

Water Index Number	Waterbody Segment	Category
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

Stillwater Reservoir (0801-0281)

Impaired Seg

Waterbody Location Information

Revised: 03/10/2006

Water Index No: Ont 19- 40-P493
Hydro Unit Code: 04150101/150 **Str Class:** C(T)
Waterbody Type: Lake(R)
Waterbody Size: 6195.1 Acres
Seg Description: entire reservoir

Drain Basin: 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: ---
Suspected: ATMOSPH. DEPOSITION
Possible: ---

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 4 (Source Identified, Strategy Needed)
Lead Agency/Office: ext/EPA
TMDL/303d Status: 2b (Multiple Segment/Categorical Water, Fish Consumption)

Resolution Potential: Low

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 **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: 121.6 Acres **Quad Map:** NUMBER FOUR (F-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 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
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
TMDL/303d Status: 2a (Multiple Segment/Categorical Water, Atmosph Dep)

Resolution Potential: Low

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 **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: 12.8 Acres **Quad Map:** NUMBER FOUR (F-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 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 **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: 57.6 Acres **Quad Map:** NUMBER FOUR (F-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 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 **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: 51.1 Acres **Quad Map:** NUMBER FOUR (F-20-0)
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 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
Hydro Unit Code: 04150101/140 **Str Class:** FP
Waterbody Type: Lake
Waterbody Size: 34.1 Acres
Seg Description: entire lake

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

Resolution Potential: Low

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 **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: 32.1 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
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, P516.

Salmon Lake (0801-0054)

Impaired Seg

Waterbody Location Information

Revised: / /

Water Index No: Ont 19- 40-P493- 7-P517 **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: 110.1 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 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 **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: 94.5 Acres **Quad Map:** BIG MOOSE (F-21-0)
Seg Description: total area of selected 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 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).

Witchopple 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 **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: 160.3 Acres **Quad Map:** RAQUETTE LAKE (F-22-0)
Seg Description: total length of selected lakes

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
TMDL/303d Status: 2a*

Resolution Potential: Low

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 ALS (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 **Drain Basin:** Black River
Hydro Unit Code: 04150101/140 **Str Class:** C(T) Black River
Waterbody Type: River **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 31.6 Miles **Quad Map:** BIG MOOSE (F-21-0)
Seg Description: entire stream and tribs

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
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, ALSA 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 Lilypond. 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 Lilypond (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 ALS (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 **Drain Basin:** Black River
Hydro Unit Code: 04150101/140 **Str Class:** A(T) Black River
Waterbody Type: Lake **Reg/County:** 6/Oneida Co. (33)
Waterbody Size: 134.4 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
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.