



South Bay – Lake Champlain (0415040801)

C (portion 5)	Lake Champlain, South Bay (1005-0014)	Impaired Seg
C-102	Charter Brook and tribs (1005-0023)	NoKnownImpct
C-103 thru 122	Minor Tribs to Lake Champlain (1005-0020)	UnAssessed
(selected) C-106	Mill Brook and tribs (1005-0024)	UnAssessed
C-119-P398	Pine Lake (Long Pond) (1005-0025)	NoKnownImpct
C-119-P400,P402	Lapland Lake, Millman Lake (1005-0059)	UnAssessed
C-123 thru 133	Minor Tribs to South Bay (1005-0027)	UnAssessed
(selected) C-127	Pike Brook, Upper, and tribs (1005-0028)	NoKnownImpct
C-128	Mount Hope Brook and tribs (1005-0033)	NoKnownImpct
C-128- 3-P406,P407	Greenland Pond, Fishbrook Pond (1005-0029)	UnAssessed
C-128- 6-P409,P411	Upper Spectacle Pond, Bumps Pond(1005-0030)	UnAssessed
C-128-P412	Lakes Pond (1005-0031)	NoKnownImpct
C-128-P414,P413	Crossett Pond, Thurber Pond (1005-0032)	NoKnownImpct

Lake Champlain, South Bay (1005-0014)

Impaired Seg

Waterbody Location Information

Revised: 04/23/2009

Water Index No: C (portion 5)
Hydro Unit Code: 02010001/150 **Str Class:** B
Waterbody Type: Lake
Waterbody Size: 1188.6 Acres
Seg Description: entire bay, as described below

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

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ALGAL/WEED GROWTH, NUTRIENTS (phosphorus), PROBLEM SPECIES (water chestnut, other)
Suspected: - - -
Possible: Pathogens

Source(s) of Pollutant(s)

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

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DEC/LCBP
TMDL/303d Status: 4a,4c? (TMDL Complete, Being Implemented, Not Listed, more)

Resolution Potential: High

Further Details

Overview

Recreational use (swimming, fishing, boating) in South Bay is known to be impaired due to nutrient loadings and aquatic invasive weed growth. Elevated levels of phosphorus are known to occur in the bay. Extensive water chestnut growth has also been documented.

Recreational Impacts

Impacts on other recreational uses (swimming, fishing, boating) in this portion of Lake Champlain are of concern. The most notable issue is elevated phosphorus concentrations in excess of in-lake total phosphorus criteria established in a 1993 Water Quality Agreement between New York State, Vermont and Quebec. New York State and Vermont completed a study to measure point and nonpoint source phosphorus loads to the lake, develop a whole-lake phosphorus budget, and develop a load reduction strategy to attain the in-lake criteria. This study, the Lake Champlain Diagnostic-Feasibility Study, found phosphorus to be at or, in portions of the Lake, above the criteria (which ranges from 10-25 ug/l throughout the lake and is set at 25 ug/l in this portion of Lake Champlain) and, therefore, contributing to excessive algal and vegetative growth in the lake. In 1996, the states agreed to a phosphorus reduction strategy that included specific loading targets for various lake watershed. A joint New York-Vermont TMDL to address phosphorus loadings to the Lake was also established in 2002. Resulting phosphorus reductions are to be met using an appropriate mix on point and nonpoint source

actions to be implemented in the watersheds. (DEC/DOW, Region 5 and Lake Champlain Basin Program, January 2009)

Invasive Species

Exotic and invasive plant and animal species are also an increasing threat to the lake. Water chestnut, in particular, is an issue in this portion of the lake. Water chestnut is a plant that forms dense surface mats, crowding out other plant species, disrupting habitat, and severely limiting recreational enjoyment and commercial use of the Lake in some areas. Its spread throughout the southern end of the Lake includes the entire South Bay segment. Eurasian milfoil limit also impacts uses in some Lake bays. Zebra mussels are widespread and have impacted water supplies and crowded out native mussels in many areas. Sea lamprey predation appears to be increasing after some decline following a lake-wide control program. Without further controls the Atlantic salmon and lake trout populations are likely to be significantly affected. Additionally, the presence of alewives in neighboring Lake Saint Catherine pose a threat to larger cold water species. The ability to control many of these exotics is limited, and expensive and long-term impact is relatively uncertain. (Lake Champlain Basin Program, Opportunities for Action, 2003)

Lake Champlain Basin Program

The Lake Champlain Basin Program (LCBP) is a federal, state and local initiative to restore and protect Lake Champlain and its surrounding watershed. The states of New York and Vermont, the Province of Quebec, the U.S. Environmental Protection Agency, other federal and local government agencies, and many local groups, both public and private, are partners of the LCBP. Created by the Lake Champlain Special Designation Act of 1990, the LCBP's goal is to work cooperatively to protect and enhance the environmental integrity and the social and economic benefits of the Lake Champlain Basin. The actions of the LCBP are guided by a pollution prevention, control, and restoration plan entitled "Opportunities for Action - An Evolving Plan for the Future of the Lake Champlain Basin." The Plan was first endorsed in October of 1996 by the governors of New York and Vermont and by the USEPA; it was most recently updated in 2003. The main goals of the Plan include 1) improving water quality throughout the Lake Champlain Basin, 2) protecting the Basin's living natural resources, and 3) preserving and enhancing the region's rich cultural and recreation resources. Considerable information on water quality, natural resources, protection and restoration efforts and other issues in Lake Champlain can be found at the LCBP website (<http://www.lcbp.org>).

Water Quality Sampling

The Long-Term Water Quality and Biological Monitoring Project for Lake Champlain has been in operation since 1992. The project is conducted by the Vermont Department of Environmental Conservation (DEC) and the New York State Department of Environmental Conservation with funding provided by the Lake Champlain Basin Program and the two states. Chemical and biological data from this effort are available for a number of lake as well as tributary site. Water quality results in this portion of the lake reveal eutrophic conditions and phosphorus levels that are typically above the in-lake criterion of 25 ug/l for this portion of the lake. (DEC/DOW, Region 5 and Lake Champlain Basin Program, January 2009)

Water Quality Management/TMDL

As noted above a joint New York-Vermont TMDL to address phosphorus loadings to the Lake was established in 2002. The TMDL outlines a strategy of both point and nonpoint source reductions in the tributary watersheds of the Lake. (DEC/DOW, BWAM, January 2009)

Section 303(d) Listing

A previous listing for Lake Champlain for phosphorus was delisted in 2004 due to completion of the Lake Champlain Phosphorus TMDL. (DEC/DOW, BWAM, January 2009)

Segment Description

This segment includes the entire South Bay.

Charter Brook and tribs (1005-0023)

NoKnownImpct

Waterbody Location Information

Revised: 04/21/2009

Water Index No: C-102
Hydro Unit Code: 02010001/180 **Str Class:** C
Waterbody Type: River
Waterbody Size: 13.4 Miles
Seg Description: entire stream and tribs

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

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Charter Brook in Wright (at Route 2) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated slightly impacted conditions. The community is somewhat altered from natural conditions. Some sensitive species have been lost and the overall abundance of macroinvertebrates is lower. However, the effects on the fauna were determined to be relatively insignificant and water quality is considered to be good. The nutrient biotic index indicates no enrichment in the stream, although impact source determination reveals a fauna that reflects some nonpoint source inputs. Aquatic life support is considered to be fully supported in the stream, and there are no other apparent water quality impacts to designated uses). (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

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

Pine Lake (Long Pond) (1005-0025)

NoKnownImpct

Waterbody Location Information

Revised: 10/04/2000

Water Index No: C-119-P398
Hydro Unit Code: 02010001/160 **Str Class:** AA
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 70.9 Acres
Seg Description: entire lake

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

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 Pine 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)

Source (Drinking) Water Assessment

A source water assessment of Pine Lake found no elevated susceptibility to contamination. This assessment was conducted through the NYSDOH Source Waters Assessment Program (SWAP) which compiles, organizes, and evaluates information regarding possible and actual threats to the quality of public water supply (PWS) sources. The information contained in SWAP assessment reports assists in the oversight and protection of public water systems. It is important to note that SWAP reports estimate the potential for untreated drinking water sources to be impacted by contamination and do not address the quality of treated finished potable tap water. This water supply source provides water to the Village of Whitehall. (NYSDOH, Source Water Assessment Program, 2005)

Segment Description

This segment includes the total area of Pine Lake (P398).

Pike Brook, Upper, and tribs (1005-0028)

NoKnownImpct

Waterbody Location Information

Revised: 04/21/2009

Water Index No: C-127
Hydro Unit Code: 02010001/150 **Str Class:** AA(T)
Waterbody Type: River
Waterbody Size: 12.6 Miles
Seg Description: stream and tribs above Whitehall water supply dam

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

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Resolution Potential: n/a

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Pike Brook in Whitehall (at Route 7) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated non-impacted conditions. The sample was dominated by clean-water species. Impact source determination revealed some indications of nonpoint sources, but nutrient biotic indices showed very little enrichment. Some additional species, including sensitive non-native species, and additional biomass may be present; the sample revealed no, or only incidental, anomalies. Aquatic life community is fully supported and there is little evidence of any other water quality impacts. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

This segment includes the portion of the stream and all tribs above the Whitehall water supply dam. The waters of this portion of the stream are Class AA(T). Tribs to this reach/segment are also Class AA(T).

Mount Hope Brook and tribs (1005-0033)

NoKnownImpct

Waterbody Location Information

Revised: 01/04/2001

Water Index No: C-128
Hydro Unit Code: 02010001/150 **Str Class:** C(T)
Waterbody Type: River
Waterbody Size: 52.1 Miles
Seg Description: entire stream and tribs

Drain Basin: Lake Champlain
Champlain-Lk.George
Reg/County: 5/Washington Co. (58)
Quad Map: SHELIVING ROCK (G-26-3) ...

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

Water Quality Sampling

A biological (macroinvertebrate) assessment of Mount Hope Brook in South Bay (at Route 16) was conducted as part of the RIBS biological screening effort in 2003. Sampling results indicated non-impacted conditions. The sample was dominated by clean-water species. Impact source determination showed some evidence of nonpoint sources, but enrichment was very low and the sample was also quite similar to a natural community with minimal human impacts. Some additional species, including sensitive non-native species, and additional biomass may be present; the sample revealed no, or only incidental, anomalies. These results are consistent with sampling conducted in 1998. Aquatic life community is fully supported. (DEC/DOW, BWAM/SBU, January 2009)

Segment Description

This segment includes the entire stream and all tribs. The waters of the stream are Class C,C(T). Tribs to this reach, including Greenland Brook (-3), Spectacle Brook (-6) and Cold Brook (-7), are Class C,C(T) and D.

Lakes Pond (1005-0031)

NoKnownImpct

Waterbody Location Information

Revised: 10/04/2000

Water Index No:	C-128-P412	Drain Basin:	Lake Champlain
Hydro Unit Code:	02010001/150	Str Class:	AA
Waterbody Type:	Lake (Unknown Trophic)		Champlain-Lk.George
Waterbody Size:	73.8 Acres	Reg/County:	5/Washington Co. (58)
Seg Description:	entire lake	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 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 Lake Pond (P412).

Crossett Pond, Thurber Pond (1005-0032)

NoKnownImpct

Waterbody Location Information

Revised: 10/04/2000

Water Index No: C-128-P414,P413
Hydro Unit Code: 02010001/150 **Str Class:** C(T)
Waterbody Type: Lake
Waterbody Size: 138.5 Acres
Seg Description: total area of both 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
TMDL/303d Status: n/a

Resolution Potential: n/a

Further Details

Water Quality Sampling

Monitoring of Thurber Pond and Crosset 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 Thurber Pond (P413) and Crosset Pond (P414).