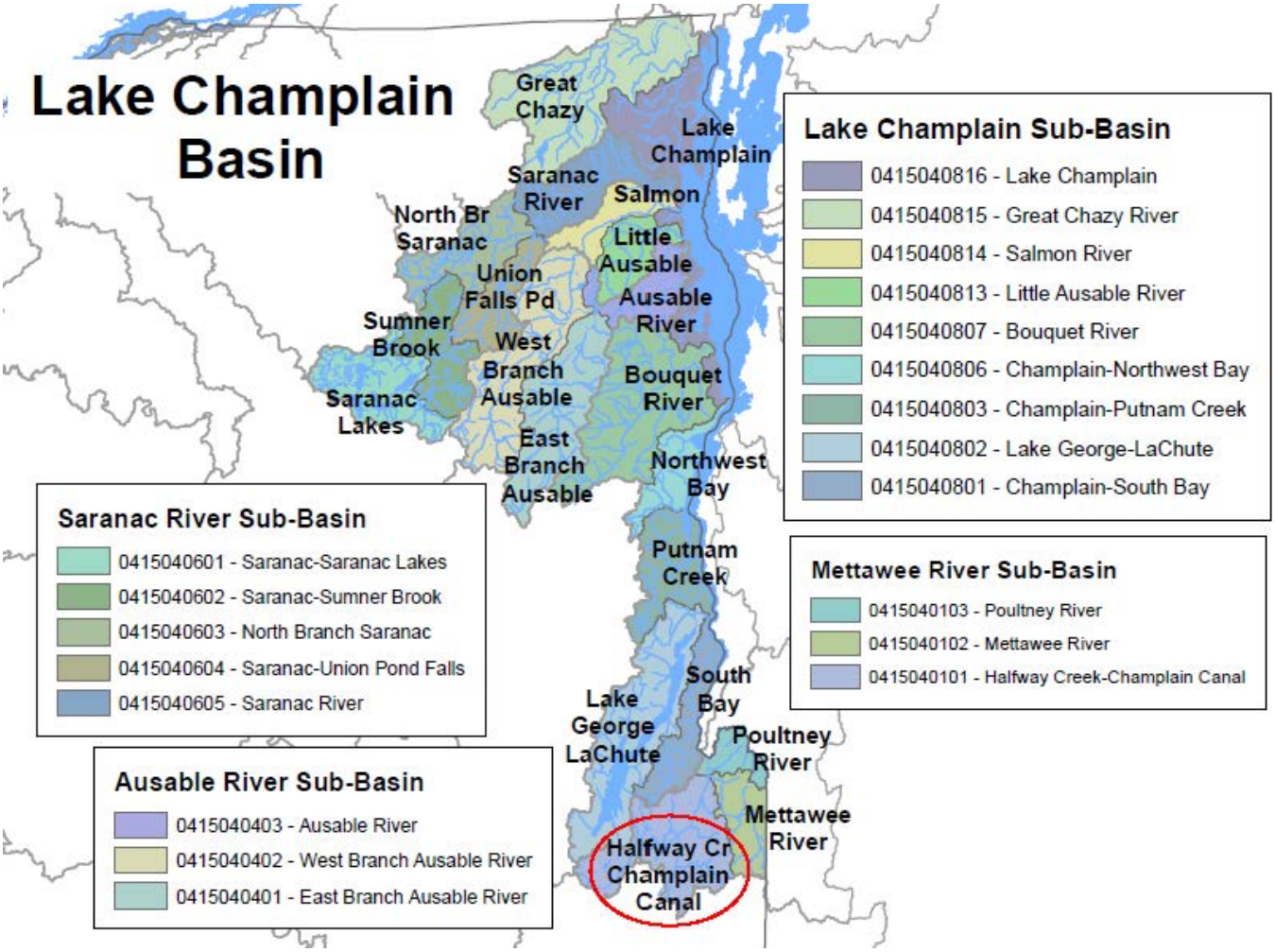

Halfway Creek – Lake Champlain Canal

(0415040101)

C-134- 4-19	Halfway Creek, Lower, and tribs (1005-0013)	**MinorImpacts**
C-134- 4-19	Halfway Creek, Upper, and tribs (1005-0063)	**MinorImpacts**
C-134- 4-19- 8	Bishop Brook, Lower, and tribs (1005-0064)	UnAssessed
C-134- 4-19- 8	Bishop Brook, Upper, and tribs (1005-0039)	UnAssessed
C-134- 4-19- 8-5-8-P428	Sly Pond (1005-0058)	**NoKnownImpct**
C-134- 4-19- 8-P432	Hadlock Pond (1005-0040)	**Need Verific**
C-134- 4-19- 8-P436	Lake Nebo (1005-0041)	**NoKnownImpct**
C-134- 4-19- 8..P425 thru P433	Minor Lakes in Bishop Brook Watershed (1005-0042)	**NoKnownImpct**
C-134- 4-19-19	Glen Lake Brook, Lower, and tribs (1005-0043)	UnAssessd
C-134- 4-19-19	Glen Lake Brook, Upper, and tribs (1005-0045)	UnAssessd
C-134- 4-19-19-12-P450,P451a	Rush Pond/Butler Storage Reservoir (1005-0049)	UnAssessed
C-134-4-19-19-P440	Lake Sunnyside (1005-0047)	**MinorImpacts**
C-134-4-19-19-P441	Glen Lake (1005-0009)	**NoKnownImpct**
C-134- 4-19-19-P452	Butler Pond (1005-0050)	**NoKnownImpct**
C-134- 4-19-19..P439,P440a	Minor Lakes in Lower Glen Lake Br Wshed(1005-0046)	**NoKnownImpct**
C-134- 4-19-19..P442 thruP449	Minor Lakes in Middle Glen Lk Br Wshed (1005-0048)	UnAssessed
C-134- 4-19-23-P453	Halfway Creek Reservoir (1005-0051)	**Need Verific**
C-134- 4-19-P455a	Wilkie Reservoir (1005-0052)	**NoKnownImpct**
C-134- 4-27	Big Creek and tribs (1005-0004)	**MinorImpacts**
C-134- 4-27..P456 thru P458	Minor Lakes in Big Creek Watershed (1005-0056)	UnAssessed

Halfway Creek, Lower, and tribs (1005-0013) MinorImpacts

Waterbody Location Information

Revised: 04/21/2009

Water Index No: C-134- 4-19
Hydro Unit Code: 02010001/140 **Str Class:** A(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 46.4 Miles
Seg Description: stream and selected tribs from mouth to Tripoli

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: PUTNAM MTN. (H-26-2) ...

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), SILT/SEDIMENT
Suspected: D.O./Oxygen Demand
Possible: Pathogens, Thermal Changes

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Overview

Aquatic life support in this portion of Halfway Creek are thought to experience minor impacts/threats due to nutrient loadings, organic enrichment and silt/sedimentation from agricultural and other nonpoint sources. Impacts from urban runoff and the more heavily developed upstream watershed are also likely.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Halfway Creek in Fort Ann (at Route 16) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated slightly impacted conditions. The community is altered from natural conditions. Some sensitive species have been lost and a the overall abundance of macroinvertebrates is lower. However, the effects on the fauna were determined to be relatively minor and water quality is considered to be good. The nutrient biotic index and impact source determination indicates elevated enrichment in the stream and fauna shows evidence some evidence of siltation and organic inputs. Although aquatic life is supported in the stream, nutrient biotic evaluation and other indicators suggests the level of eutrophication and other conditions are sufficient to stress aquatic life support. These results are consistent with sampling conducted in 1999. (DEC/DOW, BWAM/SBU, January 2009)

A biological survey of the creek conducted in 1999 found generally good but slightly impacted water quality conditions at the two sites within this reach (in Tripoli and in Fort Ann). Corresponding fish sampling indicated better water quality at

these sites than the macroinvertebrates did. The fish communities were dominated by cool water species, with few gamefish present. Impact Source Determination indicated siltation and some municipal/industrial input and urban runoff were likely sources of the impact. (Halfway Creek Biological Assessment, Bode etal, DEC/DOW, BWAR/SBU, June 1999)

Previous Assessment

Previously reported water quality issues in one particular sub-trib to Halfway Creek (-1-1) have been addressed. The trib experienced occasional periods of very low dissolved oxygen along with odors, discoloration and turbidity. The impairment was attributed to an agricultural source, specifically leachate from a bunker silo at a farm. Subsequently the farm obtained coverage under the SPDES General Permit for Concentrated Animal Farming Operations (CAFOs) in 2000. DEC regional staff inspected the operation in 2003 and concurred with the decision to delist this waterbody from the Section 303(d) List in 2004. (DEC/DOW, Region 5 and BWAM, September 2004)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from the mouth to Tripoli just above unnamed (trib -13). The waters of this portion of the creek are Class D from the mouth to the Fort Ann water intake (0.3 miles above the mouth) and Class A,A(T) for the remainder of the reach. Tribs to this reach/segment, including Welch Hollow Brook (-2), are Class A and D. Bishop Brook (-8) and Upper Halfway Creek are listed separately.

Halfway Creek, Upper, and tribs (1005-0063) MinorImpacts

Waterbody Location Information

Revised: 05/29/2009

Water Index No: C-134- 4-19
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 39.5 Miles
Seg Description: stream and selected tribs above Tripoli

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: PUTNAM MTN. (H-26-2) ...

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: NUTRIENTS (phosphorus), Aesthetics (trash, debris)
Suspected: SILT/SEDIMENT, Metals, Oil and Grease, Thermal Changes
Possible: Other Pollutants, Pathogens, Salts

Source(s) of Pollutant(s)

Known: COMB. SEWER OVERFLOW (City of Glens Falls), DEICING (STOR/APPL)
Suspected: AGRICULTURE, STREAMBANK EROSION, URBAN/STORM RUNOFF, Deicing (stor/appl), Habitat Modification, Other Sanitary Disch
Possible: Industrial, Other Source, Private/Comm/Inst

Resolution/Management Information

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

Further Details

Overview
Aquatic life support, fishery habitat, recreational uses and aesthetics in portions of Halfway Creek are stressed by nutrient and organic enrichment, various municipal and industrial inputs, silt/sedimentation and other nonpoint (primarily urban runoff) sources. Agricultural activity in portions of the watershed are also likely sources.

Water Quality Sampling
A biological (macroinvertebrate) assessment of Halfway Creek in Glens Falls (at Route 9) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated slightly impacted conditions. Some replacement of sensitive ubiquitous species by more tolerant species was noted although the sample included a balanced distribution of all expected species. Aquatic life is considered to be fully supported in the stream, however the community composition, nutrient biotic evaluation and impact source determination indicates elevated enrichment in the stream and fauna shows evidence some evidence of siltation, toxic impacts and organic inputs. Although aquatic life is supported in the stream, these indicators suggests conditions are sufficient to stress aquatic life support. These results are consistent with sampling

conducted in 1999. (DEC/DOW, BWAM/SBU, January 2009)

A biological survey of the creek conducted in 1999 found generally good but slightly impacted water quality conditions at the three of the five sites within this reach. A substantial decline in water quality occurs in the reach downstream of the city of Glens Falls. Impact Source Determination indicated nutrient nonpoint sources, organic wastes and urban runoff. Elevated levels of PAHs (polycyclic aromatic hydrocarbons), produced by the incomplete combustion of petroleum fuels, wood and other organic material and an indicator of urban runoff sources, were found in crayfish tissues at many stream locations, and were highest in and downstream of Glens Falls. Corresponding fish sampling also showed an impact at Glens Falls, however communities seemed to recover downstream better than macroinvertebrates. Cool water species were dominant, with few gamefish species present. Trout were caught at only one site. Low holdover from DEC trout stocking efforts is expected due to habitat conditions. Upstream of Glens Falls the stream is considered non-impacted. (Halfway Creek Biological Assessment, Bode etal, DEC/DOW, BWAR/SBU, June 1999)

Source (Drinking) Water Assessment

A source water assessment of Halfway Brook Reservoir, which is fed by Upper Halfway Brook, found an elevated susceptibility to contaminants due to runoff from residential/developed land cover. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination and do not address the quality of treated finished potable tap water. This water supply source provides water to the City of Glens Falls. (NYSDOH, Source Water Assessment Program, 2005)

Previous Assessment

Sediment, salt, oil, grease and other urban runoff related pollutants are thought to be input to the stream from roadways and storm sewers. Three tributaries in particular are suspected sources of inputs from runoff: Cemetery Brook (-24), "Crandall Park Creek" (-23) and "Adirondack Comm Coll Creek" (-22). Discolored stream water and significant weed growth has been noted in Cemetery Brook. Runoff from road sanding as well as high summer temperatures in the creek may also contribute to fishery habitat concerns. Aesthetics are degraded due to physical trash and debris (tires, car parts, etc) that are often found in and along the stream. (Warren County WQSC, March 2000)

Water Quality Management

A Watershed Management Plan has been completed for Halfway Creek. The plan includes recommendations for remediation of stormwater problems within the developed areas of the watershed. (Eight priority areas have been identified.) The management plan is used by municipalities to justify funding for future projects. One such project was an recently completed stormwater abatement project that addresses a major source of stormwater entering this highly values trout fishery. The project is expected to significantly reduce the level of suspended solids, nutrients and trash/debris entering the stream. (Warren County WQSC and DEC/DOW, Region 5, May 2009)

Segment Description

This segment includes the portion of the stream and selected/smaller tribs from Tripoli just above unnamed trib (-13) to the source at Wilkie Reservoir (P455a). The waters of this portion of the creek are Class AA(T). Tribs to this reach/segment are Class A,AA,AA(T). Glen Lake Brook (-19) and Lower Halfway Creek are listed separately.

Sly Pond (1005-0058) NoKnownImpct

Waterbody Location Information

Revised: 03/04/2009

Water Index No: C-134- 4-19- 8-5-8-P428
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 40.9 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: PUTNAM MTN. (H-26-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Water Quality Sampling
Monitoring of Sly Pond was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. These data revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago, this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description
This segment includes the total area of Sly Pond (P428).

Hadlock Pond (1005-0040) Need Verific

Waterbody Location Information

Revised: 03/11/2009

Water Index No: C-134- 4-19- 8-P432
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake (Oligotrophic)
Waterbody Size: 195.2 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: PUTNAM MTN. (H-26-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

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

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

Resolution/Management Information

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

Further Details

Overview
On July 2, 2005, the west side of the Hadlock Pond dam failed. Water poured from the lake, destroying four primary homes and one vacation home, while damaging five other homes and otherwise damaging 27 properties. The dam failure completely drained the pond. Reconstruction of the dam was completed in Spring, 2007, and water levels in the lake were gradually restored over that summer. Prior to the dam breach, the most recent assessments of Hadlock Pond indicated that uses were fully supported and that there were no known water quality impacts. However conditions need to be verified to determine if the hydrologic and habitat alteration resulting from the dam failure have had lasting impacts on lake uses or water quality. Sampling of Hadlock Pond by NYSDEC Division of Water is scheduled to be conducted throughout the summer of 2009. (DEC/DOW, BWAM/SWMS, March 2009)

Water Quality Sampling
Hadlock Pond was included in the 2000 volunteer monitoring effort from 1997 through 2001. The results of this sampling found no evidence of impacts to water quality or recreational uses. (DEC/DOW, BWAM/CSLAP, November 2002)

Monitoring of Lakes Pond was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. These data revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago,

this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description
This segment includes the total area of Hadlock Pond (P432) and Copeland Pond (P425).

Lake Nebo (1005-0041) NoKnownImpct

Waterbody Location Information

Revised: 03/04/2009

Water Index No: C-134- 4-19- 8-P436
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake (Oligotrophic)
Waterbody Size: 122.6 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: PUTNAM MTN. (H-26-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Water Quality Sampling
Monitoring of Lake Nebo was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. These data revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago, this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description
This segment includes the total area of Lake Nebo (P436).

Minor Lakes in Bishop Brook Watershed (1005-0042) NoKnownImpct

Waterbody Location Information

Revised: 10/04/2000

Water Index No: C-134- 4-19- 8..P425 thru P433
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake
Waterbody Size: 24.8 Acres
Seg Description: total area of selected lakes

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: PUTNAM MTN. (H-26-2)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Water Quality Sampling

Monitoring of a number of ponds within this segment was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. Data for First Pond (P329), Third Pond (P331) and Inman Pond (P333) revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago, this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description

This segment includes the total area of all selected/smaller lakes/ponds within the Bishop Brook watershed. Lakes within this segment, including Bacon Pond (P327), First Pond (P329), Third Pond (P331), Inman Pond (P333), are primarily Class AA(T).

Lake Sunnyside (1005-0047) MinorImpacts

Waterbody Location Information

Revised: 03/11/2009

Water Index No: C-134- 4-19-19-P440
Hydro Unit Code: 02010001/140 **Str Class:** B
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 37.4 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: LAKE GEORGE (H-26-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Known

Type of Pollutant(s)
Known: PROBLEM SPECIES (Eurasian milfoil)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: HABITAT MODIFICATION
Suspected: Urban/Storm Runoff
Possible: On-Site/Septic Syst

Resolution/Management Information

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

Further Details

Overview
Recreational uses in Lake Sunnyside are known to experience minor impacts/threats due to excess aquatic weed growth. Invasive species (Eurasian watermilfoil) is considered to be the primary water quality issue.

Water Quality Sampling
Lake Sunnyside has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1999 and continuing through 2003. An Interpretive Summary report of the findings of this sampling was published in 2004. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately unproductive. Conditions have been mostly stable over the sampling period. Phosphorus levels in the lake rare consistently below the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements easily exceed the recommended minimum for swimming beaches. Measurements of pH are typically high, at times exceeding the state water quality range of 6.5 to 8.5, however impacts to aquatic life are not suspected. The lake water is weakly colored, and color does not limit water transparency. (DEC/DOW, BWAM/CSLAP, May 2004)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be favorable since the lake was first evaluated and continuing through the most recent assessment. The recreational suitability of the lake is described most frequently as "excellent" or only "slightly" impacted,

an assessment that is less favorable than expected given measured water quality characteristics. The lake itself is most often described as "not quite crystal clear." Assessments have noted that aquatic plants regularly grow to the lake surface, and are often sufficiently dense to restrict recreational use. Aquatic plants are dominated by non-native species (Eurasian watermilfoil), prompting herbicide treatment of the lake in 2000. (DEC/DOW, BWAM/CSLAP, May 2004)

Lake Uses

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

Previous Source Assessment

A variety of urban and other nonpoint runoff sources have in the past been identified as affect the water quality in the lake. Heavy shoreline development result in roadway and stormwater runoff. Inadequate and/or failing septic systems serving lake shore homes are also possible sources of nutrients, pathogens. Algal blooms have also been reported. (Lake Sunnyside Watershed Assessment, Warren County SWCD, September 1999)

Segment Description

This segment includes the total area of Lake Sunnyside (P440). Lake Sunnyside is actually an isolated lake, which falls within the Glen Lake Brook watershed.

Glen Lake (1005-0009) NoKnownImpct

Waterbody Location Information

Revised: 03/09/2009

Water Index No: C-134- 4-19-19-P441
Hydro Unit Code: 02010001/140 **Str Class:** B(T)
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 324.2 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: GLENS FALLS (H-26-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Water Quality Sampling
Glen 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 2008. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately unproductive. This trophic status has been fairly consistent over the sampling period. Phosphorus levels in the lake consistently fall below the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements also typically exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is weakly colored, but color has increased in recent years contributing to lower clarity in the lake. (DEC/DOW, BWAM/CSLAP, March 2008)

Recreational Assessment
Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be generally favorable since the lake was first evaluated and continuing through the most recent assessment. The recreational suitability of the lake is described most frequently as "excellent" or only "slightly" impacted. The lake itself is most often described as "not quite crystal clear." These assessments are slightly less favorable than would be expected based on measured water quality characteristics, but might be influenced by increased lake color in recent years. Most assessments have noted that aquatic plants rarely grow densely at the lake surface and have not been cited as impacting recreational uses. Aquatic plant sampling conducted independent of CSLAP has identified the

invasive plant Eurasian watermilfoil as the dominant aquatic plant in Glen Lake, and the focus of most of the management efforts suggested at the lake. However, during most sampling seasons, at least since 1986, nuisance macrophyte (weed) growth has not been identified as significantly impacting recreational use of Glen Lake, and the limited CSLAP surveys indicate a wide diversity of aquatic plants growing in the lake, including a number of aquatic plant species that are desired from the perspective of fisheries habitat. (DEC/DOW, BWAM/CSLAP, March 2008)

Lake Uses

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

Previous Assessment

However, algal growth and previously reported outbreaks of swimmer's itch discourage various recreational uses. Local officials indicate the lake is currently impacted by zebra mussels and Eurasian milfoil. A variety of urban and other nonpoint runoff sources, a result of heavy shoreline development, also affect the water quality in the lake. A 1998 Glen Lake Watershed Management Plan includes DEC CSLAP monitoring results and outlines specific recommendations for limiting further nonpoint source impacts. The plan was produced by the Glen Lake Technical Committee, with assistance from Adirondack Community College staff. Other educational programs, including a recent (1998) program focusing on the use and maintenance of on-site septic systems, have been offered by the Warren County SWCD and the Glen Lake Association. (Warren County WQSC, March 2000)

Segment Description

This segment includes the total area of Glen Lake (P441).

Butler Pond (1005-0050) NoKnownImpct

Waterbody Location Information

Revised: 10/05/2000

Water Index No: C-134- 4-19-19-P452
Hydro Unit Code: 02010001/140 **Str Class:** AA
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 87.5 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: GLENS FALLS (H-26-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Water Quality Sampling
Monitoring of Butler Pond was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. These data revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago, this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description
This segment includes the total area of Butler Pond (P452).

Minor Lakes in Lower Glen Lake Br Wshed (1005-0046) NoKnownImpct

Waterbody Location Information

Revised: 10/05/2000

Water Index No: C-134- 4-19-19..P439,P440a
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake
Waterbody Size: 18.9 Acres
Seg Description: total area of selected lakes

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: LAKE GEORGE (H-26-1)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

Water Quality Sampling
Monitoring of Bear Lake was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. These data revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago, this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description
This segment includes the total area of the total area of all selected/smaller lakes/ponds within the Lower Glen Lake Brook watershed. Lakes within this segment, including Bear Pond (P439) and Dream Lake (P440a), are Class AA(T).

Halfway Creek Reservoir (1005-0051) Need Verific

Waterbody Location Information

Revised: 05/29/2009

Water Index No: C-134- 4-19-23-P453
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake
Waterbody Size: 10.9 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: GLENS FALLS (H-26-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

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

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

Resolution/Management Information

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

Further Details

Overview
Water supply uses of Halfway Brook Reservoir are thought to experience threats from pathogens due to the level of residential/developed land use in the watershed. Current information does not indicate any impacts to water supply or other uses, but the use of the resources as a water supply and the activities in the watershed suggest additional protection efforts are appropriate.

Source (Drinking) Water Assessment
A source water assessment of Halfway Brook Reservoir, which is fed by Upper Halfway Brook, found an elevated susceptibility to contaminants due to runoff from residential/developed land cover. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination and do not address the quality of treated finished potable tap water. This water supply source provides water to the City of Glens Falls. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description
This segment includes the total area of Halfway Creek Reservoir (P453).

Wilkie Reservoir (1005-0052) NoKnownImpct

Waterbody Location Information

Revised: 05/29/2009

Water Index No: C-134- 4-19-P455a
Hydro Unit Code: 02010001/140 **Str Class:** AA(T)
Waterbody Type: Lake (Mesotrophic)
Waterbody Size: 15.3 Acres
Seg Description: entire lake

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Warren Co. (57)
Quad Map: GLENS FALLS (H-26-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

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

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

Resolution/Management Information

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

Further Details

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

Water Quality Sampling
Monitoring of Wilkie Reservoir was included in the Adirondack Lake Survey Corporation (ALSC) lake monitoring and assessment effort conducted in the mid-1980s (1984-86). Generally these were one-time samples analyzed for variety of parameters, including total phosphorus, pH and water color. These data revealed no indication of impacts to aquatic life support or recreational use at the time. Because the data is limited to single samples and collected more than 20 years ago, this assessment is considered to be evaluated, rather than monitored. (DEC, DOW, BWAM/WQAS, January 2009 and ALSC, 1984-86)

Segment Description
This segment includes the total area of Wilkie Reservoir (P455a).

Big Creek and tribs (1005-0004) MinorImpacts

Waterbody Location Information

Revised: 04/21/2009

Water Index No: C-134- 4-27
Hydro Unit Code: 02010001/140 **Str Class:** C(T)
Waterbody Type: River (Low Flow)
Waterbody Size: 53.7 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: HARTFORD (H-27-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Overview

Aquatic life support and fishery habitat are thought to experience minor impacts due to nutrients and silt/sediment from agricultural and other nonpoint sources in the watershed. Elevated stream temperatures may also impact the fishery.

Water Quality Sampling

A biological (macroinvertebrate) assessment of Big Creek in Hartford (at Route 149) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated slightly impacted conditions. The community is altered from natural conditions. Some sensitive species have been lost and a the overall abundance of macroinvertebrates is lower. However, the effects on the fauna were determined to be minor. The nutrient biotic index and impact source determination indicates elevated enrichment in the stream and fauna that shows indications of nonpoint and siltation effects. Although aquatic life is supported in the stream, various indicators suggest the level of eutrophication and other conditions are sufficient to stress aquatic life support. Previous sampling in 1998 revealed conditions that were assessed and non-impacted. (DEC/DOW, BWAM/SBU, January 2009)

Source Assessment

The stream meanders through several large dairy farms where livestock have unfettered access to the stream. Streambank erosion, compounded by continuing loss of riparian vegetation, result in sediment loadings and warmer water temperatures

in the stream. As a result, only portions in the upper reaches of the Class C(T) portion of the stream are thought to actually support trout populations. Sediment for the creek are also transported and deposited into the Champlain Canal, affecting boat traffic. (Washington County WQCC, April 2000)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class D from the mouth to unnamed trib (-4) and Class C(T) for the remainder of the reach. Tribs to this reach are Class D.