor Tribs to Mohawk River (1201-0192)	H-240-145 thru 184	NoKnownImpct
Minor Tribs to Mohawk River (1201-0056)	H-240-186 thru 196	NoKnownImpct
Minor Tribs to Mohawk River (1201-0025)	H-240-198 thru 206	Need Verific
Minor Tribs to Mohawk River (1201-0205)	H-240-212,213,215,216	Need Verific
Minor Tribs to Mohawk River (1201-0224)	H-240-220 thru 239	NoKnownImpct
Minor Tribs to Mohawk River (1201-0214)	H-240-241 thru 244	Need Verific
Minor Tribs to Schoharie Creek (1202-0027)	H-240- 82- 1 thru 62	NoKnownImpct
Minor Tribs to Schoharie Creek (1202-0040)	H-240- 82- 64 thru 109	NoKnownImpct
Minor Tribs to Schoharie Creek (1202-0057)	H-240- 82-116 thru 140	MinorImpacts
Minor Tribs to Schoharie Creek (1202-0066)	H-240- 82-142 thru 147b	NoKnownImpct
Minor Tribs to Schoharie Reservoir (1202-0054)	H-240- 82-110 thru 115	Need Verific
Minor tribs to Mohawk River (1201-0226)	H-240- 30 thru 50	UnAssessed
Mirror Lake (1201-0196)	H-240-181-P939	UnAssessed
Mohawk River (Frankfort/Ilion) Wetlands (1200-0004)	H-240 (portion w11) - wetland	Impaired Seg
Mohawk River (Utica) Wetlands (1200-0005)	H-240 (portion w12) - wetland	Impaired Seg

Waterbody/Segment (ID)	Water Index Number	Category
Mohawk River, Lower, Main Stem (1201-0085)	H-240 (portion 1)	MinorImpacts
Mohawk River, Lower, Main Stem (1201-0042)	H-240 (portion 2)	MinorImpacts
Mohawk River, Main Stem (1201-0093)	H-240 (portion 12)	Impaired Seg
Mohawk River, Main Stem (1201-0010)	H-240 (portion 13)	Impaired Seg
Mohawk River, Main Stem (1201-0094)	H-240 (portion 14)	Impaired Seg
Mohawk River, Upper, Main Stem (1201-0070)	H-240 (portion 15)	NoKnownImpct
Mohawk River, Upper, and minor tribs (1201-0068)	H-240-P1059.. Upper Mohawk	NoKnownImpct
Mohawk River, Upper, and tribs (1201-0217)	H-240-P1059.. Upper Mohawk, West Br	NoKnownImpct
Mohawk River/Barge Canal, Main Stem (1201-0073)	H-240 (portion 4)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0006)	H-240 (portion 5)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0087)	H-240 (portion 6)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0088)	H-240 (portion 7)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0089)	H-240 (portion 8)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0090)	H-240 (portion 9)	MinorImpacts
Mohawk River/Barge Canal, Main Stem (1201-0091)	H-240 (portion 10)	Impaired Seg
Mohawk River/Barge Canal, Main Stem (1201-0092)	H-240 (portion 11)	Impaired Seg
Morehouse Lake (1201-0080)	H-240-144-43-P786	Impaired Seg
Mountain Lake (1201-0142)	H-240-127-25-P686-4-P689-4-P691	NoKnownImpct
Mounts Creek Lake (1203-0044)	H-240-180- P799-19-10-P814	UnAssessed
Mounts Creek and tribs (1203-0043)	H-240-180- P799-19-10	NoKnownImpct
Moyer Creek, Lower, and tribs (1201-0057)	H-240-190	NoKnownImpct
Moyer Creek, Upper, and tribs (1201-0199)	H-240-190	NoKnownImpct
Mud Creek Wetlands (1200-0003)	H-240-219-4 - wetland	MinorImpacts
Mud Creek and tribs (1201-0062)	H-240-219- 4	MinorImpacts
Mud Lake (1201-0136)	H-240-127-23-P685	UnAssessed
Mud Lake (1201-0172)	H-240-144-13..P726	UnAssessed
Mud Lake (1203-0047)	H-240-180- P799-19-11-P816	UnAssessed
Mud Lake (1203-0076)	H-240-180..P929	UnAssessed
NYS Barge Canal (portion 7) (1201-0064)	H-240 (portion 12a)	MinorImpacts
NYS Barge Canal (portion 8) (1201-0086)	H-240 (portion 3)	UnAssessed
Newport Water Supply and tribs (1203-0032)	H-240-180- 37	UnAssessed
Nine Corners Lake (1201-0167)	H-240-144-13..P719	UnAssessed
Ninemile Creek, Lower, and tribs (1201-0014)	H-240-227	MinorImpacts
Ninemile Creek, Upper, and tribs (1201-0211)	H-240-227	UnAssessed
North Chuctanunda Cr, Lower, and tribs (1201-0031)	H-240- 69	MinorImpacts
North Chuctanunda Cr, Middle, and tribs (1201-0106)	H-240- 69	MinorImpacts
North Chuctanunda Cr, Upper, and tribs (1201-0107)	H-240- 69	Need Verific
North Creek and tribs (1201-0179)	H-240-144-28	NoKnownImpct
North Creek and tribs (1203-0026)	H-240-180- 11	MinorImpacts
North Creek, Upper, and tribs (1201-0047)	H-240-127-13	NoKnownImpct
North Utica Reservoir (1201-0206)	H-240-212-P955a	UnAssessed
Nowadaga Creek, Lower, and tribs (1201-0193)	H-240-148	MinorImpacts
Nowadaga Creek, Upper, and tribs (1201-0194)	H-240-148	MinorImpacts
Onderdonk Lake (1202-0005)	H-240- 82- 67-24-P608	MinorImpacts
Onteora Pond/Tannersville Reservoirs (1202-0069)	H-240- 82-147b-1..P655c,P655a,P655b	UnAssessed
Oriskany Creek, Lower, and minor tribs (1204-0008)	H-240-223	MinorImpacts
Oriskany Creek, Middle, and minor tribs (1204-0010)	H-240-223	NoKnownImpct
Oriskany Creek, Upper, and tribs (1204-0011)	H-240-223	NoKnownImpct

Waterbody/Segment (ID)	Water Index Number	Category
Otsquago Creek, Lower, and minor tribs (1201-0028)	H-240-119	MinorImpacts
Otsquago Creek, Upper, and tribs (1201-0078)	H-240-119	NoKnownImpct
Otsquene Creek and tribs (1201-0129)	H-240-119- 4	NoKnownImpct
Otstungo Creek and tribs (1201-0130)	H-240-119- 5	UnAssessed
Panther Creek and tribs (1202-0033)	H-240- 82- 63-10	NoKnownImpct
Panther Creek and tribs (1202-0048)	H-240- 82- 95	NoKnownImpct
Peck Creek and tribs (1201-0137)	H-240-127-25	NoKnownImpct
Peck Lake (1201-0016)	H-240-127-25-P686	NoKnownImpct
Pillsbury Lake (1203-0081)	H-240-180..P929..P938	UnAssessed
Pine Lake (1201-0170)	H-240-144-13..P724	Impaired Seg
Pine, Little Pine Lakes (1203-0061)	H-240-180-74-15-P854,P855	UnAssessed
Platter Kill and tribs (1202-0053)	H-240- 82-108	NoKnownImpct
Pleasant Lake (1201-0175)	H-240-144-21- 7-P745	NoKnownImpct
Plotter Kill and tribs (1201-0102)	H-240- 29	MinorImpacts
Poentic Kill and tribs (1201-0005)	H-240- 26	MinorImpacts
Ransom/Gillette Creek and tribs (1201-0155)	H-240-144- 5	NoKnownImpct
Redlouse Lake (1201-0008)	H-240-144-34-P771	Impaired Seg
Richmondville Reservoir (1202-0038)	H-240- 82- 63-P599	UnAssessed
Rockwood Lake (1201-0133)	H-240-127- P685a	NoKnownImpct
Rome Reservoir (1201-0216)	H-240-P1059-248-P1060	UnAssessed
Rossman Fly (1202-0049)	H-240- 82- 95-P616	UnAssessed
Russell Lake (1202-0034)	H-240- 82- 63-10-2-P584	UnAssessed
Sampson Bog, Sampson Lk, Bullhead Pd (1203-0075)	H-240-180..P925,P926,P927	UnAssessed
Sandsea Kill and tribs (1201-0103)	H-240- 45	NoKnownImpct
Sauquoit Creek, Lower, and minor tribs (1201-0069)	H-240-219	Impaired Seg
Sauquoit Creek, Middle, and tribs (1201-0207)	H-240-219	Impaired Seg
Sauquoit Creek, Upper, and tribs (1201-0208)	H-240-219	NoKnownImpct
Schoharie Creek, Lower, Main Stem (1202-0003)	H-240- 82 (portion 1)	MinorImpacts
Schoharie Creek, Lower, Main Stem (1202-0010)	H-240- 82 (portion 2)	MinorImpacts
Schoharie Creek, Lower, Main Stem (1202-0024)	H-240- 82 (portion 3)	MinorImpacts
Schoharie Creek, Middle, Main Stem (1202-0025)	H-240- 82 (portion 5)	Need Verific
Schoharie Creek, Upper, Main Stem (1202-0021)	H-240- 82 (portion 7)	MinorImpacts
Schoharie Creek, Upper, Main Stem (1202-0023)	H-240- 82 (portion 8)	MinorImpacts
Schoharie Creek, Upper, and tribs (1202-0026)	H-240- 82 (portion 9)	NoKnownImpct
Schoharie Reservoir (1202-0012)	H-240- 82 (portion 6)/P638a	Impaired Seg
Shaker Creek and tribs (1201-0079)	H-240- 11	MinorImpacts
Shed Brook and tribs (1203-0031)	H-240-180- 32	NoKnownImpct
Silver Lake (1202-0061)	H-240- 82-117-P647b	UnAssessed
Sixmile Creek and tribs (1201-0212)	H-240-231	Need Verific
South (Utica) Reservoirs (1201-0204)	H-240-211-P953,P954,P955	UnAssessed
South Branch West Canada Cr and tribs (1203-0059)	H-240-180-74	NoKnownImpct
South Chuctanunda Cr, Lower, and tribs (1201-0082)	H-240- 70	NoKnownImpct
South Chuctanunda Cr, Upper, and tribs (1201-0112)	H-240- 70	Need Verific
South Lake (1203-0077)	H-240-180..P929..P930	UnAssessed
Spectacle, Butler, Atwood Lakes (1203-0054)	H-240-180-68-P834,P836,P842	UnAssessed
Split Rock, Amos Lakes, Belden Vly (1203-0084)	H-240-180-87..P901,P907,P907b	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Sprite Creek and tribs (1201-0165)	H-240-144-13	NoKnownImpct
Sprite Creek, Lower, and tribs (1201-0134)	H-240-127-15	MinorImpacts
Sprite Creek, Upper, and tribs (1201-0135)	H-240-127-15	UnAssessed
Spruce Creek, Lower, and tribs (1201-0156)	H-240-144- 9	NoKnownImpct
Spruce Creek, Middle, and tribs (1201-0157)	H-240-144- 9	UnAssessed
Spruce Creek, Upper, and tribs (1201-0158)	H-240-144- 9	UnAssessed
Spruce Lake (1201-0161)	H-240-144- 9/P706a	NoKnownImpct
Spruce, Balsam Lakes (1203-0007)	H-240-180-87-P908,P909	Impaired Seg
St. Johnsville Reservoir (1201-0147)	H-240-139-P698b	UnAssessed
Starch Factory Creek and tribs (1201-0067)	H-240-207	MinorImpacts
Steele Creek tribs (1201-0197)	H-240-187-	Impaired Seg
Steele Creek, Lower, and tribs (1201-0011)	H-240-187	Threatened
Sterling Creek and tribs (1201-0013)	H-240-197	MinorImpacts
Steuben Creek and tribs (1203-0013)	H-240-180- 59	MinorImpacts
Stoner Lakes (1201-0169)	H-240-144-13..P721,P722,P723	Impaired Seg
Stony Brook Lake (1201-0178)	H-240-144-25-P749	UnAssessed
Stony Creek (Colonie) Reservoir (1201-0098)	H-240- 14-P503a	Need Verific
Stony Creek and tribs (1203-0027)	H-240-180- 20	UnAssessed
Stony Creek, Lower, and tribs (1201-0097)	H-240- 14	NoKnownImpct
Stony Creek, Upper, and tribs (1201-0051)	H-240- 14	Need Verific
Stony Grove Creek, Upper, and tribs (1202-0067)	H-240- 82-145	UnAssessed
Stringer Brook and tribs (1201-0219)	H-240-P1059..267	NoKnownImpct
Sucker Pond, Three Mile Vly (1203-0065)	H-240-180-78-4-P870,P871	UnAssessed
Summit Lake (1202-0014)	H-240- 82-104-P629	Impaired Seg
Swan Lake (1203-0055)	H-240-180-69-P839	UnAssessed
Switz Kill and tribs (1202-0007)	H-240- 82- 67-24	NoKnownImpct
T Lake (1203-0004)	H-240-180-74-21-P862	Impaired Seg
The Floe (1203-0064)	H-240-180-74-P850a	NoKnownImpct
Third, Fourth, Broomstick (Goose Egg) Lk (1201-0185)	H-240-144-28-P764,P765,P766	UnAssessed
Threemile Creek and tribs (1201-0223)	H-240-234	Impaired Seg
Timmerman Creek and tribs (1201-0148)	H-240-141	NoKnownImpct
Trammel Creek and tribs (1201-0177)	H-240-144-22	NoKnownImpct
Trib of Sauquoit Creek, Upper (1201-0209)	H-240-219-24	UnAssessed
Tribs to Allen Brook (1202-0068)	H-240- 82-147b-1	UnAssessed
Tribs to Canada/West Lakes (1201-0166)	H-240-144-13-P717/P718-	UnAssessed
Tribs to Delta Reservoir (1201-0215)	H-240-P1059-245 thru 261	NoKnownImpct
Tribs to East/West Caroga Lakes (1201-0143)	H-240-127-P697/P698-	UnAssessed
Tribs to Fonda Reservoir (1201-0124)	H-240- 94-P678a-	NoKnownImpct
Tribs to Peck Lake (1201-0138)	H-240-127-25-P686-	UnAssessed
Tribs to Richmondville Water Supply (1202-0039)	H-240- 82- 63-P599-	UnAssessed
Trout Lake (1201-0191)	H-240-144-44-P793	UnAssessed
Twin Lake, South (1203-0005)	H-240-180-74-16-1-P856	Impaired Seg
Unnamed trib to Moyer Creek (1201-0200)	H-240-190-2	UnAssessed
Upper Blenheim-Gilboa Reservoir (1202-0071)	H-240- 82-108-2-P630b	Need Verific
Utica Harbor (1201-0228)	H-240 (portion 12b)	Impaired Seg
Van Wie Creek and tribs (1201-0122)	H-240- 93	Need Verific
Vandenburg Pond (1201-0139)	H-240-127-25-P686-4-P689	UnAssessed
Vischer Ferry Nature Preserve - Wetland (1200-0001)	H-240 (portion w 4) - wetland	Impaired Seg

Waterbody/Segment (ID)	Water Index Number	Category
Warners Lake (1202-0044)	H-240- 82- 67-33-1-P609	NoKnownImpct
Waters Millpond, Long Lake (1201-0184)	H-240-144-28-P762,P763	UnAssessed
West Canada Creek, Lower, Main Stem (1203-0023)	H-240-180 (portion 1)	Impaired Seg
West Canada Creek, Lower, Main Stem (1203-0011)	H-240-180 (portion 2)	Impaired Seg
West Canada Creek, Middle, Main Stem (1203-0024)	H-240-180 (portion 3)	Impaired Seg
West Canada Creek, Upp, and minor trib (1203-0008)	H-240-180 (portion 5)	Impaired Seg
West Canada Creek, Upp, and minor tribs (1203-0025)	H-240-180 (portion 6)	Impaired Seg
West Caroga Lake (1201-0144)	H-240-127-P698	NoKnownImpct
West Cr, Black Cr, Deer Lakes, Bills Pd (1201-0187)	H-240-144-37-P773,P774,P775,P776	UnAssessed
West Creek, Lower, and tribs (1202-0018)	H-240- 82- 63-13	MinorImpacts
West Creek, Upper, and tribs (1202-0035)	H-240- 82- 63-13	NoKnownImpct
West Kill and tribs (1202-0062)	H-240- 82-128	MinorImpacts
West Kill/Mill Creek and tribs (1202-0050)	H-240- 82-104	NoKnownImpct
West Lake (1203-0078)	H-240-180..P929..P931	UnAssessed
Wheelers Creek and tribs (1201-0213)	H-240-240	Need Verific
White Birch Pond, Fawn Lake (1202-0006)	H-240- 82- 67-24-10-P605a,P605b	UnAssessed
White Creek and minor tribs (1203-0015)	H-240-180- 31	NoKnownImpct
White Creek, Upper, and tribs (1204-0012)	H-240-223-24	NoKnownImpct
Whitney Lake, Puddle Hole Pond (1203-0080)	H-240-180..P929..P936,P937	UnAssessed
Wilmurt Lake (1203-0063)	H-240-180-74-P850	UnAssessed
Wolf Hollow Creek and tribs (1203-0029)	H-240-180- 30	NoKnownImpct
Woodworth Lake (1201-0140)	H-240-127-25-P686-4-P689-2-P690	UnAssessed
Yatesville Creek and tribs (1201-0125)	H-240- 96	NoKnownImpct
Zimmerman Creek, Lower, and tribs (1201-0029)	H-240-139	NoKnownImpct
Zimmerman Creek, Upper, and tribs (1201-0146)	H-240-139	NoKnownImpct