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

The 2004 Black River Basin Waterbody Inventory and Priority Waterbodies List

Encompassing all or portions of
Hamilton, Herkimer, Jefferson,
Lewis and Oneida Counties

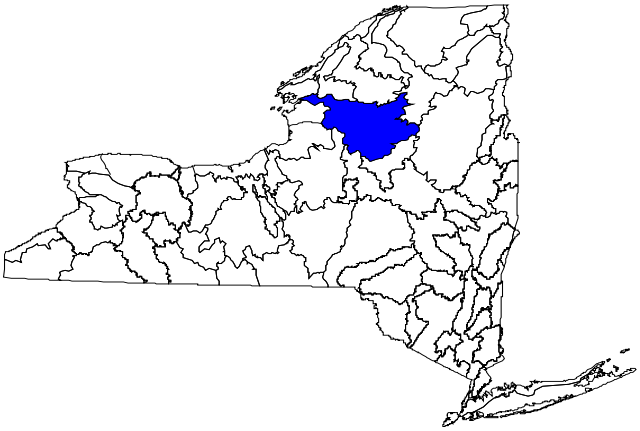

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Table of Contents

The Waterbody Inventory and Priority Waterbodies List. 1

Comprehensive Assessment Strategy. 1
Statewide Waters Monitoring Program. 2
Water Quality Assessments: Updating the WI/PWL 2
An Expanded *Waterbody Inventory* 2

The Black River Basin 5

Basin Description 5
Water Quality Issues and Problems 5
Black River Basin Water Quality Assessment 8
Basin Water Quality Summary 9

The 2004 Black Basin Waterbody Inventory/Priority Waterbodies List. 11

Waterbody Inventory Data Sheets
Black River Watershed 13
Black River, Main Stem, Lake Ontario to Forestport Reservoir. 21
Lower/Middle Black River Watershed, Lake Ontario to Beaver River 33
Beaver River Watershed 46
Stillwater Reservoir Watershed 81
Middle Black River Watershed, Beaver River to Independence River 113
Independence River Watershed 119
Middle Black River Watershed, Independence River to Moose River 131
Lower Moose River Watershed 143
Lower Middle and North Branches Moose River Watershed 147
Upper Middle Branch Moose River/Fulton Chain Watershed 171
Lower South Branch Moose River Watershed 177
Upper South Branch Moose River Watershed 183
Middle Black River Watershed, Moose River to Woodhull Creek 199
Woodhull Creek Watershed 213
Upper Black River Watershed 219

Natural Resources/Wetlands Issues . . . . . none listed

Summary Listing of Priority Waterbodies. 231

APPENDICES

A - Waterbody Inventory/Priority Waterbodies List Assessment Methodology .. . . . . A - 1
B - Waterbody Inventory Data Sheet Background Information . . . . . B - 1
C - County Index of Data Sheet Segments . . . . . C - 1
D - Alphabetic Index of Data Sheet Segments . . . . . D - 1

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. These assessments reflect monitoring and water quality information drawn from a number of programs and sources, both within and outside the NYSDEC. This information has been compiled by the NYSDEC Division of Water into an inventory database of all waterbodies in New York State 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, etc) 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. New York State's use of the rotating basin approach enables the updating of the WI/PWL in two or three of fourteen drainage basins (about 20% of the state) each year. This schedule allows for a comprehensive re-assessment of the water quality throughout the entire 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 other water quality partners outside the Department.

The first year of these basin studies focuses on the review of existing water quality information and the incorporation of monitoring efforts being conducted by other basin/watershed partners. Division monitoring activities in the first year are generally limited to Biological Screening. 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 monitoring of basin waters. This includes water chemistry sampling at selected sites, sediment 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 support of 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 data and 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 information for **all** waters in the state and record good water quality in the state 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 from the inventory of all waters the subset of "*priority*" waterbody segments on which the Division can and 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

Statewide Waters Assessment Section

Comprehensive Assessment Strategy

Drainage Basin Map of Monitoring & Assessment Activities

The waters of the *Lake Ontario - Minor Tributaries* Watershed have been divided among, and are monitored and assessed with, the Niagara River-Lake Erie, Genesee River, Oswego-Seneca-Oneida Rivers, and Black River Basins.

The *Ramapo River* and *Housatonic River* Basin waters are included in the Lower Hudson River Report.

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 Segments: These are waterbodies with well documented water quality problems that result in *precluded*, or *impaired* uses. (Waters with *stressed, threatened* uses are not included in this category). This category includes both *High/Medium Resolvability* segments, where the Division 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., atmospheric deposition, etc.).

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

Threatened Waterbody Segments: 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 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 impact, but for which there is not sufficient or definitive documentation. These segments require additional monitoring to determine whether uses are restricted. (Generally, this monitoring will be done during the *Comprehensive Assessment Strategy* rotating basin schedule).

Waterbodies Having No Known Impacts: These are segments where monitoring data and information indicate that there are no use restrictions or other water quality impacts/issues.

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

Taken together, the *Impaired Segments*, *Waters with Minor Impacts* and *Threatened Waterbody Segments* 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 "on the Priority Waterbodies List."** For these waters, additional monitoring and assessment activities to document possible or potential future use impacts, causes and sources are more appropriate than remedial/corrective or resource protection efforts.

Maintaining a comprehensive Waterbody Inventory allows Division staff to easily respond to questions – from both inside and outside the Department – concerning the water quality of specific rivers, lakes and watersheds. And 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 Black River Basin

Basin Description

The Black River Basin is located in north central New York State where it drains the western slopes of the Adirondack Mountains and the eastern edge of the Tug Hill Plateau before emptying into Lake Ontario near Watertown. The Black River originates in the southwestern Adirondacks and flows over 180 miles to the north and west along the valley between the Adirondacks and the Tug Hill Plateau. The eastern (Adirondack) side of the basin is drained primarily by two large tributaries – the Beaver River and the Moose River – as well as a number of smaller tribs (Independence River, Otter Creek, Woodhull Creek). To the west of the Black River, smaller tribs flow off the steeper eastern slope of the Tug Hill. All together the Black River Basin encompasses approximately 1,920 square miles, including much of central Lewis and northern Herkimer Counties, and smaller parts of Jefferson, Oneida and Hamilton Counties.

The Black River Basin is primarily a forested region, with more than half the basin area falling within the boundaries of the Adirondack Park. However the Black River Valley and Tug Hill areas support significant agricultural activity. This area is very lightly populated, with an estimated 71,792 residents (2000). About half of this total population resides in the Watertown area. Outside the City of Watertown (29,429), the next largest population centers are Lowville (3,632) and West Carthage (2,166). The basin experiences a seasonal influx of residents during the summer. The Fort Drum military installation is also located in the basin near Watertown.

There are about 3,910 miles of rivers and streams (and canal) and over 600 lakes and ponds of various size in the basin. Many of the ponds are too small to be individually assessed, but 179 significant* lake, pond and reservoir waterbody segments (covering 30,890 acres) are included in the Black River Basin Waterbody Inventory. The largest tributaries to the Black River include the Moose River with about 857 miles of streams or 22% of the basin total, Beaver River (624 miles, 16%), Independence River (207 miles, 5%), Dear River (201 miles, 5%) and Woodhull Creek (160 miles, 4%). Of the lakes/reservoirs, the largest are Stillwater Reservoir (6,195 acres, or 20% of lake waterbody acres in the basin), the Fulton Chain of Lakes (4,301 acres, 14%), Lake Lila (1,414 acres, 5%) Big Moose Lake (1,286 acres, 4%) and Woodhull Lake (1,158 acres, 4%). Together these handful of lakes comprise nearly half of the lake acres in the basin.

Water Quality Issues and Problems

Any water quality assessment of the Black River Basin is strongly influenced by atmospheric deposition. Atmospheric deposition of mercury, which results in impairment to fish consumption in basin lakes, and of NO_x and SO_x, which results in acid rain impacts, is responsible for well over half the water quality impairment in the basin. Given the light population and large tracts of forest and state parkland, it is not surprising that impacts from human activities within the basin are generally limited. Beyond the impacts of atmospheric deposition, the most significant source of water quality impact in from considerable agricultural activities throughout the Black River valley. Toxic sediments and chemical spills are cited as sources of impairment (fish consumption advisories) in some localized waters of the basin. Similarly, inadequate on-site wastewater treatment systems in a few smaller unsewered communities have also localized impacts on uses in nearby waters.

* *Significant Lakes* are lakes of 6.4 acres (0.01 square miles) or larger and are included the New York State Lakes Gazeteer.

Atmospheric Deposition of Mercury

Mercury is a toxin that rapidly bioaccumulates up the food chain, and can concentrate in large predatory fish. This is particularly true in acidic waters. While mercury has been largely removed from most wastewater and industrial effluents, air emissions and the resulting atmospheric deposition of mercury on the land and into the waters remain a significant source. New York State has issued health advisories limiting the consumption of various species of sportfish for about a dozen specific waterbodies in the Black River Basin, including two of the three largest lakes: Stillwater Reservoir and Big Moose Lake. A general advisory for limiting the consumption of sportfish from all waters of the state is in place due to the common occurrence of some chemicals (including mercury) in fish and the inability to test all waters. There are additional more restrictive advisories for women and children regarding the consumption of fish from waters of the Adirondacks and Catskills because of the likelihood of atmospheric deposition to acidic waters in these areas.

Acid Rain

Low pH attributed to atmospheric deposition/acid precipitation has been documented in many small lakes and ponds in the basin. Such conditions are known to have a significant impact on ecosystems, impairing fish and aquatic life support in some lakes and ponds. 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 some in the Black River Basin. 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.

> Previous Priority Waterbodies Lists included a significant number of small lakes impacted by acid rain/atmospheric deposition. However, with the expansion of the WI/PWL database to accommodate all waterbodies, it was necessary to limit individual listing of smaller lakes. Although these lakes and ponds are no longer listed separately, and the sum total lake area affected is not that large a percentage of the total lake area in the basin, acid rain/atmospheric deposition remains a significant water quality issue affecting a large number of waterbodies in the Black River Basin.

Agricultural Activity

Considerable agricultural activity in the Black River valley and along the Tug Hill has measurable impacts on aquatic life use support and recreational uses of some basin waters. Agricultural runoff contributes nutrient and silt/sediment loads to the streams. Poor agricultural management practices, including permitting livestock unrestricted access to streams, improper manure application on fields, lack of silage leachate control, manure or milkhouse wastewater treatment facilities, intensively cultivated crop lands with little riparian buffer and fertilizer and pesticide application to fields in the absence of approved nutrient/pesticide management plans can have significant impacts on nearby waters. Aside from atmospheric sources, agriculture is the most frequently cited contributing source of pollutants to PWL waters, appearing in over one-quarter of PWL rivers in the basin. Various state and local (county) agencies are working with the farming community to address these issues.

Fish Consumption Advisories

Fish consumption advisories for a number of lakes in the Black River Basin are the result of atmospheric deposition of mercury, as noted and discussed above. An advisory is also in place for Fourth Lake in the Fulton Chain of Lakes due to elevated levels of DDT. The specific source of the pesticide contamination is unknown but under investigation and remediation to remove some contaminated sediments is underway.

Failing and/or Inadequate On-site Septic Systems

Recreational uses and aesthetics of lakes and streams in a number of smaller rural communities are impacted by failing and/or inadequate on-site septic systems. In some cases, raw sewage discharges to the waters 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. The NYSDEC works with local communities to identify funding opportunities to address the water quality impacts.

Groundwater Resources

Although groundwater resources are not specifically tracked through the WI/PWL, they are considered *Priority Waters* nonetheless. Ground water 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. In the Black River Basin, the more significant threats to groundwater resources include agricultural activity and animal feeding operations, on-site wastewater treatment systems, historic/past industrial discharges, hazardous waste sites and pesticide application.

Black 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 Black River Basin. For each waterbody type (rivers/streams and lakes/reservoirs) the first chart shows the percentage of the miles/acres of waters in the basin that fall into the various *Water Quality Assessment Categories*. The red portion of the first pie indicates the percentage of waters characterized as *Impaired Segments* which do not support appropriate uses. The purple portion represents segments with *Minor Impacts* and *Threatened Waterbody Segments*. Taken together, waters in both of these categories (represented by the red and purple segments) comprise the ***Priority Waterbodies*** (for that waterbody type) within the basin. The percentage of miles/acres for the other Water Quality Assessment Categories – *Waterbodies Having No Known Impacts*, *UnAssessed Waterbodies*, 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 *Priority Waterbodies*. The levels of severity are:

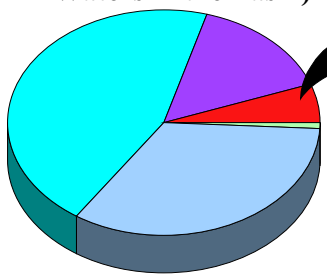
Precluded: waters do not support appropriate uses,
Impaired: waters frequently do not support appropriate uses,
Stressed: waters support appropriate uses, but other water quality impacts are apparent, and
Threatened: waters support uses and have no impacts, but activities threaten future use support.

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 Black River Basin. The charts reflect the percentage of miles/acres of the total waterbody area on the Priority Waterbodies List where the source is listed as a major contributor to the water quality impact. For each source, the color shading of the bar indicates the severity (*Precluded*, *Impaired*, *Stressed*, *Threatened*) of the most significant water use impact to the waterbody.

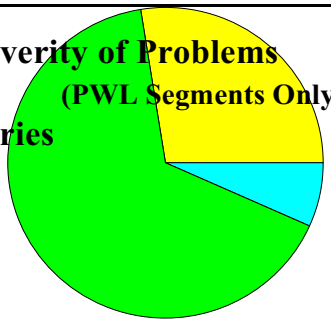
Rivers/Streams

Water Quality Assessment Categories
(for ALL Waters in the Basin)



PWL - Not Supporting Uses
PWL - Other Minor Impacts
No Known Impacts
UnAssessed Waters
Impacts Needing Verification

Severity of Problems
(PWL Segments Only)

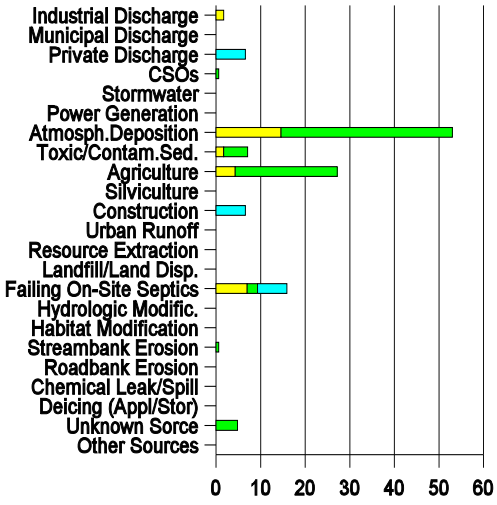


Precluded
Impaired
Stressed
Threatened

Black River Basin

Total River Miles:	3,909
Total PWL Miles:	806

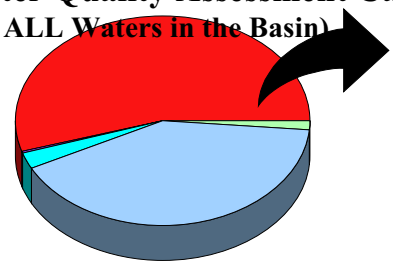
Major Sources of Impact
(PWL Segments Only)



Percent of PWL Waters Affected

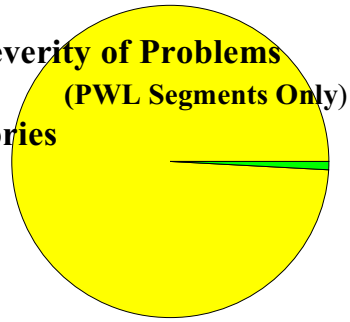
Lakes/Reservoirs

Water Quality Assessment Categories
(for ALL Waters in the Basin)



PWL - Not Supporting Uses
PWL - Other Minor Impacts
No Known Impacts
UnAssessed Waters
Impacts Needing Verification

Severity of Problems
(PWL Segments Only)

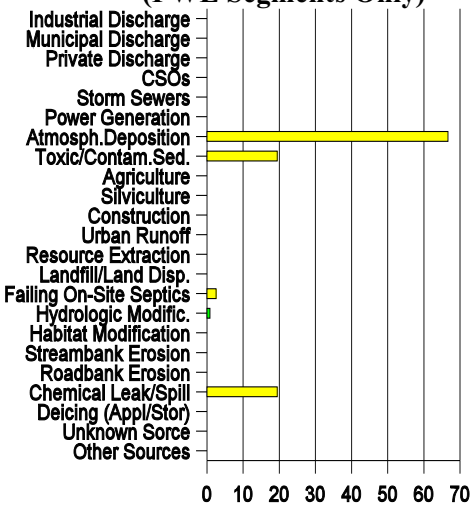


Precluded
Impaired
Stressed
Threatened

Black River Basin

Total Lake Acres:	30,893
Total PWL Acres:	17,059

Major Sources of Impact
(PWL Segments Only)



Percent of PWL Waters Affected

Basin Water Quality Summary

About twenty-one percent (21%) of the river miles in the Black River Basin (806 miles) are listed on the Priority Waterbodies List as either not supporting uses or having minor impacts or threats to water quality. About three-fourths of the these PWL river miles are considered *Stressed* or *Threatened* waters that fully support appropriate uses, but that have minor impacts/threats. About six percent (6%) of basin river miles are *Impaired* and do not support appropriate uses.

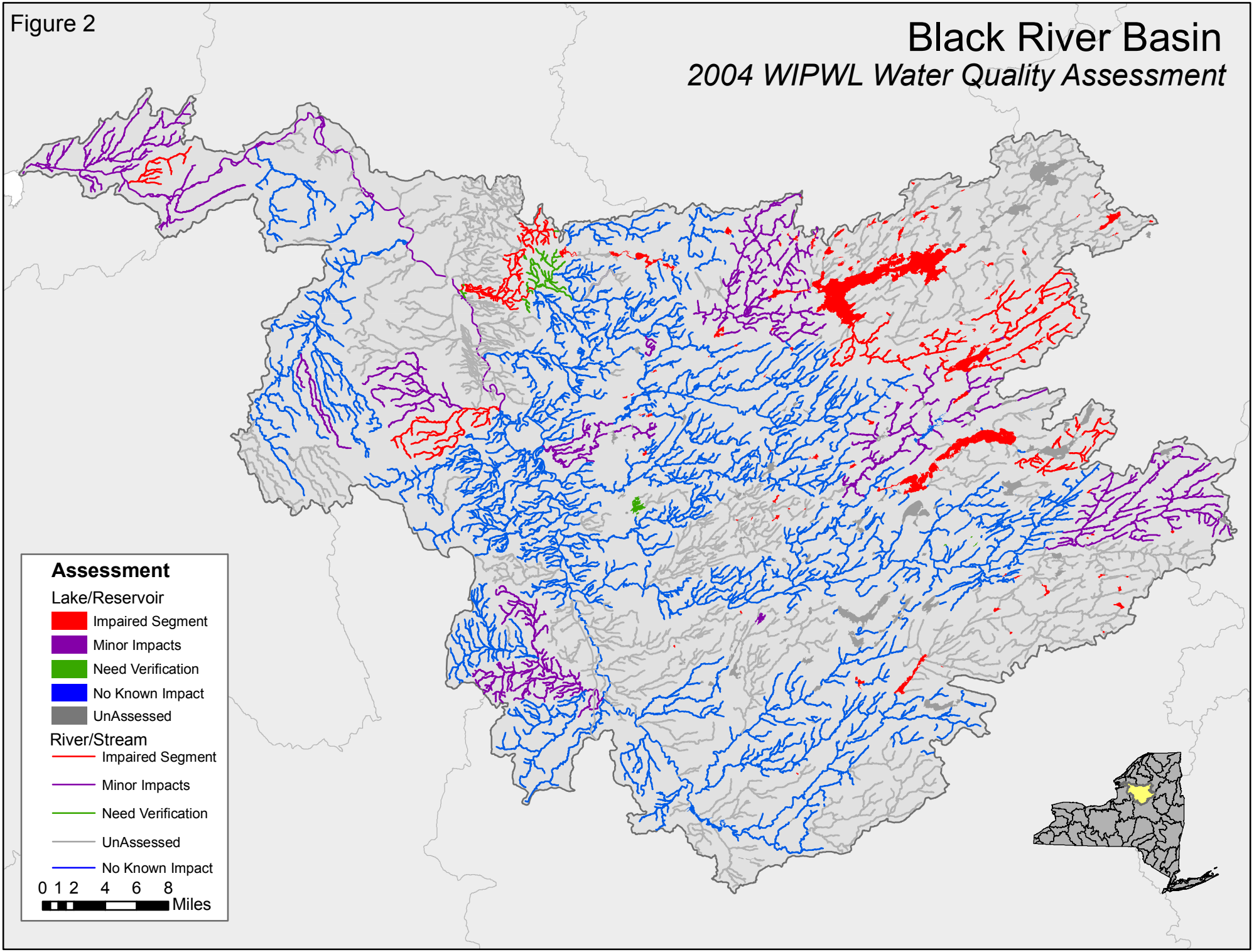
There are 75 separate lake segments included on the PWL as having Impaired uses or Minor Impacts/Threats to uses. Seventy-four of the 75 lakes are impaired and do not support uses. Altogether these impaired lakes represent 54% of the total lake acres in the basin. About 85% of the lakes are impaired due to acid rain, however because acid rain impacts are more likely to affect smaller lakes this 85% makes up only about one-third of the impaired lake acres in the basin. About 21% of the impaired lakes impaired are listed as a result of fish consumption advisories, primarily due to atmospheric deposition of mercury. These fish consumption advisory lakes comprise almost 80% of the lake acres with impairment.

The most significant source of impact and impairment to the waters of the basin is atmospheric deposition (cited as a source in over half of PWL river miles and in two-thirds of PWL lake acres). Other notable sources include agricultural activities, which are cited as a contributing source of impact/impairment in 27% of affected river miles, and inadequate on-site wastewater treatment, cited in 16% of PWL river miles. Next to atmospheric deposition of mercury, toxic/contaminated sediments and chemical spill are cited most frequently in relation to fish consumption advisories.

Figure 2

Black River Basin

2004 WIPWL Water Quality Assessment



The 2004 Black River Basin Waterbody Inventory/Priority Waterbodies List

This inventory of water quality information includes individual waterbody *Data Sheets* describing the water quality conditions in the Black 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 on the following pages are compiled in hydrological order and grouped by US Geological Survey Hydrologic Unit Code (HUC) basin and smaller watersheds in the Black River Basin (see Figure 2). An outline of the specific waterbodies in each watershed is presented at the beginning of each Watershed Section. Data sheets are included for each waterbody that has been assessed; that is, waterbodies listed as ***Impaired Segments, Segments with Minor Impacts***, ***Threatened Waters,*** waters with water quality impacts ***Needing Verification***, or waterbodies with ***No Known Impact***. ***UnAssessed*** waterbodies are listed in the hydrologic outline of waterbodies at the front of each Watershed Section; however, separate data sheets for these segments are not included.

The information outlined on the data sheets includes *Waterbody Location Information*, *Water Quality Problem/Issue Information*, *Resolution/Management Information* and *Further Details*. More explicit explanations of these data fields are outlined in Appendix B - *Waterbody Inventory Data Sheet Background Information*.

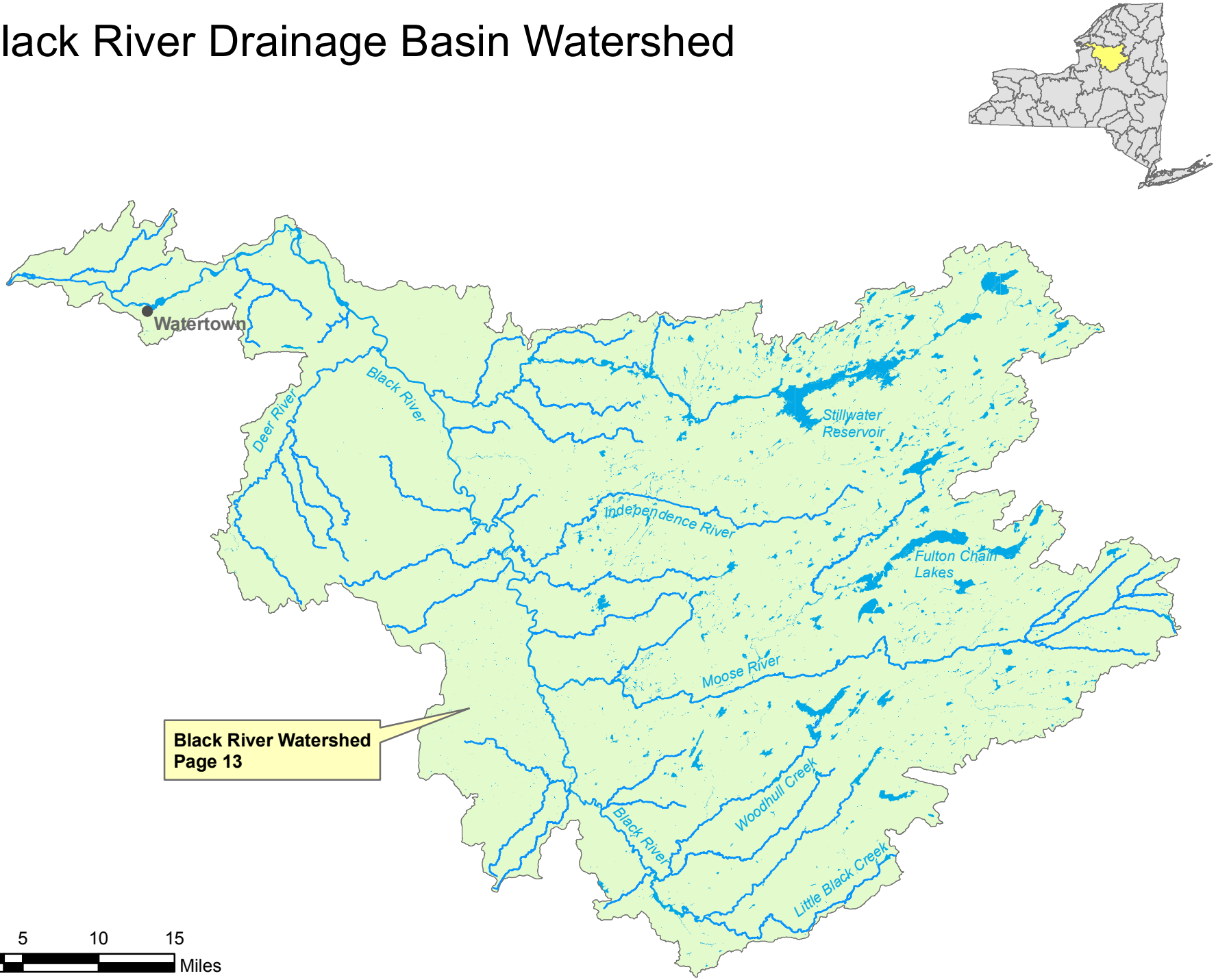
Note also that the inventory reflects the best available water quality information at the time of publication. Water quality information may be added or modified subsequent to the preparation of this edition of the Waterbody Inventory and Priority Waterbodies List. When water quality information is updated, the corresponding waterbody segment data sheet is issued with an appropriate revision date. The information on more recently revised data sheets supercedes the information in this listing.

In addition to the more detailed data sheets, a *Summary Listing of Priority Waters* provides a brief overview of all ***Priority Waterbodies*** (i.e., *Impaired Segments, Segments with Minor Impacts* and/or *Threatened Waters*). This listing follows the Data Sheet Section of the report.

Cross-referenced lists of the waterbody data sheets are included at the end of the report as Appendix C - County Index of Data Sheet Segments and Appendix D - Alphabetic Index of Data Sheet Segments.

Figure 3

Black River Drainage Basin Watershed



Waterbody Inventory
for
The Black River Watershed

Water Index Number	Waterbody Segment	Category
Black River, Main Stem, Lake Ontario to Forestport Reservoir		
Ont 19 (portion 1)	Black River, Lower, Main Stem (0801-0250)	**MinorImpacts**
Ont 19 (portion 2)	Black River, Lower, Main Stem (0801-0202)	**MinorImpacts**
Ont 19 (portion 3)	Black River, Middle, Main Stem (0801-0190)	**MinorImpacts**
Ont 19 (portion 4)	Black River, Middle, Main Stem (0801-0251)	**MinorImpacts**
Ont 19 (portion 5)	Black River, Middle, Main Stem (0801-0199)	**NoKnownImpct**
Ont 19 (portion 6)	Black River, Middle, Main Stem (0801-0038)	**NoKnownImpct**
Ont 19 (portion 7)/P944,P934	Forestport Reservoir, Alder Pond (0801-0253)	UnAssessed
Lower/Middle Black River Watershed, Lake Ontario to Beaver River		
Ont 19- 1 thru 5	Minor Tribs to Black River (0801-0196)	**Threatened**
Ont 19- 6	Kelsey Creek and tribs (0801-0191)	**Impaired Seg**
Ont 19- 7 thru 11	Minor Tribs to Black River (0801-0256)	**MinorImpacts**
Ont 19- 12	Felt Mills/Deerlick Creek and tribs (0801-0241)	**NoKnownImpct**
Ont 19- 13 thru 21	Minor Tribs to Black River (0801-0258)	UnAssessed
Ont 19- 22	Lake Creek and tribs (0801-0259)	**NoKnownImpct**
Ont 19- 22-P395	Pleasant Lake (0801-0260)	UnAssessed
Ont 19- 22-P395-	Tribs to Pleasant Lake (0801-0261)	UnAssessed
Ont 19- 23 thru 38 (selected)	Minor Tribs to Middle Black River (0801-0262)	UnAssessed
Ont 19- 31	Deer River, Lower, and tribs (0801-0170)	**NoKnownImpct**
Ont 19- 31	Deer River, Middle, and tribs (0801-0263)	**NoKnownImpct**
Ont 19- 31	Deer River, Upper, and tribs (0801-0218)	**NoKnownImpct**
Ont 19- 31-16	Cobb Creek and tribs (0801-0265)	**NoKnownImpct**
Ont 19- 31-18	Smith Creek and tribs (0801-0266)	**MinorImpacts**
Ont 19- 31-28	West Branch Deer River and tribs (0801-0267)	UnAssessed
Ont 19- 31-P402	Sears Pond (0801-0268)	UnAssessed
Ont 19- 31-P402-	Tribs to Sears Pond (0801-0269)	UnAssessed
Ont 19- 33	Stony Creek and tribs (0801-0270)	UnAssessed
Ont 19- 35	Swiss Creek and tribs (0801-0271)	UnAssessed
Ont 19- 39	Hufcut Creek and tribs (0801-0272)	UnAssessed
Beaver River Watershed		
Ont 19- 40 (portion 1)	Beaver River, Lower, and tribs (0801-0197)	**Impaired Seg**
Ont 19- 40 (portion 2)	Beaver River, Lower, and minor tribs (0801-0273)	**Need Verific**
Ont 19- 40 (portion 3)/P418	High Falls Pond (0801-0274)	**Impaired Seg**
Ont 19- 40 (portion 4)	Beaver River, Middle, and tribs (0801-0275)	UnAssessed
Ont 19- 40 (portion 4a)	Taylorville, Elmer Falls Ponds (0801-0276)	**Impaired Seg**
Ont 19- 40 (portion 5)/P426	Effley Falls Reservoir (0801-0172)	**Impaired Seg**
Ont 19- 40 (portion 6)	Beaver River, Middle, and tribs (0801-0277)	**NoKnownImpct**
Ont 19- 40 (portion 7)/P431,434	Soft Maple Pond, Soft Maple Reservoir (0801-0173)	**Impaired Seg**

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Beaver River Watershed (con't)		
Ont 19- 40 (portion 8)	Beaver River, Middle, and tribs (0801-0278)	UnAssessed
Ont 19- 40 (portion 9)/P449	Beaver Lake, Beaver Meadow Pond (0801-0174)	**Impaired Seg**
Ont 19- 40 (portion 10)	Beaver River, Upper, and tribs (0801-0210)	**MinorImpacts**
Ont 19- 40 (portion 11)/P478	Moshier Reservoir (0801-0194)	**Impaired Seg**
Ont 19- 40- 3	Black Creek and tribs (0801-0171)	**NoKnownImpct**
Ont 19- 40- 7	Murmur Creek and tribs (0801-0219)	**NoKnownImpct**
Ont 19- 40- 7- 3	Sandy Creek, Upper, and tribs (0801-0283)	UnAssessed
Ont 19- 40- 7-P416,P417	Lower, Upper West Pond (0801-0284)	**Impaired Seg**
Ont 19- 40-10	Balsam Creek and tribs (0801-0239)	**NoKnownImpct**
Ont 19- 40-10-P419,P420	Goose Pond, Meister Pond (0801-0286)	**Impaired Seg**
Ont 19- 40-12-P429	Snider Pond (0801-0287)	UnAssessed
Ont 19- 40-15- 4-P436	Sand Pond (0801-0055)	**Impaired Seg**
Ont 19- 40-18- 3-P441,442	Crooked Lake, McCabe Pond (0801-0144)	**Impaired Seg**
Ont 19- 40-18..P443 thru P448	Pepperbox Pond, Spring Ponds, Tied Lake (0801-0076)	**Impaired Seg**
Ont 19- 40-18a/P449..P451	Francis Lake (0801-0192)	**Impaired Seg**
Ont 19- 40-19-P456 thru P459	Minor Lakes Trib to Three Mile Cr Wshed (0801-0453)	**Impaired Seg**
Ont 19- 40-20-P473, P474	Sunday Lake, Sunday Creek Reservoir (0801-0195)	**Impaired Seg**
Ont 19- 40-22-P479 thru P492 (sel)	Minor Lakes Trib to Moshier Creek (0801-0039)	**Impaired Seg**
Ont 19- 40-22-P489	Lower Moshier Pond (0801-0049)	**Impaired Seg**
Stillwater Reservoir Watershed		
Ont 19- 40-P493	Stillwater Reservoir (0801-0281)	**Impaired Seg**
Ont 19- 40-P493- 1 thru 35 (sel)	Minor Tribs to Stillwater Reservoir (0801-0184)	UnAssessed
Ont 19- 40-P493- 2-P494,P496	Shallow Pond, Raven Lake (0801-0107)	**Impaired Seg**
Ont 19- 40-P493- 2-P498	Lyons Lake (0801-0109)	**Impaired Seg**
Ont 19- 40-P493- 3-P499	Slim Pond (0801-0125)	**Impaired Seg**
Ont 19- 40-P493- 4-P500	Evergreen Lake (0801-0110)	**Impaired Seg**
Ont 19- 40-P493- 5-P502/6-P505	Peaked Mountain Lake, Hidden Lake (0801-0111)	**Impaired Seg**
Ont 19- 40-P493- 6- 1-P504	Hawk Pond (0801-0044)	**Impaired Seg**
Ont 19- 40-P493- 6..P508,P511	Ginger Pond, Soda Pond (0801-0126)	**Impaired Seg**
Ont 19- 40-P493- 6..P515	Dismal Pond (0801-0065)	**Impaired Seg**
Ont 19- 40-P493- 7- 8-P525	Clear Lake (0801-0288)	UnAssessed
Ont 19- 40-P493- 7-P517	Salmon Lake (0801-0054)	**Impaired Seg**
Ont 19- 40-P493- 7-P522 thru P535	Minor Lake Tribs to Red Horse Creek (0801-0068)	**Impaired Seg**
Ont 19- 40-P493- 7-P528	Witchhopple Lake (0801-0062)	**Impaired Seg**
Ont 19- 40-P493- 7-P528- 1-P529	Negro Lake (0801-0289)	UnAssessed
Ont 19- 40-P493-14-P537	Falls Lake (0801-0290)	UnAssessed
Ont 19- 40-P493-15-P538	Rock Lake (0801-0291)	UnAssessed
Ont 19- 40-P493-19-P539	Nehasane Lake (0801-0292)	UnAssessed
Ont 19- 40-P493-19-P539-	Minor Tribs to Nehasane Lake (0801-0293)	UnAssessed
Ont 19- 40-P493-19-P539- 2-P540	Buck Pond (0801-0294)	UnAssessed
Ont 19- 40-P493-19-P539- 5-P541	Lake Lila (0801-0295)	UnAssessed
Ont 19- 40-P493-19-P539- 5-P541-	Minor Tribs to Lake Lila (0801-0296)	UnAssessed

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Stillwater Reservoir Watershed	**(con't)**	
Ont 19- 40-P493-19-P539- 5-P541-7	Shingle Shanty Brook and tribs (0801-0297)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P544	Rainer Pond (0801-0298)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P548	Mud Pond (0801-0299)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P551	Hardigan Pond (0801-0300)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P552	Salmon Lake (0801-0301)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P556	New Pond (0801-0302)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P560	East Pond (0801-0303)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P562	West Pond (0801-0304)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P563	North Pond (0801-0305)	UnAssessed
Ont 19- 40-P493-19-P539- 5..P565	Shingle Shanty Pond (0801-0306)	UnAssessed
Ont 19- 40-P493-19-P547 thru P565	Minor Lake Tribs to Shingle Shanty Brook (0801-0149)	**Impaired Seg**
Ont 19- 40-P493-19..P566	Thayer Lake (0801-0307)	UnAssessed
Ont 19- 40-P493-21- 1-P568	Rose Pond (0801-0308)	**Impaired Seg**
Ont 19- 40-P493-21- 1-P570	Terror Lake (0801-0018)	**Impaired Seg**
Ont 19- 40-P493-21-P571	East Pond (0801-0066)	**Impaired Seg**
Ont 19- 40-P493-24-P573	Razorback Pond (0801-0309)	UnAssessed
Ont 19- 40-P493-27-P574	Mud Lake (0801-0310)	UnAssessed
Ont 19- 40-P493-31-P575	Cranberry Pond (0801-0311)	UnAssessed
Ont 19- 40-P493-32	Twitchell Creek and tribs (0801-0211)	**Impaired Seg**
Ont 19- 40-P493-32- 2-P576	Woods Lake (0801-0312)	UnAssessed
Ont 19- 40-P493-32-P578 thru P587	Minor Lakes Trib to Twitchell Creek (0801-0077)	**Impaired Seg**
Ont 19- 40-P493-32-P580	Silver Lake (0801-0150)	**Impaired Seg**
Ont 19- 40-P493-32-P584	Twitchell Lake (0801-0165)	**Impaired Seg**
Middle Black River Watershed, Beaver River to Independence River		
Ont 19- 41 thru 50 (selected)	Minor Tribs to Middle Black River (0801-0313)	UnAssessed
Ont 19- 45	Crystal Creek and minor tribs (0801-0240)	**NoKnownImpct**
Ont 19- 45-10,11	Unnamed Tribs to Crystal Creek (0801-0315)	UnAssessed
Ont 19- 45-P595	Crystal Lake (0801-0316)	UnAssessed
Ont 19- 51	Mill Creek/South Branch, and tribs (0801-0200)	**Impaired Seg**
Ont 19- 51	North Branch Mill Creek, and tribs (0801-0317)	**MinorImpacts**
Ont 19- 52 thru 56 (selected)	Minor Tribs to Middle Black River (0801-0318)	**NoKnownImpct**
Independence River Watershed		
Ont 19- 57	Independence River, Lower, and tribs (0801-0220)	**MinorImpacts**
Ont 19- 57	Independence River, Upper, and tribs (0801-0221)	**NoKnownImpct**
Ont 19- 57- 4-P597	Chase Lake (0801-0321)	UnAssessed
Ont 19- 57- 4-P600,P602,P605	Parsons Pd, Upper Chase Lk, Hinchings Pd (0801-0322)	UnAssessed
Ont 19- 57- 5-P608,P610,P615	Evies Pond, Long Lake, Fish Pond (0801-0323)	**Impaired Seg**
Ont 19- 57- 5-P617	Stony Lake (0801-0324)	UnAssessed
Ont 19- 57- 7..P628,P630	Trout Pond, Bills Pond (0801-0127)	**Impaired Seg**
Ont 19- 57- 9/10..P632,P635,P638	Panther Pond, Fifth Cr Pond, Lennon Pond (0801-0075)	**Impaired Seg**
Ont 19- 57- P619,P622,P625	Cleveland,Payne,Huckleberry,Halfmoon Lks (0801-0193)	**Impaired Seg**

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Independence River Watershed (con't)		
Ont 19- 57-10- 6-P639	Hitchcock Lake (0801-0325)	UnAssessed
Ont 19- 57-15/17/18..P641 to P643	Hitchcock Pond, Grass Pond, Moose Pond (0801-0326)	UnAssessed
Ont 19- 57-25-P647	Independence Lake (0801-0327)	**Impaired Seg**
Ont 19- 57-P650	Little Independence Pond (0801-0328)	UnAssessed
Ont 19- 57-P651	Little Diamond Pond (0801-0153)	**Impaired Seg**
Middle Black River Watershed, Independence River to Moose River		
Ont 19- 58	Roaring Brook and minor tribs (0801-0222)	**NoKnownImpct**
Ont 19- 58- 6	Atwater Creek, Upper, and tribs (0801-0330)	UnAssessed
Ont 19- 59	Whetstone Gulf, Lower, and tribs (0801-0332)	**NoKnownImpct**
Ont 19- 59	Whetstone Gulf, Upper, and tribs (0801-0223)	**NoKnownImpct**
Ont 19- 60	Otter Creek and tribs (0801-0224)	**NoKnownImpct**
Ont 19- 60- 4-P662	Catspaw Lake (0801-0334)	UnAssessed
Ont 19- 60- 5-P663	Sand Pond (0801-0335)	UnAssessed
Ont 19- 60- 5-P664	Little Otter Lake (0801-0336)	**Impaired Seg**
Ont 19- 60-P674 thru P684	Minor Lakes Trib to Upper Otter Creek (0801-0041)	**Impaired Seg**
Ont 19- 60-P676	Big Otter Lake (0801-0337)	UnAssessed
Ont 19- 61 thru 80	Minor Tribs to Middle Black River (0801-0454)	**NoKnownImpct**
Ont 19- 68	Tannery Creek, Upper, and tribs (0801-0338)	UnAssessed
Ont 19- 70	Fish Creek and tribs (0801-0225)	**NoKnownImpct**
Ont 19- 70- 4-P689	Brantingham Lake (0801-0176)	**Need Verific**
Ont 19- 70- 4-P689-1,2	Tribs to Brantingham Lake (0801-0340)	UnAssessed
Ont 19- 70- 4-P689-P690	Pleasant Lake (0801-0341)	UnAssessed
Ont 19- 78	Mill Creek and minor tribs (0801-0342)	UnAssessed
Ont 19- 78- 2	Mill Creek Trib (0801-0343)	UnAssessed
Lower Moose River Watershed		
Ont 19- 81	Moose River and minor tribs (0801-0226)	**NoKnownImpct**
Ont 19- 81- 2,4	Upper Beauty, Upper Deer Creeks (0801-0347)	UnAssessed
Ont 19- 81- 7	Copper Creek and tribs (0801-0348)	UnAssessed
Ont 19- 81- 7- 1-10..P699,P700	Pine Lake, East Pine Pond (0801-0349)	UnAssessed
Ont 19- 81- 7- 1..P702 thru P708	Minor Lakes Trib to Upper Pine Creek (0801-0072)	**Impaired Seg**
Ont 19- 81- 7-P710	Copper Lake (0801-0350)	UnAssessed
Ont 19- 81-14- 2-P713	Twin Sister Lake (0801-0351)	UnAssessed
Lower Middle and North Branches Moose River Watershed		
Ont 19- 81-18	Middle Branch Moose R and minor tribs (0801-0228)	**NoKnownImpct**
Ont 19- 81-18- 3-P717	Gull Lake (0801-0353)	UnAssessed
Ont 19- 81-18- 7..P720,P721	East and West Okara/Hellgate Ponds (0801-0354)	UnAssessed
Ont 19- 81-18- P718	Nelson Lake (0801-0369)	UnAssessed
Ont 19- 81-18- P724	Wheeler Pond (0801-0370)	UnAssessed
Ont 19- 81-18-17	North Branch Moose River and minor tribs (0801-0212)	**MinorImpacts**
Ont 19- 81-18-17- 1	Indian Brook, Upper, and tribs (0801-0355)	UnAssessed

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Lower Middle and North Branches Moose River Watershed (con't)		
Ont 19- 81-18-17- 2-P730	Beaver Pond (0801-0356)	UnAssessed
Ont 19- 81-18-17- 6-P731	Wheeler Pond (0801-0357)	UnAssessed
Ont 19- 81-18-17-13-P735	Little Safford Lake (0801-0358)	UnAssessed
Ont 19- 81-18-17-13..P733,P734	Diamond Pond, Clear Pond (0801-0359)	UnAssessed
Ont 19- 81-18-17-14-P736	Safford Pond (0801-0360)	UnAssessed
Ont 19- 81-18-17-14-P736- 2-P738	Thirsty Pond (0801-0361)	**Impaired Seg**
Ont 19- 81-18-17-15-P746	Moss Lake (0801-0362)	UnAssessed
Ont 19- 81-18-17-15-P746- 4-P747	Cascade Lake (0801-0363)	UnAssessed
Ont 19- 81-18-17-15..P748,P749	Bubb Lake, Sis/West Lake (0801-0364)	UnAssessed
Ont 19- 81-18-17-P739,P743,P744	Lake Rondaxe, West Lake, Lake Kanacto (0801-0206)	**NoKnownImpct**
Ont 19- 81-18-17-P739..P740,P741	Goose Pond, Mountain Pond (0801-0365)	UnAssessed
Ont 19- 81-18-17-P750	Dart Lake (0801-0242)	**Impaired Seg**
Ont 19- 81-18-17-P752	Big Moose Lake (0801-0035)	**Impaired Seg**
Ont 19- 81-18-17-P752-	Tribs to Big Moose Lake (0801-0213)	**Impaired Seg**
Ont 19- 81-18-17-P752..P768,P769	Lower, Upper Sister Lakes (0801-0004)	**Impaired Seg**
Ont 19- 81-18-17-P752- 7-P772	South Pond (0801-0057)	**Impaired Seg**
Ont 19- 81-18-17-P752- 8-P774	Russian Lake (0801-0006)	**Impaired Seg**
Ont 19- 81-18-17-P752..P753 to 767	Minor Lakes Trib to Big Moose Lake, NW (0801-0050)	**Impaired Seg**
Ont 19- 81-18-17-P752..P760	Otter Pond (0801-0016)	**Impaired Seg**
Ont 19- 81-18-17-P752..P775 to 779	Minor Lakes Trib to Big Moose Lake, SE (0801-0033)	**Impaired Seg**
Ont 19- 81-18-17-P752..P777	Constable Pond (0801-0214)	**Impaired Seg**
Upper Middle Branch Moose River/Fulton Chain Watershed		
Ont 19- 81-18-P782..P798	Twin Pond (0801-0371)	UnAssessed
Ont 19- 81-18-P782..P802	Greys Lake (0801-0372)	UnAssessed
Ont 19- 81-18-P782a thru P782d	Fulton Chain Lakes, First thru Fourth Lk (0801-0373)	**Impaired Seg**
Ont 19- 81-18-P782a thru P782d-	Tribs to Fulton Chain Lakes (0801-0098)	UnAssessed
Ont 19- 81-18-P782a thru P782d- 7	Eagle Creek and tribs (0801-0374)	UnAssessed
Ont 19- 81-18-P782a..P783,P784	Bald Mountain Pond, Surprise Pond (0801-0375)	UnAssessed
Ont 19- 81-18..P786,787,787a	Fulton Chain Lakes, Fifth thru Seventh L (0801-0376)	UnAssessed
Ont 19- 81-18-P782a..P786/P787-	Tribs to Fulton Chain Lakes (0801-0207)	**Impaired Seg**
Ont 19- 81-18-P782a..P788	Eagle Nest Pond, more (0801-0011)	**Impaired Seg**
Ont 19- 81-18-P782a..P789	Bug Lake (0801-0377)	UnAssessed
Ont 19- 81-18-P782a..P790	Eighth Lake (0801-0378)	UnAssessed
Lower South Branch Moose River Watershed		
Ont 19- 81	South Br Moose R, Lower, and tribs (0801-0227)	**NoKnownImpct**
Ont 19- 81-24- 1-P803	Bloodsucker Pond (0801-0368)	UnAssessed
Ont 19- 81-24-P804	Nicks Lake (0801-0379)	UnAssessed
Ont 19- 81-34- 1- 1-P807	Rock Pond (0801-0380)	UnAssessed
Ont 19- 81-34-P808	Little Moose Lake (0801-0381)	UnAssessed
Ont 19- 81-34-P808-	Tribs to Little Moose Lake (0801-0382)	UnAssessed
Ont 19- 81-34-P808- 6-P809	Panther Lake (0801-0383)	UnAssessed
Ont 19- 81-40-P811	Combs Lake (0801-0384)	UnAssessed

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Lower South Branch Moose River Watershed (con't)		
Ont 19- 81-42a-P812	Green Lake (0801-0385)	UnAssessed
Ont 19- 81-44- 5-P814	East Pond (0801-0386)	UnAssessed
Ont 19- 81-44- 7..P818 thru P824	Minor Lakes Trib to Limekiln Creek Trib (0801-0387)	UnAssessed
Ont 19- 81-44-P826	Limekiln Lake (0801-0388)	UnAssessed
Ont 19- 81-44-P826- 4-P827	Fawn Lake (0801-0390)	UnAssessed
Ont 19- 81-44-P826-1,2	Tribs to Limekiln Lake (0801-0391)	UnAssessed
Ont 19- 81-45..P828 thru P834	Horseshoe Pd, Hall Pd, Pico Lk, Round Pd (0801-0392)	**Need Verific**
Ont 19- 81-51- 2..P836,P837	Stink Lake, Balsam Lake (0801-0034)	**Impaired Seg**
Ont 19- 81-51-P838	Canachagala Lake (0801-0393)	UnAssessed
Ont 19- 81-52..P841	Kettle Pond, more (0801-0131)	**Impaired Seg**
Ont 19- 81-55- 6-P847,P848	Lower, Upper Mitchell Ponds (0801-0394)	UnAssessed
Upper South Branch Moose River Watershed		
Ont 19- 81	South Br Moose R, Upper, and minor tribs (0801-0346)	**MinorImpacts**
Ont 19- 81-58	Indian River and tribs (0801-0395)	UnAssessed
Ont 19- 81-58..P849,P850	Beaver Lake, Squaw Lake (0801-0396)	UnAssessed
Ont 19- 81-58..P852	Indian Lake (0801-0002)	**Impaired Seg**
Ont 19- 81-58..P854,P855	Horn Lake, Mountain Lake, more (0801-0052)	**Impaired Seg**
Ont 19- 81-58..P862 thru P875	Minor Lakes Trib to Indian River (0801-0010)	**Impaired Seg**
Ont 19- 81-58..P874	Brooktrout Lake (0801-0009)	**Impaired Seg**
Ont 19- 81-60..P876 thru P880	Minor Lakes Trib to Benedict Creek (0801-0029)	**Impaired Seg**
Ont 19- 81-60..P883	Lake Kora/Sumner Lake (0801-0397)	UnAssessed
Ont 19- 81-61	Otter Brook and tribs (0801-0398)	UnAssessed
Ont 19- 81-61- 4-P885	Falls Pond (0801-0399)	**Impaired Seg**
Ont 19- 81-61-P887	Lost Pond (0801-0400)	UnAssessed
Ont 19- 81-69-P888	Sly Pond (0801-0007)	**Impaired Seg**
Ont 19- 81-71- 2- 1-P889	Cellar Pond (0801-0001)	**Impaired Seg**
Ont 19- 81-P782a..P795,P796	Quiver Pond, Mountain Pond (0801-0450)	UnAssessed
Ont 19- 81-P890	Little Moose Lake (0801-0401)	UnAssessed
Middle Black River Watershed, Moose River to Woodhull Creek		
Ont 19- 82	Black River Canal and minor tribs (0801-0402)	UnAssessed
Ont 19- 82- 5	Black River Canal Trib, Upper, and tribs (0801-0403)	UnAssessed
Ont 19- 83 thru 93 (selected)	Minor Tribs to Middle Black River (0801-0404)	UnAssessed
Ont 19- 83- 3	Cold Brook Tribs, Upper, and tribs (0801-0405)	UnAssessed
Ont 19- 88	Fall Brook and tribs (0801-0406)	UnAssessed
Ont 19- 88-P905	Barnes Lake (0801-0134)	**Impaired Seg**
Ont 19- 88-P907	Round Pond (0801-0407)	**Impaired Seg**
Ont 19- 90	Mile Brook and tribs (0801-0408)	UnAssessed
Ont 19- 90-P910	Buck Pond (0801-0409)	UnAssessed
Ont 19- 91	Sugar River, Lower, and minor tribs (0801-0231)	**MinorImpacts**
Ont 19- 91	Sugar River, Upper, and tribs (0801-0411)	**NoKnownImpct**
Ont 19- 91- 1	Moose Creek and tribs (0801-0232)	**NoKnownImpct**
Ont 19- 91-10	Sugar River Trib, Upper (0801-0413)	UnAssessed

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Middle Black River Watershed, Moose River to Woodhull Creek (con't)		
Ont 19- 92	Mill Creek and tribs (0801-0201)	**NoKnownImpct**
Ont 19- 94	North Branch and minor tribs (0801-0233)	**NoKnownImpct**
Ont 19- 94- 1(-1)	Long Lake Outlet/Cumming Cr, and tribs (0801-0415)	**NoKnownImpct**
Ont 19- 94- 1- 2-P920	Round Lake (0801-0416)	UnAssessed
Ont 19- 94- 1- 4-P921	Deer Pond (0801-0417)	UnAssessed
Ont 19- 94- 1-P922	Long Lake (0801-0418)	UnAssessed
Ont 19- 94- 1-P922-	Tribs to Long Lake (0801-0419)	UnAssessed
Ont 19- 94- 1-P922- 1-P923	Brandy Lake (0801-0420)	UnAssessed
Ont 19- 94- 1-P922- 4-P926	Otter Lake (0801-0205)	**MinorImpacts**
Ont 19- 94- 4-P927	Mudhole (0801-0421)	UnAssessed
Ont 19- 95 thru 102 (selected)	Minor Tribs to Middle Black River (0801-0455)	UnAssessed
Ont 19- 98	Kents Creek and tribs (0801-0422)	**NoKnownImpct**
Ont 19- 99	Crystal Creek, Upper (0801-0423)	UnAssessed
Ont 19-103	Alder Creek and tribs (0801-0424)	**NoKnownImpct**
Woodhull Creek Watershed		
Ont 19-104	Big Woodhull Creek (0801-0234)	**NoKnownImpct**
Ont 19-104- 2	Little Woodhull Creek (0801-0235)	**NoKnownImpct**
Ont 19-104- 2- 5-P948	Dead Lake, more (0801-0427)	**Impaired Seg**
Ont 19-104- 2- 6-P950	Stone Dam Pond (0801-0428)	UnAssessed
Ont 19-104- 2-P951,-1-P952	Little Woodhull Lake, Lily Lake (0801-0070)	**Impaired Seg**
Ont 19-104- 3	Bear Creek and tribs (0801-0429)	UnAssessed
Ont 19-104- 3- 1- 3-P967	Brewer Lake (0801-0430)	UnAssessed
Ont 19-104- 3- 5-P958	White Lake (0801-0431)	UnAssessed
Ont 19-104- 3- 8-P963	Granny Marsh Pond (0801-0432)	UnAssessed
Ont 19-104- 3-P968	Bear Lake (0801-0433)	UnAssessed
Ont 19-104-11-P969	Gull Lake (0801-0434)	UnAssessed
Ont 19-104-24-P973,P975,P976	Fourth, Third, Second Bisby Lakes (0801-0435)	UnAssessed
Ont 19-104-24-P976- 2-P977	First Bisby Lake (0801-0436)	UnAssessed
Ont 19-104-24-P976- 2..P978,P979	Lower, Upper Sylvan Ponds (0801-0437)	UnAssessed
Ont 19-104-24-P976- 3-P980	Chamber Lake (0801-0438)	UnAssessed
Ont 19-104-P971	Chub Pond (0801-0439)	UnAssessed
Ont 19-104-P981	Sand Lake (0801-0440)	UnAssessed
Ont 19-104-P981- 1-P982	Woodhull Lake (0801-0441)	UnAssessed
Upper Black River Watershed		
Ont 19 (portion 8)/P984a	Kayuta Lake (0801-0204)	**NoKnownImpct**
Ont 19 (portion 9)	Black River, Upper, and minor tribs (0801-0237)	**NoKnownImpct**
Ont 19-105 thru 112	Minor Tribs to Kayuta Lake (0801-0442)	UnAssessed
Ont 19-111- 2-P987,P988	Evans Pond, Lake Julia (0801-0443)	UnAssessed
Ont 19-114	Little Black Creek, Lower, and tribs (0801-0236)	**NoKnownImpct**
Ont 19-114	Little Black Creek, Upper, and tribs (0801-0445)	UnAssessed
Ont 19-114- 2-P991	Maple Lake (0801-0446)	UnAssessed
Ont 19-114..P995,P996	Burp Lake, Black Creek Lake (0801-0139)	**Impaired Seg**

...The Black River Watershed

Water Index Number	Waterbody Segment	Category
Upper Black River Watershed (con't)		
Ont 19-119	Twin Lakes Stream and tribs (0801-0447)	UnAssessed
Ont 19-119-P1000	Twin Lakes Reservoir (0801-0060)	UnAssessed
Ont 19-121-P1001,-122-P1002	Mink Lake, Reed Pond (0801-0448)	UnAssessed
Ont 19-128- 6-P1003	Little Salmon Lake (0801-0140)	**Impaired Seg**
Ont 19-128-P1004	South Lake (0801-0449)	UnAssessed
Ont 19-P1007	North Lake (0801-0451)	**Impaired Seg**
Ont 19-P1007-	Tribs to North Lake (0801-0452)	UnAssessed
Ont 19-P1007..P1008 thru P1016	Minor Lakes Trib to North Lake (0801-0080)	**Impaired Seg**

Black River, Lower, Main Stem (0801-0250) MinorImpacts

Waterbody Location Information

Revised: 03/13/2007

Water Index No: Ont 19 (portion 1)
Hydro Unit Code: 04150101/190 **Str Class:** C
Waterbody Type: River
Waterbody Size: 14.3 Miles
Seg Description: from mouth to Watertown

Drain Basin: Black River
Black River
Reg/County: 6/Jefferson Co. (23)
Quad Map: WATERTOWN (F-17-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Fish Consumption	Stressed	Suspected

Type of Pollutant(s)
Known: - - -
Suspected: PRIORITY ORGANICS (PCBs), PESTICIDES (mirex, dioxin)
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: TOX/CONTAM. SEDIMENT (upstream sediments), UNKNOWN SOURCE
Possible: - - -

Resolution/Management Information

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

Further Details

Fish consumption in this portion of the Black River may be affected by PCBs sources upstream of this reach in Carthage. The fish consumption advisory for Lake Ontario also extends into this reach to the first impassible barrier which is the falls at Mill Street in Watertown.

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Black River in Dexter is conducted annually at the Route 180 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. 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 2002 (multiplates) and 2003. Biological (macroinvertebrate) sampling using multiplates revealed indicated slightly impacted water quality in 2002. These communities have shown substantial improvement in recent years, compared to collections done in 1986 and 1991, when high numbers of tolerant midges and worms in the samples clearly reflected organic inputs. In 1992 the Dexter (V) Sewage Treatment Plant completed a substantial upgrade, resulting in a much cleaner effluent. Biological sampling in 1997, 2002 and 2003 reflected the improvement resulting from the upgrade. Samples from this site in 2002 included few tolerant worms, and

diverse populations of clean-water mayflies. Water column chemistry indicates mercury, and aluminum are present in concentrations that constitute parameters of concern; results that are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain but that should continue to be monitored. During the period from 1997 through 2003, in which samples were collected 6 times per year, mercury was present in 4 of 29 samples (14%). Aluminum was measured above the criteria for parameter of concern (100 g/l) in 5 of 29 samples (17%). Total phenolics were also detected in 12 of 29 samples (41%), but were never higher that the 5.0 g/l water quality standard for fish consumption or recreation. Toxicity testing using water from this location detected no significant mortality or reproductive effects on the test organism. No bottom sediments were collected from this site. Based on the consensus of these established assessment methods, overall water quality at this site has minor impacts, but is supportive of the water's aquatic life support and recreational use.

One water quality issue along this section of the Black River concerns the effect on fish consumption of PCB contamination from an unknown source above this reach near Carthage. Sediment sampling of the river near Carthage was most recently conducted by NYSDEC in 2002. This sampling identified high levels of PCBs downstream of the Carthage WWTP. Some levels were found to be greater than ten times the Probable Effects Concentration (PEC). These more recent findings are consistent with previous bioaccumulation studies conducted on fish from the Black River by USEPA. In those studies, high levels of PCB have been found in non-game fish. No fish consumption advisories have been issued for game fish species. Previous monitoring by USEPA and NYSDEC has shown the Black River to be a significant source of PCBs to Lake Ontario. (DEC/DOW, SAMS, May 2006)

This segment includes the portion of the Black River from the mouth to the Watertown WTP intake in Watertown. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Kelsey Creek (-6), are listed separately.

Black River, Lower, Main Stem (0801-0202) MinorImpacts

Waterbody Location Information

Revised: 04/17/2007

Water Index No:	Ont 19 (portion 2)			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/180	**Str Class:**	A		Black River
Waterbody Type:	River			**Reg/County:**	6/Jefferson Co. (23)
Waterbody Size:	4.5 Miles			**Quad Map:**	RUTLAND CENTER (F-17-2)
Seg Description:	from Watertown to Black River				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Water Supply	Stressed	Known
Fish Consumption	Stressed	Possible
Aquatic Life	Stressed	Suspected

Type of Pollutant(s)

Known: SILT/SEDIMENT
Suspected: NUTRIENTS, PRIORITY ORGANICS (PCBs), Oil and Grease
Possible: Pathogens

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW (Watertown), STREAMBANK EROSION (during high flow)
Suspected: TOX/CONTAM. SEDIMENT (upstream sediments), Agriculture, Failing On-Site Syst, Urban Runoff
Possible: Unknown Source (PCBs)

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

Public water supply use in this portion of the Black River is impacted by high turbidity/suspended solids and during period of high flow (spring runoff/snowmelt). During these periods, the water treatment plants use additional treatment. Aquatic life support also experiences some minor impacts. The cause of these impacts is thought to be municipal discharges, CSOs and/or inadequate septic systems in areas not served by municipal sewers. Fish consumption in this reach may be affected by PCBs sources upstream of this reach in Carthage.

Although the turbidity/suspended solids during high flows is generally a natural characteristic of the river and the watershed, a number of other sources have been cited as contributing to the water quality impairments along this portion of the river. These include failing and/or inadequate on-site septic systems, CSOs in the Watertown area, agricultural activity in the Towns of Rutland and Champion, hydrologic fluctuations in the river due to hydroelectric generation, runoff (including severe wind erosion) from the Fort Drum Military Reservation, and snow removal and dumping into the river. (DEC/DOW Region, April 1998)

Regional sewer service for previously unsewered areas along the Route 3, corridor which runs along the river, has been completed for a number of areas. These areas include Great Bend (Town of Champion), Town of LeRay/Town of Pamelia, and the northern section of the Village of Black River. Additional phases are under construction or slated for construction. It is now estimated that approximately 4 million gallons per month of previously untreated sewage is now receiving adequate treatment. However, 16 active CSOs in the Watertown area continue to discharge to the river during wet-weather conditions. (DEC/DOW, Region 6, June 2006)

Another issue along this section of the Black River concerns the effect on fish consumption of PCB contamination from an unknown source above this reach near Carthage. Sediment sampling of the river near Carthage was most recently conducted by NYSDEC in 2002. This sampling identified high levels of PCBs downstream of the Carthage WWTP. Some levels were found to be greater than ten times the Probable Effects Concentration (PEC). These more recent findings are consistent with previous bioaccumulation studies conducted on fish from the Black River by USEPA. In those studies, high levels of PCB have been found in non-game fish. No fish consumption advisories have been issued for game fish species. Previous monitoring by USEPA and NYSDEC has shown the Black River to be a significant source of PCBs to Lake Ontario. (Black River Sediment Assessment, DEC/DOW, SAMS, May 2004)

A few inactive hazardous waste sites located along the banks of the Black River in Watertown are also possible sources of PCBs. Nearby sites include Niagara Mohawk - Watertown MGP (6-23-011), Bomax Manufacturing (6-23-009) in Watertown and Carthage Machine Company (6-23-012) in Carthage. Another potential source of PCBs -- Abe Cooper Surplus Company (site no. 6-23-006) -- has been remediated and is no longer considered a possible PCB source. The Carthage Machine Company site (6-23-012) in Carthage has also been remediated. (Haz Waste Remed, Inactive HW Disp Sites, Vol 6, 4/98)

This segment includes the portion of the Black River from the Watertown WTP intake in Watertown to a point 2 miles above the eastern end of Huntington Island near Black River. The waters of this portion of the stream are Class A. Tribs to this reach/segment are listed separately.

Black River, Middle, Main Stem (0801-0190) MinorImpacts

Waterbody Location Information

Revised: 04/17/2007

Water Index No:	Ont 19 (portion 3)			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/180	**Str Class:**	C		Black River
Waterbody Type:	River			**Reg/County:**	6/Jefferson Co. (23)
Waterbody Size:	24.3 Miles			**Quad Map:**	BLACK RIVER (E-17-3)
Seg Description:	from Black River to Carthage				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: PRIORITY ORGANICS (PCBs), Pathogens
Suspected: NUTRIENTS, Oil and Grease
Possible: - - -

Source(s) of Pollutant(s)

Known: TOX/CONTAM. SEDIMENT
Suspected: AGRICULTURE, Failing On-Site Syst, Urban Runoff
Possible: UNKNOWN SOURCE (Carthage WWTP), Municipal (Carthage/W.Carthage WWTP)

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

Fish consumption in this portion of the Black River is thought to experience minor impacts due to priority organics (PCB) contamination below Carthage. Though a number of possible sources have been identified, the actual source of the contamination has not been determined. Aquatic life support also experiences some minor impacts. The cause of these impacts is thought to be municipal discharges or inadequate septic systems in areas not served by municipal sewers.

The primary concern in the Class C waters of this segment is the effect on fish consumption of PCB contamination from an unknown source near Carthage. Sediment sampling of the river near Carthage was most recently conducted by NYSDEC in 2002. This sampling identified high levels of PCBs downstream of the Carthage WWTP. Some levels were found to be greater than ten times the Probable Effects Concentration (PEC). (Black River Sediment Assessment, DEC/DOW, SAMS, May 2004)

These more recent findings are consistent with previous bioaccumulation studies conducted on fish from the Black River by USEPA. In those studies, high levels of PCB have been found in non-game fish. No fish consumption advisories for game fish have been issued for these waters. Oil and petroleum have also been noted.

Previous monitoring by USEPA and NYSDEC has shown the Black River to be a significant source of PCBs to Lake Ontario. While some smaller contributors have been identified, they do not account for the total load that appears to be coming from the river. PISCES sampling in 1989 indicated a PCB source in the Carthage area (Litten, et al, 1993). In 1996, sampling of wastewater for low levels of PCBs using a Trace Organics Platform Sampling (TOPS) unit was conducted at the Carthage WWTP. While high suspended solids concentrations made precise quantification difficult, the TOPS results support previous sampling data suggesting a PCB source. Two area paper mills that discharge wastewater to the Carthage WWTP remain the most likely originating source of the PCBs. (DEC/DOW BWAM, 1997)

More recently the Carthage WWTP has undergone a major upgrade that was completed in 2002. This upgrade along with the reduced activity at one of two area paper mills is believed to have significantly reduced the continuing source of PCBs. A special PCB sampling effort has been discussed among NYSDEC, researchers from Heidelburg College who would conduct the sampling, and USGS who would also participate in the study.

A biological (macroinvertebrate) assessment of the Black River below Carthage (above Herring Dam) was conducted in 1997. Sampling results indicated slightly impacted water quality conditions, but the assessment approached that of a moderately impacted water. Samples were dominated by midges and worms, indicating organic inputs to the river. This likely reflects discharges of remaining unsewered areas along the reach and the discharge of the Carthage/West Carthage WWTP. (DEC/DOW, BWAM/SBU, June 2005)

In August 2005, a large volume (estimated to be 7-10 million gallons) of liquid manure was released into the Black River as a result of a collapsed dike at a manure storage lagoon at the Marks Farm in East Martinsburg. This caused lethal levels of ammonia and very low dissolved oxygen in a 24 mile reach of the river. The resulting fish kill was estimated to be 200,000 to 250,000 mortalities over the four days that it took for the slug of toxic water to move downstream. Subsequent sampling by NYSDEC found that a month or so after the spill water quality in the river had recovered sufficiently to support the fishery. In addition, much of the macroinvertebrate community which support the fishery survived the spill. While the conditions have largely returned to those prior to the spill, it will take considerable time to re-establish a population of larger and older fishes. (DEC/DFWMR and DOW/SBU, January 2007)

Other sources have been cited as possibly contributing to the water quality impacts along this portion of the river. These include: CSOs in the Watertown area, failing and/or inadequate on-site septic systems, agricultural activity in the Towns of Rutland and Champion, hydrologic fluctuations in the river due to hydroelectric generation, runoff (including severe wind erosion) from the Fort Drum Military Reservation, and snow removal and dumping into the river. (DEC/DOW, Region 6, April 1998)

Regional sewer service for previously unsewered areas along the Route 3 corridor, which runs along the river, has been completed for a number of areas. These areas include Great Bend (Town of Champion), Town of LeRay/Town of Pamelia, and the northern section of the Village of Black River. Additional phases are under construction or slated for construction. It is now estimated that approximately 4 million gallons per month of untreated sewage is now receiving adequate treatment. (DEC/DOW, Region 6, June 2004)

The new FERC licensing has been completed and has resulted in less fluctuation in flows and has improved water quality conditions. The FERC licensing process has a significant impact and as a result, the County SWCD considers this area a priority watershed. (DEC/DOW, Region 6, June 2004)

This segment includes the portion of the Black River from a point 2 miles above the eastern end of Huntington Island near Black River to the Jefferson-Lewis County line in Carthage. The waters of (this portion of) the stream are Class C. Tribs to this reach/segment, including Felt Mills/Deerlick Creek (-12) and Lake Creek (-22), are is listed separately. A portion of the lower Black River is classified as a Class A water, suitable for drinking water supply. Because of the higher classified uses, this four-mile section of the Black is included/discussed as a separate segment. See Black River, Lower, Main Stem (segment ID 0801-0202).

Black River, Middle, Main Stem (0801-0251) MinorImpacts

Waterbody Location Information

Revised: 01/08/2007

Water Index No:	Ont 19 (portion 4)			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/***	**Str Class:**	C		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	20.9 Miles			**Quad Map:**	CARTHAGE (F-18-2)
Seg Description:	from Carthage to Lowville				

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: D.O./Oxygen Demand, Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE, Urban Runoff (Lowville)
Possible: Failing On-Site 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: n/a

Further Details

Aquatic life support in this portion of the Black River are known to experience minor impacts due to organic inputs from nonpoint sources. Agricultural activities, urban (Lowville) municipal runoff, and failing/inadequate on-site wastewater treatment system impacts are suspected sources.

A biological (macroinvertebrate) assessment of the Black River below Lowville (at Route 26A) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. Samples were dominated by aquatic worms, indicating likely organic inputs. These results are consistent with 1997 sampling at the site. Biological sampling of the Black River below Carthage (above Herring Dam) was conducted in 2002. Sampling results also indicated slightly impacted water quality conditions, but the assessment approached that of a moderately impacted water. Samples were dominated by midges and worms, indicating organic inputs to the river. The Carthage site is just below this reach of the Black River, but is likely affected by inputs between Carthage and Lowville. (DEC/DOW, BWAM/SBU, June 2005)

In August 2005, a large volume (estimated to be 7-10 million gallons) of liquid manure was released into the Black River as a result of a collapsed dike at a manure storage lagoon at the Marks Farm in East Martinsburg. This caused lethal levels of ammonia and very low dissolved oxygen in a 24 mile reach of the river. The resulting fish kill was estimated

to be 200,000 to 250,000 mortalities over the four days that it took for the slug of toxic water to move downstream. Subsequent sampling by NYSDEC found that a month or so after the spill water quality in the river had recovered sufficiently to support the fishery. In addition, much of the macroinvertebrate community which support the fishery survived the spill. While the conditions have largely returned to those prior to the spill, it will take considerable time to re-establish a population of larger and older fishes. (DEC/DFWMR and DOW/SBU, January 2007)

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Black River at State Route 812 in Lowville, Lewis County, at the upper end of this reach was conducted during 2002 (multiplates) and 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. Biological (macroinvertebrate) sampling (multiplates) indicated slightly impacted water quality. The invertebrate community was dominated by caddisflies, midges, and mayflies, indicative of minor impacts to water quality. The fish community was also assessed and found to reflect good water quality. Water column sampling revealed mercury and aluminum to be parameters of concern; results that are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain but that should continue to be monitored. Analysis of sediments found zinc in elevated concentrations, but based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. No organisms were collected for tissue analysis, so biological availability of these contaminants cannot be determined. Toxicity testing of water column and sediment showed no significant mortality or reproductive impacts. Taken together, these results indicate no significant water quality impacts and uses of the stream are considered to be fully supported. (DEC/DOW, BWAM/RIBS, January 2007)

This segment includes the portion of the Black River from the Jefferson-Lewis County line in Carthage to Mill Creek (-51) in Lowville. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Deer River (-31), Stony Creek (-33), Swiss Creek (-35), Hufnut Creek (-39), Beaver River (-40), Crystal Creek (-45) and Mill Creek (-51) are listed separately.

Black River, Middle, Main Stem (0801-0199) NoKnownImpct

Waterbody Location Information

Revised: 01/08/2007

Water Index No: Ont 19 (portion 5)
Hydro Unit Code: 04150101/*** **Str Class:** C
Waterbody Type: River
Waterbody Size: 22.5 Miles
Seg Description: from Lowville to Lyons Falls

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: LOWVILLE (F-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

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Black River at State Route 812 in Lowville, Lewis County, was conducted during 2002 (multiplates) and 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. Biological (macroinvertebrate) sampling (multiplates) indicated slightly impacted water quality. The invertebrate community was dominated by caddisflies, midges, and mayflies, indicative of minor impacts to water quality. The fish community was also assessed and found to reflect good water quality. Water column sampling revealed mercury and aluminum to be parameters of concern; results that are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain but that should continue to be monitored. Analysis of sediments found zinc in elevated concentrations, but based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. No organisms were collected for tissue analysis, so biological availability of these contaminants cannot be determined. Toxicity testing of water column and sediment showed no significant mortality or reproductive impacts. Taken together, these results indicate no significant water quality impacts and uses of the stream are considered to be fully supported. (DEC/DOW, BWAM/RIBS, January 2007)

A biological (macroinvertebrate) assessment of the Black River in Greig (at Burdicks Crossing Road) was also conducted in 2002. Sampling results indicated slightly impacted water quality conditions. This represents a significant improvement from 1991 sampling. caddisflies, midges and mayflies dominated the sample. Aquatic worms, indicators of organic wastes were greatly reduced from over 50% of the sample in 1991 to less than 1% of the fauna in 2002. The improvement is attributed to the reduction of pulp and paper mill waste discharges in Lyons Falls and the construction of a municipal WWTP to serve the Village of Lyons Falls. In spite of some minor effects on the fauna, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2005)

Previously aquatic life support and aesthetics in this portion of the Black River were impacted by the discharge of inadequately treated process wastewater from Lyons Falls Pulp & Paper and failing and/or inadequate on-site wastewater treatment systems serving the Village of Lyons Falls. The paper mill discharge was highly turbid with excessive suspended solids; odors during the warmer summer months were also a problem. The mill discharge was in regular non-compliance with the TSS, BOD and settleable solids limits its SPDES permit from fall 1996 thru summer 1998. In 1997-1998 the company removed sludge from its treatment lagoons and in December 1997 the company signed a consent order to develop short- and long-term sludge management plans. Partial implementation of the short-term plan (additional sludge removal) began in spring 1998 and a permanent sludge dewatering system was planned. However, the mill closed in 2002. (DEC/DOW, Region 6, June 2005)

Impacts from failing/inadequate on-site septic systems in Lyons Falls have also been addressed. The discharge of raw sewage and septic tank effluent from over 150 homes and businesses in the Village of Lyons Falls to the Black River and its tributaries had significant impact on the uses in these waters. Portions of the tributaries waters wee fenced to prevent children and pets from being exposed to sewage. During summer low flow conditions the village periodically flushes the stream with water. However in the late 1990s the Village of Lyons Falls received a $2 million dollar Clean Air/Clean Water Bond Act grant from NYSDEC to construct a wastewater treatment plant. Construction of the WWTP was completed and went on-line in early 2001. (DEC/DOW Region 6, June 2005)

Also previously, a Fisheries Survey of the general area between Lyons Falls & Carthage was conducted in 1992-93. While the study showed an improvement in the overall fishery, an interview with the author of the report (Doug Carlson) revealed a "suspected problem" caused by the Lyons Falls Pulp and Paper mill discharge, warranting additional follow-up. A suspected "sludge bank" just downstream of the outfall pipe was noticed during the survey. However due to the flushing action of the river during periods of high flow, deposition is thought to occur only during low flow periods. Sampling conducted in 1998 concluded that there were no detectable changes or obvious impairment to the fish community. (DEC/DFWMR Region 6, July 1999)

In August 2005, a large volume (estimated to be 4-8 million gallons) of liquid manure was released into the Black River near the downstream end of this segment as a result of a collapsed dike at a manure storage lagoon at the Marks Farm in East Martinsburg. This caused lethal levels of ammonia and very low dissolved oxygen in a 24 mile reach of the river. The resulting fish kill was estimated to be 200,000 to 250,000 mortalities over the four days that it took for the slug of toxic water to move downstream. Subsequent sampling by NYSDEC found that a month or so after the spill water quality in the river had recovered sufficiently to support the fishery. In addition, much of the macroinvertebrate community which support the fishery survived the spill. While the conditions have largely returned to those prior to the spill, it will take considerable time to re-establish a population of larger and older fishes. (DEC/DFWMR and DOW/SBU, January 2007)

This segment includes the portion of the Black River from Mill Creek (-51) in Lowville to Moose River (-81) in Lyons Falls. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Mill Creek (-51), Independence River (-57), Roaring Brook (-58), Whetstone Creek (-59), Otter Creek (-60), Tannery Creek (-68), Fish Creek (-70), Mill Creek (-78) and Moose River (-81), are listed separately.

Black River, Middle, Main Stem (0801-0038) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No:	Ont 19 (portion 6)			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/***	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	22.3 Miles			**Quad Map:**	BRANTINGHAM (G-19-2)
Seg Description:	from Lyons Falls to Forestport				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Black River at Hawkinsville Road in Hawkinsville, Oneida County, was conducted 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. Biological (macroinvertebrate) sampling was not conducted in 2003, but samples taken during biological screening in 2002 revealed slightly impacted water quality, with the impacts likely caused by nonpoint source nutrient enrichment. Previous biological sampling in 1996 found non-impacted conditions. The fish community was also assessed and was found to reflect good water quality. Water column sampling during 2003 revealed mercury and aluminum to be parameters of concern; results that are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain but that should continue to be monitored. Analysis of sediments found cadmium, zinc, and PAHs (pyrene) in elevated concentrations, but based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Macroinvertebrate (hellgrammite) tissue collected in 2003 and analyzed for pesticides, PAHs, and PCBs, were not found to contain any of the compounds above levels of detection. Toxicity testing of water column, sediment assessment and macroinvertebrate tissue analysis showed no significant impacts. Toxicity testing of sediments indicated some possible impacts. Taken together, these results indicate no significant water quality impacts and uses of the stream are considered to be fully

supported. (DEC/DOW, BWAM/RIBS, January 2005)

A biological (macroinvertebrate) assessment of the Black River in Port Leyden (at Davis Road) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions, nonpoint sources indicated. In spite of these conditions, aquatic life is considered to be fully supported in the stream and the are not other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the Black River from to Moose River (-81) in Lyons Falls to Kayuta Lake (P984a) in Forestport. The waters of this portion of the river are Class C(T). Tribs to this reach/segment, including Moose River (-81), Black River Canal (-82), Fall Brook (-88), Mile Brook (-90), Sugar River (-91), Mill Creek (-92), North Branch (-94), Kents Creek (-98), Crystal Creek (-99), Alder Creek (-103), Big Woodhull Creek (-104) and Kayuta Lake, are listed separately.

Minor Tribs to Black River (0801-0196) Threatened

Waterbody Location Information

Revised: 04/17/2007

Water Index No:	Ont 19- 1 thru 5			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/190	**Str Class:**	C		Black River
Waterbody Type:	River			**Reg/County:**	6/Jefferson Co. (23)
Waterbody Size:	53.1 Miles			**Quad Map:**	WATERTOWN (F-17-1)
Seg Description:	total length of select tribs, mouth to Watertown				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: - - -
Suspected: D.O./OXYGEN DEMAND, NUTRIENTS (Phosphorus), Pathogens
Possible: Silt/Sediment

Source(s) of Pollutant(s)

Known: - - -
Suspected: CONSTRUCTION (Fort Drum expansion), PRIVATE/COMM/INST
Possible: FAILING ON-SITE SYST, Other Source (golf course 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

Recreational use and aquatic life support of Philomel Creek and tributaries are threatened due to the severe development pressures and the continuing discharge of septic tank effluent from commercial establishments. This had been a more significant issue prior to the establishing of a sewer district for the area in 2002. Some businesses, a trailer park, and possible other sources were not included in the original SD, but most of the problematic discharges have been addressed.

The ongoing expansion of the Fort Drum military base has resulted in development pressure that threatened water quality impacts on these streams, particularly Philomel Creek. Approximately 700 additional units have already been approved. Proposals for an addition 200-300 units are under consideration. in addition to the impacts from construction of these units, future increases in wastewater and stormwater discharges will need to be addressed. (DEC/DOW, Region 6, March 2007)

NYSDEC Region 6 and the Town of Pamelia established a wastewater district in 2002 that serves the area, including all the discharges considered to have had the most significant impact on water quality. The system collects wastewater and pumps it to the Development Authority of the North Country (DANC) pump station with treatment at the Watertown

City WWTP. (DEC\DOW Region 6, December 2006)

Biological (macroinvertebrate) assessments of Black Creek at two sites in Pamelia Center (at Route 12 and Route 37) were conducted in 2002. Sampling results indicated moderately impacted water quality conditions based on sampling metrics. However results at both sites may have been influenced by poor habitat; the upstream site having silt substrate and the downstream site having bedrock substrate. The stream at both site appeared to be influenced by organic wastes. This sampling was conducted at the same time that individual discharges were being hooked-up to the new sewer district collection system. Resampling is planned to assess the water quality after all connections to the sewer system have been made. (DEC/DOW, BWAM/SBU, June 2005)

The DEC Regional office has also received complaints regarding pesticide use and application at a golf course draining into the creek. A 30 lot subdivision in the watershed has also been proposed and construction is expected to begin soon. (DEC/DOW Region 6, December 2006)

This segment includes the total length of selected/smaller tribs to the Black River from its mouth to Watertown. Tribs within this segment, including Game Farm Brook (-2) and Philomel Creek (-3), are primarily Class C,C(TS). Kelsey Creek (-6) is listed separately.

Kelsey Creek and tribs (0801-0191) Impaired Seg

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19- 6
Hydro Unit Code: 04150101/190 **Str Class:** C
Waterbody Type: River
Waterbody Size: 13.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Jefferson Co. (23)
Quad Map: WATERTOWN (F-17-1)

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

Type of Pollutant(s)
Known: PRIORITY ORGANICS (PCBs)
Suspected: - - -
Possible: Metals (mercury, lead)

Source(s) of Pollutant(s)
Known: INDUSTRIAL (NY AirBrake/GeneralSignal), TOX/CONTAM. SEDIMENT
Suspected: - - -
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: DEC/DER **Resolution Potential:** Medium
TMDL/303d Status: 3a->3c

Further Details

Aquatic life support in Kelsey Creek is known to be impaired primarily by priority organics (PCBs) contamination. The source of the contamination is past/historic discharges and improper waste disposal by New York Air Brake.

New York Airbrake (NYAB) operated landfills on property adjacent to the creek since the early 1900s. The landfills (Site No: 6-23-003) received construction & demolition (C&D) debris, solid waste from plating operations containing cadmium at concentrations high enough to be considered hazardous waste and other solid and hazardous waste including liquids containing spent solvents and plating wastes. High concentrations of PCBs were found in drums excavated from this landfill. Prior to 1991, when all landfills on the property were closed, liquid waste from electroplating operations, waste oils, spent solvents, and leachate were historically discharged into on-site storm sewers which subsequently impacted Kelsey and Oily Creeks located off site. Dredged creek sediments contaminated with cadmium were removed from the creek banks in October of 1995. After conducting a preliminary field investigation, NYAB, and NYSDEC entered into a Remedial Investigation/Feasibility Study (RI/FS) Consent Order on February 8, 1990. The RI/FS was completed, and a Record of Decision (ROD) was signed by the Department in 1994 for remediation of the site. The remedial activities which were called for in the ROD consisted of excavation, consolidation and capping of the

contaminated soils and creek sediments. This work which included removal of 2,300 cubic yards of contaminated sediment from both Kelsey Creek and a tributary (Oily Creek), was completed in October of 1999. As of October 1998, NYAB/General Signal began end-of-pipe treatment for the stormwater discharge and is redirecting the discharge to the Black River. Long term monitoring of the groundwater and surface water discharges, as required by the ROD, is on-going. Operation and maintenance (O & M) activities include continual collection and on-site treatment of groundwater, surface water and leachate. (DEC/DER, Region 6, June 2006)

A biological (macroinvertebrate) survey of Kelsey Creek in Watertown at multiple sites on the creek and a tributary (Oily Creek) was conducted in 2002. Sampling results indicated moderately impacted conditions at all locations. However some improvements since 2000 were noted within the range of moderate impact. Substantial improvements were apparent when compared with 1991 sampling results; at that time 2 of the 3 sites were assessed as severely impacted. Water quality in Oily Creek was assessed as moderately to severely impacted; a slight worsening of conditions since 2000. Similarly the results of macroinvertebrate tissue analyses documented continuing elevated levels of PCBs and PAHs in crayfish, although the revealing a trend of decreasing contamination. Levels of metals have also decreased. The findings of this survey indicate that remediation efforts in the creek have resulted in water quality improvements, but that problems still persist. Additional PCBs sources in Oily Creek and upstream of this segment of Kelsey Creek are also indicated. (DEC/DOW, BWAM/SBU, June 2005)

Previous (1992) streambank and bottom sediment sampling revealed high levels of PCBs, lead, cadmium, arsenic and oil and grease. Macroinvertebrate (crayfish) tissue analysis indicated elevated concentrations of PCBs, lead, cadmium, titanium, aluminum and mercury. Recent (1996) RIBS biological sampling determined the creek to be moderately impacted, consistent with toxic discharges from municipal/industrial sources. (DEC/DOW BWAM, April 1998)

Kelsey Creek is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 3a of the List as a Water Requiring Verification of Impairment, however this updated assessment suggests that while the water has not been restored and impairments remain, it is more appropriate to include this waterbody in Part 3c of the list as a water for which TMDL Development is Deferred because the impairment is Being Addressed Through Other Restoration Measures.

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

Minor Tribs to Black River (0801-0256) MinorImpacts

Waterbody Location Information

Revised: 01/05/2007

Water Index No:	Ont 19- 7 thru 11			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/190	**Str Class:**	C		Black River
Waterbody Type:	River			**Reg/County:**	6/Jefferson Co. (23)
Waterbody Size:	18.2 Miles			**Quad Map:**	RUTLAND CENTER (F-17-2)
Seg Description:	total length of select tribs, Watertown to Black River				

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: D.O./OXYGEN DEMAND, NUTRIENTS (Phosphorus)
Suspected: Pathogens
Possible: - - -

Source(s) of Pollutant(s)

Known: - - -
Suspected: FAILING ON-SITE SYST
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** Medium
TMDL/303d Status: n/a

Further Details

Aquatic life support and recreational use in Cold Creek are thought to experience minor impacts due to organic pollution. Failing and/or inadequate on-site wastewater treatment systems are thought to be the likely source.

A biological (macroinvertebrate) assessment of Cold Creek in East Watertown (at Ridge Road) was conducted in 2002. Sampling results indicated moderately impacted water quality conditions. However, the sampling habitat was poor, consisting of gravel, sand and silt. Sandy stream criteria were used to evaluate the data. The fauna was dominated by sewage-tolerant sowbugs. The primary stressor in the stream was identified as organic wastes. The daytime dissolved oxygen level was only 3.0 mg/l and gray water was observed. (DEC/DOW, BWAM/SBU, June 2005)

Sand and gravel mining operations in the watershed may also contribute silt and sediment to Cold Creek. However any such impacts have not been verified. (DEC/DMR, March 2007)

This segment includes the total length of selected/smaller tribs to the Black River from Watertown to Black River. Tribs within this segment, including Cold Creek, are Class C,C(T).

Felt Mills/Deerlick Creek and tribs (0801-0241) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19- 12
Hydro Unit Code: 04150101/180 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 29.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Jefferson Co. (23)
Quad Map: COPENHAGEN (F-18-1)

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

Biological (macroinvertebrate) assessment of Felt Mills/Deerlick Creek near the mouth in Felt Mills (at Route 3) in 2002 and 1996. Sampling results revealed slightly impacted water quality conditions. The resident invertebrate fauna contained mayflies, stoneflies and caddisflies, but was dominated by scuds. The water quality indices might be influenced by the spring-like nature of the stream (long upstream sections of the creek traveled underground through fissures in the limestone bedrock). Filamentous algae and moss were noted on the rocks. Analysis of crayfish from the site found no pesticides or PCBs above detection levels and no PAHs above levels of concern. In spite of these minor impacts, aquatic life in the stream is fully supported and there are no other indications of impacts to designated uses. Biological sampling of a Mill Creek, small trib to Felt Mills/Deerlick Creek, was also conducted in 2002. The sampling habitat was less than ideal but the fauna appeared diverse with mayflies, caddisflies, hellgrammites and dragonflies. Using sandy stream criteria, water quality was assessed as non-impacted. (DEC/DOW, BWAM, SBU, 1996)

Water quality impacts resulting for agricultural activities have been raised as concern by the Jefferson County SWCD.

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 Townsend Creek (-2) and Hasdall Creek (-3), are Class C,C(T),C(TS).

Lake Creek and tribs (0801-0259) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19- 22
Hydro Unit Code: 04150101/180 **Str Class:** B
Waterbody Type: River
Waterbody Size: 8.8 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Jefferson Co. (23)
Quad Map: COPENHAGEN (F-18-1)

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

A biological (macroinvertebrate) assessment of Lake Creek in West Carthage (at Lumburg Forks Road) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. The fauna was dominated by a midge species that sometimes indicates intermittent stream flow. A specific cause of impact was not determined. In spite of these conditions, aquatic life is considered to be fully supported in the stream and the are not other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs from the mouth to Pleasant Lake (P395). The waters of the stream are Class C from the mouth to Route 26 in West Carthage and Class B for the remainder of the reach to Pleasant Lake. Tribs to this reach/segment are Class C. Pleasant Lake and tribs to the lake are listed separately.

Deer River, Lower, and tribs (0801-0170) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19- 31 **Drain Basin:** Black River
Hydro Unit Code: 04150101/170 **Str Class:** C Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 19.1 Miles **Quad Map:** CARTHAGE (F-18-2)
Seg Description: stream and tribs, from mouth to Copenhagen

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Deer River in Deer River, Lewis County, (at Route 26) was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non-impacted water quality conditions. The macroinvertebrate community is well-balanced, and contains large numbers of clean-water mayflies. Similar results were found at this site during biological screening in 2002. Water column sampling revealed mercury and iron to be parameters of concern. Mercury was found at levels above the criterion for a parameter of concern in 30% of samples, elevated iron was found in 10% of samples. The mercury results are not unusual for a region of the state typically impacted by atmospheric deposition. Macroinvertebrate tissue analysis for these and other contaminants show no metals present above established levels of concern, and no organochlorine pesticides or PCBs present in detectable concentrations. Sediments contain elevated levels of some contaminants, but based on sediment quality guidelines developed for freshwater ecosystems, overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms. Toxicity testing using water from this location shows no significant mortality or reproductive effects on the test organism. Toxicity screening for acute effects in 2003 indicated slight sediment toxicity, but no porewater toxicity, to be present. Based on the consensus of these established assessment methods, overall water quality at this site indicates minor impacts

are present, but is supportive of its aquatic life, recreation, and fish consumption uses.

Biological (macroinvertebrate) screening of Deer River in Deer River (at Route 26) and in Copenhagen (at Route 12) were also conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. At the downstream site in Deer River the invertebrate fauna was diverse, and the site was field-assessed using screening criteria as being non-impacted. In Copenhagen, the fauna contained many mayflies, stoneflies and caddisflies. Water quality indicies for the 1996 sample were just within the range of slight impact, but due to sampling habitat influences the assessment was upgraded to non-impacted. (DEC/DOW, BWAM/SBU, June 2005)

Previously, conditions in the Deer River were affected by the discharge of inadequately and/or untreated sewage from homes and commercial establishments in the Village of Copenhagen. The village signed a consent order in November 1995 and began construction of a municipal WWTP that was completed and went on-line in 2000. A 1994 NYSDEC sanitary survey of homes and commercial businesses in the village had targeted over 100 properties suspected of using inadequate sewage treatment facilities. Based on questionnaires and limited dye testing, Regional DOW staff determined that at least 36 properties were discharging inadequately and/or untreated sewage to the river and a tributary (trib -9). (DEC/DOW Region 6, December 2004).

This segment includes the portion of the stream and all tribs from the mouth to the Copenhagen WTP intake in Copenhagen. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Kidder Creek (-2), are also Class C. Middle/Upper Deer River is listed separately.

Deer River, Middle, and tribs (0801-0263) NoKnownImpct

Waterbody Location Information

Revised: 05/02/2007

Water Index No: Ont 19- 31 **Drain Basin:** Black River
Hydro Unit Code: 04150101/170 **Str Class:** A Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 13.4 Miles **Quad Map:** COPENHAGEN (F-18-1)
Seg Description: stream and tribs, from Copenhagen to above Copenhagen

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

A biological (macroinvertebrate) assessment of Deer River in Copenhagen (at Route 12) was conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. In Copenhagen, the fauna contained many mayflies, stoneflies and caddisflies. Water quality indicies for the 1996 sample were just within the range of slight impact, but due to sampling habitat influences the assessment was upgraded to non-impacted. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the Copenhagen WTP intake in Copenhagen to unnamed trib (-12) above Copenhagen. The waters of this portion of the stream are Class A. Tribs to this reach/segment are also Class A. Lower/Upper Deer River is listed separately.

Deer River, Upper, and tribs (0801-0218) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19- 31 **Drain Basin:** Black River
Hydro Unit Code: 04150101/170 **Str Class:** C Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 59.9 Miles **Quad Map:** NEW BOSTON (F-18-4)
Seg Description: stream and select tribs, above Copenhagen

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Biological (macroinvertebrate) assessments of Deer River in Liberty Corners (at McDonald Road) and just below this segment in Copenhagen (at Route 12) were conducted in 2002. Sampling results indicated non-impacted water quality conditions. The upstream site in Liberty Corners was filed-assessed as non-impacted. At the downstream site in Copenhagen, the fauna contained many mayflies, stoneflies and caddisflies. Water quality indicies for the 1996 sample were just within the range of slight impact, but due to sampling habitat influences the assessment was upgraded to non-impacted. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and smaller/selected tribs from/including unnamed trib (-12) above Copenhagen to Sears Pond (P402). The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Lacey Creek (-21) and Luther Creek, are also Class C,C(T),C(TS). Cobb Creek (-16), Smith Creek (-18), West Branch Deer River (-28), tribs o Sears Pond and Lower/Middle Deer River are listed separately.

Cobb Creek and tribs (0801-0265) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19- 31-16
Hydro Unit Code: 04150101/170 **Str Class:** C
Waterbody Type: River
Waterbody Size: 44.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NEW BOSTON (F-18-4)

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

A biological (macroinvertebrate) assessment of Cobb Creek in Bellwood (at Cobb Road) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The stream had very little flow at the time of sampling due to prevailing drought conditions. Nevertheless the fauna contained many clean-water mayflies, stoneflies, caddisflies and hellgrammites. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including Mud Creek (-2), are Class C,C(T),C(TS).

Smith Creek and tribs (0801-0266) MinorImpacts

Waterbody Location Information

Revised: 03/13/2007

Water Index No: Ont 19- 31-18
Hydro Unit Code: 04150101/170 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 16.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NEW BOSTON (F-18-4)

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: - - -

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

Aquatic life support in Smith Creek is thought to experience minor impacts due to nutrient enrichment from nonpoint agricultural activity.

A biological (macroinvertebrate) assessment of Smith Creek in Bellwood (at Route 177) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. However the stream was very small with little flow and the sample may not be fully representative. The fauna contained facultative midges and riffle beetles. Impact Source Determination identified nonpoint source nutrient enrichment as the primary cause of impacts. (DEC/DOW, BWAM/SBU, June 2005)

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).

Beaver River, Lower, and tribs (0801-0197) Impaired Seg

Waterbody Location Information

Revised: 04/16/2007

Water Index No:	Ont 19- 40 (portion 1)	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/150 **Str Class:** C		Black River
Waterbody Type:	River	**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	56.5 Miles	**Quad Map:**	CARTHAGE (F-18-2)
Seg Description:	stream and tribs, from mouth to Beaver Falls		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: AESTHETICS (odors, floatables)
Suspected: D.O./OXYGEN DEMAND, PATHOGENS, Nutrients (Phosphorus)
Possible: - - -

Source(s) of Pollutant(s)

Known: FAILING ON-SITE SYST
Suspected: Industrial (paper mills)
Possible: - - -

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DOW/Reg6 **Resolution Potential:** High
TMDL/303d Status: 1*

Further Details

Aquatic life support, recreational uses and aesthetics in this portion of the Beaver River in the vicinity of are impaired by the discharge of raw sewage and septic tank effluent from area residences. Nutrient enrichment from nonpoint sources may also be contributing to the loadings in the stream as well.

Raw sewage and septic tank effluent from approximately 55 homes in the hamlet of Beaver Falls are discharged directly to the river. The discharge of raw sewage from numerous pipes to the river is evident; some are part of a private sewer collection system and others are direct discharges of either sewage or grey water. Homeowners and passers-by report odors and sewage in the more sluggish areas of the Beaver River. The discharges affect recreation, and most likely the support of the fishery. A sewage collection system to serve the homes that are currently discharging to the river in the Town of Croghan is currently construction. The new system is expected to begin operating in June of 2007. (DEC/DOW, Region 6, March 2007)

Two paper mills, Omniafiltra (formerly Fiber Mark) and Interface Solutions (formerly Armstrong Paper), have separate

wastewater treatment systems that also discharge to the Beaver River. These facilities discharge to the river below the lower dam at Beaver Falls. Interface has recently upgraded their system to address BOD non-compliance issues and OmniaFiltra, which began operations in 2004 had sludge removed from their lagoon treatment system prior to startup. Both mills have phenolics and zinc limitations on their discharge permits. WSM Empire State, a cogeneration plant also discharges approximately 50 MGD of non-contact cooling water (permit temperature limit of 90 DegF) to the Beaver River in the Beaver Falls area. An additional discharge, Beaverite Products, has shutdown its manufacturing operation in Beaver Falls and now only discharges treated sanitary wastewater from its office building. (DEC/DOW Region 6, October 2004)

A biological (macroinvertebrate) assessment of the Beaver River in Naumburg (at Van Amber Road) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. Multiplate samples are dominated by filter-feeding black flies larvae, midges and caddisflies, indicating effects from nutrient enrichment. These findings are consistent with the known septic effluent and paper mill discharges upstream. Similar conditions have been documented at this site since 1976. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth to the Upper Dam in Beaver Falls. The waters of this portion of the stream are Class C. Tribs to this reach/segment, including Wydmeyer Creek (-1), are also Class C. Other portions of Beaver River are listed separately.

Beaver River, Lower, and minor tribs (0801-0273) Need Verific

Waterbody Location Information

Revised: 01/08/2007

Water Index No: Ont 19- 40 (portion 2) **Drain Basin:** Black River
Hydro Unit Code: 04150101/150 **Str Class:** B Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 25.2 Miles **Quad Map:** CROGHAN (F-19-1)
Seg Description: stream and select tribs, fr Beaver Falls to High Falls

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
Aesthetics	Stressed	Possible

Type of Pollutant(s)
Known: - - -
Suspected: AESTHETICS (odors, floatables), D.O./OXYGEN DEMAND, PATHOGENS, Nutrients
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: FAILING ON-SITE SYST (Beaver Falls)
Possible: - - -

Resolution/Management Information

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

Further Details

Aquatic life support, recreational uses and aesthetics in this portion of the Beaver River in the vicinity of Beaver Falls may be impacted by the discharge of raw sewage and septic tank effluent from area residences. The reach of the Beaver River below this segment is listed as impaired. This segment is listed as Needing Verification to determine how far these impacts extend upstream into this segment.

Raw sewage and septic tank effluent from approximately 55 homes in the hamlet of Beaver Falls are discharged directly to the river. The discharge of raw sewage from numerous pipes to the river is evident; some are part of a private sewer collection system and others are direct discharges of either sewage or grey water. Homeowners and passers-by report odors and sewage in the more sluggish areas of the Beaver River. The discharges affect recreation, and most likely the support of the fishery. The discharges affect recreation, and most likely the support of the fishery. A sewage collection system to serve the homes that are currently discharging to the river in the Town of Croghan is currently construction. The new system is expected to begin operating in June of 2007. (DEC/DOW, Region 6, March 2007)

Two paper mills, Omniafiltra (formerly Fiber Mark) and Interface Solutions (formerly Armstrong Paper), have separate wastewater treatment systems that also discharge to the Beaver River. These facilities discharge to the river below the lower dam at Beaver Falls. Interface has recently upgraded their system to address BOD non-compliance issues and OmniaFiltra, which began operations in 2004 had sludge removed from their lagoon treatment system prior to startup. Both mills have phenolics and zinc limitations on their discharge permits. WSM Empire State, a cogeneration plant also discharges approximately 50 MGD of non-contact cooling water (permit temperature limit of 90 DegF) to the Beaver River in the Beaver Falls area. An additional discharge, Beaverite Products, has shutdown its manufacturing operation in Beaver Falls and now only discharges treated sanitary wastewater from its office building. (DEC/DOW Region 6, October 2004)

This segment includes the portion of the stream and selected/smaller tribs from the Upper Dam in Beaver Falls to High Falls Pond. The waters of this portion of the stream are Class B. Tribs to this reach/segment are Class C,C(T),C(TS). Black Creek (-3), Murmur Creek (-7) and other portions of Beaver River are listed separately.

High Falls Pond (0801-0274) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No:	Ont 19- 40 (portion 3)/P418	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/150 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	185.3 Acres	**Quad Map:**	BELFORT (F-19-2)
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: ext/EPA **Resolution Potential:** Low
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in High Falls Pond is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in High Falls Pond is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 15 inches) smallmouth 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 2005-06. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

High Falls Pond is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Taylorville, Elmer Falls Ponds (0801-0276) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No: Ont 19- 40 (portion 4a)
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 146.5 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: BELFORT (F-19-2)

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 **Resolution Potential:** Low
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Elmer Falls Reservoir is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Elmer Falls Reservoir is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of smallmouth 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 2005-06. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Elmer Falls Reservoir is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Effley Falls Reservoir (0801-0172) Impaired Seg

Waterbody Location Information

Revised: 03/12/2007

Water Index No: Ont 19- 40 (portion 5)/P426
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake(R) (Mesotrophic)
Waterbody Size: 339.3 Acres
Seg Description: entire reservoir

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: BELFORT (F-19-2)

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

Type of Pollutant(s)
Known: METALS (mercury)
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: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Effley Falls Reservoir is known to be impaired by mercury contamination, a result of atmospheric deposition. Slightly lower pH readings indicating lake acidity have also been documented and are considered to be stressing aquatic life support in the lake.

Fish consumption in Effley Falls Reservoir is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of chain pickerel and smallmouth 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 2004-05. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Effley Falls Reservoir has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1997 thru 2001 and from 2004 continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately unproductive. Phosphorus levels in the lake do not typically exceed the state guidance

values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically exceed what is recommended for swimming beaches. Measurements of pH regularly fall below the state water quality range of 6.5 to 8.5 indicating acidity. The lake water is moderately to highly colored, which is also typical of northwestern Adirondack Lakes and considered to be normal. (DEC/DOW, BWAM/CSLAP, July 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate recreational suitability of the lake to be very favorable. The recreational suitability of the lake is described most frequently as either "cold not be nicer" or "excellent." The lake itself is most often described as "crystal clear" or "not quite crystal clear," an assessment that is somewhat higher than expected based on water clarity measurements in the lake but likely reflects recognition of natural color of the lake. Assessments have noted that aquatic plants rarely grows to the lake surface. Aquatic plants that are present are native species and have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, July 2006)

This lake waterbody is designated class C(T), suitable for general recreation use and aquatic life support, but not as a water supply, public bathing beach. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life.

Effley Falls Reservoir is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Operation of the hydroelectric facility and dam cause water level and flow fluctuations in the reservoir. However, requirements of the most recent FERC relicensing of this operation in August 1996 include limiting the water level fluctuations in the reservoir to protect the fishery. The relicensing also requires the maintenance of a minimum flow downstream of the reservoir which may enhance the fishery in the Beaver River. (DEC/Reg 6 Fisheries, August 1998)

Smaller unnamed ponds (P427,P428) are also included in this segment.

Beaver River, Middle, and tribs (0801-0277) NoKnownImpct

Waterbody Location Information

Revised: 01/08/2007

Water Index No: Ont 19- 40 (portion 6) **Drain Basin:** Black River
Hydro Unit Code: 04150101/150 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 31.3 Miles **Quad Map:** NUMBER FOUR (F-20-0)
Seg Description: stream and tribs, fr Effley Falls Res to Soft Maple 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

A biological (macroinvertebrate) assessment of Fish Creek, a trib to this portion of Beaver River, near Eagle Falls (near Fish Creek Road) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions, but these results may have been influenced at least in part by poor sampling habitat (slow current speed and sandy substrate). The fauna was dominated by filter-feeding caddisflies, and nutrient enrichment was suggested as the primary stressor. In spite of some minor effects on the fauna, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2005)

The assessment for this site is considered to be "evaluated" rather than"monitored" because it is based on the sampling results at a trib to the primary stream (Beaver River).

This segment includes the portion of the stream and all tribs from Effley Falls Reservoir to Soft Maple Reservoir. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Sammys Creek (-12), Soft Maple Pond Outlet (-13), Fish Creek (-15), Silver Mine Creek (-16) and other tribs to Soft Maple Reservoir, are Class C,C(T). Other portions of Beaver River, including larger reservoirs, are listed separately.

Soft Maple Pond, Soft Maple Reservoir (0801-0173) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40 (portion 7)/P431,434
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake(R)
Waterbody Size: 425.0 Acres
Seg Description: total area of both reservoir and lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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)
Suspected: Acid/Base (pH)
Possible: D.O./Oxygen Demand, Nutrients, Pathogens

Source(s) of Pollutant(s)
Known: - - -
Suspected: Atmosph. Deposition
Possible: FAILING ON-SITE SYST

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,2b (Multiple Segment/Categorical Water, Atmosph Dep, more)

Further Details

Fish consumption and aquatic life support in Soft Maple Pond/Reservoir and other waters of this segment are known to be impaired by mercury contamination and low pH/acid rain, both a result of atmospheric deposition.

Fish consumption in Soft Maple Pond and Reservoir is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of rock bass and smallmouth 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. Soft Maple Pond/Reservoir is included on the NYS 2006 Section 303(d) List of Impaired Waters; it is listed on Part 2b of the List as a Fish Consumption Water. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1979) revealed a pH <6.0. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Soft Maple Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P432) is also included on the 2006 Section 303(d)

List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

The small pond Engle Pond (433), and unnamed ponds P432 and P435 are included in this segment.

Beaver Lake, Beaver Meadow Pond (0801-0174) Impaired Seg

Waterbody Location Information

Revised: 04/17/2007

Water Index No: Ont 19- 40 (portion 9)/P449
Hydro Unit Code: 04150101/150 **Str Class:** B(T)
Waterbody Type: Lake
Waterbody Size: 326.4 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
FISH CONSUMPTION	Impaired	Known
Recreation	Stressed	Possible

Type of Pollutant(s)
Known: METALS (mercury)
Suspected: - - -
Possible: D.O./Oxygen Demand, Nutrients, Acid/Base (pH), Pathogens

Source(s) of Pollutant(s)
Known: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: Failing On-Site Syst

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: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Beaver Lake is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Beaver Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of chain pickerel because of elevated mercury levels. The source of mercury is considered to be atmospheric deposition, as there are not other apparent sources of mercury in the lake watershed. The advisory for this lake was first issued in 2000-01. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Other water quality concerns have also been noted regarding the lake. Impacts from camps on the lake as well as acid rain have been cited. DEC Regional fisheries staff has noted that the lake has fairly low productivity. (DEC/DOW, Region 6, March 2007)

Beaver Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Beaver River, Upper, and tribs (0801-0210) MinorImpacts

Waterbody Location Information

Revised: 01/18/2007

Water Index No: Ont 19- 40 (portion 10) **Drain Basin:** Black River
Hydro Unit Code: 04150101/150 **Str Class:** C Black River
Waterbody Type: River **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 108.6 Miles **Quad Map:** NUMBER FOUR (F-20-0)
Seg Description: stream and tribs, from Beaver Lake to Moshier Reservoir

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: ACID/BASE (PH), Metals (Aluminum)
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*

Further Details

Aquatic life support in the tributary waters of Beaver River is known to experience impacts due to acidification from acid rain. In some smaller tributaries, these impacts can be quite significant.

Considerable monitoring and study over the past 20 years by NYSDEC DFWMR staff, in conjunction with the USGS, ALSC and others has found that low pH due to acid deposition limits the fishery in the small headwater streams of this watershed. Monitoring of Sunday Creek found episodic acidification of the streams during spring runoff that causes the pH to fall below 5.0. Caged bioassays have documented high mortality to brook trout and blacknose dace. Stream electrofishing reveals a small fish population with little evidence of successful reproduction. High aluminum levels were also noted. (DEC/DFWMR, Rome Field Station, December 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.

This segment includes the portion of the stream and all tribs from Beaver Lake to Moshier Reservoir. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Three Mile Creek (-19), Sunday Creek (-20) and Moshier Creek (-22), are Class C,C(T),C(TS). Other portions of Beaver River, including larger reservoirs, are listed separately.

Moshier Reservoir (0801-0194) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No: Ont 19- 40 (portion 11)/P478
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake(R)
Waterbody Size: 281.1 Acres
Seg Description: entire reservoir

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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: ATMOSPH. DEPOSITION
Suspected: - - -
Possible: Tox/Contam. Sediment

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: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Moshier Reservoir is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Francis Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 9 inches) yellow perch and 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 issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Moshier Reservoir is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Black Creek and tribs (0801-0171) NoKnownImpct

Waterbody Location Information

Revised: 03/13/2007

Water Index No:	Ont 19- 40- 3			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/150	**Str Class:**	C(T)*		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	61.7 Miles			**Quad Map:**	BELFORT (F-19-2)
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

A biological (macroinvertebrate) survey/assessment of Black Creek in Croghan (at Route 126) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions, however the metrics were close to non-impacted. Slightly impacted conditions were also found during 1996 sampling. Agricultural enrichment and siltation are considered the major sources influencing water quality; Lewis County SWCD has conducted sampling to document nutrient loads from agricultural areas. However, nutrient biotic evaluation determined these effects on the fauna to be minor. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses. Analysis of crayfish from the site in 1996 found elevated levels of PAHs. No tissue sampling was conducted in 2002. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T) from the mouth to Brewery Road, Class B from there to Erie Canal Road, and Class C(T) for the remainder of the reach. Tribs to this reach/segment are Class C,C(T),C(TS).

Murmur Creek and tribs (0801-0219) NoKnownImpct

Waterbody Location Information

Revised: 01/08/2007

Water Index No: Ont 19- 40- 7
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 44.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: BELFORT (F-19-2)

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

Biological (macroinvertebrate) assessment of Murmur Creek near the mouth near High Falls (Belfort Road bridge) was conducted in 2002 and 1996. Sampling results indicated non-impacted conditions. The stream was slow-moving, and the bottom consisted mostly of gravel, sand, and rubble. A diverse fauna was found, including mayflies, stoneflies, caddisflies, beetles, and hellgrammites. Analysis of crayfish collected in 1996 found no pesticides or PCBs above detection levels, and no heavy metals or PAHs above levels of concern. (DEC/DOW, BWAM/SBU, June 2004)

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, including Lower Sandy Creek (-3), are also Class C(T),C(TS). Upper Sandy Creek, including Croghan Reservoir (P413), is listed separately.

Lower, Upper West Pond (0801-0284) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No: Ont 19- 40- 7-P416,P417
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 12.8 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1986) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Upper West Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

Balsam Creek and tribs (0801-0239) NoKnownImpct

Waterbody Location Information

Revised: 01/08/2007

Water Index No:	Ont 19- 40-10			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/150	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	23.1 Miles			**Quad Map:**	BELFORT (F-19-2)
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

Biological (macroinvertebrate) assessment of Balsam Creek near Belfort (at Erie Canal Road) was conducted in 1996. Sampling results indicated slightly impacted conditions, however habitat effects are a contributing factor in this assessment. The sampling habitat was mostly sand except for a "swimmer's dam" of rubble where a kick sample was taken. The resident invertebrate fauna consisted mostly of clean-water organisms dominated by caddisflies and midges. Filamentous algae and moss were also noted on rocks. In spite of some minor effects on the fauna, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2004)

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T). Tribs to this reach/segment, including Warner Creek (-4), are also Class C(T).

Goose Pond, Meister Pond (0801-0286) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No: Ont 19- 40-10-P419,P420
Hydro Unit Code: 04150101/150 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 6.4 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Goose Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Because there is no data indicating impact on the larger Meister Pond, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment also includes the smaller unnamed ponds P421 and P422.

Sand Pond (0801-0055) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-15- 4-P436
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 74.6 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in the waters of this segment are impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters Pond indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1979) revealed a pH <5.0. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Sand Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Crooked Lake, McCabe Pond (0801-0144) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-18- 3-P441,442
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 44.7 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Crooked Lake, McCabe Pond, Ikeis Pond and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Ikeis Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Crooked Lake, McCabe Pond and unnamed ponds (P439, P440) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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)

This segment also includes the smaller Ikeis Pond (P438) and unnamed ponds P439 and P440.

Pepperbox Pond, Spring Ponds, Tied Lake (0801-0076) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-18..P443 thru P448
Hydro Unit Code: 04150101/150 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 31.4 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Pepperbox Pond, Spring Ponds and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Pepperbox Pond, Lower Spring Pond and unnamed pond (P444a) are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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 pond P444a. 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)

Francis Lake (0801-0192) Impaired Seg

Waterbody Location Information

Revised: 08/02/1994

Water Index No: Ont 19- 40-18a/P449..P451
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 134.4 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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: - - -
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: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Francis Lake is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Francis Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 9 inches) yellow perch and 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 issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Mirror Pond, a small lake tributary to Francis Lake, is listed on the 2006 Section 303(d) List due to impacts from atmospheric deposition (acid rain).

This segment includes the smaller unnamed pond (P452) and Mirror Pond (P453).

Minor Lakes Trib to Three Mile Cr Wshed (0801-0453) Impaired Seg

Waterbody Location Information

Revised: 01/03/2007

Water Index No: Ont 19- 40-19-P456 thru P459
Hydro Unit Code: 04150101/150 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 0.0 Acres
Seg Description: total area of all lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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*

Further Details

Aquatic life support in the waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Unnamed ponds (P456, P456a) are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P457) and Bear Pond are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 pond P456. 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)

This segment includes multiple lakes/ponds within the Three Mile Creek Watershed; including Bear Pond (P459), as well as smaller unnamed ponds.

Sunday Lake, Sunday Creek Reservoir (0801-0195) Impaired Seg

Waterbody Location Information

Revised: 08/03/1994

Water Index No: Ont 19- 40-20-P473, P474
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 19.1 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
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,2b (Multiple Segment/Categorical Water, Atmosph Dep, more)

Further Details

Fish consumption and aquatic life support in Sunday Lake/Sunday Creek Reservoir is known to be impaired by mercury contamination, and low pH a result of atmospheric deposition.

Fish consumption in Sunday Lake is impaired due to a NYS DOH health advisory that recommends eating no chain pickerel and no more than one meal per month of 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 issued prior to 1998-99. Sunday Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters; it is listed on Part 2b of the List as a Fish Consumption Water. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Historical surveys of these lakes indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH that ranged from <5.0 to above 6.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Sunday Creek Reservoir (P474) and unnamed pond (P476) are included on Part 2a of the List as an Atmospheric

Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

This segment includes smaller unnamed ponds (P460 thru P477).

Minor Lakes Trib to Moshier Creek (0801-0039) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-22-P479 thru P492 (sel)
Hydro Unit Code: 04150101/150 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 147.3 Acres
Seg Description: total area of all selected lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in the waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975-80) and ALSC (1984-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Cropsey Pond, Deer Pond, Sunshine Pond, Upper Moshier Pond, Duck Pond and other waters were included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Cropsey Pond and unnamed ponds (P484a, P488, P490) are included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Cropsey, Sunshine and Duck Ponds. 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)

This segment includes multiple lakes/ponds within the Moshier Creek Watershed; including Cropsey Pond (P480), Deer Pond (P485), Sunshine Pond (P487), Upper Moshier Pond (P491) and Duck Pond (P492), as well as smaller unnamed ponds including P484a, P488, P480. Lower Moshier Pond (P489) is listed separately.

Lower Moshier Pond (0801-0049) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-22-P489
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 14.3 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Lower Moshier Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1982) revealed a pH between 5.0 and 5.5. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Lower Moshier Pond was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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 Lower Moshier Pond. 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)

Stillwater Reservoir (0801-0281) Impaired Seg

Waterbody Location Information

Revised: 03/10/2006

Water Index No:	Ont 19- 40-P493			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/150	**Str Class:**	C(T)		Black River
Waterbody Type:	Lake(R)			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	6195.1 Acres			**Quad Map:**	NUMBER FOUR (F-20-0)
Seg Description:	entire reservoir				

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 **Resolution Potential:** Low
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Stillwater Reservoir is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Stillwater Reservoir is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 9 inches) yellow perch, smallmouth bass and splake 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 issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Stillwater Reservoir is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Shallow Pond, Raven Lake (0801-0107) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 2-P494,P496
Hydro Unit Code: 04150101/140 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 121.6 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Raven Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Raven Lake was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Lyons Lake (0801-0109) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 2-P498
Hydro Unit Code: 04150101/140 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 96.1 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Lyon Lake and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Lyon Lake was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P497) is also included on the 2006 Section 303(d) List. (DEC/DOW, BWAM, 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.

This segment also includes unnamed pond P497.

Slim Pond (0801-0125) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 3-P499
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 12.8 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Slim Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Slim Pond was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Evergreen Lake (0801-0110) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 4-P500
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 57.6 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Evergreen Lake and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Evergreen Lake was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P501) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 2006)

The lake is currently managed as a trout fishery with a brook trout stoking program. Lime treatment to address lake acidification has been conducted in the past. (DEC/DOW, Region 6, March 2007)

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 addition to Evergreen Lake, this segment also includes unnamed pond P501.

Peaked Mountain Lake, Hidden Lake (0801-0111) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 5-P502/6-P505
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 51.1 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Peaked Mountain Lake and Hidden Lake and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Peaked Mountain and Hidden Lakes were included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P506) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

This segment also includes unnamed pond (P506).

Hawk Pond (0801-0044) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 40-P493- 6- 1-P504	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140 **Str Class:** FP		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	34.1 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Hawk Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1975) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Hawk Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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 Hawk Pond. 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)

Ginger Pond, Soda Pond (0801-0126) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 6..P508,P511
Hydro Unit Code: 04150101/140 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 32.1 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: BIG MOOSE (F-21-0)

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

Aquatic life support in Ginger and Soda Ponds and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Ginger and Soda Ponds as well as unnamed pond (P510) are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Dismal Pond (0801-0065) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 40-P493- 6..P515	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140 **Str Class:** C		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	53.1 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Dismal Lake and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Dismal Lake and unnamed pond (P513) were included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed ponds (P512, P516) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

In addition to Dismal Pond, this segment also includes unnamed ponds P512, P513, P514, P156.

Salmon Lake (0801-0054) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 7-P517
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 110.1 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: BIG MOOSE (F-21-0)

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

Aquatic life support in Salmon Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1982) revealed a pH between 5.0 and 5.5. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Salmon Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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 Salmon 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)

Minor Lake Tribs to Red Horse Creek (0801-0068) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 7-P522 thru P535
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 94.5 Acres
Seg Description: total area of selected lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: BIG MOOSE (F-21-0)

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

Aquatic life support in the waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these lakes indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1976) and ALSC (1984-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Higby Ponds, Summit Pond and Wilder Pond are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Mud Pond (P524) and unnamed pond (P526) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Wilder Pond. 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)

This segment includes multiple lakes/ponds within the Red Horse Creek Watershed; including East Higby Twin Pond (P522), West Higby Twin Pond (P523), Mud Pond (P524), unnamed Pond (P526), Summit Pond (P527), Beaverdam Pond (P530), Wilder Pond (P531) and Little Rock Ponds (P534, P535).

Witchhopple Lake (0801-0062) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 40-P493- 7-P528	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	92.9 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Witchopple Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1976) revealed a pH < 5.0. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Witchopple Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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 Witchopple 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)

Minor Lake Tribs to Shingle Shanty Brook (0801-0149) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493-19-P547 thru P565
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 160.3 Acres
Seg Description: total length of selected lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: RAQUETTE LAKE (F-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: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1986) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Fly Pond West included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on other waters in this segment, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes multiple lakes/ponds within the Shingle Shanty Brook Watershed; including Lilypad Pond (P547), Little Salmon Lake (P549), Frank Pond (P550), Rob Pond (P555), Fly Pond West (P558), Fly Pond East (P559), Deer Pond (P561), Panther Pond (P564).

Rose Pond (0801-0308) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No:	Ont 19- 40-P493-21- 1-P568			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140	**Str Class:**	C(T)		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	44.7 Acres			**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake				

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Unnamed pond (P569) is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the Rose Pond, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment also includes the smaller unnamed pond P569.

Terror Lake (0801-0018) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 40-P493-21- 1-P570			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140	**Str Class:**	C(T)		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	61.8 Acres			**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake				

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

Aquatic life support in Terror Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Terror Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

East Pond (0801-0066) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 40-P493-21-P571			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140	**Str Class:**	C(T)		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	26.2 Acres			**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake				

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

Aquatic life support in East Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. East Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Twitchell Creek and tribs (0801-0211) Impaired Seg

Waterbody Location Information

Revised: 05/24/1999

Water Index No: Ont 19- 40-P493-32
Hydro Unit Code: 04150101/140 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 31.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: BIG MOOSE (F-21-0)

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), Metals (Aluminum)
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

Aquatic life support in Twitchell Creek is known to be impaired by acidification from acid rain.

Considerable monitoring and study over the past 20 years by NYSDEC DFWMR staff, in conjunction with the USGS, ALSC and others has found that low pH due to acid deposition limits the fishery in the small headwater streams of this watershed. Monitoring of Twitchell Creek found episodic acidification of the streams during spring runoff that causes the pH to fall below 5.0. Caged bioassays have documented high mortality to brook trout and blacknose dace. Stream electrofishing reveals a small fish population with little evidence of successful reproduction. High aluminum levels were also noted. (DEC/DFWMR, Rome Field Station, December 2006)

The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Twitchell Creek is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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

Minor Lakes Trib to Twitchell Creek (0801-0077) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493-32-P578 thru P587 **Drain Basin:** Black River
Hydro Unit Code: 04150101/140 **Str Class:** C(T) Black River
Waterbody Type: Lake **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 113.1 Acres **Quad Map:** BIG MOOSE (F-21-0)
Seg Description: total area of select lakes trib to Twitchell Creek

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

Aquatic life support in the waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975, 82), BWAM (1984) and ALSC (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Lower Lilypad Pond was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Pocket Pond, Jock Pond and Oswego Pond are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Jock Pond, Oswego Pond and Lower Lilypad Pond. 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)

This segment includes multiple lakes/ponds within the Twitchell Creek Watershed; including Buck Pond (P578), Snake Pond (P579), Pocket Pond (P581), South Pond (P582), Jock Pond (P583), Oswego Pond (P585) and Lower Lilypad Pond (P587). Larger lakes listed separately include Silver Lake (P580) and Twitchell Lake (P584).

Silver Lake (0801-0150) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 40-P493-32-P580	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/140 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	57.7 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Silver Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1986) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Silver Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Twitchell Lake (0801-0165) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493-32-P584
Hydro Unit Code: 04150101/140 **Str Class:** A(T)
Waterbody Type: Lake
Waterbody Size: 134.4 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: BIG MOOSE (F-21-0)

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

Aquatic life support in Twitchell Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by BWR (1984) revealed a pH between 5.0 and 5.5. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Twitchell Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Crystal Creek and minor tribs (0801-0240) NoKnownImpct

Waterbody Location Information

Revised: 01/09/2007

Water Index No:	Ont 19- 45			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/130	**Str Class:**	C(T)*		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	53.6 Miles			**Quad Map:**	LOWVILLE (F-19-4)
Seg Description:	entire stream and select 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

Biological (macroinvertebrate) assessment of Crystal Creek near the mouth in New Bremen (at Van Amber Road) was conducted in 2002. Sampling results indicated water quality just to be just within the range of slightly impacted. The sampling habitat was less than ideal, consisting of sand, gravel and rubble downstream of an impoundment. The resident invertebrate fauna was diverse. Taking into account the poor habitat and impoundment effects actual water quality is considered to be non-impacted. (DEC/DOW, BWAM, SBU, 1996)

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C(T) from the mouth to a point 0.5 miles below unnamed pond (P590) in New Bremen, Class A to/including unnamed pond (P590) and Class C(T) for the remainder of the reach. Tribs to this reach/segment, including South Branch (-5), are Class C,C(T),C(TS). Select Crystal Creek tribs making up the Lowville water supply are listed separately.

Mill Creek/South Branch, and tribs (0801-0200) Impaired Seg

Waterbody Location Information

Revised: 01/09/2007

Water Index No:	Ont 19- 51			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/120	**Str Class:**	C		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	34.3 Miles			**Quad Map:**	LOWVILLE (F-19-4)
Seg Description:	stream and tribs, from mouth to Lowville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS
Suspected: PATHOGENS, D.O./Oxygen Demand, Silt/Sediment
Possible: Thermal Changes

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: 1*

Further Details

Aquatic life support and recreational uses in Mill Creek are impaired by effects of organic wastes and nutrients from agricultural activities in the watershed.

A biological survey of Mill Creek at multiple sites in and above Lowville was conducted in 1997. Sampling results revealed water quality that ranged from slightly to moderately impacted. The upper reaches of Mill Creek and its tributaries drain primarily cattle grazing/pasture lands before flowing through the Village of Lowville and on to the Black River. Unfettered access to the stream by cattle herds in the upper watershed result in high nutrient loads that cause a slight to moderate macroinvertebrate community impact, corresponding to a restricted fishery community. More significant impacts were noted along trib 3 which drains the southern portion of the watershed. Both macroinvertebrates and fish indicated an impairment to the fishery. Sampling conducted in Mill Creek just upstream of the confluence with this trib was less affected. However, the improvement may be attributed, at least in part, to the flow and reaeration of the creek as it flows through the High Falls Gorge just upstream of the sampling site. Inspection of the creek above the gorge found agricultural activities similar to those noted in the southern watershed. Unfortunately, no suitable riffle sampling areas were available to directly assess the water quality above the gorge. Other suspected pollutants to the

stream include pathogens, from the cattle waste runoff, and silt (sediment) from various agricultural activities and streambank erosion. Below the village, Mill Creek also receives the discharge from the Lowville WWTP. However, the biological study did not include sampling below the discharge (poor access/unsuitable riffle) and no conclusion about the impact of the WWTP discharge on the creek can be offered. But plans are underway to extend the WWTP outfall to discharge directly to the Black River. This project is expected to be complete in 2009. (Mill Creek Biological Assessment Report, Bode et al, DEC/DOW, BWAM/SBU, July 1998)

A biological (macroinvertebrate) assessment of Mill Creek in Lowville (at East State Street) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions, consistent with the sampling results at this site from 1997. (DEC/DOW, BWAM/SBU, June 2006)

In the past, the Lewis County WQCC has discussed targeting the Mill Creek watershed for up grants to address agricultural affects through the EQIP Program.

This segment includes the portion of the stream and all tribs from/including Gulf Stream/South Branch (-4) in Lowville. The waters of this portion of the stream are Class D from the mouth to Route 26 and Class C for the remainder of the reach. Tribs to this reach/segment, including Gulf Stream (-4), are Class C,C(T). Upper Mill Creek is listed separately.

North Branch Mill Creek, and tribs (0801-0317) MinorImpacts

Waterbody Location Information

Revised: 01/09/2007

Water Index No:	Ont 19- 51			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/120	**Str Class:**	C		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	36.8 Miles			**Quad Map:**	WEST LOWVILLE (F-18-3)
Seg Description:	stream and tribs, above Lowville				

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: PATHOGENS, D.O./Oxygen Demand, Silt/Sediment
Possible: Thermal Changes

Source(s) of Pollutant(s)

Known: AGRICULTURE
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

Aquatic life support and recreational uses in North Branch Mill Creek are known to experience minor impacts organic and nutrient loadings from agricultural activities in the watershed. Visual reconnaissance of the watershed suggests that the impacts might reach the level of impairment, but suitable sampling locations to verify this level of impact were not available.

A biological survey of Mill Creek at multiple sites in and above Lowville was conducted in 1997. Sampling results revealed water quality that ranged from slightly to moderately impacted. The upper reaches of Mill Creek and its tributaries drain primarily cattle grazing/pasture lands before flowing through the Village of Lowville and on to the Black River. Unfettered access to the stream by cattle herds in the upper watershed result in high nutrient loads that cause a slight to moderate macroinvertebrate community impact, corresponding to a restricted fishery community. More significant impacts were noted along the South Branch (-4). Both macroinvertebrates and fish indicated an impairment to the fishery. Sampling conducted at the mouth of the North Branch was less affected. However the improvement may be attributed, at least in part, to the flow and reaeration of the creek as it flows through the High Falls Gorge just upstream of the sampling site. Inspection of the creek above the gorge found agricultural activities similar to those noted

in the southern watershed. Unfortunately, no suitable riffle sampling areas were available to directly assess the water quality above the gorge. Other suspected pollutants to the stream include pathogens, from the cattle waste runoff, and silt (sediment) from various agricultural activities and streambank erosion. (Mill Creek Biological Assessment Report, Bode et al, DEC/DOW, BWAM/SBU, July 1998)

A biological (macroinvertebrate) assessment of North Branch Mill Creek in Lowville (at Cemetery Street) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions, consistent with the sampling results at this site from 1997. (DEC/DOW, BWAM/SBU, June 2006)

In the past, the Lewis County WQCC has discussed targeting the Mill Creek watershed for up grants to address agricultural affects through the EQIP Program.

This segment includes the portion of the stream and all tribs above South Branch/Gulf Stream (-4) in Lowville. The waters of this portion of the stream are Class C. Tribs to this reach/segment are Class C,C(T). Mill Creek/South Branch is listed separately.

Minor Tribs to Middle Black River (0801-0318) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 52 thru 56 (selected) **Drain Basin:** Black River
Hydro Unit Code: 04150101/160 **Str Class:** C Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 172.2 Miles **Quad Map:** GLENFIELD (G-19-1)
Seg Description: total length of all tribs, from Lowville to Pine Grove

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Biological (macroinvertebrate) assessments of a number of these minor tribs were conducted in 2002. These include Rainbow Creek in Lowville, Hodge Creek in Lowville and Harvey Creek in Bushes Landing. Sampling results indicated water quality that ranged from non- to slightly impacted. Harvey was assessed as non-impacted, with diverse and well-balanced fauna of mayflies, stoneflies and caddisflies. Assessment at both Rainbow and Hodge Creeks were influenced by poor sampling habitat. After taking habitat factors into account, these sites are considered slightly impacted. Agricultural impacts were noted. In spite of some minor effects on the fauna and some indeterminate assessments (habitat factors), aquatic life support is considered to be fully supported in these streams. However resampling during the next RIBS cycle is recommended. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the total length of all tribs to the Black River from Mill Creek (-51) in Lowville to Independence River (-57) in Pine Grove. Tribs within this segment, including Rainbow Creek (-53), Hodge Creek (-54), Harvey Creek (-55), are primarily Class C,C(T),C(TS). Mill Creek and Independence River (-57), are listed separately.

Independence River, Lower, and tribs (0801-0220) MinorImpacts

Waterbody Location Information

Revised: 03/13/2007

Water Index No: Ont 19- 57
Drain Basin: Black River
Hydro Unit Code: 04150101/110 **Str Class:** C(T)*
Black River
Waterbody Type: River
Reg/County: 6/Lewis Co. (25)
Waterbody Size: 36.2 Miles
Quad Map: BRANTINGHAM (G-19-2)
Seg Description: stream and tribs, from mouth to Sperryville

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: 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: n/a

Further Details

Aquatic life support in this portion of the Independence River near Otter Creek is thought to experience minor impacts due to low pH and metals toxicity as a result of atmospheric deposition/acid rain.

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Independence River near Otter Creek, Lewis County, (at Route 39/Pine Grove Road) was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non-impacted water quality conditions. The macroinvertebrate community was well-balanced and contained clean-water mayflies, stoneflies, caddisflies, and hellgrammites. Similar results were found at this site during biological screening in 2002. Water column sampling revealed pH, mercury, aluminum and iron to be parameters of concern. Low pH below the water quality standard of 6.5, and some below 6.0, was measured in 4 of 9 samples collected in 2003, and may be reflected in several biological endpoints. The mercury and aluminum results are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain. Sediment chemistry analysis for these and other contaminants show no metals present above established levels of concern, and no compounds present in concentration likely to cause adverse biological effects to sediment-dwelling organisms. No organisms were collected from this site for tissue analysis, so

uptake by benthic invertebrates cannot be determined. Toxicity testing using water from this location resulted in a substantial reduction in reproductive rate and significant mortality to the test organisms in one of two tests. These effects are likely due to a combination of low water hardness, low pH and/or metals toxicity (specifically aluminum, indicated as a parameter of concern in the water column). Fish community assessment showed that although the metrics reflected good water quality, the numbers of fish collected were low. In spite of non-impacted biological communities, the combination of periodic low pH measurements, other parameters of concern and water toxicity suggests some impacts to aquatic life support in the stream.

A biological (macroinvertebrate) screening of the Independence River near Otter Creek (at Pine Grove Road) was conducted in 2002 and 1996. The habitat was favorable, and a diverse invertebrate community was present, with many mayflies, stoneflies, and caddisflies. Indices placed water quality just within the range of slight impact, but the site was determined to be fully supporting of aquatic life. Biological sampling at the upstream end of this reach in Sperryville (at McPhilmy Road) was conducted in 1996. Sampling results indicated non-impacted water quality conditions. Habitat consisted of large and interlocking boulders and cobble with sand and gravel. Field screening criteria for non-impacted water quality were met. (DEC/DOW, BWAM/SBU, 2005)

This segment includes the portion of the stream and all tribs from the mouth to McPhilmy Road in Sperryville. The waters of this portion of the stream are primarily Class C(T), except for a 0.5 mile reach below the Donnettburg Road Bridge that is Class B(T). Tribs to this reach/segment are Class C,C(T),C(TS). Upper Independence River is listed separately.

Independence River, Upper, and tribs (0801-0221) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 57			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/110	**Str Class:**	C(T)*		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	171.1 Miles			**Quad Map:**	NUMBER FOUR (F-20-0)
Seg Description:	stream and tribs, above Sperryville				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

A biological (macroinvertebrate) assessment of the Independence River in Sperryville (at McPhilmy Road) was conducted in 1996. Sampling results indicated non-impacted water quality conditions. Habitat consisted of large and interlocking boulders and cobble with sand and gravel. Field screening criteria for non-impacted water quality were met. (DEC/DOW, BWAM, SBU, 1996)

Although there are over 170 miles of stream miles above the site, land use is largely forested and undeveloped and access is quite limited. Consequently, the assessment of non-impacted water quality for all stream miles is considered to be a mixed (monitored/evaluated) assessment.

This segment includes the portion of the stream and all tribs above McPhilmy Road in Sperryville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Beaver Meadow Creek (-5), Burnt Creek (-7), Second Creek (-8), Third Creek (-9), and Fourth Creek (-10), are primarily Class C,C(T),C(TS), with a small trib to Independence Lake (P647) designate Class AA(T). Lower Independence River is listed separately.

Evies Pond, Long Lake, Fish Pond (0801-0323) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No: Ont 19- 57- 5-P608,P610,P615
Hydro Unit Code: 04150101/110 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 50.9 Acres
Seg Description: total area of all three lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: CRYSTAL DALE (F-19-3)

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Cork Pond, Spectacle Pond East, Spectacle Pond West, and Mahan Pond were included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Waters; they were included in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the larger ponds of this segment, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes Cork Pond (P607), Spectacle Pond West (P611), Spectacle Pond East (P612), Mahan Pond (P613).

Trout Pond, Bills Pond (0801-0127) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 57- 7..P628,P630
Hydro Unit Code: 04150101/110 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 51.4 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Trout and Bill's Ponds and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Bill's Pond lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Trout Pond and Stewart Pond are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

Panther Pond, Fifth Cr Pond, Lennon Pond (0801-0075) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 57- 9/10..P632,P635,P638
Hydro Unit Code: 04150101/110 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 51.1 Acres
Seg Description: total area of all three lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: NUMBER FOUR (F-20-0)

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

Aquatic life support in Panther, Fifth Creek and Lennon Ponds and other waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1979) and ALSC (1984-96) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Panther Pond, Fifth Creek Pond and Lennon Pond are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Mikes Pond, Blue Pond and unnamed pond P636 are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Fifth Creek Pond. 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)

This segment includes Mikes Pond (P636), unnamed small (P636) and Blue Pond (P640).

Cleveland,Payne,Huckleberry,Halfmoon Lks (0801-0193) Impaired Seg

Waterbody Location Information

Revised: 08/02/1994

Water Index No: Ont 19- 57- P619,P622,P625
Hydro Unit Code: 04150101/110 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 61.9 Acres
Seg Description: total area of all four lakes

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: CRYSTAL DALE (F-19-3)

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: - - -
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: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Halfmoon Lake is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Halfmoon Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of 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 issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Halfmoon Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Independence Lake (0801-0327) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No:	Ont 19- 57-25-P647	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/110 **Str Class:** AA(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	51.1 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake		

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Unnamed pond P646 is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P645) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the Independence Lake, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

Little Diamond Pond (0801-0153) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 57-P651			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/110	**Str Class:**	C(T)		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	12.8 Acres			**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake				

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

Aquatic life support in Little Diamond Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1986) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Little Diamond Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Roaring Brook and minor tribs (0801-0222) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 58
Hydro Unit Code: 04150101/100 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 69.3 Miles
Seg Description: entire stream and select tribs

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: GLENFIELD (G-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

A biological (macroinvertebrate) assessment of Roaring Brook in Martinsburg (at Route 26) was conducted in 2002 and 1996. Sampling results clearly indicated non-impacted water quality conditions. The habitat was considered good, although some silt deposits were noted. The fauna was very diverse and the biological indices clearly indicated excellent water quality. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and select/smaller tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Lower Atwater Creek (-6), are Class C,C(T),C(TS). Upper Atwater Creek is listed separately.

Whetstone Gulf, Lower, and tribs (0801-0332) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 59
Hydro Unit Code: 04150101/100 **Str Class:** B(T)
Waterbody Type: River
Waterbody Size: 19.7 Miles
Seg Description: stream and tribs, from mouth to state park

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: GLENFIELD (G-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

A biological (macroinvertebrate) assessment of Whetstone Gulf in Glendale (at Glendale Road) was conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The invertebrate fauna was diverse and well-balanced and the indices indicated excellent water quality. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth to Route 26 at the Whetstone Creek State Park. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment are Class C. Upper Whetstone Creek is listed separately.

Whetstone Gulf, Upper, and tribs (0801-0223) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 59			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/100	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	4.4 Miles			**Quad Map:**	GLENFIELD (G-19-1)
Seg Description:	stream and tribs, in/above state park				

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

A biological (macroinvertebrate) assessment of Whetstone Gulf in Glendale (at Glendale Road) was conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The invertebrate fauna was diverse and well-balanced and the indices indicated excellent water quality. Though this sampling point is just below the described segment, it is considered representative of water quality in the upper reach. This segment is listed as being evaluated rather than monitored. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs above Route 26 at the Whetstone Creek State Park. The waters of this portion of the stream are Class B(T) from Route 26 to unnamed tribs (-3), and Class C(T) for the remainder of the reach. Tribs to this reach/segment are Class C(T). Lower Whetstone Creek is listed separately.

Otter Creek and tribs (0801-0224) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 60
Hydro Unit Code: 04150101/090 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 148.4 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: BRANTINGHAM (G-19-2)

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

Biological (macroinvertebrate) assessments of Otter Creek in Otter Creek (at Pine Grove Road) were conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The invertebrate fauna was diverse and all screening criteria were met. A second site, in Brantingham(at Partridgeville Road) was sampling in 2002 and similar conditions were found. (DEC/DOW, BWAM/SBU, June 2005)

Although there are nearly 150 miles of stream miles above the site, land use is largely forested and undeveloped and access is quite limited. Consequently, the assessment of non-impacted water quality for all stream miles is considered to be a mixed (monitored/evaluated) assessment.

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T). Tribs to this reach/segment, including Little Otter Creek (-5), Crooked Creek (-6) and Tommy Roaring Creek (-12), are also Class C(T). Tribs to Big Otter Lake (P676) are listed separately.

Little Otter Lake (0801-0336) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No: Ont 19- 60- 5-P664
Hydro Unit Code: 04150101/090 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 44.7 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: BRANTINGHAM (G-19-2)

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Florence Pond (P664a) is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the larger Little Otter Lake, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

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 Florence Pond. 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)

Minor Lakes Trib to Upper Otter Creek (0801-0041) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 60-P674 thru P684
Hydro Unit Code: 04150101/090 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 69.9 Acres
Seg Description: total area of all four lakes

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: MCKEEVER (G-20-0)

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

Aquatic life support in the waters of this segment are known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1976) and ALSC (1985-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. This segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. East Pond, Black Foot Pond, and unnamed pond (P679) are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. West Pond (P675) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 East Pond. 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)

This segment includes multiple lakes/ponds within the Upper Otter Creek Watershed; including Goose Pond (P674), West Pond (P675), North Pond (P677), East Pond (P678), Little Simon Pond (P680), Blackfoot Pond (P681) and Gibbs Lake (P684). Big Otter Lake (P676) is listed separately.

Minor Tribs to Middle Black River (0801-0454) NoKnownImpct

Waterbody Location Information

Revised: 01/12/2007

Water Index No: Ont 19- 61 thru 80 **Drain Basin:** Black River
Hydro Unit Code: 04150101/100 **Str Class:** C Black River
Waterbody Type: River (Low Flow) **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 0.0 Miles **Quad Map:** BRANTINGHAM (G-19-2)
Seg Description: total length of select tribs, Pine Grove to Lyons Falls

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Biological (macroinvertebrate) assessments of a number of these minor tribs were conducted in 2002. These include House Creek in Glenfield, and Douglass Creek in Greig. Sampling results indicated water quality that ranged from non- to slightly impacted. House Creek was assessed as non-impacted, with diverse and well-balanced fauna of mayflies, stoneflies and caddisflies. Douglass Creek was assessed as slightly impacted, with a fauna dominated by filter-feeding midges and caddisflies indicating nonpoint source nutrient enrichment. In spite of some minor effects on the fauna, aquatic life support is considered to be fully supported in these streams, and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the total length of selected/smaller tribs to the Black River from Independence River (-57) in Pine Grove to Moose River (-81) in Lyons Falls. Tribs within this segment, including House Creek (-63), Douglass Creek (-66) and Lower Tannery Creek (-68), are primarily Class C,C(T),C(TS). Independence River (-57), Roaring Brook (-58), Whetstone Creek (-59), Otter Creek (-60), Upper Tannery Creek (-68), Fish Creek (-70), Mill Creek (-79) and Moose River (-81) are listed separately.

Fish Creek and tribs (0801-0225) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 70			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/080	**Str Class:**	C(TS)		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	50.9 Miles			**Quad Map:**	BRANTINGHAM (G-19-2)
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

Biological (macroinvertebrate) assessments of Fish Creek near Greig (at Fish Creek Road fishing access) were conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The habitat was excellent and the fauna was dominated by mayflies, stoneflies and caddisflies. (DEC/DOW, BWAM/SBU, June 2005)

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 Brantingham Lake Outlet (-4), are Class C,C(T). Tribs to Brantingham Lake (P689) are listed separately.

Brantingham Lake (0801-0176) Need Verific

Waterbody Location Information

Revised: 09/29/2006

Water Index No: Ont 19- 70- 4-P689
Hydro Unit Code: 04150101/080 **Str Class:** A
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 326.7 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: BRANTINGHAM (G-19-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)
Known: - - -
Suspected: PATHOGENS, Nutrients
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: FAILING ON-SITE 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: n/a

Further Details

Drinking water supply and recreational uses (swimming) of Brantingham Lake may be considered to be threatened by pathogens. The suspected source of possible impacts is from failing and/or inadequate on-site septic systems serving older lake front camps and residences.

Brantingham 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 2006. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately unproductive. Phosphorus levels in the lake do not exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements easily meet what is recommended for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is slightly colored, which is also typical of northwestern Adirondack Lakes. Oxygen levels do not appear to be significantly reduced at lower lake depths and internal nutrient cycling is not significant. (DEC/DOW, BWAM/CSLAP, March 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate recreational suitability of the lake to continue to be very 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," an assessment that is consistent with the perceived water quality conditions in the lake and its measured water quality characteristics. Assessments have noted that aquatic plants rarely grows to the lake surface. (DEC/DOW, BWAM/CSLAP, March 2006)

This lake waterbody is designated class A, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. 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. Although CSLAP sampling does not include pathogen sampling and cannot be used to evaluate for bacterial impairment, other CSLAP parameters suggest that no other listings appear to be warranted.

The Brantingham Cottage Association (BCA) has provided coliform data that has been reviewed by DEC. Although the BCA has characterized a large percentage of these samples as "failing" to meet criteria, the criteria used for this evaluation is much more stringent than DEC water quality standards and assessment criteria. Sampling procedures and other associated metadata (to determine if the sampling data is representative of the lake as a whole) were also not available to review. Nonetheless, the apparent frequent occurrence of detectable fecal coliform suggests that an assessment of threatened is appropriate for this waterbody. (DEC/DOW, Region 6, August 2006)

In addition to continued monitoring, the lake would benefit from a strong septic management plan. Such a plan should include detailed sanitary surveys with dye testing of septic systems, site inspections and regular system maintenance requirements. (DEC/DOW, BWAM, August 2006)

Moose River and minor tribs (0801-0226) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 81 **Drain Basin:** Black River
Hydro Unit Code: 04150101/070 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Lewis Co. (25)
Waterbody Size: 88.7 Miles **Quad Map:** PORT LEYDEN (G-19-3)
Seg Description: stream and select tribs, from mouth to McKeever

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of the Moose River in McKeever (at Route 26), Herkimer County, was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non-impacted water quality conditions. The community was well-balanced, diverse, and dominated by clean-water mayflies. A concurrent fish community assessment also reflected very good water quality. Water column sampling revealed mercury and aluminum to be parameters of concern. The mercury and aluminum results are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain. Some lower pH values were also observed. Sediment chemistry analysis for these and other contaminants show no metals present above established levels of concern, and no compounds present in concentration likely to cause adverse biological effects to sediment-dwelling organisms. Similarly, macroinvertebrate tissue revealed no metals above levels of concern, or pesticides or PCBs above detection levels. Toxicity testing using water from this location resulted in a substantial reduction in reproductive rate and significant mortality to the test organisms in one of two tests. These effects are likely due to a combination of low water hardness, low pH and/or metals toxicity (specifically aluminum, indicated as a parameter of concern in the water column). Based on non-impacted biological communities, aquatic life support is considered to be supported in the stream. However the combination of

periodic low pH measurements, other parameters of concern and water toxicity suggests continued monitoring of conditions is warranted. (DEC/DOW, BWAM/RIBS, January 2005)

Biological (macroinvertebrate) screening of the Moose River in Fowlersville (at Fowlersville Road) was conducted in 2002 and 1996-97. Sampling results indicated non-impacted water quality conditions in 2002. The fauna was diverse and all screening criteria for waters having no known impacts were met. Sampling in 1997 revealed slightly impacted water quality. Hellgrammites collected from this site in 1997 analyzed for metals found none exceeding levels of concern. Analysis of hellgrammites for presence of organic compounds found no chlorinated hydrocarbon pesticides, nitrogen phosphorus pesticides, or PCBs above detection levels. However, one PAH - chrysene - exceeded its level of concern. In spite of this finding, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. Biological sampling was also conducted on the Moose River in McKeever (at Route 28) just below the confluence of the South and Middle Branches in 2003 and 1996. At both sites the habitat was good, and the resident invertebrate fauna was quite diverse. Water quality indices revealed water quality to be non-impacted/excellent. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Middle Branch Moose River (-18) in McKeever. The waters of this portion of the stream are Class C,C(T). Tribs to this reach/segment, including Lower Beauty Creek (-2), Paint Creek (-3), Lower Deer Creek (-4), Black Creek (-8) and Twin Sister Creek (-14), are also Class C,C(T). Upper Beauty Creek, Upper Deer Creek, Copper Creek (-7), Middle Branch Moose River (-18) and the remainder of Moose River (also known as South Branch Moose River are listed separately.

Minor Lakes Trib to Upper Pine Creek (0801-0072) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81- 7- 1..P702 thru P708
Hydro Unit Code: 04150101/070 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 136.1 Acres
Seg Description: total area of selected lakes

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: MCKEEVER (G-20-0)

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: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Aquatic life support in the waters of this segment are thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Lost Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the other lakes in this segment, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes multiple lakes/ponds within the Upper Pine Creek Watershed; including Lost Lake (P702), Middle Settlement Lake (P704), Cedar Pond (P705), Grass Pond (P706), Middle Branch Lake (P707) and Little Pine Lake (P708).

Middle Branch Moose R and minor tribs (0801-0228) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 81-18 **Drain Basin:** Black River
Hydro Unit Code: 04150101/060 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 44.3 Miles **Quad Map:** MCKEEVER (G-20-0)
Seg Description: stream and select tribs, McKeever to Old Forge

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Biological (macroinvertebrate) assessments of the Middle Branch Moose River in the Town of Webb (at Minnehaha Road) were conducted in 2002 and 1996. Sampling results indicated slightly impacted (2002) and non-impacted (1996) water quality conditions. In spite of some minor effects on the fauna, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. In 1996, the fauna was diverse and all indices were within the range of non-impacted water quality. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and selected/smaller tribs from the mouth to Old Forge Pond (P782) in Old Forge. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Middle Settlement Creek (-6), are also Class C,C(T). North Branch Moose River (-18) is listed separately.

North Branch Moose River and minor tribs (0801-0212) MinorImpacts

Waterbody Location Information

Revised: 01/18/2007

Water Index No:	Ont 19- 81-18-17			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/060	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	65.3 Miles			**Quad Map:**	OLD FORGE (G-21-0)
Seg Description:	entire stream and select tribs				

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

Further Details

Aquatic life support in the tributary waters of North Branch Moose River is known to experience impacts due to acidification from acid rain. In some smaller tributaries, these impacts can be quite significant.

Considerable monitoring and study over the past 20 years by NYSDEC DFWMR staff, in conjunction with the USGS, ALSC and others has found that low pH due to acid deposition limits the fishery in the small headwater streams of this watershed. Monitoring of Bald Mountain Brook found episodic acidification of the stream during spring runoff that causes the pH to fall below 5.0. Caged bioassays have documented high mortality to brook trout and blacknose dace. Stream electrofishing reveals a small fish population with little evidence of successful reproduction. High aluminum levels were also noted. (DEC/DFWMR, Rome Field Station, December 2006)

A biological (macroinvertebrate) assessment of the North Branch Moose River in Old Forge (at Thendara Golf Course) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The fauna was diverse and all screening criteria for waters having no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

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.

This segment includes the entire stream and selected/smaller tribs from the mouth to Big Moose Lake (P752). The waters of the stream are Class C(T). Tribs to this reach/segment, including Lower Indian Brook (-1) and tribs to Lake Rondaxe and tribs to Dart Lake, are Class C,C(T). Upper Indian Brook and Tribs to Big Moose Lake are listed separately.

Thirsty Pond (0801-0361) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No: Ont 19- 81-18-17-14-P736- 2-P738
Hydro Unit Code: 04150101/060 **Str Class:** A(T)
Waterbody Type: Lake
Waterbody Size: 38.3 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: BIG MOOSE (F-21-0)

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment is thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1986) revealed a pH <5.0 and no presence of fish. Aquatic life is considered to be impaired in the smaller pond and this waterbody is included on the NYS 2006 Section 303(d) List of Impaired Waters. Unnamed pond (P737) is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Waters. Because there is no data indicating impact on the larger Thirsty Pond, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes smaller unnamed pond (P737).

Lake Rondaxe, West Lake, Lake Kanacto (0801-0206) NoKnownImpct

Waterbody Location Information

Revised: 03/12/2007

Water Index No: Ont 19- 81-18-17-P739,P743,P744
Hydro Unit Code: 04150101/060 **Str Class:** A
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 269.1 Acres
Seg Description: total area of all three lakes

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: BIG MOOSE (F-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

Lake Rondaxe has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1997 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 unproductive. Phosphorus levels in the lake do not exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements meet what is recommended for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5, only rarely falling below 6.5. The lake water is moderately colored, which is typical of northwestern Adirondack Lakes, and may be sufficient to influence lake clarity. Oxygen levels do not appear to be significantly reduced at lower lake depths and internal nutrient cycling is not significant. (DEC/DOW, BWAM/CSLAP, July 2002)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate recreational suitability of the lake to be very 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," an assessment that is consistent with the perceived water quality conditions in the lake and its measured water quality characteristics. Assessments have noted that aquatic plants do grow to the lake surface, but are not responsible for impacts to recreational

use. (DEC/DOW, BWAM/CSLAP, July 2002)

This lake waterbody is designated class A, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. 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.

Dart Lake (0801-0242) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No: Ont 19- 81-18-17-P750
Hydro Unit Code: 04150101/060 **Str Class:** A
Waterbody Type: Lake
Waterbody Size: 140.8 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: BIG MOOSE (F-21-0)

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: 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: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in Dart Lake is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in Dart Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 10 inches) 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 in 2001-02. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Dart Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Big Moose Lake (0801-0035) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 81-18-17-P752	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/060 **Str Class:** A(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	1286.4 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
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: - - -
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,2b (Multiple Segment/Categorical Water, Atmosph Dep, more)

Further Details

Fish consumption and aquatic life support in Big Moose Lake are impaired by mercury contamination and low pH/acid rain, both a result of atmospheric deposition.

Fish consumption in Big Moose Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 9 inches) 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 issued prior to 1998-99. is included on the NYS 2006 Section 303(d) List of Impaired Waters; it is listed on Part 2b of the List as a Fish Consumption Water. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by BWR (1983) revealed a pH <5.0. More recent sampling by ALSC (1995) found the pH to be between 5.5 and 6.0 and favorable survival of stocked brown trout. As a result, the lake is now annually stocked with 4000 fall fingerling of brook trout. Aquatic life support is still considered impaired due to low pH, but this impairment is listed as suspected. The waters

of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Big Moose Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Tribs to Big Moose Lake (0801-0213) Impaired Seg

Waterbody Location Information

Revised: 01/18/2007

Water Index No: Ont 19- 81-18-17-P752-
Hydro Unit Code: 04150101/060 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 60.2 Miles
Seg Description: total length of all tribs to the lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: BIG MOOSE (F-21-0)

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), Metals (Aluminum)
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*

Further Details

Aquatic life support in the tributary waters to Big Moose Lake is known to be impaired by acidification from acid rain.

Considerable monitoring and study over the past 20 years by NYSDEC DFWMR staff, in conjunction with the USGS, ALSC and others has found that low pH due to acid deposition limits the fishery in the small headwater streams of this watershed. Monitoring of Constable Creek, West Pond Outlet and Squash Pond Outlet found episodic acidification of the streams during spring runoff that causes the pH to fall below 5.0. Caged bioassays have documented high mortality to brook trout and blacknose dace. Stream electrofishing reveals a small fish population with little evidence of successful reproduction. High aluminum levels were also noted. (DEC/DFWMR, Rome Field Station, December 2006)

The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Constable Creek, West Pond Outlet and Squash Pond Outlet are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Because there is no data indicating impact on the larger Meister Pond, impairment to this segment is listed as suspected.

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.

This segment includes the total length of all tribs to Big Moose Lake (P752). Tribs within this segment, including Andys Creek (-7), are primarily Class C,C(T) with some portions (tribs of Squash Pond (P754)) designated as Class AA.

Lower, Upper Sister Lakes (0801-0004) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 81-18-17-P752- 7-P768,P769	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/060 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	163.1 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	total area of both lakes		

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: 2a,2b (Multiple Segment/Categorical Water, Atmosph Dep, more)

Further Details

Fish consumption and aquatic life support in Lower and Upper Sister Lakes are known to be impaired by mercury contamination and low pH/acid rain, both a result of atmospheric deposition.

Fish consumption in both Lower and Upper Sister Lakes is impaired due to a NYS DOH health advisory that recommends eating no larger (over 10 inches) 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 these lakes was first issued in 2001-02. The lakes are included on the NYS 2006 Section 303(d) List of Impaired Waters; it is listed on Part 2b of the List as a Fish Consumption Water. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1979) and DOW/BWR (1984) revealed a pH <5.0. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Both Lower and Upper Sister Lakes are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

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 Upper Sister 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)

South Pond (0801-0057) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-18-17-P752- 7-P772
Hydro Unit Code: 04150101/060 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 25.7 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: RAQUETTE LAKE (F-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

Aquatic life support in South Pond and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1962,75) and ALSC (1984-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. South Pond and unnamed pond P773 are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond (P771) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 South Pond. 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)

This segment includes unnamed ponds P770, P771 and P773.

Russian Lake (0801-0006) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No: Ont 19- 81-18-17-P752- 8-P774
Hydro Unit Code: 04150101/060 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 37.3 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: BIG MOOSE (F-21-0)

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: 2a,2b (Multiple Segment/Categorical Water, Atmosph Dep, more)

Further Details

Fish consumption and aquatic life support in Russian Lake are known to be impaired by mercury contamination and low pH/acid rain, both a result of atmospheric deposition.

Fish consumption in both Lower and Upper Sister Lakes is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger (over 9 inches) 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 in 2005-06. Russian Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters; it is listed on Part 2b of the List as a Fish Consumption Water. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1962) and DOW/BWR (1984) revealed a pH <5.0 and presence of no fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Russian Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM,

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.

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 Russian 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)

Minor Lakes Trib to Big Moose Lake, NW (0801-0050) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-18-17-P752..P753 to 767 **Drain Basin:** Black River
Hydro Unit Code: 04150101/060 **Str Class:** C Black River
Waterbody Type: Lake **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 84.9 Acres **Quad Map:** BIG MOOSE (F-21-0)
Seg Description: total area of all selected lakes, northwest

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

Aquatic life support in the waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975) and ALSC (1984-86) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Squash Pond, Merriam Lake, Gull Lake South, Gull Lake North and unnamed pond (P759) are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Silver Dollar Pond (P755) as well as unnamed ponds (P765, P766) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Merriam 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)

This segment includes multiple lakes/ponds within the portion of the Big Moose Lake Watershed on the northwest side of the lake; including West Pond (P753), Squash Pond (P754), Silver Dollar Pond (P755), Merriam Lake (P756), Little Chief Pond (P757, Gull Lake South (P758), Gull Lake North (P762). Larger lakes listed separately include Otter Lake (P760).

Otter Pond (0801-0016) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-18-17-P752..P760
Hydro Unit Code: 04150101/060 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 11.1 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: BIG MOOSE (F-21-0)

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

Aquatic life support in Otter Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH of between 5.5 and 6.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Otter Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Minor Lakes Trib to Big Moose Lake, SE (0801-0033) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-18-17-P752..P775 to 779
Drain Basin: Black River
Hydro Unit Code: 04150101/060 **Str Class:** C(T)
Black River
Waterbody Type: Lake
Reg/County: 6/Herkimer Co. (22)
Waterbody Size: 199.8 Acres
Quad Map: BIG MOOSE (F-21-0)
Seg Description: total area of all selected lakes, southeast

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

Aquatic life support in the waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these lakes indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Pug Hole (Mays) Pond and Pigeon Lake are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

This segment includes multiple lakes/ponds within the portion of the Big Moose Lake Watershed on the southeast side of the lake; including Mays/Pug Hole Pond (P775), Big Chief Pond (P776), Chub Lake (P778) and Pigeon Lake (P779). Larger lakes listed separately include Constable Pond (P777).

Constable Pond (0801-0214) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No:	Ont 19- 81-18-17-P752..P777	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/060 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	70.7 Acres	**Quad Map:**	BIG MOOSE (F-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Constable Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by USGS (1996) revealed a pH <5.0. Aquatic life in this segment is considered to be impaired. Constable Pond is included on the NYS 2006 Section 303(d) List of Impaired Waters. Constable Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Fulton Chain Lakes, First thru Fourth Lk (0801-0373) Impaired Seg

Waterbody Location Information

Revised: 03/12/2007

Water Index No: Ont 19- 81-18-P782a thru P782d
Hydro Unit Code: 04150101/060 **Str Class:** A
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 3315.3 Acres
Seg Description: total area of all four lakes

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: OLD FORGE (G-21-0)

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: PESTICIDES (DDT)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: CHEMICAL LEAK/SPILL, TOX/CONTAM. SEDIMENT
Suspected: - - -
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

Fish consumption in Fourth Lake is known to be impaired by pesticide (DDT) contamination, a result of a suspected spill or improper disposal.

Fish consumption in Fourth Lake is impaired due to a NYS DOH health advisory that recommends eating no lake trout because of elevated levels of DDT. The specific source of the contamination is unknown, but under investigation. Contaminated bottom sediment have been found in lake tributaries. The advisory for this lake was issued prior to 1998-99. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

Second Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1986 and continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately unproductive. Phosphorus levels in the lake are consistently below the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements easily satisfy what is recommended for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is slightly to moderately colored, which is also typical of northwestern Adirondack Lakes. Oxygen levels do not appear to be

significantly reduced at lower lake depths. (DEC/DOW, BWAM/CSLAP, February 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate 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," an assessment that is somewhat higher than suggested by water quality clarity of the lake but likely reflects the natural condition (color) of the lake. Assessments have noted that aquatic plants rarely grows to the lake surface. Aquatic plants are dominated by native and have not been cited as impacting recreational uses. However, invasive species (Eurasian watermilfoil) has been documented in other chain lakes. (DEC/DOW, BWAM/CSLAP, February 2006)

This lake waterbody is designated class A, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. 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.

Fourth Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Tribs to Fulton Chain Lakes (0801-0207) Impaired Seg

Waterbody Location Information

Revised: 05/21/1999

Water Index No:	Ont 19- 81-18-P782a..P786/P787-	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/060 **Str Class:** C(T)*		Black River
Waterbody Type:	River	**Reg/County:**	5/Hamilton Co. (21)
Waterbody Size:	25.9 Miles	**Quad Map:**	OLD FORGE (G-21-0)
Seg Description:	total length of select tribs to Fifth thru Eighth Lks		

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), Metals (Aluminum)
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

Aquatic life support in the tributary waters to the Fulton Chain Lakes is known to experience impacts due to acidification from acid rain. In some smaller tributaries, these impacts can be quite significant.

Considerable monitoring and study over the past 20 years by NYSDEC DFWMR staff, in conjunction with the USGS, ALSC and others has found that low pH due to acid deposition limits the fishery in the small headwater streams of this watershed. Monitoring of Seventh Lake Inlet, Buck Creek and Wheeler Creek found episodic acidification of the streams during spring runoff that causes the pH to fall below 5.0. Caged bioassays have documented high mortality to brook trout and blacknose dace. Stream electrofishing reveals a small fish population with little evidence of successful reproduction. High aluminum levels were also noted. (DEC/DFWMR, Rome Field Station, December 2006)

The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Seventh Lake Inlet, Buck Creek and Wheeler Creek are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

This segment includes the total length of selected/smaller tribs to the Fifth thru Seventh Lakes of the Fulton Chain Lakes. Tribs within this segment, including Seventh Lake Inlet (-2) and Bottle Brook (-8), are primarily Class C(T) with unnamed trib (-7) and tribs of Bottle Brook designated as Class A,A(T). Eagle Creek (-7) is listed separately.

Eagle Nest Pond, more (0801-0011) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-18-P782a..P788
Hydro Unit Code: 04150101/060 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 11.1 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 5/Hamilton Co. (21)
Quad Map: RAQUETTE LAKE (F-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: - - -
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

Aquatic life support in Eagles Nest Pond and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH <6.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Eagle Nest Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed pond P792 is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

This segment includes High Rock Pond (P791), unnamed pond (P792) and Trout Pond (P793).

South Br Moose R, Lower, and tribs (0801-0227) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 81 **Drain Basin:** Black River
Hydro Unit Code: 04150101/050 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 186.3 Miles **Quad Map:** OLD FORGE (G-21-0)
Seg Description: stream and tribs, from mouth to Indian River

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Biological (macroinvertebrate) assessments of the South Branch Moose River near Bisby Lodge (at Bisby Lodge Road) were conducted in 2002 and 1996. Sampling results in both years indicated non-impacted water quality conditions. The habitat was good, and the resident invertebrate fauna was quite diverse. Water quality indices revealed water quality to be non-impacted/excellent. (DEC/DOW, BWAM/SBU, June 2005)

Although there are nearly 200 miles of stream miles above the site, land use is largely forested and undeveloped and access is quite limited. Consequently, the assessment of non-impacted water quality for all stream miles is considered to be a mixed (monitored/evaluated) assessment.

This segment includes the portion of the stream and all tribs from the mouth to Indian River (-58). The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Nicks Creek (-24), Little Moose Outlet (-34), Limekiln Creek (-44), Pico Creek (-45), Otter Brook (-46), Deadmans Gulch (-49), Canachagala Brook (-51), Lost Brook (-51) and Red River (-55), are primarily Class C,C(T); a small unnamed trib (-1) to Nicks Lake (P804) is designated Class A(T). Indian River and tribs to Little Moose Lake (P808) and tribs to Limekiln Lake (P826) are listed separately.

Horseshoe Pd, Hall Pd, Pico Lk, Round Pd (0801-0392) Need Verific

Waterbody Location Information

Revised: 03/12/2007

Water Index No: Ont 19- 81-45..P828,P831,P832,P834
Hydro Unit Code: 04150101/050 **Str Class:** C(T)
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 57.7 Acres
Seg Description: total area of all four lakes

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: OLD FORGE (G-21-0)

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: ALGAL/WEED GROWTH, PROBLEM SPECIES (Eurasian milfoil)
Suspected: - - -
Possible: - - -

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

Recreational uses in Horseshoe Pond are thought to be threatened by increasing aquatic weed growth. Occasionally high phosphorus values are also of some concern. Continued monitoring of the lake is recommended to determine if recent assessments represent a declining water quality trend or results collected during an atypical year.

Horseshoe Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 2000 and continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesotrophic, or moderately productive, although productivity evaluations are confounded by the high (probably natural) color readings in the lake (and resulting low water transparency). Phosphorus levels in the lake occasionally exceed (by slight amount) the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements occasionally fail to meet what is recommended for swimming beaches although, again, this is thought to be a function of higher (natural) lake color. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is highly colored (high levels of dissolved organic matter) and color readings are clearly high enough to exert limits on the water transparency. (DEC/DOW, BWAM/CSLAP, April 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate recreational suitability of the lake to be very generally favorable, although assessments in more recent years have declined some. The recreational suitability of the lake was described in 2004, 2005 as "slightly impaired," a decline from previous years when it was evaluated most frequently as "could not be nicer" or "excellent." The lake itself is most often described as "crystal clear" or "not quite crystal clear," an assessment that is more favorable than suggested by water quality clarity conditions but typical of high color, low algae lakes. Assessments have noted an increase in aquatic plants densities that have had impacts on recreational uses. Eurasian watermilfoil has been documented in the lake. (DEC/DOW, BWAM/CSLAP, May 2006)

This lake waterbody is designated class C(T), suitable for general recreation use and aquatic life support, but not as a water supply or public bathing beach. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life.

Stink Lake, Balsam Lake (0801-0034) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 81-51- 2..P836,P837	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/050 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	88.9 Acres	**Quad Map:**	OLD FORGE (G-21-0)
Seg Description:	total area of both lakes		

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

Aquatic life support in Balsam Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1973) and DOW/BWR (1974) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Balsam Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Kettle Pond, more (0801-0131) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 81-52..P841	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/050 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	6.4 Acres	**Quad Map:**	OLD FORGE (G-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Kettle Pond and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Kettle Pond (P841) is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Unnamed ponds P840 and P846 are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

This segment includes smaller lakes within the Lost Creek watershed, including unnamed ponds P839 thru P846.

South Br Moose R, Upper, and minor tribs (0801-0346) MinorImpacts

Waterbody Location Information

Revised: 01/18/2007

Water Index No: Ont 19- 81
Drain Basin: Black River
Hydro Unit Code: 04150101/050 **Str Class:** C(T)
Black River
Waterbody Type: River
Reg/County: 6/Oneida Co. (33)
Waterbody Size: 99.1 Miles
Quad Map: WEST CANADA LAKES (G-22-0)
Seg Description: stream and select tribs, above Indian River

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: 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*

Further Details

Aquatic life support in the tributary waters of South Branch Moose River is known to experience impacts due to acidification from acid rain. In some smaller tributaries, these impacts can be quite significant.

Considerable monitoring and study over the past 20 years by NYSDEC DFWMR staff, in conjunction with the USGS, ALSC and others has found that low pH due to acid deposition limits the fishery in the small headwater streams of this watershed. Monitoring of Bradley and Cellar Brooks found episodic acidification of the streams during spring runoff that causes the pH to fall below 5.0. Caged bioassays have documented high mortality to brook trout and blacknose dace. Stream electrofishing reveals a small fish population with little evidence of successful reproduction. High aluminum levels were also noted. (DEC/DFWMR, Rome Field Station, December 2006)

Biological (macroinvertebrate) assessments of Bradley Brook and Cellar Brook in the Town of Arietta was conducted in 2002. Sampling results indicated moderately impacted water quality conditions. The samples were dominated by acid-tolerant midges and stoneflies, and showed little change from the results of previous sampling of these streams in 1980. (DEC/DOW, BWAM/SBU, June 2005)

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.

This segment includes the portion of the stream and selected/smaller tribs above Indian River (-58). The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Sumner Stream (-60) and Butter Brook (-73), are also Class C(T). Indian River (-58) and Otter Brook (-61) are listed separately.

Indian Lake (0801-0002) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 81-58..P852	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/050 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	5/Hamilton Co. (21)
Waterbody Size:	82.1 Acres	**Quad Map:**	OLD FORGE (G-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Indian Lake and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DOW/BWR (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Indian Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Muskrat Pond (P853) and unnamed pond (P851) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Indian 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)

This segment includes unnamed pond (P851) and Muskrat Pond (P853).

Horn Lake, Mountain Lake, more (0801-0052) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-58..P854,P855
Hydro Unit Code: 04150101/050 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 53.4 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 5/Hamilton Co. (21)
Quad Map: OLD FORGE (G-21-0)

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

Aquatic life support in Mountain Lake and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975) and ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. This waterbody segments is included on the NYS 2006 Section 303(d) List of Impaired Waters. Mountain Lake and unnamed pond (P863) are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Twin Lake Lower, Twin Lake Upper, Little Deer Lake and unnamed ponds (P856, P857a and P858) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain.(DEC/DOW, BWAM, 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.

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 Mountain 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)

This segment includes unnamed ponds (P856, P857, P857a, P858), Twin Lake Lower (P859), Twin Lake Upper (P860), Little Deer Lake (P861) and unnamed ponds (P862, P863).

Minor Lakes Trib to Indian River (0801-0010) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-58..P862 thru P875
Hydro Unit Code: 04150101/050 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 77.9 Acres
Seg Description: total area of all selected lakes

Drain Basin: Black River
Black 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: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Aquatic life support in the waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984-86) revealed pH that ranged from <5.0 to above 6.0 but generally no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Deep Lake, Wolf Lake, Twin Lakes, and Northrup Lake are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Twin Lake West (P869) and unnamed ponds (P864a, P871, P 872) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

This segment includes multiple lakes/ponds within the Indian River Watershed; including Deep Lake (P866), Twin Lake West (P869), Twin Lake East (P870), Wolf Lake (P873) and Northrup Lake (P875) and unnamed ponds P864a, P871, P872. Larger lakes listed separately include Brooktrout Lake (P874).

Brooktrout Lake (0801-0009) Impaired Seg

Waterbody Location Information

Revised: 04/20/2007

Water Index No: Ont 19- 81-58..P874
Hydro Unit Code: 04150101/050 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 70.9 Acres
Seg Description: entire lake

Drain Basin: Black River
Black 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:** Medium
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Aquatic life support in Brooktrout Lake is thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH between 5.0 and 5.5 and no presence of fish. Aquatic life was considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Brooktrout Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 2006)

However recent monitoring of Brooktrout Lake has shown increases (improvement) in pH. The recovery of the lake is such that brook trout were reintroduced to the lake in Fall 2005. Survey of the lake in the following spring found the fish had survived the winter and the spring spike in lake acidity that accompanies spring snowmelt. Further study of the lake is planed. (DEC/DOW, BWAM and Darrin Freshwater Institute, Rensselaer Polytechnic Institute, May 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.

Minor Lakes Trib to Benedict Creek (0801-0029) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-60..P876 thru P880
Hydro Unit Code: 04150101/050 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 68.1 Acres
Seg Description: total area of selected lakes

Drain Basin: Black River
Black 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: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Aquatic life support in the waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of the Bear Pond indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed pH between 5.0 and 5.5 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Bear Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

This segment includes multiple lakes/ponds within the Benedict Creek Watershed; including Icehouse Pond (P876),

Helldiver Pond (P877), Lost Pond West (P878), Lost Pond East (P879) and Bear Pond (P880). Larger lakes listed separately include Lake Kora/Sumner Lake (P883).

Falls Pond (0801-0399) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No:	Ont 19- 81-61- 4-P885	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/050 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	5/Hamilton Co. (21)
Waterbody Size:	36.1 Acres	**Quad Map:**	WEST CANADA LAKES (G-22-0)
Seg Description:	entire lake		

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: - - -
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*

Further Details

Aquatic life support in Falls Pond and other waters of this segment is thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Jimmy Pond was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the larger Falls Pond, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes Jimmy Pond (P886) and unnamed pond (P887).

Sly Pond (0801-0007) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 81-69-P888
Hydro Unit Code: 04150101/050 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 20.8 Acres
Seg Description: entire lake

Drain Basin: Black River
Black 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: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Further Details

Aquatic life support in Sly Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

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 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Sly Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Cellar Pond (0801-0001) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 81-71- 2- 1-P889	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/050 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	5/Hamilton Co. (21)
Waterbody Size:	6.4 Acres	**Quad Map:**	WEST CANADA LAKES (G-22-0)
Seg Description:	entire lake		

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

Aquatic life support in Cellar Pond is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1979) and DOW/BWR (1983) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Cellar Pond is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Barnes Lake (0801-0134) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19- 88-P905			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/100	**Str Class:**	C		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	6.4 Acres			**Quad Map:**	MCKEEVER (G-20-0)
Seg Description:	entire lake				

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

Aquatic life support in Barnes Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Barnes Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Round Pond (0801-0407) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No:	Ont 19- 88-P907			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/100	**Str Class:**	C(T)		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	13.1 Acres			**Quad Map:**	MCKEEVER (G-20-0)
Seg Description:	entire lake				

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: - - -
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*

Further Details

Aquatic life support in other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1979) revealed a pH between 5.5 and 6.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Unnamed pond P906 was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the larger Round Pond, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes unnamed pond P906.

Sugar River, Lower, and minor tribs (0801-0231) MinorImpacts

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 91			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/040	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Lewis Co. (25)
Waterbody Size:	86.2 Miles			**Quad Map:**	PORT LEYDEN (G-19-3)
Seg Description:	stream and sslect tribs, from mouth to Constableville				

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: D.O./Oxygen Demand, Pathogens

Source(s) of Pollutant(s)

Known: - - -
Suspected: AGRICULTURE
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

Aquatic life support in this portion of Sugar River may experience minor impacts due to nonpoint nutrient enrichment and other impacts from are agricultural activities. A biological (macroinvertebrate) assessment of Sugar River in Talcottville (at Denly Road) was conducted in 2002. Sampling results indicated slightly impacted water quality conditions. The fauna was heavily dominated by filter-feeding caddisflies and algal-feeding riffle beetles. Livestock wastes were noted at the site. Previous sampling farther downstream near the mouth at Route 12 conducted in 1996 revealed clearly non-impacted water quality, with a diverse fauna that included mayflies, stoneflies, caddisflies, riffle beetles, and hellgrammites. Because of the differences between the assessments at these two sites, conditions should be verified with additional sampling. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and selected/smaller tribs from the mouth to/including White River (-7) in Constableville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Stucky Creek (-4), Olmstead Brook (-6) and White River 9-7), are primarily Class C,C(T),C(TS); with a portion of Stucky Creek designated Class A(T). Moose Creek (-1) is listed separately.

Sugar River, Upper, and tribs (0801-0411) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 91
Hydro Unit Code: 04150101/040 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 57.1 Miles
Seg Description: stream and tribs, above Constableville

Drain Basin: Black River
Black River
Reg/County: 6/Lewis Co. (25)
Quad Map: CONSTABLEVILLE (G-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

A biological (macroinvertebrate) assessment of this portion of Sugar River in Constableville (at Highmarket Street) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The fauna was dominated by clean-water mayflies, stoneflies and caddisflies. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs above White River (-7) in Constableville. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment are Class C,C(T). A small portion of unnamed tribs (-10) is listed separately.

Moose Creek and tribs (0801-0232) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 91- 1
Hydro Unit Code: 04150101/040 **Str Class:** C
Waterbody Type: River
Waterbody Size: 40.6 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: PORT LEYDEN (G-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

Biological (macroinvertebrate) assessments of Moose Creek near Talcottville (at East Road) were conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The resident invertebrate fauna was diverse and well-balanced. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C. Tribs to this reach/segment, including North Branch Moose Creek (-4) and South Branch Moose Creek (-5), are Class C,C(T),C(TS).

Mill Creek and tribs (0801-0201) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 92			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/100	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	16.3 Miles			**Quad Map:**	BOONVILLE (H-19-2)
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

A biological (macroinvertebrate) assessment of Mill Creek in Boonville (at Devoe Road) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. A 1997 biological survey of the stream looked at four sites in and around Boonville. Results indicated slightly impacted water quality at the three sites in and above Boonville and non-impacted conditions below the village. These findings indicate an improvement at the downstream site, attributed to the WWTP improvements. Upstream water quality is influenced by nonpoint agricultural sources. In spite of some minor effects on the fauna, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. Concurrent fish sampling by NYSDEC fisheries staff in 1997 found a very healthy trout community. (DEC/DOW, BWAM/SBU, June 2005)

Historically, discharges from combined sewer overflows and urban runoff in the Village of Boonville were suspected of stressing the fishery in Mill Creek. Biological sampling conducted in August 1997 revealed slight impacts in the creek in and above Boonville consistent with urban runoff/CSOs and agricultural sources. However the Village of Boonville has spent approximately $4.6 million upgrading their sewers and WWTP. The collection system overflows have nearly been eliminated, but there are occasional (~6 per year) discharges from the overflows retention facility. Agricultural activities in the area are minimal. (DEC/DOW, Region 6, December 2004)

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).

North Branch and minor tribs (0801-0233) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 94			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/030	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	10.6 Miles			**Quad Map:**	MCKEEVER (G-20-0)
Seg Description:	entire stream and select 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

Biological (macroinvertebrate) assessments of North Branch of Long Lake Outlet near Boonville (at Smith Road) were conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The substrate was less than ideal with primarily gravel and sand and some rubble. But the invertebrate fauna was diverse and screening criteria indicating waters that have no known impact were met. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C(T). Tribs to this reach/segment are Class C,C(T). Long Lake Outlet (-1) is listed separately.

Long Lake Outlet/Cumming Cr, and tribs (0801-0415) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19- 94- 1(-1)			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/030	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	18.7 Miles			**Quad Map:**	MCKEEVER (G-20-0)
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

A biological (macroinvertebrate) assessment of Cummings Creek in Hawkinsville (at Smith Road) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The fauna included many clean-water mayflies, stoneflies and caddisflies. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T). Tribs to this reach/segment, including Cumming Creek (-1), are Class C,C(T). Long Lake Tribs are listed separately.

Otter Lake (0801-0205) MinorImpacts

Waterbody Location Information

Revised: 03/12/2007

Water Index No: Ont 19- 94- 1-P922- 4-P926
Hydro Unit Code: 04150101/030 **Str Class:** A
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 134.4 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: MCKEEVER (G-20-0)

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: ALGAL/WEED GROWTH (aquatic weeds)
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

Recreational uses in Otter Lake are known to experience minor impacts due to excessive weed growth. High weed densities and associated impacts have been reported through the CSLAP program and verified by DEC staff.

Otter Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1992 thru 1996 and in 2002 and continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesotrophic, or moderately productive. Phosphorus levels in the lake fall well below the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements also meet what is recommended 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 to highly colored, which is also typical of northwestern Adirondack Lakes, and likely reflects natural conditions. Oxygen levels do not appear to be significantly reduced at lower lake depths and internal nutrient cycling is not significant. (DEC/DOW, BWAM/CSLAP, June 2006)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate recreational suitability of the lake to be unfavorable. The recreational suitability of the lake is described most frequently

as "slightly" to "substantially" impacted. The lake itself is most often described as having "definite algal greenness." Assessments have noted that aquatic plants regularly grow to the lake surface. Recreational impacts stem from excessive weed growth, and poor water clarity, as a result of occasionally elevated algae levels and naturally high water color, and despite nutrient levels that remain low. It is likely that these impacts are associated with excessive growth of bladderwort (a weakly rooted plant) in the lake. (DEC/DOW, BWAM/CSLAP, June 2006)

This lake waterbody is designated class A, suitable for use as a water supply, public bathing beach, general recreation and aquatic life support. 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.

Kents Creek and tribs (0801-0422) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19- 98
Hydro Unit Code: 04150101/020 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 18.3 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: BOONVILLE (H-19-2)

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

A biological (macroinvertebrate) assessment of Kent Creek in Hawkinsville (at LaChausse/Hays Road) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The macroinvertebrate fauna was dominated by clean-water organisms and screening criteria indicating waters with no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

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

Alder Creek and tribs (0801-0424) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19-103			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/020	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	12.5 Miles			**Quad Map:**	FORESTPORT (H-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

A biological (macroinvertebrate) assessment of Alder Creek in Alder Creek (at Egypt Road) was conducted in 2002. Sampling results indicated non-impacted water quality conditions. The a diversity of clean-water macroinvertebrates were found and screening criteria indicating waters with no known impacts were met. (DEC/DOW, BWAM/SBU, June 2005)

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 Black River Feeder Canal (-1a), are Class C,C(T).

Big Woodhull Creek (0801-0234) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No:	Ont 19-104			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/010	**Str Class:**	C(T)		Black River
Waterbody Type:	River			**Reg/County:**	6/Oneida Co. (33)
Waterbody Size:	62.2 Miles			**Quad Map:**	FORESTPORT (H-20-1)
Seg Description:	entire stream and select 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

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Woodhull Creek in Forestport (at Horton Road), Oneida County, was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non-impacted water quality conditions. The fauna included clean-water mayflies, stoneflies, caddisflies, beetles, hellgrammites, and dragonflies, and water quality was assessed as non-impacted, although the presence of some nutrient enrichment was indicated. These results are similar to biological screening results found in 2002. A concurrent fish community assessment reflected very good water quality. Water column sampling revealed mercury and aluminum to be parameters of concern. The mercury and aluminum results are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain. Sediment chemistry analysis for these and other contaminants show no metals present above established levels of concern, and no compounds present in concentration likely to cause adverse biological effects to sediment-dwelling organisms. Similarly, macroinvertebrate tissue revealed no metals above levels of concern, or pesticides or PCBs above detection levels. Toxicity testing using water from this location resulted in a substantial reduction in reproductive rate but no significant mortality to the test organisms. These effects are likely due to a combination of low water hardness, low pH and/or metals toxicity (specifically aluminum, indicated as a parameter of concern in the water column). Based

on non-impacted biological communities, aquatic life support is considered to be supported in the stream. However the combination a presence of parameters of concern in the water column and some water toxicity suggests continued monitoring of conditions is warranted. (DEC/DOW, BWAM/RIBS, January 2005)

Biological (macroinvertebrate) screening of Big Woodhull Creek near Woodhull (at Horton Road) was conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions. The macroinvertebrate fauna was diverse and included mayflies, stoneflies, caddisflies and hellgrammites. Screening criteria indicating waters with no known impacts were met. Screening for acute toxicity in sediments indicated the presence of slight sediment toxicity. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and selected/smaller tribs. The waters of the stream are Class C,C(T). Tribs to this reach/segment, including Big Brook (-13) and Grindstone Creek (-21) and tribs to Sand Lake (P981) and Woodhull Lake (P983), are also Class C,C(T). Little Woodhull Creek (-2) and Bear Creek (-3) are listed separately.

Little Woodhull Creek (0801-0235) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19-104- 2
Hydro Unit Code: 04150101/010 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 49.9 Miles
Seg Description: entire stream and tribs

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: FORESTPORT (H-20-1)

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

Biological (macroinvertebrate) assessments of Little Woodhull Creek in Anos Siding (at Kincaid Road) were conducted in 2002 and 1996. Sampling results indicated slightly impacted water quality conditions, but these effects are considered to be the result of impoundment influences as the site is just below an impoundment spillway. In spite of these minor effects on the fauna, aquatic life support is considered to be fully supported in the river, and there are no other apparent water quality impacts. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the entire stream and all tribs. The waters of the stream are Class C(T). Tribs to this reach/segment, including Stone Dam Creek (-6) and Nelson Brook (-P951-4) and other tribs to Little Woodhull Lake, are Class C,C(T).

Dead Lake, more (0801-0427) Impaired Seg

Waterbody Location Information

Revised: 12/24/2004

Water Index No: Ont 19-104- 2- 5-P948
Hydro Unit Code: 04150101/010 **Str Class:** C
Waterbody Type: Lake
Waterbody Size: 7.9 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: NORTH WILMURT (H-20-2)

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: - - -
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*

Further Details

Aquatic life support in the waters of this segment is thought to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of some of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1986) revealed a pH greater than 6.0 but no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Unnamed pond (P946) is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water in Appendix A as a Smaller Lake Impaired by Acid Rain. Because there is no data indicating impact on the larger Dead Lake, impairment to this segment is listed as suspected. (DEC/DOW, BWAM, 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.

This segment includes Lindsey Pond (P945), unnamed pond (P946) and Little Woodhull Reservoir (P947).

Little Woodhull Lake, Lily Lake (0801-0070) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19-104- 2-P951,-1-P952
Hydro Unit Code: 04150101/010 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 99.1 Acres
Seg Description: total area of both lakes

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: OLD FORGE (G-21-0)

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

Aquatic life support in Lily Lake is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1984) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Lily Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

Kayuta Lake (0801-0204) NoKnownImpct

Waterbody Location Information

Revised: 03/12/2007

Water Index No: Ont 19 (portion 8)/P984a
Hydro Unit Code: 04150101/020 **Str Class:** C(T)
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 473.7 Acres
Seg Description: entire lake

Drain Basin: Black River
Black River
Reg/County: 6/Oneida Co. (33)
Quad Map: FORESTPORT (H-20-1)

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

Kayuta Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1997 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 mesotrophic, or moderately productive. Phosphorus levels in the lake rarely exceed the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements typically meet what is recommended 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 to highly colored, which is also typical of northwestern Adirondack Lakes and may be sufficiently high to influence lake clarity. Oxygen levels do not appear to be significantly reduced at lower lake depths and internal nutrient cycling is not significant. (DEC/DOW, BWAM/CSLAP, August 2002)

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. These assessment indicate recreational suitability of the lake to be very favorable, although the most recent assessments (2001) appeared to be less favorable. The recreational suitability of the lake is described most frequently as "excellent." The lake itself is most often described as "crystal clear" or "not quite crystal clear," an assessment that is higher than suggested by water clarity measurements but that likely reflects the natural condition (color) of the lake. Assessments have noted that aquatic plants

(among other factors) impact recreational uses. (DEC/DOW, BWAM/CSLAP, August 2002)

This lake waterbody is designated class C(T), suitable for general recreation use and aquatic life support, but not for use as a water supply or public bathing beach. Water quality monitoring by NYSDEC focuses primarily on support of general recreation and aquatic life.

The Kayuta Lake Association has conducted studies in cooperation with NYSDEC focusing on weed growth, siltation and turbidity. Weed harvesting activities have been considered. Siltation in "back bay" areas is also a concern.

Additionally, although classified as Class C(T), the lake is also used for bathing and swimming. (Oneida County DOH regulates a bathing beach at the Kayuta Lake Campground.) Due to its use as a public bathing area, the lake could be considered for a classification upgrade to a Class B water. However, CSLAP data also indicates that bathing uses may be affected by high chlorophyll a and naturally low water clarity (DEC/DOW, BWAM, January 1999).

Some residences may be using lake water for drinking water as well. Inadequate on-site septic systems may be affecting these "unofficial" uses also.

There is considerable local concern regarding residential development and additional development pressure along the lake front (particularly the northwest end of the lake). The soils immediately adjacent to the lake have severe limitations for septic absorption fields due to poor filtering capacity and slope. The Kayuta Lake Association has requested training and guidance on the Clean Lakes Program in an effort to address individual septic system problems. Voluntary dye testing has been offers to residents but concern about publicity, regulatory enforcement and costs limit this program's effectiveness. (Oneida County EMC, April 1998)

Black River, Upper, and minor tribs (0801-0237) NoKnownImpct

Waterbody Location Information

Revised: 01/05/2007

Water Index No: Ont 19 (portion 9) **Drain Basin:** Black River
Hydro Unit Code: 04150101/020 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Herkimer Co. (22)
Waterbody Size: 74.7 Miles **Quad Map:** FORESTPORT (H-20-1)
Seg Description: stream and select tribs, above Kayuta 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

Biological (macroinvertebrate) screening of the Upper Black River conducted in 1996 near Enos revealed a resident invertebrate fauna that was diverse and met screening criteria. Non-impacted water quality was clearly indicated. (DEC/DOW, BWAM, SBU, 1996)

This segment includes the total length of selected/smaller tribs to the Black River above Kayuta Lake (P984a). The waters of this portion of the river are Class C (T). Tribs to this reach/segment, including Otter Brook (-122) and South Branch Black River (-128), primarily Class C(T). Little Black Creek (-114) and Twin Lakes Stream (-119) are listed separately.

Little Black Creek, Lower, and tribs (0801-0236) NoKnownImpct

Waterbody Location Information

Revised: 01/10/2007

Water Index No: Ont 19-114 **Drain Basin:** Black River
Hydro Unit Code: 04150101/020 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 20.3 Miles **Quad Map:** NORTH WILMURT (H-20-2)
Seg Description: stream and tribs, from mouth to Wheelertown

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

NYSDEC Rotating Intensive Basin Studies (RIBS) Intensive Network monitoring of Little Black Creek in Bardwell Mill (Goldie Roberts Road), Oneida County, was conducted in 2003. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, sediment and invertebrate tissues analysis and toxicity evaluation. During this sampling the biological (macroinvertebrate) sampling results indicated non-impacted water quality conditions. The community was well-balanced and contained clean-water mayflies. These results are similar to biological screening results found in 2002. A concurrent fish community assessment also reflected good water quality, although he number of individuals was low. Water column sampling revealed mercury and aluminum to be parameters of concern. The mercury and aluminum results are not unusual for a region of the state typically impacted by atmospheric deposition and acid rain. Some lower pH values were also observed. Sediment chemistry analysis for these and other contaminants show no metals present above established levels of concern, and no compounds present in concentration likely to cause adverse biological effects to sediment-dwelling organisms. Macroinvertebrate tissue was not collected at this site metals so biological uptake of these two metals cannot be determined. Toxicity testing using water from this location resulted in a substantial reduction in reproductive rate and significant mortality to the test organisms in one of two tests. These effects are likely due to a combination of low water hardness, low pH and/or metals toxicity (specifically aluminum, indicated as a parameter of concern in the water column). Based on non-impacted

biological communities, aquatic life support is considered to be supported in the stream. However the combination of periodic low pH measurements, other parameters of concern and water toxicity suggests continued monitoring of conditions is warranted. (DEC/DOW, BWAM/RIBS, January 2005)

Biological (macroinvertebrate) screening of Little Black Creek near Bardwell Mill (at Roberts Road) were conducted in 2002 and 1996. Sampling results indicated non-impacted water quality conditions in most recent years and slightly impacted conditions in 1996. Sampling habitat of rock and rubble imbedded in sand was less than ideal but three of four indices were clearly in the range of non-impacted water quality for 2002. (DEC/DOW, BWAM/SBU, June 2005)

This segment includes the portion of the stream and all tribs from the mouth to/including Hare Brook (-6) in Wheelertown. The waters of this portion of the stream are Class C(T). Tribs to this reach/segment, including Muskrat Brook (-2) and Hare Brook (-6), are Class C,C(T). Upper Little Black Creek is listed separately.

Burp Lake, Black Creek Lake (0801-0139) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19-114..P995,P996
Hydro Unit Code: 04150101/020 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 108.9 Acres
Seg Description: total area of both lake

Drain Basin: Black River
Black 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
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

Aquatic life support in Burp Lake and other waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by ALSC (1985) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Burp Lake was included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Cotton Lake (P994) is also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

This segment includes Cotton Lake (P994).

Little Salmon Lake (0801-0140) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No:	Ont 19-128- 6-P1003	**Drain Basin:**	Black River
Hydro Unit Code:	04150101/020 **Str Class:** C(T)		Black River
Waterbody Type:	Lake	**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	32.1 Acres	**Quad Map:**	OHIO (H-21-0)
Seg Description:	entire lake		

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

Aquatic life support in Little Salmon Lake segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these waters indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1974) and ALSC (1985) revealed a pH between 5.5 and 6.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Little Salmon Lake is included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. (DEC/DOW, BWAM, 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.

North Lake (0801-0451) Impaired Seg

Waterbody Location Information

Revised: 03/09/2006

Water Index No:	Ont 19-P1007			**Drain Basin:**	Black River
Hydro Unit Code:	04150101/020	**Str Class:**	A(T)		Black River
Waterbody Type:	Lake			**Reg/County:**	6/Herkimer Co. (22)
Waterbody Size:	441.6 Acres			**Quad Map:**	OLD FORGE (G-21-0)
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

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 **Resolution Potential:** Low
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Further Details

Fish consumption in North Lake is known to be impaired by mercury contamination, a result of atmospheric deposition.

Fish consumption in North Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of 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 in 2004-05. (2006-07 NYS DOH Health Advisories and DEC/DFWMR, Habitat, December 2006).

North Lake is included on the NYS 2006 Section 303(d) List of Impaired Waters. The lake is included on Part 2b of the List as a Fish Consumption Water.

Minor Lakes Trib to North Lake (0801-0080) Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19-P1007..P1008 thru P1016
Hydro Unit Code: 04150101/020 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 52.3 Acres
Seg Description: total area of all selected lakes

Drain Basin: Black River
Black River
Reg/County: 6/Herkimer Co. (22)
Quad Map: OLD FORGE (G-21-0)

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

Aquatic life support in the waters of this segment is known to be impaired by low pH, a result of atmospheric deposition (acid rain).

Historical surveys of these lakes indicate that low pH due to acid deposition is limiting the fishery. Monitoring by DFW (1975) and ALSC (1984-85) revealed a pH <5.0 and no presence of fish. Aquatic life in this segment is considered to be impaired. The waters of this segment are included on the NYS 2006 Section 303(d) List of Impaired Waters. Snyder and Monument Lakes are included on Part 2a of the List as an Atmospheric Deposition (Acid Rain) Water. Gooseneck Lake (P1010) and unnamed pond (P1016) are also included on the 2006 Section 303(d) List in Appendix A as a Smaller Lake Impaired by Acid Rain. (DEC/DOW, BWAM, 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.

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 Monument Lake and Gooseneck 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)

This segment includes multiple lakes/ponds within the North Lake Watershed; including Mud Pond (P1008), Gooseneck (P1010), Snyder Lake (P1011), Monument Lake (P1012) and Hardscrabble Lake (P1015).

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Summary Listing of Priority Waters

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Black 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
Ont 19 (portion 1)	Black River, Lower, Main Stem (0801-0250) Fish Consumption SUSPECT of being STRESS	Jefferson	14.3 Mile	River	C	MinorImpacts Causes: Priority Organics, Pesticides Sources: Tox/Contam. Sediment, Unknown Source
Ont 19 (portion 2)	Black River, Lower, Main Stem (0801-0202) Water Supply KNOWN to be STRESSED Aquatic Life SUSPECTED of being STRESSED Fish Consumption POSSIBLY STRESSED	Jefferson	4.5 Mile	River	A	MinorImpacts Causes: Silt/Sediment, Nutrients, Priority Organics Sources: Comb. Sewer Overflow, Streambank Erosion, Tox/Con. Sedime...
Ont 19 (portion 3)	Black River, Middle, Main Stem (0801-0190) Aquatic Life KNOWN to be STRESSED Fish Consumption SUSPECT of being STRESS	Jefferson	24.3 Mile	River	C	MinorImpacts Causes: Priority Organics, Nutrients Sources: Tox/Contam. Sediment, Agriculture, Unknown Source
Ont 19 (portion 4)	Black River, Middle, Main Stem (0801-0251) Aquatic Life KNOWN to be STRESSED	Lewis	20.9 Mile	River	C	MinorImpacts Causes: Nutrients Sources: Agriculture
Ont 19- 1 thru 5	Minor Tribs to Black River (0801-0196) Aquatic Life KNOWN to be THREATENED Recreation KNOWN to be THREATENED	Jefferson	53.1 Mile	River	C	Threatened Causes: D.O./Oxygen Demand, Nutrients Sources: Construction, Private/Comm/Inst, Failing On-Site Syst
Ont 19- 6 **Section 303(d) Listed Water**	Kelsey Creek and tribs (0801-0191) Aquatic Life KNOWN to be IMPAIRED Fish Consumption SUSPECT of being STRESS	Jefferson	13.4 Mile	River	C	Impaired Seg Causes: Priority Organics Sources: Industrial, Tox/Contam. Sediment
Ont 19- 7 thru 11	Minor Tribs to Black River (0801-0256) Aquatic Life KNOWN to be STRESSED Recreation KNOWN to be STRESSED	Jefferson	18.2 Mile	River	C	MinorImpacts Causes: D.O./Oxygen Demand, Nutrients Sources: Failing On-Site Syst

Black 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
Ont 19- 31-18	Smith Creek and tribs (0801-0266) Aquatic Life SUSPECTED of being STRESSED	Lewis	16.1 Mile	River	C(T)	MinorImpacts Causes: Nutrients Sources: Agriculture
Ont 19- 40 (portion 1)	Beaver River, Lower, and tribs (0801-0197) Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED Aesthetics KNOWN to be IMPAIRED	Lewis	56.5 Mile	River	C	Impaired Seg Causes: Aesthetics, D.O./Oxygen Demand, Pathogens Sources: Failing On-Site Syst
Ont 19- 40 (portion 3)/P418 **Section 303(d) Listed Water**	High Falls Pond (0801-0274) Fish Consumption KNOWN to be IMPAIRED	Lewis	185.3 Acre	Lake	C(T)	Impaired Seg Causes: Metals Sources: Atmosph. Deposition
Ont 19- 40 (portion 4a) **Section 303(d) Listed Water**	Taylorville, Elmer Falls Ponds (0801-0276) Fish Consumption KNOWN to be IMPAIRED	Lewis	146.5 Acre	Lake	C(T)	Impaired Seg Causes: Metals Sources: Atmosph. Deposition
Ont 19- 40 (portion 5)/P426 **Section 303(d) Listed Water**	Effley Falls Reservoir (0801-0172) Fish Consumption KNOWN to be IMPAIRED Aquatic Life SUSPECTED of being STRESSED	Lewis	339.3 Acre	Lake(R)	C(T)	Impaired Seg Causes: Metals Sources: Atmosph. Deposition
Ont 19- 40 (portion 7)/P431,434 **Section 303(d) Listed Water**	Soft Maple Pd, Soft Maple Reservoir (0801-0173) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED	Lewis	425.0 Acre	Lake(R)	C(T)	Impaired Seg Causes: Metals Sources: Failing On-Site Syst
Ont 19- 40 (portion 9)/P449 **Section 303(d) Listed Water**	Beaver Lake, Beaver Meadow Pond (0801-0174) Fish Consumption KNOWN to be IMPAIRED Recreation POSSIBLY STRESSED	Lewis	326.4 Acre	Lake	B(T)	Impaired Seg Causes: Metals Sources: Atmosph. Deposition

Black 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				
Ont 19- 40 (portion 10)	Beaver River, Upper, and tribs (0801-0210) Aquatic Life KNOWN to be STRESSED	Oneida	108.6 Mile	River	C	MinorImpacts
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40 (portion 11)/P478 **Section 303(d) Listed Water**	Moshier Reservoir (0801-0194) Fish Consumption KNOWN to be IMPAIRED	Oneida	281.1 Acre	Lake(R)	C(T)	Impaired Seg
		Causes: Metals Sources: Atmosph. Deposition				
Ont 19- 40- 7-P416,P417	Lower, Upper West Pond (0801-0284) Aquatic Life KNOWN to be IMPAIRED	Lewis	12.8 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-10-P419,P420 **Section 303(d) Listed Water**	Goose Pond, Meister Pond (0801-0286) Aquatic Life SUSPECTED of being IMPAIRED	Lewis	6.4 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-15- 4-P436 **Section 303(d) Listed Water**	Sand Pond (0801-0055) Aquatic Life KNOWN to be IMPAIRED	Lewis	74.6 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-18- 3-P441,442	Crooked Lake, McCabe Pond (0801-0144) Aquatic Life KNOWN to be IMPAIRED	Lewis	44.7 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-18..P443 thru P448 **Section 303(d) Listed Water**	Pepperbox Pd, Spring Pds, Tied Lake (0801-0076) Aquatic Life KNOWN to be IMPAIRED	Lewis	31.4 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-18a/P449..P451 **Section 303(d) Listed Water**	Francis Lake (0801-0192) Fish Consumption KNOWN to be IMPAIRED	Lewis	134.4 Acre	Lake	C(T)	Impaired Seg
		Causes: Metals Sources: Atmosph. Deposition				

Black 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				
Ont 19- 40-19-P456 thru P459 **Section 303(d) Listed Water**	Mnr Lks Trib to Three Mile Cr Wshed (0801-0453) Aquatic Life KNOWN to be IMPAIRED	Oneida	0.0 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-20-P473, P474 **Section 303(d) Listed Water**	Sunday Lake, Sunday Creek Reservoir (0801-0195) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED	Oneida	19.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Metals, Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-22-P479 thru P492 **Section 303(d) Listed Water**	Minor Lakes Trib to Moshier Creek (0801-0039) Aquatic Life KNOWN to be IMPAIRED	Oneida	147.3 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-22-P489 **Section 303(d) Listed Water**	Lower Moshier Pond (0801-0049) Aquatic Life KNOWN to be IMPAIRED	Oneida	14.3 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493 **Section 303(d) Listed Water**	Stillwater Reservoir (0801-0281) Fish Consumption KNOWN to be IMPAIRED	Oneida	6195.1 Acre	Lake(R)	C(T)	Impaired Seg
		Causes: Metals Sources: Atmosph. Deposition				
Ont 19- 40-P493- 2-P494,P496 **Section 303(d) Listed Water**	Shallow Pond, Raven Lake (0801-0107) Aquatic Life KNOWN to be IMPAIRED	Oneida	121.6 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493- 2-P498 **Section 303(d) Listed Water**	Lyons Lake (0801-0109) Aquatic Life KNOWN to be IMPAIRED	Oneida	96.1 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493- 3-P499 **Section 303(d) Listed Water**	Slim Pond (0801-0125) Aquatic Life KNOWN to be IMPAIRED	Oneida	12.8 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				

Black River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type Cause/Source Information	Class	W.B.Category
Ont 19- 40-P493- 4-P500 **Section 303(d) Listed Water**	Evergreen Lake (0801-0110) Aquatic Life KNOWN to be IMPAIRED	Oneida	57.6 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 40-P493- 5-P502,P505 **Section 303(d) Listed Water**	Peaked Mountain Lake, Hidden Lake (0801-0111) Aquatic Life KNOWN to be IMPAIRED	Oneida	51.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 40-P493- 6- 1-P504 **Section 303(d) Listed Water**	Hawk Pond (0801-0044) Aquatic Life KNOWN to be IMPAIRED	Oneida	34.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	FP	Impaired Seg
Ont 19- 40-P493- 6..P508,P511 **Section 303(d) Listed Water**	Ginger Pond, Soda Pond (0801-0126) Aquatic Life KNOWN to be IMPAIRED	Oneida	32.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 40-P493- 6..P515 **Section 303(d) Listed Water**	Dismal Pond (0801-0065) Aquatic Life KNOWN to be IMPAIRED	Oneida	53.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 40-P493- 7-P517 **Section 303(d) Listed Water**	Salmon Lake (0801-0054) Aquatic Life KNOWN to be IMPAIRED	Oneida	110.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 40-P493..P522 thru 535 **Section 303(d) Listed Water**	Minor Lake Tribs to Red Horse Creek (0801-0068) Aquatic Life KNOWN to be IMPAIRED	Oneida	94.5 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 40-P493- 7-P528 **Section 303(d) Listed Water**	Witchhopple Lake (0801-0062) Aquatic Life KNOWN to be IMPAIRED	Oneida	92.9 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg

Black 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				
Ont 19- 40-P493..P547 thru 565	Minor Lk Tribs to Shingle Shanty Br (0801-0149) Aquatic Life SUSPECTED of being IMPAIRED	Oneida	160.3 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493-21- 1-P568	Rose Pond (0801-0308) Aquatic Life SUSPECTED of being IMPAIRED	Oneida	44.7 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493-21- 1-P570 **Section 303(d) Listed Water**	Terror Lake (0801-0018) Aquatic Life KNOWN to be IMPAIRED	Oneida	61.8 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493-21-P571 **Section 303(d) Listed Water**	East Pond (0801-0066) Aquatic Life KNOWN to be IMPAIRED	Oneida	26.2 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493-32 **Section 303(d) Listed Water**	Twitchell Creek and tribs (0801-0211) Aquatic Life KNOWN to be IMPAIRED	Oneida	31.6 Mile	River	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493..P578 thru 587 **Section 303(d) Listed Water**	Minor Lakes Trib to Twitchell Creek (0801-0077) Aquatic Life KNOWN to be IMPAIRED	Oneida	113.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493-32-P580 **Section 303(d) Listed Water**	Silver Lake (0801-0150) Aquatic Life KNOWN to be IMPAIRED	Oneida	57.7 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 40-P493-32-P584 **Section 303(d) Listed Water**	Twitchell Lake (0801-0165) Aquatic Life KNOWN to be IMPAIRED	Oneida	134.4 Acre	Lake	A(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				

Black River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type Cause/Source Information	Class	W.B.Category
Ont 19- 51	Mill Creek/South Branch, and tribs (0801-0200) Aquatic Life KNOWN to be IMPAIRED Recreation KNOWN to be IMPAIRED	Lewis	34.3 Mile	River Causes: Nutrients, Pathogens Sources: Agriculture	C	Impaired Seg
Ont 19- 51	North Branch Mill Creek, and tribs (0801-0317) Aquatic Life KNOWN to be STRESSED Recreation KNOWN to be STRESSED	Lewis	36.8 Mile	River Causes: Nutrients, Pathogens Sources: Agriculture	C	MinorImpacts
Ont 19- 57	Independence River, Lower, and tribs (0801-0220) Aquatic Life SUSPECTED of being STRESSED	Lewis	36.2 Mile	River Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)*	MinorImpacts
Ont 19- 57- 5-P608,P610,P615	Evies Pond, Long Lake, Fish Pond (0801-0323) Aquatic Life SUSPECTED of being IMPAIRED	Lewis	50.9 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 57- 7..P628,P630 **Section 303(d) Listed Water**	Trout Pond, Bills Pond (0801-0127) Aquatic Life KNOWN to be IMPAIRED	Lewis	51.4 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 57- 9/10..P632 thru 638 **Section 303(d) Listed Water**	Panther Pd, Fifth Cr Pd, Lennon Pd (0801-0075) Aquatic Life KNOWN to be IMPAIRED	Lewis	51.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 57- P619,P622,P625 **Section 303(d) Listed Water**	Cleveland,Payne,Hcklbry,Halfmn Lks (0801-0193) Fish Consumption KNOWN to be IMPAIRED	Lewis	61.9 Acre	Lake Causes: Metals Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 57-25-P647	Independence Lake (0801-0327) Aquatic Life SUSPECTED of being IMPAIRED	Oneida	51.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	AA(T)	Impaired Seg

Black 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
Ont 19- 57-P651 **Section 303(d) Listed Water**	Little Diamond Pond (0801-0153) Aquatic Life KNOWN to be IMPAIRED	Oneida	12.8 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 60- 5-P664	Little Otter Lake (0801-0336) Aquatic Life SUSPECTED of being IMPAIRED	Lewis	44.7 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 60-P674 thru P684 **Section 303(d) Listed Water**	Minor Lakes Trib to Upper Otter Cr (0801-0041) Aquatic Life KNOWN to be IMPAIRED	Oneida	69.9 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81	South Br Moose R, Upp, and mnr tribs (0801-0346) Aquatic Life KNOWN to be STRESSED	Oneida	99.1 Mile	River	C(T)	MinorImpacts
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81- 7- 1..P702 thru P708	Minor Lakes Trib to Upper Pine Creek (0801-0072) Aquatic Life SUSPECTED of being IMPAIRED	Herkimer	136.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17 **Section 303(d) Listed Water**	North Branch Moose R and mnr tribs (0801-0212) Aquatic Life KNOWN to be STRESSED	Herkimer	65.3 Mile	River	C(T)	MinorImpacts
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17-14-P736..P738	Thirsty Pond (0801-0361) Aquatic Life SUSPECTED of being IMPAIRED	Herkimer	38.3 Acre	Lake	A(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17-P750 **Section 303(d) Listed Water**	Dart Lake (0801-0242) Fish Consumption KNOWN to be IMPAIRED	Herkimer	140.8 Acre	Lake	A	Impaired Seg
		Causes: Metals Sources: Atmosph. Deposition				

Black 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				
Ont 19- 81-18-17-P752 **Section 303(d) Listed Water**	Big Moose Lake (0801-0035) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED	Herkimer	1286.4 Acre	Lake	A(T)	Impaired Seg
		Causes: Metals, Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17-P752- **Section 303(d) Listed Water**	Tribs to Big Moose Lake (0801-0213) Aquatic Life KNOWN to be IMPAIRED	Herkimer	60.2 Mile	River	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17..P768,P769 **Section 303(d) Listed Water**	Lower, Upper Sister Lakes (0801-0004) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED	Herkimer	163.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Metals, Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17-P752- 7-P772 **Section 303(d) Listed Water**	South Pond (0801-0057) Aquatic Life KNOWN to be IMPAIRED	Herkimer	25.7 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17-P752- 8-P774 **Section 303(d) Listed Water**	Russian Lake (0801-0006) Fish Consumption KNOWN to be IMPAIRED Aquatic Life KNOWN to be IMPAIRED	Herkimer	37.3 Acre	Lake	C	Impaired Seg
		Causes: Metals, Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17..P753 to 767 **Section 303(d) Listed Water**	Minor Lks Trib to Big Moose Lk, NW (0801-0050) Aquatic Life KNOWN to be IMPAIRED	Herkimer	84.9 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17-P752..P760 **Section 303(d) Listed Water**	Otter Pond (0801-0016) Aquatic Life KNOWN to be IMPAIRED	Herkimer	11.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-17..P775 to 779 **Section 303(d) Listed Water**	Minor Lks Trib to Big Moose Lk, SE (0801-0033) Aquatic Life KNOWN to be IMPAIRED	Herkimer	199.8 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				

Black 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
Ont 19- 81-18-17-P752..P777 **Section 303(d) Listed Water**	Constable Pond (0801-0214) Aquatic Life KNOWN to be IMPAIRED	Herkimer	70.7 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-P782a thru P782d **Section 303(d) Listed Water**	Fulton Chain Lks, First thru Fourth Lk (0801-0373) Fish Consumption KNOWN to be IMPAIRED	Herkimer	3315.3 Acre	Lake	A	Impaired Seg
		Causes: Pesticides Sources: Chemical Leak/Spill, Tox/Contam. Sediment				
Ont 19- 81-18-P782a..P786/787- **Section 303(d) Listed Water**	Tribs to Fulton Chain Lakes (0801-0207) Aquatic Life KNOWN to be IMPAIRED	Hamilton	25.9 Mile	River	C(T)*	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-18-P782a..P788 **Section 303(d) Listed Water**	Eagle Nest Pond, more (0801-0011) Aquatic Life KNOWN to be IMPAIRED	Hamilton	11.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-51- 2..P836,P837 **Section 303(d) Listed Water**	Stink Lake, Balsam Lake (0801-0034) Aquatic Life KNOWN to be IMPAIRED	Herkimer	88.9 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-52..P841 **Section 303(d) Listed Water**	Kettle Pond, more (0801-0131) Aquatic Life KNOWN to be IMPAIRED	Herkimer	6.4 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-58..P852 **Section 303(d) Listed Water**	Indian Lake (0801-0002) Aquatic Life KNOWN to be IMPAIRED	Hamilton	82.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19- 81-58..P854,P855 **Section 303(d) Listed Water**	Horn Lake, Mountain Lake, more (0801-0052) Aquatic Life KNOWN to be IMPAIRED	Hamilton	53.4 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				

Black River Basin Priority Waterbodies List Table 1

Water Index Number	Waterbody/Segment Name (ID) Use Impairment(s)	County	Seg Size	Type Cause/Source Information	Class	W.B.Category
Ont 19- 81-58..P862 thru P875 **Section 303(d) Listed Water**	Minor Lakes Trib to Indian River (0801-0010) Aquatic Life KNOWN to be IMPAIRED	Hamilton	77.9 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 81-58..P874 **Section 303(d) Listed Water**	Brooktrout Lake (0801-0009) Aquatic Life SUSPECTED of being IMPAIRED	Hamilton	70.9 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 81-60..P876 thru P880	Minor Lakes Trib to Benedict Creek (0801-0029) Aquatic Life KNOWN to be IMPAIRED	Hamilton	68.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 81-61- 4-P885	Falls Pond (0801-0399) Aquatic Life SUSPECTED of being IMPAIRED	Hamilton	36.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 81-69-P888 **Section 303(d) Listed Water**	Sly Pond (0801-0007) Aquatic Life KNOWN to be IMPAIRED	Hamilton	20.8 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 81-71- 2- 1-P889 **Section 303(d) Listed Water**	Cellar Pond (0801-0001) Aquatic Life KNOWN to be IMPAIRED	Hamilton	6.4 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg
Ont 19- 88-P905 **Section 303(d) Listed Water**	Barnes Lake (0801-0134) Aquatic Life KNOWN to be IMPAIRED	Lewis	6.4 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C	Impaired Seg
Ont 19- 88-P907	Round Pond (0801-0407) Aquatic Life SUSPECTED of being IMPAIRED	Lewis	13.1 Acre	Lake Causes: Acid/Base (pH) Sources: Atmosph. Deposition	C(T)	Impaired Seg

Black 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				
Ont 19- 91	Sugar River, Lower, and minor tribs (0801-0231) Aquatic Life SUSPECTED of being STRESSED	Lewis	86.2 Mile	River	C(T)	MinorImpacts
		Causes: Nutrients Sources: Agriculture				
Ont 19- 94- 1-P922- 4-P926	Otter Lake (0801-0205) Recreation KNOWN to be STRESSED	Oneida	134.4 Acre	Lake	A	MinorImpacts
		Causes: Algal/Weed Growth Sources: Hydro Modification				
Ont 19-104- 2- 5-P948	Dead Lake, more (0801-0427) Aquatic Life SUSPECTED of being IMPAIRED	Herkimer	7.9 Acre	Lake	C	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19-104- 2-P951,-1-P952 **Section 303(d) Listed Water**	Little Woodhull Lake, Lily Lake (0801-0070) Aquatic Life KNOWN to be IMPAIRED	Herkimer	99.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19-114..P995,P996 **Section 303(d) Listed Water**	Burp Lake, Black Creek Lake (0801-0139) Aquatic Life KNOWN to be IMPAIRED	Herkimer	108.9 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19-128- 6-P1003 **Section 303(d) Listed Water**	Little Salmon Lake (0801-0140) Aquatic Life KNOWN to be IMPAIRED	Herkimer	32.1 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				
Ont 19-P1007 **Section 303(d) Listed Water**	North Lake (0801-0451) Fish Consumption KNOWN to be IMPAIRED	Herkimer	441.6 Acre	Lake	A(T)	Impaired Seg
		Causes: Metals Sources: Atmosph. Deposition				
Ont 19-P1007..P1008 thru 1016 **Section 303(d) Listed Water**	Minor Lakes Trib to North Lake (0801-0080) Aquatic Life KNOWN to be IMPAIRED	Herkimer	52.3 Acre	Lake	C(T)	Impaired Seg
		Causes: Acid/Base (pH) Sources: Atmosph. Deposition				

The Waterbody Inventory Priority Waterbodies List Assessment Methodology

Assessment methodology refers to what monitoring approaches are used and how results are interpreted to determine use support and arrive at an assessment of water quality. The various aspects of assessment methodology include the type of monitoring data and water quality information used in the assessments, the source of the data/information, and the level of confidence in the data/information and the resulting assessment. What follows is an outline of specific criteria relating 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.

WI/PWL Water Uses

- Water Supply
- Shellfishing
- Public Bathing
- Fish Consumption
- Aquatic Life
- Recreation
- Aesthetics

Waterbody Inventory/Priority Waterbodies List

NYS DEC maintains use support/impairment information for the waters of the state through its Waterbody Inventory/Priority Waterbodies List (WI/PWL) database. The assessment of New York State water resources contained in the WI/PWL is based on the ability of waters to support a range of specific designated uses (see box). The particular uses that a specific waterbody are expected to support is dependent upon the classification of that waterbody. For example, only specifically designated waterbodies are considered to have best uses of water supply, shellfishing and public bathing.

WI/PWL Severity of Use Impairment

PRECLUDED

Frequent/persistent water quality, or quantity, conditions and/or associated habitat degradation *prevents all aspects* of the waterbody use.

IMPAIRED

Occasional water quality, or quantity, conditions and/or habitat characteristics *periodically prevent* the use 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, but *occasional* water quality, or quantity, conditions and/or associated habitat degradation *periodically discourage* the use of the waterbody.

THREATENED

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, or;
Monitoring *data reveals a decrease in water quality* or the presence of toxics below the level of concern, or;
Waterbody uses are not restricted and no water quality problems exists, but the support of a specific and distinctive use makes the waterbody more susceptible to water quality threats.

The use support/impairment information in the WI/PWL database is generated from a variety of available sources including statewide ambient network monitoring data, monitoring of toxic substances in fish and wildlife, special intensive surveys, fisheries resource surveys, water quality complaints, beach closure reports, shellfish area closures, etc. Given the growing involvement of local agency and citizen volunteers in water quality monitoring, the WI/PWL updating process also includes a significant public participation and outreach component. This effort relies on a statewide network of local Water Quality Coordinating Committees and county Soil and Water Conservation Districts working in conjunction with the DEC Division of Water to capture additional available water quality information.

After available water quality information is collected, judgements and evaluations are made regarding:

- whether an impairment to a specific use is actually occurring,
- the severity of the impairment to the use, and
- the level of documentation indicating a use impairment.

The focus of a water quality assessment is based on a specific use being restricted. If this is the case, then the severity of use impairment is evaluated as either *precluded*, *impaired*, *stressed* or *threatened*. Based on the level of documentation, the impairment is also determined to be *known*, *suspected* or *possible*. The national use support categories used by USEPA to assess waters differ somewhat from those tracked in the NYS DEC Waterbody Inventory/Priority Waterbodies List system. The general relationship between the USEPA Designated Use Support categories (fully supporting, partially supporting, not supporting) and the WI/PWL severity and documentation categories is shown in Table 1. More detailed relationships between specific monitoring and assessment results and various uses supported are outlined and discussed on the following pages.

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 - Anecdotal evidence, public perception and/or specific citizen complaints *suggest* 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 - 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.

Documentation of Waters with *No Known Impairment*

Historically, limited resources forced the NYS DEC monitoring effort to focus on waterbodies with known or suspected water quality problems and issues. Correspondingly, there was not much emphasis on the monitoring and documentation of waters with good (*fully supporting*) water quality. However, modifications to the NYS DEC Rotating Intensive Basin Studies (RIBS) Sampling Program to correct this bias were piloted in 1996 and began in earnest in 1998. The new RIBS strategy employs a tiered approach where rapid biological screening methods are applied at a large number of sites during the first year of a two-year study. This enables the program to document water quality in a greater percentage of all waters, not just those with known or potential problems. More intensive chemical monitoring is used in the second year to follow-up problems and issues identified by the biological screening effort. While resources are not currently available for a full-blown *probabilistic* monitoring network in the state, the wide coverage of the biological screening allows the RIBS Program to incorporate some of the main ideas behind the probabilistic approach and document good, as well as poor, water quality. However, until the biological screening is employed in a larger percentage of the state, waterbodies with no known use impairments will continue to be characterized as *nonimpacted/unassessed*.

Table 1 **Relationships Between USEPA Designated Use Assessments and WI/PWL Severity/Documentation Categories**

Severity of Problem	Level of Problem Documentation		
	Known Problem	**Suspected Problem**	**Possible Problem**
Precluded	Not Supporting	N/A	N/A
Impaired	Partially Supporting	Partially Supporting	N/A
Stressed	Supporting, but Threatened	Supporting, but Threatened	Fully Supporting (needs verification)
Threatened	Supporting, but Threatened	Fully Supporting (needs verification)	Fully Supporting (*Special Protection*)
No Known Impairment	Fully Supporting		

Aquatic Life Use

The primary focus of the NYS DEC river and stream monitoring effort involves determining the degree to which waters support aquatic life. There are a number of reasons for this emphasis:

- Aquatic life is the most significant use of the large majority of the states rivers,
- Aquatic life use support can be assessed easily and economically using biological (macroinvertebrate) sampling techniques,
- Aquatic life use support is one of the most sensitive of the national use support categories.

The evaluation of Aquatic Life 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*. This was a reflection of the designated uses outlined in New York State standards. However, the change to the broader category of *Aquatic Life* better represents the results of the monitoring tools (primarily macroinvertebrate sampling) used to assess water quality. The change from *Fish Propagation/Survival* to *Aquatic Life* 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 other New England State's and the USEPA national use support category.

The relationship between biological (macroinvertebrate) sampling data and the impairment to *Aquatic Life* support is shown in Table 2.

Atmospheric Deposition (Acid Rain) Impacts on *Aquatic Life*

In addition to the biological (macroinvertebrate) assessment criteria outlined in Table 2, separate criteria to determine aquatic life support is applied to waterbodies, particularly lakes and ponds, that are subject to atmospheric deposition, or acid rain. Acid rain has long been a significant problem in New York State. Because of the extent and significance of this issue, extensive chemical sampling efforts to monitor the pH of lakes and ponds in the state have long been in place. The separate aquatic life use support/acid rain criteria takes advantage of the considerable amount of available chemical (pH) data. The relationship between chemical (pH) monitoring data and the impairment to aquatic life is shown in Table 3.

Table 2 Aquatic Life Use Assessment Criteria

Biological (Macroinvertebrate) Assessment		WI/PWL Use Impairment		EPA Designated Use Support
		Severity	Documentation	
Non-Impacted (Very Good)		No Known Impairment	Assessment Level: *Monitored*	Fully Supporting
Slightly Impacted* (Good)	No other indications of impairment	No Known Impairment	Assessment Level: *Evaluated*	Fully Supporting
	Other indications of impairment present	Stressed	Suspected or Known	Fully Supporting, but Threatened
Moderately Impacted (Poor)		Impaired	Known	Partially Supporting
Severely Impacted (Very Poor)		Precluded	Known	Not Supporting

* *Slightly Impacted* represents a broad category ranging from generally good water quality to minor impairment of use. Other water quality information and conditions are generally necessary to determine an appropriate level of *Documentation* and corresponding *USEPA Designated Use Support*.

Table 3 Acid Rain/Aquatic Life Assessment Criteria

Lake pH/Fishery Assessment	WI/PWL Use Impairment		EPA Designated Use Support
	Severity	Documentation	
pH less than 5.0	Precluded	Known	Not Supporting
pH between 5.0; and 6.0	Impaired	Known	Partially Supporting
pH greater than 6.0, but fishery surveys indicate no fish, and lake characteristics suggest acid rain as cause	Impaired*	Suspected*	Partially Supporting
other indications of acid rain**	Stressed	Suspected	Fully Supporting, but Threatened
No indications of acid rain effects	No Known Impairment	Assessment: *Evaluated*	Fully Supporting

* Actual use impairment and relationship to acid rain as a cause should be verified with additional monitoring.

** Lake characteristics may indicate possible acid rain effects, but no pH/fish data exists to support an impairment.

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).

Drinking Water Use

Drinking water use support is based on New York State Department of Health or local health department closures or advisories for drinking water supplies, the need for any additional treatment beyond "reasonable" levels, and monitoring data for contaminants that exceed criteria for the protection of human health. Only those waters specifically designated for drinking water use (i.e., Class A, AA, A/AA-Special waters) are evaluated for their support of this use. Furthermore, waterbodies designated for and used as sources of drinking water are considered highly valued resources deemed worthy of *Special Protection*. Even if such waters have no known impairment or imminent threat, these waters are included on the NYS DEC Priority Waterbodies List as *Special Protection* waters. The relationship between public water supply advisories and other monitoring information and the level of drinking water use support is outlined in Table 4.

Table 4 Drinking Water Use Assessment Criteria

Criteria	WI/PWL Use Impairment		EPA Designated Use Support
	Severity	Documentation	
Frequent/Persistent Conditions Prevent Use • One or more NYS DOH Drinking water supply closures resulting in closure of the supply for more than 30 days.	Precluded	Known	Not Supporting
Occasional Conditions Prevent Use • One or more NYS DOH drinking water supply closures resulting in closure of the supply for less than 30 days, or	Impaired	Known	Partially Supporting
Frequent/Persistent Conditions Discourage Use • Problems that do not require closure or advisories but adversely affect treatment costs and/or the quality of the finished water (e.g., taste/odors, color, excessive turbidity/dissolved solids, need for activated charcoal filters, etc.). • Monitoring data exceeds contaminant criteria* more than 25% of time.	Impaired	Known or Suspected	Partially Supporting
Occasional Conditions Discourage Use • Monitoring data exceeds contaminant criteria* more than 10% of time.	Stressed	Suspected	Full Support (Threatened)
Conditions Support Uses, Threats Noted • Contaminants are present, but at levels sufficiently low that routine treatment results in acceptable drinking water.	Threatened	Known or Suspected	Full Support or Full Support, (Threatened)
No Known Impairments or Imminent Threats • No drinking water restrictions, and • No additional treatment required, and • No known contaminants present.	*Special Protection Waters**		Full Support

* Waterbodies designated as drinking water sources (Class A and higher) are considered highly valued resources deemed worthy of *Special Protection*. Regardless of impairment, these waters are included on the NYS DEC Priority Waterbodies List.

Fish Consumption Use

The assessment of fish consumption use is based on NYS DOH 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 NYS DEC Division of Fish Wildlife and Marine Resources routinely monitors contaminant levels in fish and game. Based on this monitoring data, NYS DOH issues advisories for specific waterbodies and species when contaminant levels in sportfish exceed the federal standards. These advisories are updated and published annually.

Because the general advisory for eating sportfish is precautionary and is not based on any actual contaminant monitoring data, it does not represent any documented impairment of fish consumption use. Consequently, the general statewide advisory is not reflected in this assessment of fish consumption use.

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 State freshwaters and some marine water at the mouth of the Hudson River. This general advisory is to protect against eating large amounts of fish

Table 5 Fish Consumption Use Assessment Criteria

Criteria	WI/PWL Use Impairment		EPA Designated Use Support
	Severity	Documentation	
Frequent/Persistent Conditions Prevent Use • NYS DOH advisory recommends eating no fish (or none of sub-species) from specific waterbody.	Precluded	Known	Not Supporting
Periodic/Occasional Conditions Prevent Use • NYS DOH advisory recommends limiting consumption of fish from a specific waterbody. • Monitoring of fish tissue show contaminant levels that exceed levels of concern, but NYS DOH advisory has not been issued.	Impaired	Known or Suspected	Partially Supporting
Occasional (Other) Conditions Discourage Use • Monitoring of macroinvertebrate tissue or surficial bottom sediment show contaminant levels that exceed levels of concern.	Stressed	Suspected	Fully Supporting (Threatened)
Conditions Support Use, Threats Noted • Monitoring of fish (known), macroinvertebrate tissue/bottom sediment (suspected) show contaminant levels present but not exceeding levels of concern.	Threatened	Known or Suspected	Full Support or Full Support (Threatened)
No Known Impairment or Imminent Threats • No fish consumption advisory beyond the NYS DOH *General Advisory for Eating Gamefish*, and • Monitoring data revealing no contaminants in fish, macroinvertebrate tissue or surficial bottom sediment above background levels.	No Known Impairment	Assessment Level: *Monitored*	Full Support

that have not been tested or that may contain unidentified contaminants. It does not apply to most marine waters. Because the general statewide advisory is precautionary and is not based on any actual contaminant monitoring data, it does not represent any documented impairment of fish consumption use.
Consequently, the general statewide advisory is not reflected in the assessment of fish consumption use.

The relationship between the waterbody-specific fish consumption advisories and the severity and documentation of an impairment to fish consumption use is reflected in Table 5.

Shellfishing Use

Marine Resources staff from the NYS DEC Division of Fish Wildlife and Marine Resources (DFWMR) assess the quality of nearly 1,200,000 acres of marine waters for shellfishing purposes. DFWMR certification of shellfishing areas is based on bacteriological water quality and evaluation of potential pollution sources by shoreline surveys. Only those waters specifically classified for shellfishing use (i.e., Class SA waters) are evaluated for their support of this use.

Restrictions on shellfishing are based on either water quality (bacteriological) monitoring results and/or on the proximity to and expected impact of known discharges and potential sources of contamination.

The relationship between the shellfishing certification and the severity and documentation of an impairment to shellfishing use is reflected in Table 6.

Table 6 Shellfishing Use Assessment Criteria

Criteria	WI/PWL Use Impairment		EPA Designated Use Support
	Severity	Documentation	
Frequent/Persistent Conditions Prevent Use • NYS DEC Division of Fish Wildlife and Marine Resources (DFWMR) has issued a year-round shellfishing closure for the water.	Precluded	Known	Not Supporting
Periodic/Occasional Conditions Prevent Use • DFWMR has issued a seasonal or partial shellfishing closure for the water.	Impaired	Known	Partially Supporting
Occasional (Other) Conditions Discourage Use • ???	Stressed	Known or Suspected	Full Support, Threatened
Conditions Support Use, but Threats Noted • Shellfish Land Certification monitoring reveals contaminant above background, but not sufficient to warrant shellfish bed closure.	Threatened	Known	Full Support (Threatened)
No Known Impairment or Threat to Use • DFWMR has certified (opened) the water for direct market harvesting of shellfish, and • Shellfish Land Certification monitoring (DFWMR) reveals no contaminants above background levels.	No Known Impairment	Assessment Level: *Monitored*	Full Support

Public Bathing and Recreation Uses

Swimming and public recreation are important and popular uses for the waters of the state. The assessment of these wide range of activities involves two separate use categories: *Public Bathing* and *Recreation*.

Table 7 Public Bathing/Recreation Use Assessment Criteria

Criteria	WI/PWL Use Impairment		EPA Designated Use Support
	Severity	Documentation	
Frequent/Persistent Conditions Prevent Uses • State/local/county health department has closed beach/water to swimming for the entire season.	Precluded	Known	Not Supporting
Periodic/Occasional Conditions Prevent Uses • State/local/county health department has issued temporary beach closure for the waterbody. • Sufficient stream flow/water level necessary to support recreational uses are artificially restricted.	Impaired	Known	Partially Supporting
Frequent/Persistent Conditions Discourage Uses • Recreational Uses of water require additional measures (e.g., weed harvesting/control). • Monitoring data exceeds *Impaired* criteria* more than 10% (suspected) or 25% (known) of time. • Observational criteria* for restricted use noted more than 75% of the time.	Impaired	Known or Suspected	
Occasional (Other) Conditions Discourage Uses • Monitoring data exceeds *Stressed* criteria* more than 10% (suspected) or 25% (known) of time. • Observational criteria* for restricted use noted more than 25% of the time.	Stressed	Known or Suspected	Full Support (Threatened)
Conditions Support Uses, but Threats Noted • Data exceeds *Threatened* criteria* more than 10% (suspected) or 25% (known) of time. • Observational criteria* for restricted use noted more than 10% of the time.	Threatened	Known or Suspected	Full Support or Full Support, (Threatened)
No Known Impairments or Threats to Uses • Monitoring data does not exceed use restriction criteria more than 10% of time. • Observational criteria* for restricted use noted less than 10% of the time.	No Known Impairment	Assessment Level: *Monitored*	Full Support

* **Monitoring Data Criteria**	*Impaired*	*Stressed*	*Threatened*
Total Phosphorus	40 µg/l	30 µg/l	20 µg/l
Chlorophyl a	15 µg/l	12 µg/l	8 µg/l
Clarity (Secchi Disc)	1.2 m	1.5 m	2.0 m

*** Observational Data Criteria**

Swimming/recreation are slightly (or more seriously) restricted by specifically identified causes (algae, clarity, odors, etc). (C=3,4 or 5) and (A=3,4,5 & D=1,2 >50%)

Observational Criteria refers to responses to specific questions on *CSLAP Field Observation Forms*.

Evaluation of *Public Bathing* use is limited to only those waters classified by New York State for primary contact recreation (i.e., Class B, SB, or higher waters). This classification applies to waters specifically designated as public beaches and bathing areas, which have a higher level of swimming use and are more regularly monitored by public health agencies.

The broader *Recreation* use category tracks impairments to a more expansive list of recreational uses, such as fishing, boating, water skiing, and other primary/secondary contact activities, including swimming. The *Recreation* category addresses the federal Clean Water Act goal that all waters be "swimmable." * 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 the varying levels of monitoring, *Public Bathing* waters are evaluated separately from other waters for *Recreation* uses.

> 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.

The assessment of *Public Bathing* and *Recreation* uses rely on various water quality indicators. For waters used as public bathing areas state and local/county health departments conduct regular bacteriological sampling programs and perform sanitary surveys. 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 stormwater runoff.

In addition to swimming restrictions due to bacteriological contamination, the swimming/recreation uses of some waters are discouraged by other water quality conditions. Excessive weed growth, silty/muddy lake bottoms, and poor water clarity all represent lesser impairment of waters for public bathing use.

The relationship between water quality monitoring and other indicators and the severity and documentation of an impairment to swimming/bathing use is reflected in Table 7.

Natural Resources Habitat/Hydrologic Use Support

In an effort to better incorporate wetlands and other natural resources concerns into the water quality assessment, the additional water use category of *Natural Resources Habitat/Hydrology* was recently added to the list of uses to be assessed. This broad category captures waterbodies where water quality may be satisfactory, but various activities result in degradation of natural resources (e.g., fish and wildlife populations, habitats) and/or impacts to 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 habitat/hydrologic use support, situation are more clearly defined by the cause or source of the problem, than by the use affected. Such causes/sources include dredging, draining, excavation/filling of wetlands, stream channels, lakes/ponds; stream widening; stream downcutting; sediment embeddedness; other losses of wetlands; habitat fragmentation; loss of riparian vegetation or upland buffer zones.

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* 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.)

Specific criteria for *Natural Resources Habitat/Hydrology* use support have not yet been developed.

Aesthetic Use

An assessment of waterbody support of *aesthetics* is much more subjective than those for the other assessed uses. Consequently, there is no table of specific assessment criteria to determine support of aesthetics. Instead, the assessment of aesthetics use support will rely on the PWL definitions for the severity of impairment, level of documentation, and the relationship between severity/documentation and USEPA use support categories as outlined in Table 1.

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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Waterbody Inventory Data Sheets
By County, Segment Name

Waterbody/Segment (ID)	Water Index Number	Category
Hamilton County		
Beaver Lake, Squaw Lake (0801-0396)	Ont 19- 81-58..P849,P850	UnAssessed
Brooktrout Lake (0801-0009)	Ont 19- 81-58..P874	Impaired Seg
Bug Lake (0801-0377)	Ont 19- 81-18-P782a..P789	UnAssessed
Cellar Pond (0801-0001)	Ont 19- 81-71- 2- 1-P889	Impaired Seg
Eagle Creek and tribs (0801-0374)	Ont 19- 81-18-P782a thru P782d- 7	UnAssessed
Eagle Nest Pond, more (0801-0011)	Ont 19- 81-18-P782a..P788	Impaired Seg
Eighth Lake (0801-0378)	Ont 19- 81-18-P782a..P790	UnAssessed
Falls Pond (0801-0399)	Ont 19- 81-61- 4-P885	Impaired Seg
Fawn Lake (0801-0390)	Ont 19- 81-44-P826- 4-P827	UnAssessed
Fulton Chain Lakes, Fifth thru Seventh L (0801-0376)	Ont 19- 81-18-P782a..P786,787,787a	UnAssessed
Indian Lake (0801-0002)	Ont 19- 81-58..P852	Impaired Seg
Indian River and tribs (0801-0395)	Ont 19- 81-58	UnAssessed
Lake Kora/Sumner Lake (0801-0397)	Ont 19- 81-60..P883	UnAssessed
Limekiln Lake (0801-0388)	Ont 19- 81-44-P826	UnAssessed
Little Diamond Pond (0801-0153)	Ont 19- 57-P651	Impaired Seg
Little Moose Lake (0801-0401)	Ont 19- 81-P890	UnAssessed
Lost Pond (0801-0400)	Ont 19- 81-61-P887	UnAssessed
Lower, Upper Mitchell Ponds (0801-0394)	Ont 19- 81-55- 6-P847,P848	UnAssessed
Lower, Upper Sister Lakes (0801-0004)	Ont 19- 81-18-17-P752- 7-P768,P769	Impaired Seg
Minor Lake Tribs to Shingle Shanty Brook (0801-0149)	Ont 19- 40-P493-19-P547 thru P565	Impaired Seg
Minor Lakes Trib to Benedict Creek (0801-0029)	Ont 19- 81-60..P876 thru P880	Impaired Seg
Minor Lakes Trib to Big Moose Lake, SE (0801-0033)	Ont 19- 81-18-17-P752..P775 to 779	Impaired Seg
Minor Lakes Trib to Indian River (0801-0010)	Ont 19- 81-58..P862 thru P875	Impaired Seg
Otter Brook and tribs (0801-0398)	Ont 19- 81-61	UnAssessed
Otter Pond (0801-0016)	Ont 19- 81-18-17-P752..P760	Impaired Seg
Quiver Pond, Mountain Pond (0801-0450)	Ont 19- 81-P782a..P795,P796	UnAssessed
Silver Lake (0801-0150)	Ont 19- 40-P493-32-P580	Impaired Seg
Sly Pond (0801-0007)	Ont 19- 81-69-P888	Impaired Seg
Terror Lake (0801-0018)	Ont 19- 40-P493-21- 1-P570	Impaired Seg
Tribs to Fulton Chain Lakes (0801-0207)	Ont 19- 81-18-P782a..P786/P787-	Impaired Seg
Tribs to Limekiln Lake (0801-0391)	Ont 19- 81-44-P826-1,2	UnAssessed
Herkimer County		
Bald Mountain Pond, Surprise Pond (0801-0375)	Ont 19- 81-18-P782a..P783,P784	UnAssessed
Bear Lake (0801-0433)	Ont 19-104- 3-P968	UnAssessed
Beaver Pond (0801-0356)	Ont 19- 81-18-17- 2-P730	UnAssessed
Big Moose Lake (0801-0035)	Ont 19- 81-18-17-P752	Impaired Seg
Black River, Upper, and minor tribs (0801-0237)	Ont 19 (portion 9)	NoKnownImpct
Bloodsucker Pond (0801-0368)	Ont 19- 81-24- 1-P803	UnAssessed
Brewer Lake (0801-0430)	Ont 19-104- 3- 1- 3-P967	UnAssessed
Bubb Lake, Sis/West Lake (0801-0364)	Ont 19- 81-18-17-15..P748,P749	UnAssessed
Burp Lake, Black Creek Lake (0801-0139)	Ont 19-114..P995,P996	Impaired Seg
Canachagala Lake (0801-0393)	Ont 19- 81-51-P838	UnAssessed
Cascade Lake (0801-0363)	Ont 19- 81-18-17-15-P746- 4-P747	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Herkimer County (con't)		
Chamber Lake (0801-0438)	Ont 19-104-24-P976- 3-P980	UnAssessed
Chub Pond (0801-0439)	Ont 19-104-P971	UnAssessed
Combs Lake (0801-0384)	Ont 19- 81-40-P811	UnAssessed
Constable Pond (0801-0214)	Ont 19- 81-18-17-P752..P777	Impaired Seg
Dart Lake (0801-0242)	Ont 19- 81-18-17-P750	Impaired Seg
Dead Lake, more (0801-0427)	Ont 19-104- 2- 5-P948	Impaired Seg
Diamond Pond, Clear Pond (0801-0359)	Ont 19- 81-18-17-13..P733,P734	UnAssessed
Dismal Pond (0801-0065)	Ont 19- 40-P493- 6..P515	Impaired Seg
East Pond (0801-0066)	Ont 19- 40-P493-21-P571	Impaired Seg
East Pond (0801-0386)	Ont 19- 81-44- 5-P814	UnAssessed
East and West Okara/Hellgate Ponds (0801-0354)	Ont 19- 81-18- 7..P720,P721	UnAssessed
Evergreen Lake (0801-0110)	Ont 19- 40-P493- 4-P500	Impaired Seg
First Bisby Lake (0801-0436)	Ont 19-104-24-P976- 2-P977	UnAssessed
Fourth, Third, Second Bisby Lakes (0801-0435)	Ont 19-104-24-P973,P975,P976	UnAssessed
Fulton Chain Lakes, First thru Fourth Lk (0801-0373)	Ont 19- 81-18-P782a thru P782d	Impaired Seg
Ginger Pond, Soda Pond (0801-0126)	Ont 19- 40-P493- 6..P508,P511	Impaired Seg
Goose Pond, Mountain Pond (0801-0365)	Ont 19- 81-18-17-P739..P740,P741	UnAssessed
Granny Marsh Pond (0801-0432)	Ont 19-104- 3- 8-P963	UnAssessed
Green Lake (0801-0385)	Ont 19- 81-42a-P812	UnAssessed
Greys Lake (0801-0372)	Ont 19- 81-18-P782..P802	UnAssessed
Gull Lake (0801-0353)	Ont 19- 81-18- 3-P717	UnAssessed
Gull Lake (0801-0434)	Ont 19-104-11-P969	UnAssessed
Hawk Pond (0801-0044)	Ont 19- 40-P493- 6- 1-P504	Impaired Seg
Horn Lake, Mountain Lake, more (0801-0052)	Ont 19- 81-58..P854,P855	Impaired Seg
Horseshoe Pd, Hall Pd, Pico Lk, Round Pd (0801-0392)	Ont 19- 81-45..P828,P831,P832,P834	Need Verific
Indian Brook, Upper, and tribs (0801-0355)	Ont 19- 81-18-17- 1	UnAssessed
Kettle Pond, more (0801-0131)	Ont 19- 81-52..P841	Impaired Seg
Lake Rondaxe, West Lake, Lake Kanacto (0801-0206)	Ont 19- 81-18-17-P739,P743,P744	NoKnownImpct
Little Black Creek, Upper, and tribs (0801-0445)	Ont 19-114	UnAssessed
Little Moose Lake (0801-0381)	Ont 19- 81-34-P808	UnAssessed
Little Safford Lake (0801-0358)	Ont 19- 81-18-17-13-P735	UnAssessed
Little Salmon Lake (0801-0140)	Ont 19-128- 6-P1003	Impaired Seg
Little Woodhull Lake, Lily Lake (0801-0070)	Ont 19-104- 2-P951,-1-P952	Impaired Seg
Lower Moshier Pond (0801-0049)	Ont 19- 40-22-P489	Impaired Seg
Lower, Upper Sylvan Ponds (0801-0437)	Ont 19-104-24-P976- 2..P978,P979	UnAssessed
Lyons Lake (0801-0109)	Ont 19- 40-P493- 2-P498	Impaired Seg
Maple Lake (0801-0446)	Ont 19-114- 2-P991	UnAssessed
Middle Branch Moose R and minor tribs (0801-0228)	Ont 19- 81-18	NoKnownImpct
Mink Lake, Reed Pond (0801-0448)	Ont 19-121-P1001,-122-P1002	UnAssessed
Minor Lake Tribs to Red Horse Creek (0801-0068)	Ont 19- 40-P493- 7-P522 thru P535	Impaired Seg
Minor Lakes Trib to Big Moose Lake, NW (0801-0050)	Ont 19- 81-18-17-P752..P753 to 767	Impaired Seg
Minor Lakes Trib to Limekiln Creek Trib (0801-0387)	Ont 19- 81-44- 7..P818 thru P824	UnAssessed
Minor Lakes Trib to Moshier Creek (0801-0039)	Ont 19- 40-22-P479 thru P492 (sel)	Impaired Seg
Minor Lakes Trib to North Lake (0801-0080)	Ont 19-P1007..P1008 thru P1016	Impaired Seg
Minor Lakes Trib to Three Mile Cr Wshed (0801-0453)	Ont 19- 40-19-P456 thru P459	Impaired Seg
Minor Lakes Trib to Twitchell Creek (0801-0077)	Ont 19- 40-P493-32-P578 thru P587	Impaired Seg
Minor Lakes Trib to Upper Otter Creek (0801-0041)	Ont 19- 60-P674 thru P684	Impaired Seg
Moss Lake (0801-0362)	Ont 19- 81-18-17-15-P746	UnAssessed
Nelson Lake (0801-0369)	Ont 19- 81-18- P718	UnAssessed
Nicks Lake (0801-0379)	Ont 19- 81-24-P804	UnAssessed
North Branch Moose River and minor tribs (0801-0212)	Ont 19- 81-18-17	MinorImpacts
North Lake (0801-0451)	Ont 19-P1007	Impaired Seg

Waterbody/Segment (ID)	Water Index Number	Category
Herkimer County (con't)		
Panther Lake (0801-0383)	Ont 19- 81-34-P808- 6-P809	UnAssessed
Peaked Mountain Lake, Hidden Lake (0801-0111)	Ont 19- 40-P493- 5-P502/6-P505	Impaired Seg
Pepperbox Pond, Spring Ponds, Tied Lake (0801-0076)	Ont 19- 40-18..P443 thru P448	Impaired Seg
Rock Pond (0801-0380)	Ont 19- 81-34- 1- 1-P807	UnAssessed
Russian Lake (0801-0006)	Ont 19- 81-18-17-P752- 8-P774	Impaired Seg
Safford Pond (0801-0360)	Ont 19- 81-18-17-14-P736	UnAssessed
Salmon Lake (0801-0054)	Ont 19- 40-P493- 7-P517	Impaired Seg
Sand Lake (0801-0440)	Ont 19-104-P981	UnAssessed
Shallow Pond, Raven Lake (0801-0107)	Ont 19- 40-P493- 2-P494,P496	Impaired Seg
Slim Pond (0801-0125)	Ont 19- 40-P493- 3-P499	Impaired Seg
South Lake (0801-0449)	Ont 19-128-P1004	UnAssessed
South Pond (0801-0057)	Ont 19- 81-18-17-P752- 7-P772	Impaired Seg
Stink Lake, Balsam Lake (0801-0034)	Ont 19- 81-51- 2..P836,P837	Impaired Seg
Stone Dam Pond (0801-0428)	Ont 19-104- 2- 6-P950	UnAssessed
Thirsty Pond (0801-0361)	Ont 19- 81-18-17-14-P736- 2-P738	Impaired Seg
Tribs to Big Moose Lake (0801-0213)	Ont 19- 81-18-17-P752-	Impaired Seg
Tribs to Fulton Chain Lakes (0801-0098)	Ont 19- 81-18-P782a thru P782d-	UnAssessed
Tribs to Little Moose Lake (0801-0382)	Ont 19- 81-34-P808-	UnAssessed
Tribs to North Lake (0801-0452)	Ont 19-P1007-	UnAssessed
Twin Lakes Reservoir (0801-0060)	Ont 19-119-P1000	UnAssessed
Twin Lakes Stream and tribs (0801-0447)	Ont 19-119	UnAssessed
Twin Pond (0801-0371)	Ont 19- 81-18-P782..P798	UnAssessed
Twitchell Creek and tribs (0801-0211)	Ont 19- 40-P493-32	Impaired Seg
Twitchell Lake (0801-0165)	Ont 19- 40-P493-32-P584	Impaired Seg
Wheeler Pond (0801-0357)	Ont 19- 81-18-17- 6-P731	UnAssessed
Wheeler Pond (0801-0370)	Ont 19- 81-18- P724	UnAssessed
Witchhopple Lake (0801-0062)	Ont 19- 40-P493- 7-P528	Impaired Seg
Woodhull Lake (0801-0441)	Ont 19-104-P981- 1-P982	UnAssessed
Jefferson County		
Black River, Lower, Main Stem (0801-0250)	Ont 19 (portion 1)	MinorImpacts
Black River, Lower, Main Stem (0801-0202)	Ont 19 (portion 2)	MinorImpacts
Black River, Middle, Main Stem (0801-0190)	Ont 19 (portion 3)	MinorImpacts
Felt Mills/Deerlick Creek and tribs (0801-0241)	Ont 19- 12	NoKnownImpct
Kelsey Creek and tribs (0801-0191)	Ont 19- 6	Impaired Seg
Lake Creek and tribs (0801-0259)	Ont 19- 22	NoKnownImpct
Minor Tribs to Black River (0801-0256)	Ont 19- 7 thru 11	MinorImpacts
Minor Tribs to Black River (0801-0196)	Ont 19- 1 thru 5	Threatened
Minor Tribs to Black River (0801-0258)	Ont 19- 13 thru 21	UnAssessed
Pleasant Lake (0801-0260)	Ont 19- 22-P395	UnAssessed
Tribs to Pleasant Lake (0801-0261)	Ont 19- 22-P395-	UnAssessed
Lewis County		
Atwater Creek, Upper, and tribs (0801-0330)	Ont 19- 58- 6	UnAssessed
Balsam Creek and tribs (0801-0239)	Ont 19- 40-10	NoKnownImpct
Barnes Lake (0801-0134)	Ont 19- 88-P905	Impaired Seg
Beaver Lake, Beaver Meadow Pond (0801-0174)	Ont 19- 40 (portion 9)/P449	Impaired Seg
Beaver River, Lower, and minor tribs (0801-0273)	Ont 19- 40 (portion 2)	Need Verific
Beaver River, Lower, and tribs (0801-0197)	Ont 19- 40 (portion 1)	Impaired Seg
Beaver River, Middle, and tribs (0801-0277)	Ont 19- 40 (portion 6)	NoKnownImpct
Beaver River, Middle, and tribs (0801-0275)	Ont 19- 40 (portion 4)	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Lewis County (con't)		
Beaver River, Middle, and tribs (0801-0278)	Ont 19- 40 (portion 8)	UnAssessed
Black Creek and tribs (0801-0171)	Ont 19- 40- 3	NoKnownImpct
Black River Canal Trib, Upper, and tribs (0801-0403)	Ont 19- 82- 5	UnAssessed
Black River Canal and minor tribs (0801-0402)	Ont 19- 82	UnAssessed
Black River, Middle, Main Stem (0801-0038)	Ont 19 (portion 6)	NoKnownImpct
Black River, Middle, Main Stem (0801-0251)	Ont 19 (portion 4)	MinorImpacts
Black River, Middle, Main Stem (0801-0199)	Ont 19 (portion 5)	NoKnownImpct
Brantingham Lake (0801-0176)	Ont 19- 70- 4-P689	Need Verific
Catspaw Lake (0801-0334)	Ont 19- 60- 4-P662	UnAssessed
Chase Lake (0801-0321)	Ont 19- 57- 4-P597	UnAssessed
Cleveland,Payne,Huckleberry,Halfmn Lks (0801-0193)	Ont 19- 57- P619,P622,P625	Impaired Seg
Cobb Creek and tribs (0801-0265)	Ont 19- 31-16	NoKnownImpct
Cold Brook Tribs, Upper, and tribs (0801-0405)	Ont 19- 83- 3	UnAssessed
Copper Creek and tribs (0801-0348)	Ont 19- 81- 7	UnAssessed
Copper Lake (0801-0350)	Ont 19- 81- 7-P710	UnAssessed
Crooked Lake, McCabe Pond (0801-0144)	Ont 19- 40-18- 3-P441,442	Impaired Seg
Crystal Creek and minor tribs (0801-0240)	Ont 19- 45	NoKnownImpct
Crystal Lake (0801-0316)	Ont 19- 45-P595	UnAssessed
Deer River, Lower, and tribs (0801-0170)	Ont 19- 31	NoKnownImpct
Deer River, Middle, and tribs (0801-0263)	Ont 19- 31	NoKnownImpct
Deer River, Upper, and tribs (0801-0218)	Ont 19- 31	NoKnownImpct
Effley Falls Reservoir (0801-0172)	Ont 19- 40 (portion 5)/P426	Impaired Seg
Evies Pond, Long Lake, Fish Pond (0801-0323)	Ont 19- 57- 5-P608,P610,P615	Impaired Seg
Fall Brook and tribs (0801-0406)	Ont 19- 88	UnAssessed
Fish Creek and tribs (0801-0225)	Ont 19- 70	NoKnownImpct
Francis Lake (0801-0192)	Ont 19- 40-18a/P449..P451	Impaired Seg
Goose Pond, Meister Pond (0801-0286)	Ont 19- 40-10-P419,P420	Impaired Seg
High Falls Pond (0801-0274)	Ont 19- 40 (portion 3)/P418	Impaired Seg
Hufcut Creek and tribs (0801-0272)	Ont 19- 39	UnAssessed
Independence River, Lower, and tribs (0801-0220)	Ont 19- 57	MinorImpacts
Independence River, Upper, and tribs (0801-0221)	Ont 19- 57	NoKnownImpct
Little Otter Lake (0801-0336)	Ont 19- 60- 5-P664	Impaired Seg
Lower, Upper West Pond (0801-0284)	Ont 19- 40- 7-P416,P417	Impaired Seg
Mile Brook and tribs (0801-0408)	Ont 19- 90	UnAssessed
Mill Creek Trib (0801-0343)	Ont 19- 78- 2	UnAssessed
Mill Creek and minor tribs (0801-0342)	Ont 19- 78	UnAssessed
Mill Creek/South Branch, and tribs (0801-0200)	Ont 19- 51	Impaired Seg
Minor Lakes Trib to Upper Pine Creek (0801-0072)	Ont 19- 81- 7- 1..P702 thru P708	Impaired Seg
Minor Tribs to Middle Black River (0801-0318)	Ont 19- 52 thru 56 (selected)	NoKnownImpct
Minor Tribs to Middle Black River (0801-0454)	Ont 19- 61 thru 80	NoKnownImpct
Minor Tribs to Middle Black River (0801-0262)	Ont 19- 23 thru 38 (selected)	UnAssessed
Minor Tribs to Middle Black River (0801-0313)	Ont 19- 41 thru 50 (selected)	UnAssessed
Minor Tribs to Middle Black River (0801-0404)	Ont 19- 83 thru 93 (selected)	UnAssessed
Moose River and minor tribs (0801-0226)	Ont 19- 81	NoKnownImpct
Murmur Creek and tribs (0801-0219)	Ont 19- 40- 7	NoKnownImpct
North Branch Mill Creek, and tribs (0801-0317)	Ont 19- 51	MinorImpacts
Otter Creek and tribs (0801-0224)	Ont 19- 60	NoKnownImpct
Panther Pond, Fifth Cr Pond, Lennon Pond (0801-0075)	Ont 19- 57- 9/10..P632,P635,P638	Impaired Seg
Parsons Pd, Upp Chase Lk, Hinchings Pd (0801-0322)	Ont 19- 57- 4-P600,P602,P605	UnAssessed
Pine Lake, East Pine Pond (0801-0349)	Ont 19- 81- 7- 1-10..P699,P700	UnAssessed
Pleasant Lake (0801-0341)	Ont 19- 70- 4-P689-P690	UnAssessed
Roaring Brook and minor tribs (0801-0222)	Ont 19- 58	NoKnownImpct

Waterbody/Segment (ID)	Water Index Number	Category
Lewis County (con't)		
Round Pond (0801-0407)	Ont 19- 88-P907	Impaired Seg
Sand Pond (0801-0055)	Ont 19- 40-15- 4-P436	Impaired Seg
Sand Pond (0801-0335)	Ont 19- 60- 5-P663	UnAssessed
Sandy Creek, Upper, and tribs (0801-0283)	Ont 19- 40- 7- 3	UnAssessed
Sears Pond (0801-0268)	Ont 19- 31-P402	UnAssessed
Smith Creek and tribs (0801-0266)	Ont 19- 31-18	MinorImpacts
Snider Pond (0801-0287)	Ont 19- 40-12-P429	UnAssessed
Soft Maple Pond, Soft Maple Reservoir (0801-0173)	Ont 19- 40 (portion 7)/P431,434	Impaired Seg
Stony Creek and tribs (0801-0270)	Ont 19- 33	UnAssessed
Stony Lake (0801-0324)	Ont 19- 57- 5-P617	UnAssessed
Sugar River Trib, Upper (0801-0413)	Ont 19- 91-10	UnAssessed
Sugar River, Lower, and minor tribs (0801-0231)	Ont 19- 91	MinorImpacts
Sugar River, Upper, and tribs (0801-0411)	Ont 19- 91	NoKnownImpct
Swiss Creek and tribs (0801-0271)	Ont 19- 35	UnAssessed
Tannery Creek, Upper, and tribs (0801-0338)	Ont 19- 68	UnAssessed
Taylorville, Elmer Falls Ponds (0801-0276)	Ont 19- 40 (portion 4a)	Impaired Seg
Tribs to Brantingham Lake (0801-0340)	Ont 19- 70- 4-P689-1,2	UnAssessed
Tribs to Sears Pond (0801-0269)	Ont 19- 31-P402-	UnAssessed
Trout Pond, Bills Pond (0801-0127)	Ont 19- 57- 7..P628,P630	Impaired Seg
Twin Sister Lake (0801-0351)	Ont 19- 81-14- 2-P713	UnAssessed
Unnamed Tribs to Crystal Creek (0801-0315)	Ont 19- 45-10,11	UnAssessed
Upper Beauty, Upper Deer Creeks (0801-0347)	Ont 19- 81- 2,4	UnAssessed
West Branch Deer River and tribs (0801-0267)	Ont 19- 31-28	UnAssessed
Whetstone Gulf, Lower, and tribs (0801-0332)	Ont 19- 59	NoKnownImpct
Whetstone Gulf, Upper, and tribs (0801-0223)	Ont 19- 59	NoKnownImpct
Oneida County		
Alder Creek and tribs (0801-0424)	Ont 19-103	NoKnownImpct
Bear Creek and tribs (0801-0429)	Ont 19-104- 3	UnAssessed
Beaver River, Upper, and tribs (0801-0210)	Ont 19- 40 (portion 10)	MinorImpacts
Big Otter Lake (0801-0337)	Ont 19- 60-P676	UnAssessed
Big Woodhull Creek (0801-0234)	Ont 19-104	NoKnownImpct
Brandy Lake (0801-0420)	Ont 19- 94- 1-P922- 1-P923	UnAssessed
Buck Pond (0801-0294)	Ont 19- 40-P493-19-P539- 2-P540	UnAssessed
Buck Pond (0801-0409)	Ont 19- 90-P910	UnAssessed
Clear Lake (0801-0288)	Ont 19- 40-P493- 7- 8-P525	UnAssessed
Cranberry Pond (0801-0311)	Ont 19- 40-P493-31-P575	UnAssessed
Crystal Creek, Upper (0801-0423)	Ont 19- 99	UnAssessed
Deer Pond (0801-0417)	Ont 19- 94- 1- 4-P921	UnAssessed
East Pond (0801-0303)	Ont 19- 40-P493-19-P539- 5..P560	UnAssessed
Evans Pond, Lake Julia (0801-0443)	Ont 19-111- 2-P987,P988	UnAssessed
Falls Lake (0801-0290)	Ont 19- 40-P493-14-P537	UnAssessed
Forestport Reservoir, Alder Pond (0801-0253)	Ont 19 (portion 7)/P944,P934	UnAssessed
Hardigan Pond (0801-0300)	Ont 19- 40-P493-19-P539- 5..P551	UnAssessed
Hitchcock Lake (0801-0325)	Ont 19- 57-10- 6-P639	UnAssessed
Hitchcock Pond, Grass Pond, Moose Pond (0801-0326)	Ont 19- 57-15/17/18..P641 to P643	UnAssessed
Independence Lake (0801-0327)	Ont 19- 57-25-P647	Impaired Seg
Kayuta Lake (0801-0204)	Ont 19 (portion 8)/P984a	NoKnownImpct
Kents Creek and tribs (0801-0422)	Ont 19- 98	NoKnownImpct
Lake Lila (0801-0295)	Ont 19- 40-P493-19-P539- 5-P541	UnAssessed
Little Black Creek, Lower, and tribs (0801-0236)	Ont 19-114	NoKnownImpct
Little Independence Pond (0801-0328)	Ont 19- 57-P650	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Oneida County (con't)		
Little Woodhull Creek (0801-0235)	Ont 19-104- 2	NoKnownImpct
Long Lake (0801-0418)	Ont 19- 94- 1-P922	UnAssessed
Long Lake Outlet/Cumming Cr, and tribs (0801-0415)	Ont 19- 94- 1(-1)	NoKnownImpct
Mill Creek and tribs (0801-0201)	Ont 19- 92	NoKnownImpct
Minor Tribs to Kayuta Lake (0801-0442)	Ont 19-105 thru 112	UnAssessed
Minor Tribs to Lake Lila (0801-0296)	Ont 19- 40-P493-19-P539- 5-P541-	UnAssessed
Minor Tribs to Middle Black River (0801-0455)	Ont 19- 95 thru 102 (selected)	UnAssessed
Minor Tribs to Nehasane Lake (0801-0293)	Ont 19- 40-P493-19-P539-	UnAssessed
Minor Tribs to Stillwater Reservoir (0801-0184)	Ont 19- 40-P493- 1 thru 35 (sel)	UnAssessed
Moose Creek and tribs (0801-0232)	Ont 19- 91- 1	NoKnownImpct
Moshier Reservoir (0801-0194)	Ont 19- 40 (portion 11)/P478	Impaired Seg
Mud Lake (0801-0310)	Ont 19- 40-P493-27-P574	UnAssessed
Mud Pond (0801-0299)	Ont 19- 40-P493-19-P539- 5..P548	UnAssessed
Mudhole (0801-0421)	Ont 19- 94- 4-P927	UnAssessed
Negro Lake (0801-0289)	Ont 19- 40-P493- 7-P528- 1-P529	UnAssessed
Nehasane Lake (0801-0292)	Ont 19- 40-P493-19-P539	UnAssessed
New Pond (0801-0302)	Ont 19- 40-P493-19-P539- 5..P556	UnAssessed
North Branch and minor tribs (0801-0233)	Ont 19- 94	NoKnownImpct
North Pond (0801-0305)	Ont 19- 40-P493-19-P539- 5..P563	UnAssessed
Otter Lake (0801-0205)	Ont 19- 94- 1-P922- 4-P926	MinorImpacts
Rainer Pond (0801-0298)	Ont 19- 40-P493-19-P539- 5..P544	UnAssessed
Razorback Pond (0801-0309)	Ont 19- 40-P493-24-P573	UnAssessed
Rock Lake (0801-0291)	Ont 19- 40-P493-15-P538	UnAssessed
Rose Pond (0801-0308)	Ont 19- 40-P493-21- 1-P568	Impaired Seg
Round Lake (0801-0416)	Ont 19- 94- 1- 2-P920	UnAssessed
Salmon Lake (0801-0301)	Ont 19- 40-P493-19-P539- 5..P552	UnAssessed
Shingle Shanty Brook and tribs (0801-0297)	Ont 19- 40-P493-19-P539- 5-P541- 7	UnAssessed
Shingle Shanty Pond (0801-0306)	Ont 19- 40-P493-19-P539- 5..P565	UnAssessed
South Br Moose R, Lower, and tribs (0801-0227)	Ont 19- 81	NoKnownImpct
South Br Moose R, Upper, and minor tribs (0801-0346)	Ont 19- 81	MinorImpacts
Stillwater Reservoir (0801-0281)	Ont 19- 40-P493	Impaired Seg
Sunday Lake, Sunday Creek Reservoir (0801-0195)	Ont 19- 40-20-P473, P474	Impaired Seg
Thayer Lake (0801-0307)	Ont 19- 40-P493-19..P566	UnAssessed
Tribs to Long Lake (0801-0419)	Ont 19- 94- 1-P922-	UnAssessed
West Pond (0801-0304)	Ont 19- 40-P493-19-P539- 5..P562	UnAssessed
White Lake (0801-0431)	Ont 19-104- 3- 5-P958	UnAssessed
Woods Lake (0801-0312)	Ont 19- 40-P493-32- 2-P576	UnAssessed

Waterbody Inventory Data Sheets
By Segment Name

Waterbody/Segment (ID)	Water Index Number	Category
Alder Creek and tribs (0801-0424)	Ont 19-103	NoKnownImpct
Atwater Creek, Upper, and tribs (0801-0330)	Ont 19- 58- 6	UnAssessed
Bald Mountain Pond, Surprise Pond (0801-0375)	Ont 19- 81-18-P782a..P783,P784	UnAssessed
Balsam Creek and tribs (0801-0239)	Ont 19- 40-10	NoKnownImpct
Barnes Lake (0801-0134)	Ont 19- 88-P905	Impaired Seg
Bear Creek and tribs (0801-0429)	Ont 19-104- 3	UnAssessed
Bear Lake (0801-0433)	Ont 19-104- 3-P968	UnAssessed
Beaver Lake, Beaver Meadow Pond (0801-0174)	Ont 19- 40 (portion 9)/P449	Impaired Seg
Beaver Lake, Squaw Lake (0801-0396)	Ont 19- 81-58..P849,P850	UnAssessed
Beaver Pond (0801-0356)	Ont 19- 81-18-17- 2-P730	UnAssessed
Beaver River, Lower, and minor tribs (0801-0273)	Ont 19- 40 (portion 2)	Need Verific
Beaver River, Lower, and tribs (0801-0197)	Ont 19- 40 (portion 1)	Impaired Seg
Beaver River, Middle, and tribs (0801-0275)	Ont 19- 40 (portion 4)	UnAssessed
Beaver River, Middle, and tribs (0801-0277)	Ont 19- 40 (portion 6)	NoKnownImpct
Beaver River, Middle, and tribs (0801-0278)	Ont 19- 40 (portion 8)	UnAssessed
Beaver River, Upper, and tribs (0801-0210)	Ont 19- 40 (portion 10)	MinorImpacts
Big Moose Lake (0801-0035)	Ont 19- 81-18-17-P752	Impaired Seg
Big Otter Lake (0801-0337)	Ont 19- 60-P676	UnAssessed
Big Woodhull Creek (0801-0234)	Ont 19-104	NoKnownImpct
Black Creek and tribs (0801-0171)	Ont 19- 40- 3	NoKnownImpct
Black River Canal Trib, Upper, and tribs (0801-0403)	Ont 19- 82- 5	UnAssessed
Black River Canal and minor tribs (0801-0402)	Ont 19- 82	UnAssessed
Black River, Lower, Main Stem (0801-0250)	Ont 19 (portion 1)	MinorImpacts
Black River, Lower, Main Stem (0801-0202)	Ont 19 (portion 2)	MinorImpacts
Black River, Middle, Main Stem (0801-0190)	Ont 19 (portion 3)	MinorImpacts
Black River, Middle, Main Stem (0801-0251)	Ont 19 (portion 4)	MinorImpacts
Black River, Middle, Main Stem (0801-0199)	Ont 19 (portion 5)	NoKnownImpct
Black River, Middle, Main Stem (0801-0038)	Ont 19 (portion 6)	NoKnownImpct
Black River, Upper, and minor tribs (0801-0237)	Ont 19 (portion 9)	NoKnownImpct
Bloodsucker Pond (0801-0368)	Ont 19- 81-24- 1-P803	UnAssessed
Brandy Lake (0801-0420)	Ont 19- 94- 1-P922- 1-P923	UnAssessed
Brantingham Lake (0801-0176)	Ont 19- 70- 4-P689	Need Verific
Brewer Lake (0801-0430)	Ont 19-104- 3- 1- 3-P967	UnAssessed
Brooktrout Lake (0801-0009)	Ont 19- 81-58..P874	Impaired Seg
Bubb Lake, Sis/West Lake (0801-0364)	Ont 19- 81-18-17-15..P748,P749	UnAssessed
Buck Pond (0801-0294)	Ont 19- 40-P493-19-P539- 2-P540	UnAssessed
Buck Pond (0801-0409)	Ont 19- 90-P910	UnAssessed
Bug Lake (0801-0377)	Ont 19- 81-18-P782a..P789	UnAssessed
Burp Lake, Black Creek Lake (0801-0139)	Ont 19-114..P995,P996	Impaired Seg
Canachagala Lake (0801-0393)	Ont 19- 81-51-P838	UnAssessed
Cascade Lake (0801-0363)	Ont 19- 81-18-17-15-P746- 4-P747	UnAssessed
Catspaw Lake (0801-0334)	Ont 19- 60- 4-P662	UnAssessed
Cellar Pond (0801-0001)	Ont 19- 81-71- 2- 1-P889	Impaired Seg
Chamber Lake (0801-0438)	Ont 19-104-24-P976- 3-P980	UnAssessed
Chase Lake (0801-0321)	Ont 19- 57- 4-P597	UnAssessed
Chub Pond (0801-0439)	Ont 19-104-P971	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Clear Lake (0801-0288)	Ont 19- 40-P493- 7- 8-P525	UnAssessed
Cleveland,Payne,Huckleberry,Halfmn Lks (0801-0193)	Ont 19- 57- P619,P622,P625	Impaired Seg
Cobb Creek and tribs (0801-0265)	Ont 19- 31-16	NoKnownImpct
Cold Brook Tribs, Upper, and tribs (0801-0405)	Ont 19- 83- 3	UnAssessed
Combs Lake (0801-0384)	Ont 19- 81-40-P811	UnAssessed
Constable Pond (0801-0214)	Ont 19- 81-18-17-P752..P777	Impaired Seg
Copper Creek and tribs (0801-0348)	Ont 19- 81- 7	UnAssessed
Copper Lake (0801-0350)	Ont 19- 81- 7-P710	UnAssessed
Cranberry Pond (0801-0311)	Ont 19- 40-P493-31-P575	UnAssessed
Crooked Lake, McCabe Pond (0801-0144)	Ont 19- 40-18- 3-P441,442	Impaired Seg
Crystal Creek and minor tribs (0801-0240)	Ont 19- 45	NoKnownImpct
Crystal Creek, Upper (0801-0423)	Ont 19- 99	UnAssessed
Crystal Lake (0801-0316)	Ont 19- 45-P595	UnAssessed
Dart Lake (0801-0242)	Ont 19- 81-18-17-P750	Impaired Seg
Dead Lake, more (0801-0427)	Ont 19-104- 2- 5-P948	Impaired Seg
Deer Pond (0801-0417)	Ont 19- 94- 1- 4-P921	UnAssessed
Deer River, Lower, and tribs (0801-0170)	Ont 19- 31	NoKnownImpct
Deer River, Middle, and tribs (0801-0263)	Ont 19- 31	NoKnownImpct
Deer River, Upper, and tribs (0801-0218)	Ont 19- 31	NoKnownImpct
Diamond Pond, Clear Pond (0801-0359)	Ont 19- 81-18-17-13..P733,P734	UnAssessed
Dismal Pond (0801-0065)	Ont 19- 40-P493- 6..P515	Impaired Seg
Eagle Creek and tribs (0801-0374)	Ont 19- 81-18-P782a thru P782d- 7	UnAssessed
Eagle Nest Pond, more (0801-0011)	Ont 19- 81-18-P782a..P788	Impaired Seg
East Pond (0801-0303)	Ont 19- 40-P493-19-P539- 5..P560	UnAssessed
East Pond (0801-0066)	Ont 19- 40-P493-21-P571	Impaired Seg
East Pond (0801-0386)	Ont 19- 81-44- 5-P814	UnAssessed
East and West Okara/Hellgate Ponds (0801-0354)	Ont 19- 81-18- 7..P720,P721	UnAssessed
Effley Falls Reservoir (0801-0172)	Ont 19- 40 (portion 5)/P426	Impaired Seg
Eighth Lake (0801-0378)	Ont 19- 81-18-P782a..P790	UnAssessed
Evans Pond, Lake Julia (0801-0443)	Ont 19-111- 2-P987,P988	UnAssessed
Evergreen Lake (0801-0110)	Ont 19- 40-P493- 4-P500	Impaired Seg
Evies Pond, Long Lake, Fish Pond (0801-0323)	Ont 19- 57- 5-P608,P610,P615	Impaired Seg
Fall Brook and tribs (0801-0406)	Ont 19- 88	UnAssessed
Falls Lake (0801-0290)	Ont 19- 40-P493-14-P537	UnAssessed
Falls Pond (0801-0399)	Ont 19- 81-61- 4-P885	Impaired Seg
Fawn Lake (0801-0390)	Ont 19- 81-44-P826- 4-P827	UnAssessed
Felt Mills/Deerlick Creek and tribs (0801-0241)	Ont 19- 12	NoKnownImpct
First Bisby Lake (0801-0436)	Ont 19-104-24-P976- 2-P977	UnAssessed
Fish Creek and tribs (0801-0225)	Ont 19- 70	NoKnownImpct
Forestport Reservoir, Alder Pond (0801-0253)	Ont 19 (portion 7)/P944,P934	UnAssessed
Fourth, Third, Second Bisby Lakes (0801-0435)	Ont 19-104-24-P973,P975,P976	UnAssessed
Francis Lake (0801-0192)	Ont 19- 40-18a/P449..P451	Impaired Seg
Fulton Chain Lakes, Fifth thru Seventh L (0801-0376)	Ont 19- 81-18-P782a..P786,787,787a	UnAssessed
Fulton Chain Lakes, First thru Fourth Lk (0801-0373)	Ont 19- 81-18-P782a thru P782d	Impaired Seg
Ginger Pond, Soda Pond (0801-0126)	Ont 19- 40-P493- 6..P508,P511	Impaired Seg
Goose Pond, Meister Pond (0801-0286)	Ont 19- 40-10-P419,P420	Impaired Seg
Goose Pond, Mountain Pond (0801-0365)	Ont 19- 81-18-17-P739..P740,P741	UnAssessed
Granny Marsh Pond (0801-0432)	Ont 19-104- 3- 8-P963	UnAssessed
Green Lake (0801-0385)	Ont 19- 81-42a-P812	UnAssessed
Greys Lake (0801-0372)	Ont 19- 81-18-P782..P802	UnAssessed
Gull Lake (0801-0353)	Ont 19- 81-18- 3-P717	UnAssessed
Gull Lake (0801-0434)	Ont 19-104-11-P969	UnAssessed
Hardigan Pond (0801-0300)	Ont 19- 40-P493-19-P539- 5..P551	UnAssessed

Waterbody/Segment (ID)	Water Index Number	Category
Hawk Pond (0801-0044)	Ont 19- 40-P493- 6- 1-P504	Impaired Seg
High Falls Pond (0801-0274)	Ont 19- 40 (portion 3)/P418	Impaired Seg
Hitchcock Lake (0801-0325)	Ont 19- 57-10- 6-P639	UnAssessed
Hitchcock Pond, Grass Pond, Moose Pond (0801-0326)	Ont 19- 57-15/17/18..P641 to P643	UnAssessed
Horn Lake, Mountain Lake, more (0801-0052)	Ont 19- 81-58..P854,P855	Impaired Seg
Horseshoe Pd, Hall Pd, Pico Lk, Round Pd (0801-0392)	Ont 19- 81-45..P828,P831,P832,P834	Need Verific
Hufcut Creek and tribs (0801-0272)	Ont 19- 39	UnAssessed
Independence Lake (0801-0327)	Ont 19- 57-25-P647	Impaired Seg
Independence River, Lower, and tribs (0801-0220)	Ont 19- 57	MinorImpacts
Independence River, Upper, and tribs (0801-0221)	Ont 19- 57	NoKnownImpct
Indian Brook, Upper, and tribs (0801-0355)	Ont 19- 81-18-17- 1	UnAssessed
Indian Lake (0801-0002)	Ont 19- 81-58..P852	Impaired Seg
Indian River and tribs (0801-0395)	Ont 19- 81-58	UnAssessed
Kayuta Lake (0801-0204)	Ont 19 (portion 8)/P984a	NoKnownImpct
Kelsey Creek and tribs (0801-0191)	Ont 19- 6	Impaired Seg
Kents Creek and tribs (0801-0422)	Ont 19- 98	NoKnownImpct
Kettle Pond, more (0801-0131)	Ont 19- 81-52..P841	Impaired Seg
Lake Creek and tribs (0801-0259)	Ont 19- 22	NoKnownImpct
Lake Kora/Sumner Lake (0801-0397)	Ont 19- 81-60..P883	UnAssessed
Lake Lila (0801-0295)	Ont 19- 40-P493-19-P539- 5-P541	UnAssessed
Lake Rondaxe, West Lake, Lake Kanacto (0801-0206)	Ont 19- 81-18-17-P739,P743,P744	NoKnownImpct
Limekiln Lake (0801-0388)	Ont 19- 81-44-P826	UnAssessed
Little Black Creek, Lower, and tribs (0801-0236)	Ont 19-114	NoKnownImpct
Little Black Creek, Upper, and tribs (0801-0445)	Ont 19-114	UnAssessed
Little Diamond Pond (0801-0153)	Ont 19- 57-P651	Impaired Seg
Little Independence Pond (0801-0328)	Ont 19- 57-P650	UnAssessed
Little Moose Lake (0801-0381)	Ont 19- 81-34-P808	UnAssessed
Little Moose Lake (0801-0401)	Ont 19- 81-P890	UnAssessed
Little Otter Lake (0801-0336)	Ont 19- 60- 5-P664	Impaired Seg
Little Safford Lake (0801-0358)	Ont 19- 81-18-17-13-P735	UnAssessed
Little Salmon Lake (0801-0140)	Ont 19-128- 6-P1003	Impaired Seg
Little Woodhull Creek (0801-0235)	Ont 19-104- 2	NoKnownImpct
Little Woodhull Lake, Lily Lake (0801-0070)	Ont 19-104- 2-P951,-1-P952	Impaired Seg
Long Lake (0801-0418)	Ont 19- 94- 1-P922	UnAssessed
Long Lake Outlet/Cumming Cr, and tribs (0801-0415)	Ont 19- 94- 1(-1)	NoKnownImpct
Lost Pond (0801-0400)	Ont 19- 81-61-P887	UnAssessed
Lower Moshier Pond (0801-0049)	Ont 19- 40-22-P489	Impaired Seg
Lower, Upper Mitchell Ponds (0801-0394)	Ont 19- 81-55- 6-P847,P848	UnAssessed
Lower, Upper Sister Lakes (0801-0004)	Ont 19- 81-18-17-P752- 7-P768,P769	Impaired Seg
Lower, Upper Sylvan Ponds (0801-0437)	Ont 19-104-24-P976- 2..P978,P979	UnAssessed
Lower, Upper West Pond (0801-0284)	Ont 19- 40- 7-P416,P417	Impaired Seg
Lyons Lake (0801-0109)	Ont 19- 40-P493- 2-P498	Impaired Seg
Maple Lake (0801-0446)	Ont 19-114- 2-P991	UnAssessed
Middle Branch Moose R and minor tribs (0801-0228)	Ont 19- 81-18	NoKnownImpct
Mile Brook and tribs (0801-0408)	Ont 19- 90	UnAssessed
Mill Creek Trib (0801-0343)	Ont 19- 78- 2	UnAssessed
Mill Creek and minor tribs (0801-0342)	Ont 19- 78	UnAssessed
Mill Creek and tribs (0801-0201)	Ont 19- 92	NoKnownImpct
Mill Creek/South Branch, and tribs (0801-0200)	Ont 19- 51	Impaired Seg
Mink Lake, Reed Pond (0801-0448)	Ont 19-121-P1001,-122-P1002	UnAssessed
Minor Lake Tribs to Red Horse Creek (0801-0068)	Ont 19- 40-P493- 7-P522 thru P535	Impaired Seg
Minor Lake Tribs to Shingle Shanty Brook (0801-0149)	Ont 19- 40-P493-19-P547 thru P565	Impaired Seg
Minor Lakes Trib to Benedict Creek (0801-0029)	Ont 19- 81-60..P876 thru P880	Impaired Seg

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Minor Lakes Trib to Big Moose Lake, NW (0801-0050)	Ont 19- 81-18-17-P752..P753 to 767	Impaired Seg
Minor Lakes Trib to Big Moose Lake, SE (0801-0033)	Ont 19- 81-18-17-P752..P775 to 779	Impaired Seg
Minor Lakes Trib to Indian River (0801-0010)	Ont 19- 81-58..P862 thru P875	Impaired Seg
Minor Lakes Trib to Limekiln Creek Trib (0801-0387)	Ont 19- 81-44- 7..P818 thru P824	UnAssessed
Minor Lakes Trib to Moshier Creek (0801-0039)	Ont 19- 40-22-P479 thru P492 (sel)	Impaired Seg
Minor Lakes Trib to North Lake (0801-0080)	Ont 19-P1007..P1008 thru P1016	Impaired Seg
Minor Lakes Trib to Three Mile Cr Wshed (0801-0453)	Ont 19- 40-19-P456 thru P459	Impaired Seg
Minor Lakes Trib to Twitchell Creek (0801-0077)	Ont 19- 40-P493-32-P578 thru P587	Impaired Seg
Minor Lakes Trib to Upper Otter Creek (0801-0041)	Ont 19- 60-P674 thru P684	Impaired Seg
Minor Lakes Trib to Upper Pine Creek (0801-0072)	Ont 19- 81- 7- 1..P702 thru P708	Impaired Seg
Minor Tribs to Black River (0801-0196)	Ont 19- 1 thru 5	Threatened
Minor Tribs to Black River (0801-0256)	Ont 19- 7 thru 11	MinorImpacts
Minor Tribs to Black River (0801-0258)	Ont 19- 13 thru 21	UnAssessed
Minor Tribs to Kayuta Lake (0801-0442)	Ont 19-105 thru 112	UnAssessed
Minor Tribs to Lake Lila (0801-0296)	Ont 19- 40-P493-19-P539- 5-P541-	UnAssessed
Minor Tribs to Middle Black River (0801-0262)	Ont 19- 23 thru 38 (selected)	UnAssessed
Minor Tribs to Middle Black River (0801-0313)	Ont 19- 41 thru 50 (selected)	UnAssessed
Minor Tribs to Middle Black River (0801-0318)	Ont 19- 52 thru 56 (selected)	NoKnownImpct
Minor Tribs to Middle Black River (0801-0404)	Ont 19- 83 thru 93 (selected)	UnAssessed
Minor Tribs to Middle Black River (0801-0454)	Ont 19- 61 thru 80	NoKnownImpct
Minor Tribs to Middle Black River (0801-0455)	Ont 19- 95 thru 102 (selected)	UnAssessed
Minor Tribs to Nehasane Lake (0801-0293)	Ont 19- 40-P493-19-P539-	UnAssessed
Minor Tribs to Stillwater Reservoir (0801-0184)	Ont 19- 40-P493- 1 thru 35 (sel)	UnAssessed
Moose Creek and tribs (0801-0232)	Ont 19- 91- 1	NoKnownImpct
Moose River and minor tribs (0801-0226)	Ont 19- 81	NoKnownImpct
Moshier Reservoir (0801-0194)	Ont 19- 40 (portion 11)/P478	Impaired Seg
Moss Lake (0801-0362)	Ont 19- 81-18-17-15-P746	UnAssessed
Mud Lake (0801-0310)	Ont 19- 40-P493-27-P574	UnAssessed
Mud Pond (0801-0299)	Ont 19- 40-P493-19-P539- 5..P548	UnAssessed
Mudhole (0801-0421)	Ont 19- 94- 4-P927	UnAssessed
Murmur Creek and tribs (0801-0219)	Ont 19- 40- 7	NoKnownImpct
Negro Lake (0801-0289)	Ont 19- 40-P493- 7-P528- 1-P529	UnAssessed
Nehasane Lake (0801-0292)	Ont 19- 40-P493-19-P539	UnAssessed
Nelson Lake (0801-0369)	Ont 19- 81-18- P718	UnAssessed
New Pond (0801-0302)	Ont 19- 40-P493-19-P539- 5..P556	UnAssessed
Nicks Lake (0801-0379)	Ont 19- 81-24-P804	UnAssessed
North Branch Mill Creek, and tribs (0801-0317)	Ont 19- 51	MinorImpacts
North Branch Moose River and minor tribs (0801-0212)	Ont 19- 81-18-17	MinorImpacts
North Branch and minor tribs (0801-0233)	Ont 19- 94	NoKnownImpct
North Lake (0801-0451)	Ont 19-P1007	Impaired Seg
North Pond (0801-0305)	Ont 19- 40-P493-19-P539- 5..P563	UnAssessed
Otter Brook and tribs (0801-0398)	Ont 19- 81-61	UnAssessed
Otter Creek and tribs (0801-0224)	Ont 19- 60	NoKnownImpct
Otter Lake (0801-0205)	Ont 19- 94- 1-P922- 4-P926	MinorImpacts
Otter Pond (0801-0016)	Ont 19- 81-18-17-P752..P760	Impaired Seg
Panther Lake (0801-0383)	Ont 19- 81-34-P808- 6-P809	UnAssessed
Panther Pond, Fifth Cr Pond, Lennon Pond (0801-0075)	Ont 19- 57- 9/10..P632,P635,P638	Impaired Seg
Parsons Pd, Upp Chase Lk, Hinchings Pd (0801-0322)	Ont 19- 57- 4-P600,P602,P605	UnAssessed
Peaked Mountain Lake, Hidden Lake (0801-0111)	Ont 19- 40-P493- 5-P502/6-P505	Impaired Seg
Pepperbox Pond, Spring Ponds, Tied Lake (0801-0076)	Ont 19- 40-18..P443 thru P448	Impaired Seg
Pine Lake, East Pine Pond (0801-0349)	Ont 19- 81- 7- 1-10..P699,P700	UnAssessed
Pleasant Lake (0801-0260)	Ont 19- 22-P395	UnAssessed
Pleasant Lake (0801-0341)	Ont 19- 70- 4-P689-P690	UnAssessed

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Quiver Pond, Mountain Pond (0801-0450)	Ont 19- 81-P782a..P795,P796	UnAssessed
Rainer Pond (0801-0298)	Ont 19- 40-P493-19-P539- 5..P544	UnAssessed
Razorback Pond (0801-0309)	Ont 19- 40-P493-24-P573	UnAssessed
Roaring Brook and minor tribs (0801-0222)	Ont 19- 58	NoKnownImpct
Rock Lake (0801-0291)	Ont 19- 40-P493-15-P538	UnAssessed
Rock Pond (0801-0380)	Ont 19- 81-34- 1- 1-P807	UnAssessed
Rose Pond (0801-0308)	Ont 19- 40-P493-21- 1-P568	Impaired Seg
Round Lake (0801-0416)	Ont 19- 94- 1- 2-P920	UnAssessed
Round Pond (0801-0407)	Ont 19- 88-P907	Impaired Seg
Russian Lake (0801-0006)	Ont 19- 81-18-17-P752- 8-P774	Impaired Seg
Safford Pond (0801-0360)	Ont 19- 81-18-17-14-P736	UnAssessed
Salmon Lake (0801-0054)	Ont 19- 40-P493- 7-P517	Impaired Seg
Salmon Lake (0801-0301)	Ont 19- 40-P493-19-P539- 5..P552	UnAssessed
Sand Lake (0801-0440)	Ont 19-104-P981	UnAssessed
Sand Pond (0801-0055)	Ont 19- 40-15- 4-P436	Impaired Seg
Sand Pond (0801-0335)	Ont 19- 60- 5-P663	UnAssessed
Sandy Creek, Upper, and tribs (0801-0283)	Ont 19- 40- 7- 3	UnAssessed
Sears Pond (0801-0268)	Ont 19- 31-P402	UnAssessed
Shallow Pond, Raven Lake (0801-0107)	Ont 19- 40-P493- 2-P494,P496	Impaired Seg
Shingle Shanty Brook and tribs (0801-0297)	Ont 19- 40-P493-19-P539- 5-P541- 7	UnAssessed
Shingle Shanty Pond (0801-0306)	Ont 19- 40-P493-19-P539- 5..P565	UnAssessed
Silver Lake (0801-0150)	Ont 19- 40-P493-32-P580	Impaired Seg
Slim Pond (0801-0125)	Ont 19- 40-P493- 3-P499	Impaired Seg
Sly Pond (0801-0007)	Ont 19- 81-69-P888	Impaired Seg
Smith Creek and tribs (0801-0266)	Ont 19- 31-18	MinorImpacts
Snider Pond (0801-0287)	Ont 19- 40-12-P429	UnAssessed
Soft Maple Pond, Soft Maple Reservoir (0801-0173)	Ont 19- 40 (portion 7)/P431,434	Impaired Seg
South Br Moose R, Lower, and tribs (0801-0227)	Ont 19- 81	NoKnownImpct
South Br Moose R, Upper, and minor tribs (0801-0346)	Ont 19- 81	MinorImpacts
South Lake (0801-0449)	Ont 19-128-P1004	UnAssessed
South Pond (0801-0057)	Ont 19- 81-18-17-P752- 7-P772	Impaired Seg
Stillwater Reservoir (0801-0281)	Ont 19- 40-P493	Impaired Seg
Stink Lake, Balsam Lake (0801-0034)	Ont 19- 81-51- 2..P836,P837	Impaired Seg
Stone Dam Pond (0801-0428)	Ont 19-104- 2- 6-P950	UnAssessed
Stony Creek and tribs (0801-0270)	Ont 19- 33	UnAssessed
Stony Lake (0801-0324)	Ont 19- 57- 5-P617	UnAssessed
Sugar River Trib, Upper (0801-0413)	Ont 19- 91-10	UnAssessed
Sugar River, Lower, and minor tribs (0801-0231)	Ont 19- 91	MinorImpacts
Sugar River, Upper, and tribs (0801-0411)	Ont 19- 91	NoKnownImpct
Sunday Lake, Sunday Creek Reservoir (0801-0195)	Ont 19- 40-20-P473, P474	Impaired Seg
Swiss Creek and tribs (0801-0271)	Ont 19- 35	UnAssessed
Tannery Creek, Upper, and tribs (0801-0338)	Ont 19- 68	UnAssessed
Taylorville, Elmer Falls Ponds (0801-0276)	Ont 19- 40 (portion 4a)	Impaired Seg
Terror Lake (0801-0018)	Ont 19- 40-P493-21- 1-P570	Impaired Seg
Thayer Lake (0801-0307)	Ont 19- 40-P493-19..P566	UnAssessed
Thirsty Pond (0801-0361)	Ont 19- 81-18-17-14-P736- 2-P738	Impaired Seg
Tribs to Big Moose Lake (0801-0213)	Ont 19- 81-18-17-P752-	Impaired Seg
Tribs to Brantingham Lake (0801-0340)	Ont 19- 70- 4-P689-1,2	UnAssessed
Tribs to Fulton Chain Lakes (0801-0098)	Ont 19- 81-18-P782a thru P782d-	UnAssessed
Tribs to Fulton Chain Lakes (0801-0207)	Ont 19- 81-18-P782a..P786/P787-	Impaired Seg
Tribs to Limekiln Lake (0801-0391)	Ont 19- 81-44-P826-1,2	UnAssessed
Tribs to Little Moose Lake (0801-0382)	Ont 19- 81-34-P808-	UnAssessed
Tribs to Long Lake (0801-0419)	Ont 19- 94- 1-P922-	UnAssessed

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Tribs to North Lake (0801-0452)	Ont 19-P1007-	UnAssessed
Tribs to Pleasant Lake (0801-0261)	Ont 19- 22-P395-	UnAssessed
Tribs to Sears Pond (0801-0269)	Ont 19- 31-P402-	UnAssessed
Trout Pond, Bills Pond (0801-0127)	Ont 19- 57- 7..P628,P630	Impaired Seg
Twin Lakes Reservoir (0801-0060)	Ont 19-119-P1000	UnAssessed
Twin Lakes Stream and tribs (0801-0447)	Ont 19-119	UnAssessed
Twin Pond (0801-0371)	Ont 19- 81-18-P782..P798	UnAssessed
Twin Sister Lake (0801-0351)	Ont 19- 81-14- 2-P713	UnAssessed
Twitchell Creek and tribs (0801-0211)	Ont 19- 40-P493-32	Impaired Seg
Twitchell Lake (0801-0165)	Ont 19- 40-P493-32-P584	Impaired Seg
Unnamed Tribs to Crystal Creek (0801-0315)	Ont 19- 45-10,11	UnAssessed
Upper Beauty, Upper Deer Creeks (0801-0347)	Ont 19- 81- 2,4	UnAssessed
West Branch Deer River and tribs (0801-0267)	Ont 19- 31-28	UnAssessed
West Pond (0801-0304)	Ont 19- 40-P493-19-P539- 5..P562	UnAssessed
Wheeler Pond (0801-0357)	Ont 19- 81-18-17- 6-P731	UnAssessed
Wheeler Pond (0801-0370)	Ont 19- 81-18- P724	UnAssessed
Whetstone Gulf, Lower, and tribs (0801-0332)	Ont 19- 59	NoKnownImpct
Whetstone Gulf, Upper, and tribs (0801-0223)	Ont 19- 59	NoKnownImpct
White Lake (0801-0431)	Ont 19-104- 3- 5-P958	UnAssessed
Witchhopple Lake (0801-0062)	Ont 19- 40-P493- 7-P528	Impaired Seg
Woodhull Lake (0801-0441)	Ont 19-104-P981- 1-P982	UnAssessed
Woods Lake (0801-0312)	Ont 19- 40-P493-32- 2-P576	UnAssessed